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UNIVERSITY OF SOUTHAMPTON

Faculty of Business and Law

School of Management

**The Role of Champions in Healthcare Innovations**

by

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Thesis for the degree of Doctor of Philosophy

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UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF BUSINESS AND LAW

SCHOOL OF MANAGEMENT

Doctor of Philosophy

The Role of Champions in Healthcare Innovations

by Rsha Alghafes

The successful development of innovations is critical to the survival and growth of an organization. Although increasing evidence suggests that champions are needed to promote successful innovations, relatively little is known about champions. More specifically, few studies have focused on identifying champions, their characteristics, and their behaviours. Researchers are only now gaining a deeper understanding of the champion's influence within the organization.

Based within an interpretivist paradigm, the researcher employed a four-level approach to investigation, resulting in a novel explanation of the phenomenon of champions of innovations. Using four case studies of innovation implementation in healthcare organizations in Saudi Arabia, this research explored what characterizes champions of healthcare innovations (at the individual level), what makes them valuable to the innovation team (at the project level), and their overall effect on both the projects and the organization (at the management and executive levels). Nine technological/administrative innovative projects were identified. The study followed a rigorous process in identifying champions through the use of semi-structured interviews and observation, involving identifying champions based on the testimony of project members who worked closely with the champions. This resulted in 48 semi-structured interviews with project members in order to discover whether there were champions and if so who the champions were and what elevated them to that status. The research process began by synthesizing the literature to create a working definition of the term "champion." The researcher then reviewed and classified the characteristics and behaviours of champions found in the literature into the following four contexts: Knowledge, Change, Leadership, and Other identified behaviours and characteristics, creating a clear, comprehensive classification. This approach helped the researcher appreciate conformity with and conflict between the current research and the expectations grounded in the literature.

In eight of the nine projects identified across the four cases, team members identified champions as those who contributed the most value to the project. In the remaining case (a cross-departmental project), team members failed to agree on the project champion. The study indicated that champions can be formally assigned to an implementation role based on their track record in implementing similar projects, or they may informally emerge by showing interest in an innovation before being charged with its implementation. The findings suggested that champions in healthcare innovation are characterized more by Leadership-like behaviours and characteristics than by characteristics of the remaining three contexts: Knowledge, Change, and Other identified behaviours and characteristics. The study revealed that champions prepare an institutional environment long before introducing the specific idea of the innovation. Champions' instrumental role in the preparation, initiation, development, and delivery of innovation was due to the key behaviours they demonstrated throughout the implementation process, validating many findings from previous studies and identifying novel key behaviours. The study identified two types of champions: Mid-level Champions and Technical Champions. Although both types shared common behaviours and characteristics, they differed in the frequency and strength of those behaviours and characteristics. The study revealed variation in terms of the champion's effect on the project, the department, and the hospital depending on the type of championship manifested.

Being able to identify individuals with champion-like characteristics and behaviours to informally lead healthcare innovations and facilitate their emergence could be a great source of sustainable and practical advantage to healthcare organizations in introducing and speeding up the process of implementing innovations.



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# DECLARATION OF AUTHORSHIP

I, Rsha Alghafes

declare that the thesis entitled

The Role of Champions in Healthcare Innovations

and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

- this work was done wholly or mainly while in candidature for a research degree at this University;
- where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
- where I have consulted the published work of others, this is always clearly attributed;
- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- I have acknowledged all main sources of help;
- where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
- parts of this work have been published as:
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Signed: .....

Date:.....



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*To my parents,  
my husband, and my son*



## Definitions and abbreviations

<b>CEO</b>	Chief Executive Officer
<b>CMIO</b>	Chief Medical Information Officer
<b>COI</b>	Chief Information Officer
<b>CoIs</b>	Communities of Innovations
<b>CoPs</b>	Communities of Practice
<b>CPOE</b>	Computerized Physician Order Entry
<b>C1P1</b>	Case one [A], project one
<b>C1P1-1</b>	Case one [A], project one, interviewee one
<b>DSS</b>	Decision Support System
<b>EHR</b>	Electronic Health Records
<b>ERP</b>	Enterprise Resource Planning
<b>GE</b>	General Electric
<b>HIM</b>	Health Information Management
<b>HIS</b>	Health Information System
<b>HELP</b>	Hospital Elder Life Program
<b>ICT</b>	Information and Communication Technologies
<b>IT</b>	Information Technology
<b>JCI</b>	Joint Commission International
<b>MRE</b>	Magnetic Resonance Imaging
<b>NPD</b>	New Product Development
<b>OR</b>	Operation Room
<b>SMS</b>	Short Message Service
<b>PC</b>	Personal Computer
<b>R&amp;D</b>	Research and Development
<b>ROs</b>	Research Questions
<b>ROs</b>	Research Objectives



## **Chapter 1      Overview of the Thesis**

### **1.1 Main Idea and Motivation**

Because an organization's competitive advantage and success depends at least partly on innovation (Mullins et al., 2008, Schmidt et al., 2009, Warrick, 2009), understanding the role of influential individuals in implementing change and the means of ensuring their impact throughout an organization is a topic of growing interest in the management field in general (Caldwell, 2003) and to specific organizations. This increased interest is in part because organizations are recognising the crucial effect these individuals have in today's evolving, fast-paced, competitive environments where innovations rather than company size or market share drive the success of an enterprise (Coakes and Smith, 2007).

Research in the broad area of leadership and change management (Bhatnagar et al., 2010, Cameron and Green, 2004, Carnall, 2007, Sirkin et al., 2005) exposed one of the key success factors that contributed to both fields: the role of leadership and individuals such as champions (Caldwell, 2001). Initially, the researcher was interested in the role of influential individuals within organizations. Drawing from refereed sources such as innovation, leadership, and change management research and journal articles, the researcher became intrigued by champions, their leadership style, their role and importance to organizations, and their characteristics and behaviours. It was striking to learn that most champions were informal leaders instrumental to the success of innovative projects within organizations (Howell and Shea, 2006). After being introduced to champions and the important yet informal role they play in successfully implementing innovations in organizations, the researcher decided to focus on champions, in part, because many management articles concentrated on the formal types of leadership (Howell and Higgins, 1990a, Howell and Shea, 2006, Mullins et al., 2008).

After examining the literature, the researcher recognized that champions operated mainly as change agents responsible for creating and/or facilitating the adoption of innovations within organizations in both formal and informal capacities. The innovation literature described champions as effective, influential team players in the innovation process who express confidence in others and communicate high expectations for the success of innovations. Additionally, champions play an essential role in gathering necessary resources for innovative ideas. Champions apply their technical and/or market knowledge to the innovation process to successfully implement or foster the adoption of innovations within organizations (Howell and Shea, 2006). Therefore, the question is no longer *if* champions are involved in innovation but rather *to what degree* their contribution is considered champion-like (Shim and Kim, 2004).

## 1.2 Focus Areas and the Rationale of the Study

Previous research on champions as informal leaders indicated that within the framework of change that many organizations have embraced as their primary success tool, champions act as informal leaders instrumental in successfully implementing and/or adopting changes within organizations. This situation brings the role of champions to the forefront of research in the field.

From preliminary work on the topic of management, innovation, and leadership, the researcher identified, studied, and noted the characteristics and contributions of champions in many areas (Ash et al., 2003, Caldwell, 2001, Esteves et al., 2004, Kelley and Lee, 2010, Krall, 2001, Soo et al., 2009, Wolverson, 1998). Previous research reveals that champions played various roles in a given organization. For example, the researcher discovered internal innovation, human resource, knowledge, technical, and executive champions, among others. This finding suggests that individuals recognized as champions can be found throughout an organization: at different levels and operational capacities and with both formal and informal roles.

Many researchers studying innovation have highlighted the role of the champion as instrumental to the success of implementing technological innovation. Schon (1963) was the first to provide an evidence of champions' importance and benefit to innovations. He showed how champions' active role in the implementation process of a technological innovation led to its success (Schon, 1963). Although the champion is perceived as one of the success factors, the phenomenon of championship remains less explored in the literature than other factors (Howell et al., 2005, Kamal, 2010, Krall, 2001, Mullins et al., 2008, Soo et al., 2009). Researchers are just starting to gain a deeper understanding of the champion's influence within an organization (Mullins et al., 2008), partially because it is much harder to investigate the informal rather than the formal, more visible aspects of leadership (Markham and Griffin, 1998).

Many researchers have recognized the actions of champions from various aspects and points of view. Studies in areas such as human resources (Caldwell, 2001, Kelley and Lee, 2010), technology (Beath, 1991), new product development (Shim and Kim, 2004), and leadership (Caldwell, 2003, Esteves et al., 2004) have touched on the topic of champions and their relative importance and diverse contribution to an organization. However, studies that focus on the identity of champions, their role and importance within organizations, the nature of their contributions to the organization, and their effects on the success of an innovation process are largely missing (Chakrabarti, 1974, Esteves et al., 2004, Ettlie et al., 1984, Howell and Boies, 2004, Howell et al., 2005, Howell and Higgins, 1990a, Kamal, 2010, Markham and Aiman-Smith, 2001, Markham and Griffin, 1998, Mullins et al., 2008, Shim and Kim, 2004). More specifically, in terms of empirical studies, the researcher identified only a few that focused primarily on champions and closely related topics (e.g. Markham and Aiman-Smith, 2001), revealing an important gap in the literature. Investigating empirically what characterizes champions and their role and importance in helping teams succeed in delivering innovative projects will further our understanding of how they could be better identified and deployed to informally lead innovations. This could be a great source of sustainable and practical

advantage to organizations in introducing and speeding up the process of implementing innovations successfully.

In simple terms, *innovation* refers to a new idea or a set of activities whose adoption prompts changes to the entity adopting the new idea. This simple description is provided here for the sake of clarity (see chapter 3 for a working definition based on in-depth discussion). Innovation has increased in importance throughout the decades because markets have grown increasingly complex, consumer demands ever more challenging, and technological advancements in communications and other areas have made it necessary for organizations to be more innovative in order to not only survive but thrive in today's fast-paced world. The literature on innovation is abundant in many areas, leading to many overlaps in terms of language and terms describing the same or similar phenomena in different ways, as detailed by Garcia and Calantone (2002). What makes the situation even more complicated is that past research has uncovered ambiguity in the scope and nature of defining innovation. Similar terms, such as *radical*, *really-new*, *incremental*, *imitative*, and *discontinuous* change are used interchangeably in, for example, the New Product Development (NPD) literature to refer to innovations (Garcia and Calantone, 2002). Often, what might be considered to be a radical innovation by one researcher is described as incremental by another (Garcia and Calantone, 2002). This discrepancy leads to an inevitable and growing sense of confusion about the innovation process from start to finish. Some studies have attempted to make the process more clear and understandable, but they have not achieved the goal of presenting the innovation process and its various stages/types in a clear and concise manner.

Without consistent terminology for innovation, the results of research and empirical studies (such as the effect of champions on innovations) may appear conflicting and lead to confusion (Garcia and Calantone, 2002). The goal of the current study regarding innovations is to present the researcher's classification and best understanding from the unified body of work on the types and the process of innovations in organizations. Defining innovation and describing the process of the innovation will allow the

researcher to clearly and concisely describe the role and importance of champions within this framework to make the findings much more understandable and useful in practice (see chapter 3).

A deeper engagement with the literature has shaped the researcher's objectives and research questions. A series of research articles introduced and drew the researcher to the idea of the *healthcare organization* as a complex mix of social and technological aspects. Many researchers have viewed healthcare organizations as complex systems (Plsek and Wilson, 2001, Sweeney and Griffiths, 2002). In turn, healthcare innovations are complex (Länsisalmi et al., 2006, Plsek, 2003) because introducing any kind of change into a healthcare setting is risky and can affect people's lives and well-being in potentially unforeseen ways (Collyer, 1994, Faulkner and Kent, 2001).

Due to the complex nature of healthcare innovations and organizations, understanding the role of champions in these organizations and their relation to successful innovation is of potentially wider benefit. This attention is needed partly because the connection between champions and healthcare innovations is not well-established. Previous studies provided little empirical evidence on how champions can be identified and fully utilized in healthcare (e.g. Greenhalgh et al., 2004, Krall, 2001, Soo et al., 2009). The role of champions in healthcare innovation is an area where there is a scope for generating a deeper and clearer understanding of this phenomenon (Krall, 2001). Soo et al. (2009) suggested that the core features of the champions' role in healthcare are still undiscovered. Moreover, little research has focused specifically on the role and influence of clinician champions in the successful diffusion of technological innovations, and "additional research is thus warranted" (Krall, 2001, p 44). The present study therefore addresses this knowledge gap by exploring and clarifying what characterizes champions in healthcare and how they affect the implementation and management of healthcare innovations.

### 1.3 Research Objectives and Questions

The overall aim of the research is to investigate the role of champions in healthcare innovations and discover which key behaviours bring innovative projects to successful implementation. As such, the objectives of the research (ROs) are therefore:

**RO1:** To identify what characterizes champions and their behaviours in healthcare;

**RO2:** To better understand the role and importance of champions in helping teams succeed in delivering innovative projects; and

**RO3:** To assess the overall effect of champions and their impact on the innovative projects and the healthcare organization.

In order to achieve the above objectives, the current study seeks to answer the following research questions (RQs):

**RQ1:** What characterizes champions in healthcare organizations?

**RQ2:** What is the role and importance of champions in innovations in healthcare organizations?

**RQ3:** What are the effects of champions on healthcare innovations?

By meeting the above-mentioned objectives, the researcher will be able to shed important light on the functioning of champions in healthcare organizations and organizations in general.

## **1.4 Introduction to Methodology**

Given the overall objectives, the researcher adopted a multiple case study approach to research design. Data was derived from case studies conducted in four hospitals in Saudi Arabia where nine technological or administrative innovative projects were identified and investigated. The study followed a rigorous process in identifying champions through the use of semi-structured interviews and observation, involving identifying champions based on the testimony of project members who worked closely with the champions. This resulted in 48 semi-structured interviews with project members. These interviews were designed to discover whether project team members agreed about the identity of champions and, if so, what elevated to and maintained individuals at that status. The researcher wanted the respondents to explain the phenomenon under study from their points of view, in line with the interpretivist epistemology adopted in this research (for more details, see chapter 5). The following sub-section will provide an overview of the research framework.

### **1.4.1 Research Framework**

In order to provide a thorough explanation of the phenomenon of champions of innovation, the researcher employed a four-level approach to investigation, illustrated in the research framework in figure (1-1). Miles and Huberman (1994) have explained that a conceptual framework specifies the main variables to be studied as well as what and who will and (will not) be examined. They defined a conceptual framework as “the current version of the researcher’s map of the territory being investigated” (Miles and Huberman, 1994, p 20). Therefore, the research framework in the present study includes the main concepts to be studied as well as the research questions, all reflected by a four-level approach of investigation at the individual, project, management, and organizational levels.

The framework serves as a guide for the researcher and is reflected upon in the analysis and interpretation of the research findings. It provides a logical sense of conceptual

movement from the individual level to the organizational level. The *individual level* relates to the first research question (RQ1), which focuses on the investigation of the behaviours and characteristics of champions. Then, as illustrated in the research framework, the *project level* seeks to answer the second research question (RQ2) regarding champions' role and importance in the implementation of innovations. Finally, *the management and organizational levels* focus on answering the third research question (RQ3) concerning champions' effect on the successful implementation of innovations within the hospital as well as their effect on the organization.

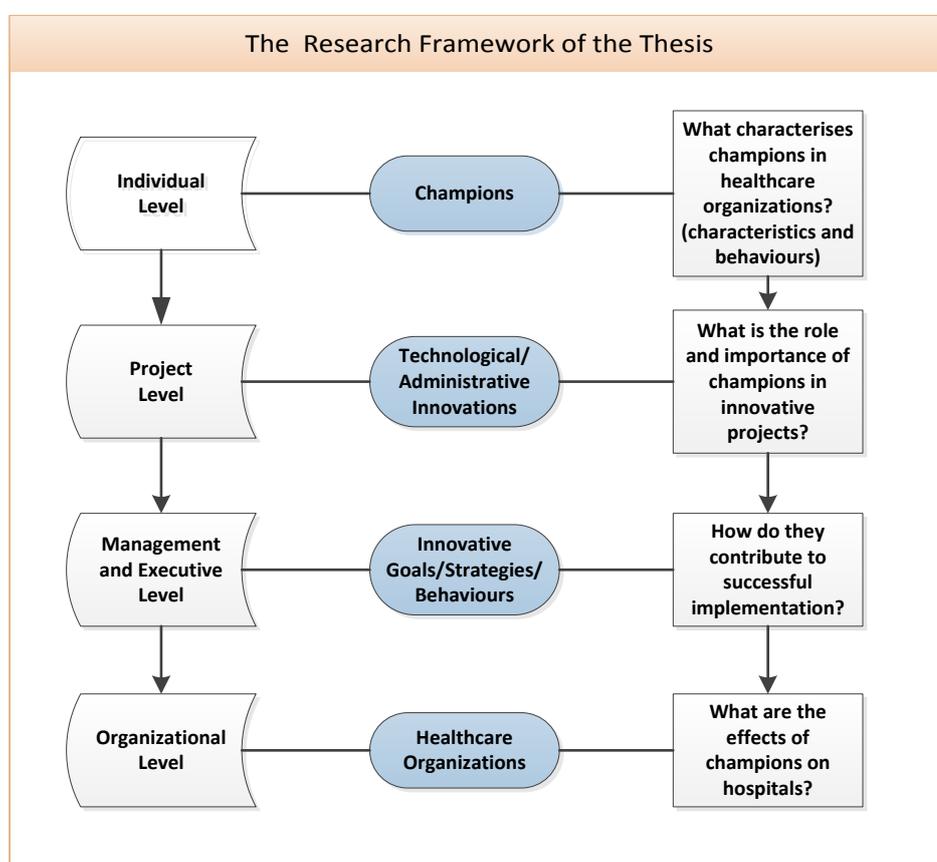


Figure 1-1: The Research Framework in the Present Study

## 1.5 Thesis Structure

The thesis is divided into eight chapters. Following the introductory chapter, chapters 2, 3, and 4 are literature review chapters.

Chapter 2 presents an overview of the literature on *champions within organizations* from different perspectives to championing with the aim of critically examining these different views. It emphasises how the notions of “champion” and “championship” have developed over time regarding innovation and makes a case for why champions are needed. Moreover, it includes a discussion on the pivotal role of champions, the organizational units from which they are known to emerge, and their role in innovative projects. The researcher synthesises the literature on champions to create a working definition of the term “champion.” The researcher then reviewed and classified the characteristics and behaviours of champions found in the literature into the following four contexts: Knowledge, Change, Leadership, and Other identified behaviours and characteristics. This approach would help the researcher appreciate conformity with and conflict between the current research and the expectations grounded in the literature.

Chapter 3 seeks to look at the *innovation* literature. It discusses the different terms and definitions of innovation found in the literature, and adopt a working definition to be used throughout the thesis. Then, the discussion proceeds to examine the process of the innovation, factors influencing the adoption and generation of innovations within organizations, and the different types of innovations.

Chapter 4 examines studies on *champions* and *innovations* within the healthcare context. It discusses the complex nature of healthcare organizations. Then it presents a discussion on how innovations are shaped by healthcare organizations in the way they are used and implemented as well as the role of champions in the implementation of innovations.

Chapter 5 discusses the *research process* which includes the research paradigm, research approach, and research strategy adopted. The chapter presents a justification for adopting a case study strategy and describes its design, including the process of determining the unit of analysis and the research sample. It includes a discussion on the preparations for data collection, data collection tools, and data analysis techniques for the within- and cross-case analyses. The chapter also presents a discussion about the quality assurance of the analysis including the measurements taken by the researcher to ensure the validity and reliability of the findings.

Chapter 6 presents the *case context* related to the nature of healthcare sector in Saudi Arabia and the *within-case analysis*. An overview of each case, describing each case in relation to the research objectives, is provided.

Chapter 7 presents the *cross-case analysis and related discussion*, relating the empirical findings to the relevant literature. The methodological approach adopted in this research, which combined a deductive followed by an inductive approach, provided the researcher with a favourable context to re-visit the theoretical assumptions about champions' behaviours, role(s), and effect on innovation implementation within organizations and incorporated new insights from the current study to provide possible explanations of the phenomenon.

Chapter 8 *concludes* the thesis by revisiting the research objectives and questions. Furthermore, the chapter presents the research contributions, limitations, and implications to knowledge and practice.

## **1.6 Summary**

This introductory chapter provided an overview of the topic under investigation and the motivation behind selecting it. The chapter highlighted the research focus areas which led to the generation of the research objectives and questions, and presented an introduction to the methodology chosen, including the research framework. Finally, it presented an overview of the thesis structure. The next chapter will present an overview of the literature on champions within organizations



## **Chapter 2      Champions within Organizations**

### **2.1 Introduction**

This chapter is devoted to the literature on champions within organizations. It places emphasis on how the notions of “champions” and “championship” have developed over time. This chapter seeks to map out the different perspectives to championing with the aim of critically examining these different views, to provide a comprehensive overview of the topic, and to make a case for why champions are needed. Three central issues are addressed in the review of champions. First, the researcher presents studies in which the characteristics and behaviours of champions have been cited. Second, the researcher provides a classified list of all characteristics and behaviours in these studies along with their commonalities in order to create a comprehensive, unified, and clear classification. Then, the concept of champions is examined in order to answer the question “who are champions and how are they identified?” where different descriptions and definitions of champions from different paradigmatic standpoints from past research are examined, from which a working definition of champions is derived. Finally, the researcher will present the evidence of the pivotal role of champions, the organizational units from which they are known to emerge from, and their effect on projects.

### **2.2 The Need for Champions**

Fifteen studies were found that raise the need for further research on champions from various perspectives and points of view. They specified the need for empirical studies (Howell et al., 2005, Howell and Higgins, 1990a, Howell and Shea, 2001, Kamal, 2010, Markham et al., 1991, Markham and Griffin, 1998, Mullins et al., 2008) such as quantitative aspects (Markham and Griffin, 1998), behaviours (Howell et al., 2005, Shim and Kim, 2004), techniques and strategies (Howell and Boies, 2004, Markham, 1998), champion identification (Esteves et al., 2004, Howell and Higgins, 1990a), the effect of champions on various stages of the project (Howell et al., 2005, Mullins et al., 2008, Shim and Kim, 2004), and the motivations that prompt the emergence of champions (Mullins et al., 2008, Shim and Kim, 2004).

From this body of evidence, it can be clearly seen that the study of champions is lacking in the literature from many perspectives. Table 2-1 summarizes the sources that raised issues related to the need for champion studies.

Table 2-1: The Need for Champion Studies in the Literature Ordered Chronologically

Innovation Champions
1. "The role of project champions during such initiatives [e-government initiatives] is rather deficient. The shortage of such research studies presents a knowledge gap that needs to be sanctioned." <b>(Kamal, 2010, p 1)</b>
2. "One factor that has been relatively less studied than others is the influence of idea champions" <b>(Mullins et al., 2008, p 452)</b> "how they have their effects has been studied relatively little" <b>(Mullins et al., 2008, p 451)</b> "we are only beginning to understand how champions have their effects on innovation" <b>(Mullins et al., 2008, p 453)</b>
3. "The behaviours of champions, and the extent to which these behaviours must be enacted to contribute to successful innovation performance, have not been specified." <b>(Howell et al., 2005, p 644)</b> "limited research on champions of innovation" <b>(Howell et al., 2005, p 646)</b>
4. Further studies on techniques and strategies used by champions in the innovation process is needed <b>(Howell and Boies, 2004)</b>
5. "Existing literature has not directly addressed the questions of what motivates champions, how champions influence other people to support their projects, and what effects champions have on the projects in the innovation process" <b>(Shim and Kim, 2004, p 1)</b>
6. "The figure of the project champion is not yet quite well understood" <b>(Esteves et al., 2004)</b>
7. "A full understanding of their role within these organizations remains elusive [...] The champion literature is surprisingly limited" <b>(Markham and Aiman-Smith, 2001)</b>
8. "Very few studies integrate the characteristics of product champions." <b>(Roure, 2001, p 644)</b>
9. "empirical studies on champions is lacking" <b>(Howell and Shea, 2001, p 16)</b>
10. "Previous empirical research has not examined what techniques champions actually use to support their projects and what effect champions have on project performance. Neither do we know the success of individual championing activities in promoting projects" <b>(Markham, 1998, p 491)</b>
11. Little published empirical evidence has supported or refuted the effect of champions on project performance and overcoming obstacles <b>(Markham and Griffin, 1998)</b> "We have only anecdotal evidence of the manner in which effective champions operate and the benefits they offer [...] Quantitative data are surprisingly rare" <b>(Markham and Griffin, 1998, p 436-437)</b>
12. "There is still limited empirical evidence about champions' role. To date, the literature has not directly addressed the question of where champions come from" <b>(Markham et al., 1991, p 217)</b>
13. "A significant limitation is the operationalization of champion [...] Empirical investigation of these reflecting the researcher's impressions, rather than reliable and valid measurement" <b>(Howell and Higgins, 1990a, p 317)</b>

### **2.2.1 Benefits of Champions**

Schon (1963) was the first to provide evidence of champions' importance and benefit to innovations. After conducting 25 case studies, he stated in his findings, "When radical innovation is concerned, the emergence of a champion is required" (Schon, 1963, p 84). He illustrated the essential role a champion plays in the success of the implementation of technological innovations. Since then, many studies have highlighted how champions decisively contribute to the successful implementation of new projects (Howell and Shea, 2006, Shim and Kim, 2004). Certain types of champions have also been known for their ability to strategically associate the innovation to other organizational outcomes such as the organization's profitability, reputation, and strategy (Howell and Boies, 2004).

One benefit of project champions is in their expressing "enthusiasm and confidence about the success of the innovation, persisting under adversity, and getting the right people involved" (Howell et al., 2005, p 641). These qualities positively relate to the project's performance and the innovation's success (Howell and Shea, 2001). Champions are also known to use informal processes and techniques to promote innovations through the passage of its critical organizational stages (Howell and Boies, 2004). Although some champions may have a weak direct impact on the final performance of new projects, Markham (2000) and Markham and Griffin (1998) also stated that they are actually effective in providing resources to projects, protecting them from cancellation, and helping the project through its critical stages. They influence individuals and processes like project commitment and support, continuation, and innovative strategies within organizations.

Another benefit of champions is that their personal networking, both within and outside of the organization, is considered to be the most important source of information about new ideas. Additionally, they have the ability to introduce such information in a convincing way to top management as well as other stakeholders. This kind of influence of champions on others comes from their social networks (Coakes and Smith, 2007, Howell and Shea, 2001). They are also effective team players who support their team members and keep them motivated (Howell and Shea, 2006).

### **2.2.2 Emergence of Champions**

When it comes to innovation, some researchers have noted that champions emerge in unsupportive environments and tend to support more high-risk radical projects (Howell and Higgins, 1990a, Schon, 1963). In contrast to these studies, Lichtenthaler and Ernst (2009) suggested that an environment that is very unfavourable to change may limit the champion's emergence. The study suggested that champions seem to emerge in supportive organizational climates and seem to act rationally when it comes to supporting projects within organizations. This means that they tend to support projects which benefit them and the organization as well, and they do not seem to support high-risk projects blindly. Supporting this view, Markham (2000) showed that champions are political players and tend to be present and emerge equally in both high-risk radical projects and incremental projects. These findings suggest that if champions feel that a particular project would fail, they make a political decision to avoid it and, therefore, emerge in projects that have a possible impact on the organization.

Mullins et al. (2008) tested the relationship between the organizational climate – which they defined as a climate that is supportive of creative thinking, problem solving, and innovation – and the emergence or presence of champions. They found that there is no significant relation between the two.

The emergence of champions is important to organizations because the more innovative the organization, the more successful and recognizable the organization becomes in the market (Mullins et al., 2008). According to Beath (1991), champions value the following types of support and assistance: information for evaluation and persuasion, technological resources, and political support. Coakes and Smith (2007) cited Howell (2005), who suggested that champions need the following opportunities within the organizations in which they operate:

- To work within an innovative environment,
- To work with other innovators,
- To be challenged and to learn,

- To be able to communicate inside and outside the organization,
- To be recognized for their work, and
- To work for management that supports their activities.

Supporting this view, Coakes and Smith (2007) argued that, in order for new projects to succeed, champions need procedural, resource, social, and cognitive support. Social support, they argued, can be provided by a certain type of community of practice they call the *Community of Innovation* (COI) that supports champions and should become the norm within organizations rather than a one-time event.

Chrusciel (2008) explored in his study the key motivational factors behind champions' drive to adopt significant change. The study emphasized the importance of personal gain such as intrinsic rewards. First, he showed how certain champions need validation of their self-worth. Second, the champion is a person who has the respect of others in the organization, which minimizes the time needed to gain the acceptance and/or commitment of project members.

### 2.3 Attributes of Champions

A number of studies have relied on individual responses unsupported by others in the identification of champions and the provision of a subjective list of personal attributes (Howell and Higgins, 1990a) assumed to be important for successful championing. This kind of research may not have considered the fact that many people with characteristics similar to the champions could turn out to be non-champions. For example, while many individuals may exhibit the characteristics of a champion in a single innovative project, many studies define the champion as the one with the biggest contribution to the innovation (Day, 1994). This definition explains the different terms that have been used interchangeably to refer to champions in the past: project manager, project leader, chief information officer, project sponsor (Cook et al., 2002, Esteves and Pastor, 2002, cited in Kamal, 2010), project champion (Kamal, 2010), and entrepreneur (Day, 1994). The use of these various terms suggests that the word "champion" has been used in a general sense without paying attention to its definition and identification. This is partly because recognizing the characteristics of formal and informal leaders (who champions could very well be) is a difficult task

in and of itself, which is clear in the different theories in the academic field on leadership (Green and Mitchell, 1979). Therefore, recognizing the characteristics of a concept as specific as champions is a much more difficult and complicated task (Markham and Griffin, 1998).

Knowing what benefits champions can bring to organizations in general and to innovations specifically and having their characteristics and behaviours defined is important, especially when it comes to their identification. Once potential champions are identified, organizations can work on motivating them and facilitating their emergence. From different studies that explored the characteristics of champions, they were described as being willing to take risks and express courage (Howell and Higgins, 1990a), as conveying the right vision for the innovation, and as inspiring and motivating others in general (Howell and Shea, 2006). They are supportive, optimistic, and enthusiastic. They tend to be analytical and seek to solve problems being encountered during the process of innovative projects. They persist under diverse situations, are open to change (Howell et al., 2005), and can politically and diplomatically sell new innovative ideas to top management using certain influential tactics (Markham, 2000). Some researchers described them as effective team players who value time, learning, and efficiency (Chrusciel, 2008), and express confidence in the innovation and team members (Howell and Shea, 2006). They have the knowledge about the organization and the business (Howell and Higgins, 1990a), and have their own networks inside and outside the organization. Having individuals who embody these characteristics is important during the process of innovation because they contribute to the overall success of these projects which ultimately contribute positively to the organization (Howell and Boies, 2004, Howell and Shea, 2001).

### **2.3.1 Behaviours and Characteristics**

Champions can be seen as “informal transformational leaders” that are known to “inspire and enthuse others with their vision of the potential of an innovation, to persist in promoting their vision despite strong opposition, to show extraordinary confidence in themselves and their mission, and to gain the commitment of others to support the innovation” (Howell and Higgins, 1990a, p 320). This shows champions do not need to have a formal leadership title in order to show relevant leadership behaviour. Similarly, Howell and Boies (2004) pointed out that

champions support new ideas more readily than non-champions and use alternative selling methods to promote the idea which linked the innovation to different positive organizational outcomes.

Roure (2001) noted that the characteristics of certain champions may be different from culture to culture. In his study of 26 companies in France and 25 in Germany, he explored the characteristics that product champions should have before they can accomplish their roles effectively to garner the acceptance of their management. The two most important aspects of champions uncovered were their place within the organizational structure (the power needed to complete the task) and their organizational experience (the understanding of the organization's products, structure, and informal system of relationships). The hierarchy level of champions was significantly and positively related to the involvement of the top management in France more than in Germany. He calls for conducting further research in additional countries, exploring the crucial attributes of champions that are vital in the success of innovations.

Chrusciel (2008) looked at innovation champions' behaviours and the motivational aspects that inspired them. He showed that a champion is "service-oriented, likes to analyse and solve problems, welcomes change, and enjoys working on a team" (Chrusciel, 2008, p 157). Although champions have been described in past research, the results of various studies have been poorly integrated and the literature has not provided a clear comprehensive classification of the characteristics and behaviours of champions. A clearer classification is needed because champions' characteristics and behaviours differ based on what role they have in the innovative process. In essence, it is not clear from the literature which characteristic(s) are exhibited by which types of champions and where they tend to emerge from within the organization. For example, some champions may be described as having the necessary technical knowledge that helps during the early stages of innovations, which sometimes may be referred to as technical champions (Day, 1994), while other champions may be described by some researchers (e.g. Howell and Higgins, 1990a) as visionary and inspirational, which may be more strongly linked to executive champions. This may result in some confusion when it comes to determining which characteristics describe champions and which types of champions exhibit which characteristics and behaviours more than others.

Based on examining the different characteristics and behaviours found in the literature and focusing on those studies that examined in depth the concept of champions and championship within the context of innovation, the researcher started to establish certain patterns of champions' behaviours and characteristics and identified three common contexts found in these various behaviours and characteristics. The first context concerns champions that are identified by formal leadership like characteristics and behaviours such as being influential, politically astute, visionary, and inspirational. The second context has to do with the way champions are discontented with the status quo; as a result, they are open to change and encourage it by being persuasive, functioning as risk takers, and remaining persistent. The third context of these different behaviours and characteristics has to do with champions' knowledge and expertise in the workplace and familiarity with the organizational environment. The final context of Other Identified behaviours and characteristics included those characteristics and behaviours which champions are known for which do not belong to the above-mentioned main contexts or perspectives. Therefore, in this chapter, the researcher classified champions' characteristics and behaviours found in the literature into the following four contexts: Knowledge, Change, Leadership, and Other Identified behaviours and characteristics (see Table 2-2).

This classification will help in recognizing and identifying champions based on their characteristics and behaviours. The bolded characteristics and behaviours represent key characteristics of champions that the literature indicated are expected to be present in every type of champion, and those not bold are minor ones that may or may not be present in every champion but could appear in certain kinds of champions more than others. For example, being a good evaluator could be linked to technical champions while expressing and communicating what the innovation will be like could be linked primarily to executive champions.

Table 2-2: Behaviours and Characteristics of Champions Found in the Literature

Context	Behaviours (* means key behaviour)	Characteristics (* means key characteristic)
<b>Knowledge</b>	Evaluator/Analytical <sup>3,6</sup>	<b>*Creative</b> <sup>1</sup> <b>*Competent</b> <sup>2,3,4</sup> <b>*Self-confident</b> <sup>5</sup> Industry experience <sup>1,3</sup>
<b>Change</b>	<b>*Advocates of innovation</b> <sup>8,11,12,13,14</sup> <b>*Persuasive</b> <sup>13,14</sup> <b>*Open to opportunity</b> <sup>4,6</sup> Motivator <sup>14</sup>	<b>*Persistence</b> <sup>1,6,7,8</sup> <b>*Risk taker</b> <sup>1,7,9,10</sup> <b>*Supportive</b> <sup>1,6,14,15</sup> Diplomatic negotiation <sup>11,16</sup> Courageous <sup>1</sup> Good communicators <sup>5</sup>
<b>Leadership</b>	<b>*Express confidence in the innovation</b> <sup>6,14</sup> <b>*Influential</b> <sup>11,13</sup> Politically astute <sup>2,7,8</sup> Intellectual stimulator <sup>1,18</sup>	Visionary <sup>1,17</sup> Inspirational <sup>14</sup>
<b>Other Identified Behaviours and Characteristics</b>	<b>*Personal commitment to innovation</b> <sup>6,11,17</sup> Express confidence in team members <sup>1,14</sup> Value efficiency, learning, and time <sup>4</sup>	<b>*Aggressive</b> <sup>2,8,17</sup> <b>*Active/Energetic</b> <sup>2,12,14</sup> Enthusiastic <sup>6,12,19</sup> Optimistic <sup>6</sup> Social <sup>7,16</sup> Effective team player <sup>1</sup>

<sup>1</sup> (Howell and Higgins, 1990a)

<sup>2</sup> (Chakrabarti, 1974)

<sup>3</sup> (Gupta et al., 2006)

<sup>4</sup> (Chrusciel, 2008)

<sup>5</sup> (Price, 1989)

<sup>6</sup> (Howell et al., 2005)

<sup>7</sup> (Schon, 1963)

<sup>8</sup> (Markham, 2000)

<sup>9</sup> (Maidique, 1980)

<sup>10</sup> (Shim and Kim, 2004)

<sup>11</sup> (Markham, 1998)

<sup>12</sup> (Roure, 2001)

<sup>13</sup> (Esteves et al., 2004)

<sup>14</sup> (Howell and Shea, 2006)

<sup>15</sup> (Mullins et al., 2008)

<sup>16</sup> (Chakrabarti and Hauschildt, 1989)

<sup>17</sup> (Beath, 1991)

<sup>18</sup> (Markham et al., 1991)

<sup>19</sup> (Rothwell et al., 1974)

### 2.3.1.1 Knowledge Context

The first context when it comes to champions' characteristics and behaviours is knowledge. Champions have the necessary knowledge and expertise about the organization and the business. They are generally known to have an expert knowledge of their domain, which is how they are able to have insights into new ways of thinking and doing things that makes it easier to be creative (Howell and Higgins, 1990b).

Howell and Higgins (1990b) revealed that, compared to non-champions, champions “have greater exposure to different positions, functional areas, divisions, geographic locations, and industries, and greater involvement in innovations during their careers” (Howell and Higgins, 1990b, p 259). The study also showed that, although the champions and non-champions under study had similar age, compensation, status, role, and expertise, champions had greater industry experience when it came to the number of years of work experience in various organizations within their respective industries than non-champions. This suggested that, during their careers within their organizations, champions may have more experience when it comes to building information networks or discovering new opportunities.

Champions are known to be competent in their area of expertise, especially when they are more involved with the technical aspects of the innovation (Gupta et al., 2006). For example, only an expert in the field of mechanics would be able to foresee future technical challenges that may arise from introducing a new engine design for a line of hybrid automobiles. Therefore, a technical champion in this field might ask for more resources upfront for such a project than a non-technical champion or individual in charge of the project.

Another important characteristic of champions is the self-confidence that they often exhibit through their capacity to introduce a new idea, vision, or innovative approach that they believe would be beneficial to the organization and beyond. We can also see this characteristic used by champions as they go through various hurdles and stages of the process and use their confidence to overcome adversities that may arise internally and/or externally.

Champions also are known to be good evaluators and analytical, two characteristics that enable them to solve problems that arise during the process of innovative projects. They have the necessary technical knowledge that is essential to the development of the innovation (Howell and Higgins, 1990a). Individuals who embody these characteristics seem to be needed during the early stages of the development of the innovation because they can employ their analytical skills to account and prepare for different scenarios and issues that may arise (Markham, 2000).

### 2.3.1.2 Change Context

The second context of the characteristics and behaviours of champions is change. Champions have been described as being open to change and encouraging it (Chrusciel, 2008, Howell et al., 2005). This is important “because change has never been greater than in the current business environment” (Todnem By, 2005).

Champions take risks by encouraging new changes, and they have greater propensity to take risks than others (Howell and Higgins, 1990a, Markham, 1998). In Markham’s study about the influence champions have on others, team members recognized that the champion was taking risks to advocate for the innovation (Markham, 1998). One of the team members in the study mentioned that “if the project doesn’t work out, Jack will probably get sacked” and another stated that “Carol has a lot riding on this project.”(Markham, 1998, p 497-498). These statements showed an understanding that champions are more willing to take risk by advocating for innovative projects which may or may not succeed.

Champions are known to be open to new ideas and opportunities than non-champions (Howell et al., 2005). They have the ability to make use of small ideas and turn them into innovative projects that in turn will provide new competencies and opportunities to the organizations. For example, when champions hear a rumour about a new product or a technology from a competitor, they will research its merits and introduce a similar idea to top management for an innovative project that aims to accomplish the same objective for their organization.

Research showed that champions were actually aware of the potential impact of the innovation on the organization (Markham, 2000). Therefore, they attempt to persuade others to support such innovations partly because of their awareness of what the benefits can be. In Schon’s words (1963), as cited in (Howell and Higgins, 1990a), champions are “capable of using any and every means of informal sales and pressure in order to succeed” (Schon, 1963, p 84). For example, Markham (2000) studied the diplomatic behaviour of champions and antagonists (those opposing change) when it comes to supporting or opposing projects in 213 Research and Development (R&D) projects in 21 large U.S. industrial organizations. The findings of the study revealed that

champions persuade others to get involved and support projects that have a possible impact or benefit on their departments, seem to be aware of the impact of their actions, and do not tend to advocate for change blindly.

Champions are known to behave in a diplomatic way to sell ideas both formally and informally to others including top management using certain tactics and strategies to help their departments and the organization. They have the ability to influence top management that the change they are advocating for is good and necessary for the organization (Markham, 1998). For example, they are able to build coalitions in order to change negative perceptions about the innovation as well as help people recognize the need for the innovation.

Champions are not only advocating for change by being persuasive, but also by showing persistence in moving forward by overcoming obstacles facing the innovation (Howell et al., 2005). For example, they protect innovative projects from cancellation especially when faced with increasing opposition when others in the organization are against the continuation of such projects (Markham, 2000). Moreover, they help the project through its critical times (Markham, 1998) by continuing the innovative project until it is adopted even when others say it would be difficult or impossible to accomplish (Howell et al., 2005).

Champions are known to be supportive of change (Howell and Higgins, 1990a). They support everything that would contribute to the successful implementation of innovations. This means that they support the idea of the innovation, the decision of implementation, and the innovation team members. For example, champions would openly share their knowledge and help fellow team members along if they felt that the team members needed help in a certain task that they have more experience with.

Knowing how champions tend to support or advocate for change, the strategies they use in advocating for projects, and the aim they have in mind are important components of understanding how they actually help in implementing these changes within their departments. A very important behaviour of champions is that they are known to be advocates of innovations (Esteves et al., 2004, Howell and Shea, 2006, Markham and Griffin, 1998, Roure, 2001). They

advocate for the innovative idea that they believe in through publically speaking about the topic to everyone involved in the organization. For example, the champion could ask for a meeting to be held just so they could make a case for their proposal and hear the opinions of the people involved. They also promote for innovations beyond their job requirements by demonstrating all the characteristics and behaviours in favour of change by being open to opportunities and new ideas for innovations.

### **2.3.1.3 Leadership Context**

The third context when it comes to champions' characteristics and behaviours is leadership. Howell and Higgins (1990a) explained that champions' behaviour is almost the same as transformational leaders. Champions have the leadership characteristics that they demonstrate in leading organizational initiatives (Day, 1994, Howell and Higgins, 1990a). Champions are generally known to be informal transformational leaders (Howell and Higgins, 1990a). This insight helps to better understand how champions accomplish their mission.

Champions have the vision for the potential of the innovation (Howell and Shea, 2006). They have the important ability to articulate this vision and use it to inspire others. Once a leader communicates and shares his or her vision of what the innovation will be like and how it will help the organization when implemented, others may feel involved with the process and accept the innovation more readily. For example, when a Chief Executive Officer (CEO) of a hospital embraces the vision of implementing an Electronic Health Record (EHR) system and can see how many more patients could be cared for as a result of the efficiency gains, he or she can schedule a meeting with the senior managers to communicate and share this vision with them and to speak about how this innovation could affect the way they work.

Howell and Higgins (1990a) mentioned that champions are inspirational. As an example of how inspirational champions can be, they can inspire others to support an initiative after forming a clear vision for the innovation and communicating it to them along with sound arguments for why the innovation should be adopted by the organization. Another way that champions could be inspirational is by leading by example.

According to Howell and Shea (2006), champions express confidence in the innovation for which they are advocating. Expressing confidence in the innovation means that they promote the innovation's advantages, point out what the innovation could do for the organization by citing ways the innovation could succeed, and detail how the innovation could be implemented (Howell et al., 2005). Having this clear vision will help in getting others to accept and support the innovation and lessen the doubts and uncertainty surrounding its adoption.

Champions are respected by some members of their organization (Chrusciel, 2008) and seem to be politically astute (Chakrabarti, 1974) in the sense that they use cooperative (e.g., reasoning and bargaining) strategies rather than confrontational tactics which are more in line with their targets and result in more compliance and willingness to accept and commit to ideas. Therefore, the more they use these cooperative strategies, the more they can influence their targets (Markham, 1998). Champions utilize these influence strategies more than others to help them accomplish their goals. For example, Howell and Higgins (1990b) interviewed 25 pairs of champions and non-champions to measure champions' leadership behaviours and influence strategies. They discovered that champions tend to use more influence strategies than non-champions in forming coalitions, reasoning, and asserting their authority to persuade others to adopt the innovation. This tactic is important because if executive champions, for example, rely entirely on their organizational power to influence others, this may strain relationships with their employees needed for future assistance. The use of these strategies by champions is important because it is related indirectly to increased project performance over time when it comes to efficiency and technicality (Markham, 1998).

Howell and Higgins (1990a) showed that champions intellectually stimulate people they work and interact with to think on their own, to participate through providing input, and to question the existing operating procedures and processes that no longer serve the organization's goals. The study showed noteworthy differences among champions and non-champions when it came to intellectually stimulating others. For example, when attempting to identify how to make physicians start using the CPOE system (Computerized Physician Order Entry), a champion could ask the meeting participants, "Who is smart enough to find a way to make them use the system?"

#### **2.3.1.4 Other Identified Behaviours and Characteristics context**

There are other characteristics and behaviours which champions are known for which do not belong to the above-mentioned contexts or perspectives (knowledge, change, and leadership).

Champions consider the innovation as theirs and exhibit further commitment to it by gathering support for the innovation from colleagues in the organization (Howell et al., 2005). Schon (1963), as cited in (Howell and Higgins, 1990a) acknowledged this characteristic of champions by stating that “it is characteristic of champions . . . that they identify with the idea as their own, and with its promotion as a cause, to a degree that goes far beyond the requirements of their job” (Schon, 1963, p 84). For example, Markham (1998) interviewed 53 champions and discovered that, in nearly every case, champions seemed to refer to “the project” as “my project,” which shows a high level of commitment to and a sense of ownership for these projects.

Champions are also known to aggressively and vigorously promote and support innovations and to put themselves on the line and fight for their cause (Beath, 1991, Markham, 1998, Markham, 2000). This characteristic of champions appears mostly when champions face opposition for what they are promoting. As a response to the resistance by a certain number of people in the organization, they could use a variety of influential tactics and increase the intensity of the strategies they use. For example, if a manager would not be open to the innovation, the champion could raise the pressure or stakes by threatening to quit if his or her demands are not met.

Champions are also known to actively promote the progress of innovations (Esteves et al., 2004, Howell et al., 2005). For example, the champion could be available for every meeting and at the same time answer questions and promote the innovation even after business hours. Champions keep pushing the idea of the innovation to key people and continue to promote the innovation’s advantages and benefits enthusiastically. Moreover, they express enthusiasm through the different stages of the innovation, especially when it comes to the success of innovations (Howell et al., 2005). For example, a champion would promote the idea of adopting a new non-invasive medical device that provides a new way to treat patients with brain cancer and continue to speak about the advantages of having such a device in the hospital with intensity and excitement.

Champions are also described as effective team players who express confidence in other team members and provide ongoing support. For example, the champion could be the one who reassures the technicians in the innovation process that, even though the pilot test failed, they are capable of overcoming the hurdles and successfully completing the next test. They value learning and always scan for new information within the organization that would help the innovation under development (Howell and Shea, 2006). They are optimistic, and that is what distinguishes them from non-champions. They show optimism by expressing hopefulness for the success of the innovation (Howell et al., 2005). They value time and efficiency when it comes to work (Chrusciel, 2008) because, for example, they meet all the deadlines, and they are social, as evidenced by the social networks they have inside and outside the organization (Chakrabarti and Hauschildt, 1989).

It is important to point out that, while these characteristics and behaviours are found in different settings and situations within organizations, what makes a champion is a combination of these characteristics, not just one. These characteristics are provided to aid in better identification of these individuals.

## **2.4 Role of Champions**

Even though the most popular word for informal leaders is “champion,” other terms are also used in the literature: entrepreneur (Day, 1994), “project manager, project leader, chief information officers, and project sponsor” (Cook et al., 2002, Esteves and Pastor, 2002, cited in Kamal, 2010, p 6), and significant/strategic change champions (Chrusciel, 2008). This abundance of terms indicates that champions play different roles within the organization. Many studies have examined the instrumental role(s) of champions in the implementation of an innovation and their contribution to the success of the organizations (e.g. Howell and Boies, 2004, Rothwell et al., 1974, Shim and Kim, 2004). Markham (1998) tested the relationship between champions and the performance of innovations and found no direct impact on the final performance of the projects. However, more recent studies that tested the instrumental role champions play in the innovation process were linked to different positive organizational outcomes. For example, Kamal (2010) empirically studied the role that champions play in e-government integration initiatives. E-government is the generalized use of Information and Communication Technologies (ICT) in government to provide better public services. The study resulted in showing the critical role of

champions' expertise and knowledge in e-government initiatives even though they did not generalize their findings to a greater extent.

Another empirical study by Shim and Kim (2004) explored the relationships between the personal characteristics and behaviours of champions, projects, and organizational characteristics. They studied the overall performance of 79 new product developments in Korea in light of the above-mentioned factors. They contend that the question is no longer if there are champions involved in innovation (it's a given that they exist) but rather the question has become to what degree is their contribution considered champion-like. In other words, they suggested that there are levels of contribution that each champion can provide which makes championship important in the overall process of innovation. In their study, champions' behaviour, which is affected by their personal attributes such as the need for achievement and risk taking, is found to have a positive effect on the project performance. Howell and Shea (2001) also explored in their study the effect of champions and their behaviour on the project performance of 47 product innovation projects in Canada over a one-year period. Champions' behaviour was defined by the level of confidence they showed in the innovation, by their ability to persist during critical stages of the innovation, and by their efforts to motivate and involve others in supporting the innovation (Howell and Shea, 2001). They concluded by stating that champions' behaviour contributed positively to the performance of innovation projects over time and that champions were instrumental to the successful implementation of innovations as perceived by managers.

Another study that underscored the importance of champions to the successful implementation of innovative projects is from Howell and Shea (2006), who explored how champions' behaviour influenced innovation team performance in 41 product innovations in 13 Canadian organizations. The study suggested that the following activities and behaviours of champions will predict the success of an innovation team: team potency (a collective belief in the team's abilities and overall presence of confidence in the innovation and others) and external communication activities (how champions communicate outside the innovation team to obtain information, resources, and support and then transfer their findings to the innovation team). The study showed that champions' behaviour and their external activities were positively related to the innovation team's confidence and performance. This finding suggested the importance of the influence of champions

on innovation teams and in how they connect with team members that are responsible for the process of innovation which leads to the success of innovations within organizations.

The different classifications for the role of champions in the organization include technical champions, project champions, and executive champions (Lichtenthaler and Ernst, 2009). Although they have formal roles within their organization, they usually have informal championing roles as they emerge (Howell and Shea, 2006). The next section will discuss the formal/informal nature of champions' roles. Then the roles of change, technical, project, and executive champions will be elaborated.

#### **2.4.1 Formal / Informal Roles of Champions**

Although champions are known to emerge within organizations and they are described to be informal transformational leaders (Howell and Higgins, 1990a), this does not mean that they do not hold a formal role or title within the organization. As a matter of fact, they usually have a formal role that they fulfill every day, and they also voluntarily assume the informal role of advocating for an innovation as they accomplish their normal activities regardless of their formal level in the organization.

According to Roure (2001), there are two scenarios that seem to be essential for the championing activity: the hierarchical/organizational level, which provides the champion the position of power needed to do the promotional tasks, and the organizational experience (number of years of internal service), which provides the champion with the knowledge about the organization, its assets, its formal structure, and its informal relationship networks. For example, the study found that the hierarchical and seniority levels of the champions in the organization in Germany played an active role in involving management in the innovation. This finding suggests that, in order for the champion to accomplish his or her role(s), it is helpful for them to have a higher position (formal role) in the organization which at the same time allows them to use informal processes through their experience and knowledge of the organization.

To add to the idea of formal/informal roles of champions, it has been suggested that when new ideas are mixed with the strategies and objectives of the organization, champions contribute

decisively in implementing new ideas, promoting ideas through formal and informal channels during the innovation process, and motivating as well as influencing others to support the innovation through their personal networks and strategies (Howell and Boies, 2004).

It is important to note that, for different champions at various levels of the organization, this balance between the use of formal and informal processes is different and it allows them to use the best channel (either formal or informal) to reach the goals that they feel they need to reach in order to successfully implement an innovation. For example, a champion who is coming from a higher hierarchical level in the organization such as an “executive champion” may rely more on his or her formal role to accomplish his or her intended goal or to convince others that change is needed, while another champion who is coming from a lower organizational level, for example the “technical champion,” may rely more on his or her informal capabilities (including expertise) to influence top management that change is needed in order to accomplish the same goal using a different approach.

Coakes and Smith (2007) proposed the concept of developing Communities of Innovations (ColIs) as a special type of Communities of Practice (CoPs) within organizations which can be formed by champions of innovations and their personal networks. The aim of these communities is to gather those who wish to support new innovative ideas within organizations to support champions socially. This will help, they argue, in identifying champions more easily since identifying influential individuals within organizations may be time-consuming, difficult, and expensive. This is important because of the decisive contribution of champions in leading innovations to success through active and enthusiastic promotion of the innovative project which results in improvement to the organization’s competitive position. The next section will discuss the different types of champions that were found throughout the literature.

#### **2.4.2 Change Champions**

Caldwell (2001) showed the growing role of change agents in significance and complexity. He investigated, in 98 companies in United Kingdom, the roles of Human Resource (HR) personnel and proposed four types of HR change agents: champions, consultants, adapters, and synergists.

Champions can be top executives who plan, lead, and implement strategic transformative human resource changes. They initiate the change and provide the vision and the awareness to change.

Caldwell (2003) attempted to explore the key aspects of change leaders and managers. Leaders advocating for changes in HR have the following characteristics:

*“inspiring vision, entrepreneurship, integrity, honesty, learning from others, openness to new ideas, risk taking, adaptability and flexibility, creativity, experimentation, and using power”*  
(Caldwell, 2003, p 288).

Moreover, due to today’s competitive markets, the task of change managers has become more challenging. In addition to their routine managerial activities, they empower others, resolve conflicts and problems, and manage resistance. They have their own networks and knowledge of the business. They are team builders, are open to new ideas, and learn from others. They are flexible and have the ability to adapt to change. However, Caldwell (2003) discovered an overlapping nature of the attributes of change managers and change leaders that strongly suggested that, although their roles are quite different, they are complementary. From the earlier discussion of champion behaviours and characteristics, we can tell that these two (change leaders and change managers) are best positioned to be considered change champions who encourage change within their departments and seek to implement it.

### 2.4.3 Technical Champions

Technical champions are champions that have the technological knowledge to develop the innovation (Day, 1994). They have been observed to work more in the early steps of the innovative project’s progress (Frost and Egri, 1991). As mentioned earlier, technical champions have certain characteristics that help them fulfil their informal championship role more effectively. They value learning (Chrusciel, 2008) and are competent, analytical, and creative, which helps them in solving problems they encounter throughout the innovation process (Day, 1994).

### 2.4.4 Project Champions

Lichtenthaler and Ernst (2009) noted, “The project champion builds a bridge between the technical champion and the executive champion by distilling creative ideas, translating them into a general language, and promoting them within the firm” (Lichtenthaler and Ernst, 2009, p 373), which leads the project to be approved through the champion’s informal persuasive cooperative strategies (Markham, 1998).

#### **2.4.5 Executive Champions**

Through being open to innovations and providing necessary resources for innovative projects, executives may become champions. Executive champions usually contribute to the final steps of the innovative project (Frost and Egri, 1991). The presence of top management champions significantly reduces the possibility of projects being cancelled, and they support projects that have direct impact on profitability (Markham, 2000). They have knowledge of and experience in the business. Projects that usually require the support of executive champions are those that are costly and have to do with establishing a new strategic path for the organization. Executive champions possess certain characteristics that are instrumental to the success of innovative projects. Some researchers have described them as informal transformational leaders who have a vision for the organization (Howell and Higgins, 1990a) and motivate and inspire other members (Howell and Shea, 2006). While these characteristics and behaviours may seem to be normally expected of any executive or manager, the way in which they apply these skills toward furthering an innovative project makes them a champion and a decisive contributor in the successful implementation of strategic innovative projects.

## **2.5 Champions and Organizations**

### **2.5.1 Organizational Levels**

In her paper about creating highly innovative ventures from “136 internal corporate ventures” (Day, 1994), Day (1994) defined three types of champions in terms of where each emerged from within organizations. She argued that different types of ventures require different champions and that principle champions (individuals with the biggest contribution to the project) emerge from all levels within organizations. She classified champions in three major classifications: bottom-up

champions (similar to the technical champion), top-down champions (similar to the executive champion), and dual role champions (similar to the project champion). The bottom-up champions are champions from the lower levels of the organization because they have access to the source of information regarding the technological and market interfaces due to their informal networks. They may have the most current and needed knowledge and expertise that allows them to contribute to the innovation outcomes. However, they do not have direct authority or significant formal power within the organization. They are more associated, she argued, with more radical innovative ventures. The top-down champions are top managers who have more knowledge, experience, and commitment. Ventures that require top management champions are those that are costly and visible (reflected in the number of years that the project is under development, for example) and represent new strategic direction for the organization. Dual role champions arise from middle and upper management because they usually have the ability to tackle the problems of power and information asymmetries; therefore, they seem to be needed in market-driven and highly innovative and uncertain ventures. They made up more than 36% of champions in her study.

Supporting the idea of the dual role champion, Esteves et al. (2004) studied project champions, project managers, and project sponsors in Enterprise Resource Planning (ERP) and argued that project champions sometimes have dual roles: as a project champion and sponsor at the same time. This finding was based on a web survey that revealed that respondents perceived the project sponsor as the champion because he or she had the authority to bring resources, control costs, communicate effectively, choose the right people and influence them, and influence the business as well.

### **2.5.2 Organizational Units**

Within organizations, champions are found in different units and departments such as general management, marketing, production, and customer service (Markham, 2000) . Therefore, one can safely assume that champions could emerge from anywhere within larger organizations as well as in small firms. It has also been indicated that the chances of emergence of champions is the same between technology and market-driven organizations (Markham and Griffin, 1998). Markham et al. (1991) examined 213 championed projects in 21 U.S. firms specializing in steel, industrial,

agricultural, chemical, and packaged processed foods. The study concluded that champions can be found in various functional areas within organizations. For example, in 6% of the projects, the champions were general managers, 15% of the projects involved R&D champions, and 14% involved champions from marketing. Champions who were possible users of the innovation were found in 8% of the projects, and 7% of champions came from production and operations. Moreover, champions can be found in information systems units (Beath, 1991), resource planning (Esteves and Pastor, 2002), and technological, product, process, and other kinds of innovations in various departments within organizations (Roure, 2001, Shim and Kim, 2004).

## **2.6 Defining Champions**

Few studies within the literature are focused primarily on champions, who they really are, and their characteristics and behaviours (Markham and Aiman-Smith, 2001). In order to comprehensively define champions, there is a need to figure out how champions have been described and defined throughout the literature. Before providing the different definitions of “champions” in the literature, it should be mentioned that the majority of the definitions of champions are narrowly defined partly because the studies that mentioned them were conducted in a certain focus area which was not necessarily on champions themselves. Much of the research on the champion’s role, for example, has been conducted by researchers who were more interested in other success factors in the organizational change and innovation rather than champions, which have come to be known as one of those key success factors (e.g. Esteves and Pastor, 2001).

Schon (1963) described a champion as “typically one person who has considerable power and prestige, knows how to use the company’s informal systems or relationships, [and] has interests that cut across different functions” (Schon 1963, cited in Markham et al., 1991, p 219). Since then studies on champions have offered numerous descriptions of champions ranging from depicting them as heroes (Schon, 1963) to individuals who decisively contribute to the project (Howell and Higgins, 1990a, Rothwell et al., 1974, Roure, 2001). Champions’ activities have been described as persuasive in getting top management interested in the project (Chakrabarti, 1974), creative and risk taking (Maidique, 1980), selling ideas to top management to obtain resources (Smith et al.,

1984), mediating between the sponsor and the expert (Chakrabarti and Hauschildt, 1989), decisively contributing to the innovation (Esteves et al., 2004, Howell and Higgins, 1990a, Rothwell et al., 1974, Roure, 2001), and strongly advocating for a project (Ettlie et al., 1984, Markham et al., 1991). This variety suggests that, although “champion” is used and described in multiple contexts, the literature contains ambiguity (in scope and nature of the definition) when describing the characteristics or behaviours of people who are said to embody this term (Markham et al., 1991) or other aspects or events associated with them. This explains why the notion of champion has been viewed differently by different authors over time, as evidenced by the various terms that refer to champions such as project manager, project leader, chief information officer, project sponsor (Cook et al., 2002, Esteves and Pastor, 2002, cited in Kamal, 2010), project champion (Kamal, 2010), idea champion (Mullins et al., 2008), and entrepreneur (Day, 1994). The conclusion is therefore that a widely accepted definition for champions has not yet been provided that describes champions clearly and outlines their identifying characteristics. Roure (2001) argued that there is a variation in the definition of champions in the literature; therefore, there is a need for a clear definition of champions and a clear identification process. Table 2-3 presents a list of definitions that have been used to describe champions throughout the literature. These definitions are presented in chronological order. Various labels have been used to describe these individuals (e.g., product champion, network champion, information technology champion) depending on the context of the study. Nevertheless, all these definitions describe a common set of keywords that are attributes or characteristics of champions. The most common keywords from each definition have been extracted in order to find out how the understanding of champions evolved over time and which keywords were used more often which enables us to more rigorously study the effects of champions over time.

Table 2-3: Definitions of Champions Found in the Literature

Authors	Description of champions	Keywords
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(Mullins et al., 2008, p 452)	“Idea champions are individuals within organizations who support the use of a novel idea or technology, and whom researchers are coming to view as essential for the development and implementation of innovations”	Supportive Decisive contribution
(Gupta et al., 2006, p 511)	“new venture product champion (NVPC) is as an individual who has the technical skill, market knowledge, and the experience of creating similar firms” “network champions (NC) are defined as those persons who are involved in a new inter-organizational business model that identifies one or more innovations as essential features in the development process”	Competent Industry experience Evaluator/Analytical
(Howell and Higgins, 1990a, p 317, Howell and Shea, 2001, p 15, Howell and Shea, 2006, p 181)	“individual who informally emerges in an organization [...] and makes a decisive contribution to the innovation by actively and enthusiastically promoting its progress through the critical organizational stages”	Emerge informally Decisive contribution Active/Enthusiastic Advocates for innovation
(Esteves et al., 2004, p 2-3)	“any individual adopts an idea for a new technological innovation and who makes a decisive contribution to the innovation by actively and enthusiastically promotes its implementation and progress through critical stages in order to obtain resources and/or active support from top management”	Decisive contribution Active/Enthusiastic Advocates for innovation Persuasive
(Roure, 2001, p 666)	“any individual who made a decisive contribution to the innovation by actively and enthusiastically promoting its progress through critical stages in order to obtain resources and/or active support from top management”	Decisive contribution Active/Enthusiastic Advocates for innovation Persuasive
(Markham, 2000, p 229-230)	The championing role is “one in which an individual strongly advocates research and development (R&D) project and generates positive behavioural support for it or work on its behalf. The championing role exists even when others in the organization are neutral about or opposed to supporting the project”	Strong/Aggressive Advocates for innovation Persuasive Persistence
(Markham, 1998, p 491)	“People who (1) adopt the projects as their own and show personal commitment to it, (2) contribute to the project by generating support from other people in the firm, and (3) advocate the project beyond job requirement in a distinctive manner. Champions achieve distinctiveness by accepting risk, vigorously supporting or advocating the project, helping the project through critical times, overcoming opposition, or leading coalitions”	Personal commitment to innovation Supportive Persuasive Strong/Aggressive Advocates for innovation Risk taker Persistence Diplomatic negotiation

(Rosenau et al., 1996, p 519)	“a person who takes an inordinate interest in seeing that a particular process or product is fully developed and marketed. The role varies from situations calling for little more than stimulating awareness of the opportunity to extreme cases where the champion tries to force a project past the strongly entrenched internal resistance of company policy or that of objecting parties”	Personal commitment to innovation Intellectual stimulation Strong/Aggressive Advocates for innovation
(Beath, 1991, p 355)	“information technology champions are managers who actively and vigorously promote their personal vision for using information technology, pushing the project over or around approval and implementation hurdles”	Active/Enthusiastic Strong/Aggressive Advocates for innovation Visionary Personal commitment to innovation Persuasive
(Markham et al., 1991, p 219)	“a role where individuals are strong advocates for a project and generate positive behavioural support for an innovation during its development or work on behalf of the project in the face of organizational neutrality or opposition.”	Strong/Aggressive Advocates for innovation Influential Persuasive Intellectual stimulation Persistence
(Chakrabarti and Hauschildt, 1989, p 166)	“The Champion (process promoter) acts as a linkage. He has the knowledge of the organization and knows who should be concerned with the innovation, thus connecting the sponsor with the expert. His strength is the ability to translate the technical language of the innovation into one which is commonly used in the organization. By becoming a salesman of the new idea, the champion is able to develop a plan of action. His diplomatic talents provide access to different people within the organization”	Advocates of innovation Industry experience Mediator Diplomatic negotiation Persuasive Social Visionary
(Fischer, 1986, p 13)	“The key characteristic of the product champion is the tension between the individual and what the organization wants.”	Persistence
(Ettlie et al., 1984, p 687)	“a person advocating” for a project	Advocates for innovation
(Smith et al., 1984, p 25)	“Sells idea to obtain resources. The major salesman to management for accelerating progress towards commercialization”	Persuasive Mediator
(Roberts and Fusfeld, 1980, p 8)	“Recognizing, proposing, pushing, and demonstrating a new (his own or someone else’s) technical idea, approach, or procedure for formal management approval.”	Evaluator/Analytical Risk taker Strong/Aggressive Advocates for innovation Mediator

(Maidique, 1980, p 64)	“A member of an organization who creates, defines, or adopts an idea for a new technological innovation and who is willing to risk his or her position and prestige to make possible the innovation’s successful implementation”	Creative Risk taker Personal commitment to innovation Prestige
(Chakrabarti, 1974, p 58)	“The importance of the role of the key individual or ‘product champion’ lies in getting the management sufficiently interested in the project”	Persuasive Mediator
(Rothwell et al., 1974, p 291)	“Any individual who made a decisive contribution to the innovation by actively and enthusiastically promoting its progress through critical stages”	Decisive contribution Active/Enthusiastic Enthusiastic Advocates of innovation
(Schon, 1963, p 84)	“Essentially the champion must be a man willing to put himself on the line for an idea of doubtful success. He is willing to fail. But he is capable of using any and every means of informal sales and pressure in order to succeed.”	Personal commitment to innovation Risk taker Strong/Aggressive Advocates for innovation Persuasive

By analysing the definitions of champions in Table 2.3, the researcher uncovered a number of common key characteristics and behaviours among champions. First, most of the definitions of the champion stressed the importance of the champion’s role in strongly or aggressively promoting and advocating innovative projects. This will lead to the second common feature of championing, which is that a champion promotes innovations by being persuasive and by influencing top management. When it comes to the champion’s role in the process of innovation, authors seem to agree that champions contribute decisively to the innovative project by being active and enthusiastic about it and by persisting in the face of difficulties. What actually helps champions to be persistent is that they show personal commitment to the innovation. Table 2.4 shows the most important keywords according to the frequency of their mention in various definitions of champions over time. The above descriptions of champions seem to develop over time in research. Past research on champions in the 1960s, 1970s, and 1980s may not have clearly and in detail defined or described champions as is the case in later years. Many researchers that defined champions did so as a part of their specific research topic and in line with certain aspects that they

were interested in. While this is good for each particular instance, it does not give us an overall comprehensive definition that could apply in different contexts or sufficiently describe who champions are. For example, Chakrabarti (1974) proposed that the activity of getting the management interested in the project represents championing. Ettl et al. (1984), on the other hand, described the person who is advocating for a project as a champion. In these definitions, there is only one characteristic mentioned which describes champions in a specific setting of New Product Development (NPD). In 1989, Chakrabarti and Hauschildt provided a more detailed definition which included more attributes of champions from their own point of view and context. They proposed that acting as a mediator between the sponsor and the technical expert by becoming salesmen of new innovative ideas through their diplomatic talents is actually the core of becoming a champion.

Although these definitions are valid and apply in their own application domain, they do not give an overall sense of champions if they are read by themselves in light of the narrow topic for which they were defined. It was the intention of this research to bring this to light and to provide all the definitions in one place, in order to be able to have an overall sense of what was being conveyed by the literature on champions. Analysing these definitions gave the researcher the opportunity to extract the main keywords that were being attributed to champions and to construct a working definition. By taking into account the different descriptions of champions in past research and by synthesizing the descriptions in Tables 2-3 and 2-4, the researcher has developed the following working definition of a champion:

*Champions are individuals who decidedly contribute the most to the success of innovations, are able to persuade and influence others to support the innovation, are personally committed to the success of the innovation, persist in the face of problems, strongly and aggressively promote and advocate the innovation, and are active and enthusiastic about the innovation and its successful implementation.*

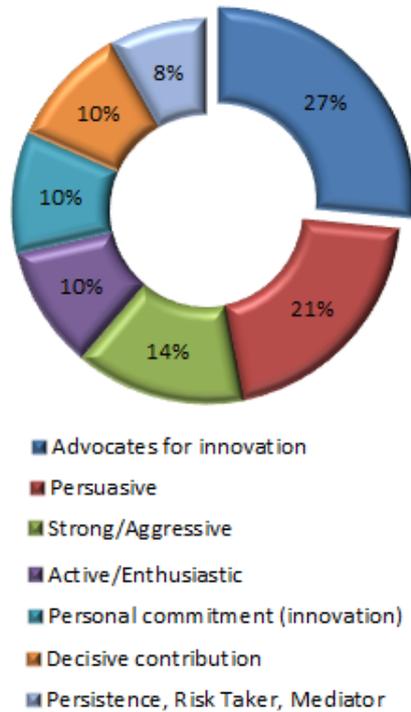


Figure 2-1: Top Champion Characteristics

Table 2-4: Keywords in the Definitions of Champions

Keyword	Frequency
Advocates for innovation	13
Persuasive	10
Strong/Aggressive	7
Active/Enthusiastic	5
Personal commitment to innovation	5
Decisive contribution	5
Persistence, Risk taker, Mediator	4
Diplomatic negotiation, Intellectual stimulation, Industry experience, Evaluator/Analytical, Supportive, Visionary	2
Competent, Emerge informally, Influential, Social, Creative, Prestige	1

### 2.6.1 Identification of Champions

Many researchers have discussed the need for clarity when it comes to identifying champions and the level that needs to be reached before someone can be called a champion of an innovative project. For example, Markham et al. (1991) showed that there have been conflicting views in articles involving champions and innovation on “the degree to which someone must engage in these behaviours before (s)he would be considered to be ‘championing’ an innovation” (Markham et al., 1991, p 218). Additionally, Esteves et al. (2004) pointed out how the term “project champion,” while

used by many papers, does not provide a clear identification process or definition for the term.

Although the existence and contribution of champions have been acknowledged by researchers, only few studies have clearly and carefully explained how those champions were identified. Champions may be recognized and identified through the team members they are working with. For example, in his study of four large firms about the influence of champions on others in support of innovative projects, Markham (1998) revealed that conversation with team members working with champions showed how team members identified the champion of the innovation as the member who exhibited certain characteristics like risk taking. On the other hand, Smith et al. (1984, p 24) used only one interview question in their study to identify champions: "How were you involved in this case?" This is not a good enough question for identifying a champion because the answer could identify anyone involved in the project as a champion although it is known that champions are those individuals who are recognized by everyone involved as having made a key contribution in successfully completing the project. Ettlé et al. (1984), (cited in Howell and Higgins, 1990a) used another question to identify champions: "Is there a person in your firm who is currently advocating consumer retort-able pouch technology?" (Howell and Higgins, 1990a, p 319). Using one question to identify champions may not be enough because champions have different characteristics and behaviours and are not only known for advocating innovative projects alone.

While the studies mentioned above provided their reasoning behind identifying a champion, many other studies did not even report how champions in their studies were identified (e.g. Burgelman, 1983, Chakrabarti, 1974, Galbraith, 1983, Schon, 1963). Early research on champions and innovation may not have been able to consider what we know now about the multi-dimensional role of champions.

Howell and Higgins (1990a) claimed that researchers have been subjectively defining champions rather than relying on measurements that are more reliable and valid. They

suggested that, in many studies where champions are poorly identified, the researchers may not have been studying champions at all. To mitigate this shortcoming, Howell et al. (2005) provided, using the act frequency method, “a 14-item champion behaviour measure composed of three factors: expressing enthusiasm and confidence about the success of the innovation, persisting under adversity, and getting the right people involved” (Howell et al., 2005, p 641) Although many studies have developed and tested similar measures on different champions in different environments and situations, this champion behaviour measure is mostly associated with product innovation champions today (Howell et al., 2005).

The researcher agrees with the view of Howell et al. (2005) that, if champions have not been identified reliably in earlier empirical studies on champions, there is a danger that those studies may not be studying champions. In order to identify champions more thoroughly, empirical studies may have to follow a more rigorous process, for example, a process involved identifying champions based on the testimony of project members who worked closely with the champion.

## **2.7 Summary**

This chapter provided a comprehensive overview of champions. First, it covered the need to study champions and identified the shortcomings found in the literature that reveal why a clearer understanding of champions is not only beneficial but necessary when it comes to innovation. Then, a discussion of champions’ emergence and benefits was presented, followed by a discussion of their characteristics and behaviours, instrumental role(s), and the different definitions of champions found in the literature. The researcher further developed a classified set of characteristics and behaviours of champions which consist of four contexts: knowledge, leadership, change, and other identified behaviours and characteristics. The researcher also presented a comprehensive working definition of champions which was developed from the key word analysis of 20 definitions of champions found in the literature. In the next chapter, the researcher will present literature on innovations within organizations where a working definition of organizational innovation is adopted.



## **Chapter 3      Innovations within Organizations**

### **3.1 Introduction**

A comprehensive understanding of innovations within organizations can contribute to management research and practice (Leifer et al., 2000, Van de Ven, 1986). Innovation is a type of change which may lead to the organization's growth and effectiveness as well as a change in its status quo by taking advantage of new opportunities or seizing existing ones (Damanpour and Schneider, 2009, Drucker, 1985). This type of change considers new ideas and tries to apply them within a new setting or context. In the case of the current research, this context happens to be the organizations that may choose to either generate or adopt innovations.

Organizations generate or adopt innovations because of what innovations can bring to these organizations. Innovative organizations can increase the efficiency, effectiveness, and quality of what they do in their services, products, or processes, thereby helping to achieve their goals. An organization's decision to create new innovative ideas or adopt them determines how they can not only survive but thrive, especially in today's changing business climate. Innovations allow organizations to become successful within their respective industry and marketplace (Damanpour and Schneider, 2006). With the scarcity of resources and the prevalence of global competition and rapid technological advances, organizations have to innovate in order to be competitive, but fostering innovations within organizations is challenging (Damanpour and Schneider, 2006).

Throughout the literature, researchers have tried to identify the environmental and organizational factors that encourage or prevent the implementation of innovations within organizations (e.g. Damanpour and Schneider, 2006, Damanpour and Schneider, 2009, Kimberly and Evanisko, 1981, Klein and Knight, 2005). Since this thesis partly focuses on the association between champions and innovations, it is important to review and clarify what we mean by innovations, the process of innovation, types of

innovations, and the different perspectives in looking at innovations within organizations.

The term *innovation* has been analysed from different perspectives in the literature. The focus of this chapter will be on the literature examining innovations within organizations. First, the definition of *innovation* and the process of innovation will be presented. Then, characteristics of innovations and factors influencing the adoption and generation of innovations will be discussed and champions' contributions will be stated in these characteristics and factors. The chapter will present details on how the change affects the pace of innovation and conclude with a discussion of the types of innovations and how champions are related to innovations.

### 3.2 Defining Innovations

A review of research on innovation in organizations suggests that studies' results are inconsistent (Damanpour and Wischnevsky, 2006). For example, Tidd (2001) stated that after 40 years of research on innovations in organizations, there is still no compatibility when it comes to its theories. Sharing the same view, Garcia and Calantone (2002) critically looked at the innovation typology and innovativeness terminology in the literature and showed how the definition of *innovation* is not clear. Similar terms, such as *radical*, *really-new*, *incremental*, *imitative*, and *discontinuous* are used interchangeably in the New Product Development (NPD) literature to refer to innovations (Garcia and Calantone, 2002). Given these inconsistencies, people researching the topic would have a hard time comprehending the material, especially when they read the results of empirical studies that may appear conflicting (Garcia and Calantone, 2002).

*Innovation* is a complex term that has been studied from different points of view in various fields of study (Damanpour and Schneider, 2009). Innovation can be described from the point of view of the industry, the organization, and/or the individual (Damanpour, 1996). The focus of this study is on *organizational innovation*, which can be defined as the creation and/or adoption of ideas and behaviours that are new to

the organization (Daft, 1978, Damanpour, 1996, Damanpour and Evan, 1984). These new ideas can be turned into new products, new services, and new processes internally and externally to the organization that generated the idea. However, organizations that take advantage of ideas developed by other organizations are allowed to use the new idea(s) internally only. The intellectual property of the new idea belongs to the original innovator, and the innovator alone has the right to its commercialisation. In this definition, innovation is perceived as a method of organizational change by generating or adopting new ideas and/or behaviours. Significantly, a differentiation also exists between innovation generation and innovation adoption. This differentiation will clarify some inconsistency in the innovation research when it comes to the discussion of the process of generating and/or adopting innovations.

In the next sections, the researcher will discuss the process of innovation: idea generation and realisation, innovation adoption decision, and finally innovation implementation and full adoption. In addition, the researcher will explore the role of champions at each stage.

### **3.2.1 Idea Generation and Realisation**

Roberts (1988) and Afuah (2003) described innovation from the innovation generation perspective and defined it as the creation of an idea or invention and its development to a useful application. Generating innovations is a creative process through which new ideas are put together in a novel way that may result in an invention that was unknown before (Duncan, 1976). This stage, known as the initiation stage, includes all the activities prior to the decision to adopt the innovation. The organization becomes aware of the idea and begins developing an attitude towards it.

The initiation stage includes the following steps: awareness, evaluation, intention, and consideration (Frambach and Schillewaert, 2002). It begins with recognising the need for the innovation and evaluating its benefits and appropriateness to the organization

(Duncan, 1976, Rogers, 1995). The generation process includes all the activities and efforts to develop new ideas and put them into use (Roberts, 1988) which means creating an innovative project based on the new idea. These activities include realising the idea “opportunity”, researching it, designing the innovation, and considering commercialisation possibilities (Roberts, 1988, Tornatzky et al., 1990). It also involves decision-making and problem-solving that is associated with the development of these innovative ideas for new products or processes (Saren, 1984, Wolfe, 1994). The generation of innovation aims to contribute to the effectiveness and competitiveness of an organization by developing a new opportunity or by making use of an existing idea in novel ways (Drucker, 1985) in the context of the industry or market where the organization exists.

When it comes to champions’ role in innovation generation, Schon (1963) stated that “the new idea either finds a champion or dies.” (Schon, 1963, p 84, cited in Howell and Boies, 2004) The champion could contribute in this area in two ways. First, technical champions could use their knowledge and expertise to develop these innovative ideas and advocate for them in the organization. Alternatively, the champion could identify an innovative idea or behaviour developed by a technical innovator and actively and enthusiastically advocate for it within the organization (Day, 1994, Howell and Higgins, 1990a). This implies that the champions are an important factor when it comes to innovation generation.

### **3.2.2 Innovation Adoption Decision**

For organizations that purely adopt innovations, an implied step is that they must have been exposed to the new idea through one of the members of the organization (potentially the champion). The member may have heard of the idea from industry sources or discovered a new product on the market. In either case, the member considers the idea to be important (or innovative) and creates a proposal for an innovative project for the adopting organization. The innovation adoption decision occurs after the initiation stage (idea generation and realisation) and before the innovation implementation stage (Frambach and Schillewaert, 2002). Innovation

adoption can be described as “the decision to use the innovation” (Klein and Knight, 2005, p 243), although Rogers (1995) specified that adoption is “the decision to make full use of an innovation as the best course of action available” (Rogers, 1995, P 21). When it comes to the process of adoption, he defined the adoption process as:

*“the process through which an individual or other decision-making unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision.”* (Rogers, 1995, p 21)

The way in which decision-makers in the organization perceive the innovation influences their assessment of the market and the propensity to adopt innovations such as new products (e.g. Rogers, 1995) . The perceived benefits of the innovation the organization is considering should be greater than the other alternatives (Anderson et al., 1999). Therefore, the perceived net benefit of the innovation affects the organizational adoption (Mansfield, 1993, Robinson, 1990). The perceived compatibility, observability, complexity, and trialability (Rogers, 1995) as well as the perceived uncertainty (Nooteboom, 1989) are also factors affecting the decision of adoption. Innovation adoption contributes to the effectiveness and competitiveness of an organization by changing it so that it can catch up with new changes that exist in its market, industry, or the world. The adoption is a transfer from the present state of the organization before the change to the future state after the change (Nadler and Tushman, 1997).

The involvement of members of an organization in informal networks helps in spreading positive information about an innovation, which might affect the probability of the adoption in a positive way. These informal networks help in connecting organizations within the same industry or in different industries. The more such information is shared informally, the more likely it is that the organization will be open to new ideas (Frambach and Schillewaert, 2002). Researchers have uncovered the presence of champions in these informal networks inside and outside the organization;

likewise, they have discovered that champions play a role in obtaining information that will help gain the approval of the organization for the innovative projects they are advocating (Coakes and Smith, 2007, Howell and Shea, 2001). In other words, champions play a role in convincing other members that the change they are advocating for is good for the organization.

For example, Frost and Egri (1991) stated that “without dedicated champions, ideas for product innovations may remain dormant for future development and implementation” (Frost and Egri, 1991, p 270, cited in Howell and Boies, 2004). Project champions are one type of champions that take risks to advocate for the innovative projects as well as facilitate their approval by top management. They use informal persuasive cooperative strategies (Markham, 1998) and show persistence in moving forward by overcoming difficulties facing the innovation (Howell et al., 2005). The favourable attitude of top managers towards innovations facilitates the adoption decision because they are in a position of power that allows them to be aware of the financial resources of the organization as well as facilitate access to it. These top managers can often function as executive champions and known to be open to new ideas and opportunities (Howell et al., 2005). They often have a clear vision of the potential of the innovation, and they communicate this vision to others, inspiring them (Howell and Higgins, 1990a). In turn, others would support these initiatives and understand why the organization should adopt the innovation. They also express confidence in the innovation, which means they point out the innovation’s benefits to the organization (Howell et al., 2005). Doing so helps decrease the uncertainty surrounding the innovation to be adopted. These activities are significant because they reveal that, although executive champions are in a position of power, they use cooperative strategies rather than confrontational strategies to influence their targets, which leads to greater compliance and willingness to accept these new innovative projects (Markham, 1998).

### 3.2.3 Innovation Implementation and Full Adoption

Innovation generation and the decision to adopt are followed by the implementation of the innovation (Wolfe, 1994). Innovation implementation is “the critical gateway between the decision to adopt the innovation and the routine use of the innovation” (Klein and Sorra, 1996, p 1057). Sometimes organizations make the decision to adopt changes but fail to implement them successfully (Klein and Knight, 2005, Carnall, 2007). The implementation process includes all the activities and actions that aim to make some modifications in the innovation and/or the organization adopting it so it can be used in that particular setting. This process includes the initial use of the innovation until it is fully adopted and becomes a routine activity in the organization (Duncan, 1976, Glynn, 1996). The implementation fails when, despite the organization’s decision to adopt, the innovation is used by members of the organization rarely and/or less consistently than the level of use required to realise the benefits of the innovation. As such, implementation failure could be seen as the failure of the organization to effectively use the innovation to its maximum potential (Klein and Sorra, 1996).

For example, consider a case in which a hospital decided to adopt the latest technology through buying the very latest laser machine that just became available on the market. If they continue using it regularly and hospital staff become skilful at it and know its benefits, then this is considered a successful implementation of this innovation in the hospital. However, if the hospital bought it, but it has not been used for months, the hospital is considered successful in deciding to adopt it, but failed to implement it successfully and fully adopt it.

This example leads to an understanding of what it means to fully adopt an innovation. *Full adoption*, while a relative term, implies a case in which the innovation is achieving what it was envisioned to achieve. In other words, this could mean hitting the usage goals and/or gaining a technological superiority intended as a marketing strategy.

Klein and Knight (2005) showed that the decision to adopt innovations is much easier than the process of implementation, which is more complicated. They argued that implementation involves a number of challenges such as innovation complexity, resistance to use the innovation, and the mandatory requirement of implementation. So, it is no surprise that some studies have estimated that 50% or more efforts to implement technological and managerial changes actually ended in failure (e.g. Aiman-Smith and Green, 2002). Carnall (2007) viewed the implementation of change as challenging, time consuming, and entails culture, value, and mind-set change. He argued that achieving change lies in behaviour, if people are supported, trained, and rewarded, there will be a change in their behaviour which will lead to change in their mind-sets and eventually will have an impact on the culture of the organization. This means that a number of factors aid the successful implementation of innovations, such as a positive implementation climate, understanding the importance of the implementation, managers' support of innovation, managerial patience, financial resources for training and launching, and learning orientation (Klein and Knight, 2005).

When it comes to the role champions play, research has shown that champions (Executive, Project, and Technical) are instrumental in the successful implementation of innovations (Howell and Shea, 2001). For example, project champions show support in developing the innovation and helping the project through critical times (Markham, 1998). They continue to be involved in the innovation process until it is fully implemented, even when other members of the organization say it would be difficult to accomplish (Howell et al., 2005). The champion's ability to communicate in order to obtain information and share it with the innovation team members as well as his or her belief in the team's abilities and the innovation contribute positively to the team's confidence, individual performance, and the success of the innovative project in general. Technical champions have technological knowledge and creativity that help in developing the innovation and solving the issues they encounter throughout the innovation process (Day, 1994); therefore, their contribution is more noticeable in the earlier stages of the project development. The contribution of executive champions, on the other hand, seems to be more noticeable in the later stages of the development

of innovative projects (Frost and Egri, 1991). They contribute to the innovations by being open to innovative ideas and facilitating access to resources and the support of the rest of the organization. The following quotation by (Quinn, 1985) summarizes these different roles technical, project, and executive champions play in the implementation of innovations:

*“For a high probability of success, an innovation needs a mother (champion) who loves it emotionally and will stay with it when others would give up, a father (authority figure with resources) who can support it, and pediatricians (experts) who can see it through technical difficulties.”* (Quinn, 1985, p 74, cited in Day, 1994)

In the following sections, innovation characteristics and factors that influence innovation adoption and implementation will be discussed. In addition, the researcher will present briefly the role of champions in each innovation characteristic or factor (if applicable).

### **3.3 Innovation Characteristics**

Many studies examined the influence of innovation characteristics on innovation adoption and/or generation (e.g. Damanpour and Schneider, 2009). These studies have revealed that innovation characteristics, such as innovation cost or relative advantage, are predictors of innovation adoption or generation. This section will discuss three characteristics: innovation cost, innovation complexity, and innovation impact. The role of champions in each innovation characteristic will be briefly highlighted.

#### **3.3.1 Cost**

Innovation cost has been considered a critical factor when it comes to the organization’s decision to generate or adopt an innovation. Some expect cost considerations to negatively affect innovation adoption because the more costly the innovation, the less likely the organization would take the risk of implementing it

(Downs and Mohr, 1976, Rogers, 1995). However, others have empirically studied the relationship between project cost and its implementation rate in various organizations and found a positive correlation (Damanpour and Schneider, 2009). This correlation indicates that, while the cost may not show whether the change is occurring, it certainly affects projects overall and is considered a factor in deciding whether or not to move forward with innovative projects.

When it comes to securing resources and covering the cost for innovations, champions often use their position in communication networks within the organization to obtain resources to advocate for innovations (Frost and Egri, 1991). Executive champions, on the other hand, provide the necessary resources for innovative projects, and their support is important especially in projects that are costly and are strategic for the organization (Day, 1994).

### **3.3.2 Complexity**

Complexity is another characteristic of innovations that affects their adoption. Innovation complexity is described in the literature as the degree of difficulty in understating and using the innovation (Rogers, 1995). This complexity could be represented in the intellectual difficulty of understanding the innovation and its type, or in the degree of newness and test-ability of the innovation (Gopalakrishnan and Damanpour, 1994, Pelz, 1985, Rogers, 1995).

Technical champions are known to have the necessary technological knowledge to help in the innovation process, especially during the early stages of developing the innovation. They are creative and analytical, which allows them to solve the issues being encountered during the innovation process (Day, 1994, Frost and Egri, 1991). Therefore, they help in understating innovations that are perceived as complex or difficult to use.

### **3.3.3 Impact**

The impact of the innovation has been explained in different ways. An innovation's impact could be seen simply in its profit or social advantages. Alternatively, it could refer to the advantages gained in implementing a certain program or new technology which leads to the enhanced effectiveness or efficiency of executing work in the organization, thereby helping the organization to achieve its goals. For example, the Electronic Health Record (EHR) system has a notable impact on the organization adopting it because it provides time efficiency for nurses and physicians. Also, it reduces medical errors, which is important since one of the primary goals of hospitals is patient safety. This positive impact generated from adopting the innovation could lead to the improvement of the organization among its customers or in the organization's status in the industry (Nystrom et al., 2002, Rogers, 1995). Having a positive impact influences the adoption of the innovation because it helps the organization meet its goals and objectives (Damanpour and Schneider, 2009).

Damanpour and Schneider (2009) empirically tested the relationship between innovation adoption and innovation characteristics. One of the innovation characteristics included in the study was the innovation's impact, defined as the potential benefit and effectiveness of the innovation to the organization. The result showed that the decision to adopt the innovation was positively affected by its potential impact on the organization more than the innovation's low cost or relative ease in adoption. Damanpour and Schneider (2009) found that decision-makers in the organizations would normally choose the innovation that would have a high potential impact on the organization, whether it impacted the organizational members or its customers depending on the type of innovation. It should be noted here that the real impact of the innovation would not be evident until it was fully adopted and used within the organization; up until that point, all impact is potential and perceived.

Champions are not only described as being open to and encouraging change (Howell et al., 2005), but they are also known to be aware of the potential impact of the

innovative projects on the organization and the benefits they can offer to the organization. Therefore, they persuade others to support these innovations that have a potential benefit to their departments (Markham, 2000) or the organization as a whole. Champions are not only good at initiating change that has a positive impact on the organization, but they are also helpful in protecting innovative projects from cancellation (Markham, 2000). Many studies have highlighted how champions' presence would significantly increase the chances of implementing innovations successfully (e.g. Howell and Shea, 2001, Shim and Kim, 2004). Conversely, the chances of successfully implementing innovations would decrease if champions were not in the picture. Champions' impact has also been shown during the process of innovation. The ability of project champions to express confidence in the innovative project, persist under difficult circumstances, and get the right individuals involved in the process all positively impact the project performance (Howell and Shea, 2001).

### **3.4 Factors Affecting Innovation**

Several factors influence the adoption or generation of innovations within organizations. Most of these factors can be seen as internal to the organization, such as the organization's climate, expertise, financial status, and people's perception of the innovation. Other examples of the factors that are related to the organization itself are the centralisation, formalisation, specialisation, complexity, and size of the organization (Damanpour, 1996). The factors that appeared most prominently in the literature will be discussed here, and they are slack resources, organizational complexity, organizational size, and managers' perception.

### 3.4.1 Slack Resources

The relationship between innovation adoption and slack resources has been explored and discussed in the literature, with researchers expressing that slack resources are an important determinant of innovation (e.g. Damanpour, 1987). Nohria and Gulati (1996) defined slack resources as:

*“the pool of resources in an organization that is in excess of the minimum necessary to produce a given level of organizational output. Slack resources include excess inputs such as redundant employees, unused capacity, and unnecessary capital.”* (Nohria and Gulati, 1996, p 1246)

This definition clearly shows how excess or slack resources allow the organization to adopt or generate innovations. Larger organizations typically have more slack resources, allowing them to explore new experiments or innovative projects especially when it comes to radical innovations, which require a higher financial commitment (Ettlie and Rubenstein, 1987). They also have the slack resources to cover the failure of innovations (Damanpour, 1996). Oerlemans and Pretorius (2008) demonstrated that a higher level of slack led to higher levels of innovations within organizations. However, some researchers have argued that too much is as bad as too little of slack resources when it comes to innovations and their adoption or generation. Very little slack resources will prevent the organization from being able to adopt or experiment with innovative projects especially when success is not certain, while too much will breed inefficiency and will give a room for adopting too many innovations that might be unnecessary or not good enough for the organization (Nohria and Gulati, 1996).

Champions play a role in securing resources for innovations by convincing others to commit to the innovation or influencing top management that a certain innovation is good for the organization. Top management secures human and financial resources for the innovation, so gaining their dedication would become easier if the organization had slack resources. However, if the slack resources are limited, it is logical to assume

that the champion's task in convincing top management to provide resources to the innovation would become more difficult, especially when success is uncertain.

### **3.4.2 Organizational Complexity**

In addition to the complexity of the innovation, the complexity of the organization itself (e.g. in its structural ranks, variety of professionals, or services provided) must be considered. Some researchers found that the diversity of knowledge in these organizations (due to the variety of professionals and specialists) promotes an environment that leads to creativity and the development of new ideas (Damanpour, 1996). One might assume that this complexity shown in the variety of professionals and knowledge as well as in the organizational structure is more likely to exist in larger organizations than in smaller organizations, therefore, fostering innovations. Surprisingly, one of the results of Damanpour's (1996) study is that the structural complexity of the organization was found to influence innovation more positively in small organizations than in larger ones. Whether this complexity exists in small or larger organizations, it might be a suitable environment for champions' emergence and participation in advocating for innovations because champions like to work within innovative environments and work with other innovators (Howell et al., 2005). Such a situation allows them to communicate with others to gain information for persuasion and evaluation to be able to advocate for innovations.

Organizational complexity may have a more positive effect on certain types of innovations and on certain stages in the process of innovation than others. For example, Damanpour (1996) showed that organizational complexity had a greater effect on the implementation of innovation than on the initiation of innovations. He further demonstrated that the structural complexity of the organization is more positively related to radical and technical innovations than to incremental and administrative innovations.

On the other hand, a more recent study showed that organizational complexity has no effect (either positive or negative) on innovation adoption (Damanpour and Schneider, 2009). This finding indicates that, although organizational complexity may have a positive effect on certain types of innovations in certain type of organizations, it may have no effect whatsoever on other types of innovations and organizations. While these results may not be encouraging, they do indeed show the complex nature of the overall innovation adoption landscape within organizations.

### **3.4.3 Organizational Size**

Organizational size is also considered an important factor when it comes to innovations within organizations (Camisón-Zornoza et al., 2004). Researchers have examined this connection between the size of the organization and its relationship to innovations with mixed results.

Some researchers have uncovered a positive correlation between the size of the organization and innovation fostering (Damanpour, 1992, Ettlie et al., 1984, Kimberly and Evanisko, 1981). This group of researchers has asserted that larger organizations are better at fostering innovations because they have greater financial resources, capabilities, and diverse knowledge drawn from a more diverse set of expertise and specialities (Damanpour and Evan, 1984, Nystrom et al., 2002). Moreover, larger organizations are more likely to take risks because they are more capable of covering the losses of unsuccessful innovations compared with smaller organizations which may not be able to initiate certain costly innovations (Damanpour, 1992, Hitt et al., 1990). Kimberly and Evanisko (1981) showed that increased organizational size facilitates the adoption of innovations and asserted that organizational size is an excellent predictor of the number of innovations that can take place within the organization.

On the other hand, other researchers suggested a negative correlation between organizational size and innovation (e.g. Wade, 1996). From a small and medium-sized enterprises point of view, some researchers have argued that since smaller firms have

greater flexibility, they can more easily accept and implement innovations (Damanpour, 1996). This flexibility and relative ease has been demonstrated in the process of approving decisions to adopt innovations and other strategic decisions (Nord and Tucker, 1987). This may be attributed to the environment of these small firms which have less formal organizational structure, rules, and culture than larger organizations. Hitt et al. (1990) suggested that a formalised bureaucratic environment with standardised managerial aspects negatively affects fostering innovations as well as management's commitment to the innovation.

These two different perspectives on the relationship between organizational size and innovation may be attributed to the different conditions and circumstances in which these studies were conducted. Consequently, the relationship between the size of the organization and innovation could be affected by, for example, the type of the organization and the stage of innovation (Damanpour, 1996, Lee and Xia, 2006). Moreover, Camisón-Zornoza et al. (2004) explained that the inconsistent results of previous studies may be due to the way the size of the organization has been measured only partially rather than treating the size of the organization as a variable that has multiple dimensions. They concluded by stating that, when studying the size–innovation relation, moderating factors beyond the method of measurement and sample selection should be taken into account. As a result, we cannot generalise whether organizational size has a positive or negative correlation to innovation fostering; therefore, we should look at the effect of each mediating factor to see what can be learned.

#### **3.4.4 Managers' Perceptions**

Top managers' attitudes towards the innovation also influence the decision to adopt the innovation. Top managers have control over the strategic decisions of the organization, and they are in positions that allow them to be aware of the organization's financial resources. Damanpour and Schneider (2006) empirically explored the adoption of innovations and top managers' influence on the various stages of the innovation adoption in 1200 public organizations in the United States.

The study showed that top managers' attitudes towards innovation in all stages of innovation (i.e. initiation, adoption decision, and implementation) have a strong influence on the adoption of innovations in the organization. For example, top executives can facilitate the implementation of innovation because they will provide support to organizational members, express confidence in others and the innovation itself, and communicate their vision of the potential of the innovation (Mumford, 2000). Champions have been described as supportive, confident, and visionary when it comes to their attitude towards innovations (Howell et al., 2005, Howell and Higgins, 1990a). Successful implementation of innovations requires providing and building social, technical, and intellectual support while forming coalitions among different people involved in the process (Damanpour, 1991, Mumford, 2000).

This section included a discussion of how slack resources allow an organization to be able to handle and foster more innovations, how organizational complexity affects the innovation and how innovations are implemented within the organization, and how champion factors into the equation. Moreover, researchers' findings on the effect of organizational size on innovation were discussed. The section concluded with a discussion on how the positive attitudes of managers towards innovation are important.

### 3.5 Pace of Change

Innovativeness is used as a measure of change in the status quo to show the degree of "newness" of an innovation. For example, radical innovations are perceived as having a high degree of newness, while incremental innovations have a lower degree of newness. However, *newness* is a relative term because it depends on the subjective opinion of the observer (Garcia and Calantone, 2002). The majority of research takes an organization's perspective towards newness, while others look at newness to the world (Song and Montoya-Weiss, 1998), to the industry (O'Connor, 1998), to the market (Kleinschmidt and Cooper, 1991), to the adopting unit (Ettlie and Rubenstein, 1987), and to the consumer (Atuahene-Gima, 1995). It is not clear from the literature

on NPD from whose perspective the innovativeness is viewed and what is actually new to whom. Organizational innovativeness has been defined in the literature as the propensity of an organization to innovate or develop new products (Ettlie et al., 1984), services, and more generally processes. Another definition of organizational innovativeness in the literature is the propensity for an organization to adopt innovations (Damanpour, 1991, Rogers, 1995), although with a lesser degree of innovativeness compared to the organization that first generated the innovation.

In order to make the discussion of innovation clearer and to measure the degree of change more accurately, it is helpful to look at innovativeness from macro and micro perspectives. The macro level is when innovativeness is viewed based on factors that are not related to the organization such as how the innovation is viewed and known in the market, the industry, and the world where changes in the status quo have occurred and been recognized as such (Garcia and Calantone, 2002). Such changes in the industry or world usually occur with highly radical innovations. On the other hand, the micro perspective is when innovativeness is looked at as new to the organization or new to the organization's customer (e.g. Cooper and de Brentani, 1991), and where the changes have occurred, for example, in the organization's processes. Distinguishing between macro and micro levels of innovativeness is important when it comes to recognising whose perspective we are referring to when we talk about the newness of the innovation (Garcia and Calantone, 2002).

Different classifications for innovations based on their degree of change are found throughout the literature. The aim of these classifications is to recognize the characteristics of each type of innovation, making the task of differentiating between types of innovations easier and clearer. The literature is full of different classifications that result in some confusion in the way that, for example, two different types of innovations are labelled the same way, or two similar innovations are called by different terms. Therefore, it becomes difficult for a person when he or she wants to differentiate between which innovation belongs to a certain category. To explain this further, researchers such as Kleinschmidt and Cooper (1991) have created categories

to classify innovativeness as low, moderate, or high. Others have classified innovations into innovations and re-innovations (Rothwell and Gardiner, 1988), or into radical and routine (Meyers and Tucker, 1989). In an attempt to clarify such confusion, Garcia and Calantone (2002) proposed three major classifications of innovations based upon existing literature; they are radical, incremental, and really new.

### **3.5.1 Radical**

Radical innovations are innovations that result in both marketing and technological changes on both macro and micro levels. Radical innovations represent approximately 12.5% of all new innovations (Garcia and Calantone, 2002). Radical innovations often do not cover a known demand but instead create a demand which was previously unrecognized by the customer. This new demand creates new industrial segments with new competitors, organizations, and new market activities.

For example, a new market emerged with Apple Inc.'s introduction of smart mobile phones. As a result, new markets, new organizations, and new customers flourished that were all excited about this new technology, and other companies scrambled to create similar devices to stay competitive. Therefore, this innovation is considered a radical innovation because it caused technological and market changes on both the industry and organizational levels and it satisfied a need that was not previously recognized.

The role of champions in this type of innovation could be shown in their ability to visualise what the innovation will be when it is introduced to the world. Therefore, they take risks in promoting these new ideas as they are confident about the innovation's success in the real world. In this context, two kinds of champions could be very influential. Executive champions could use their vision and leadership qualities and their coalition building capabilities, and technical champions could use their in-depth knowledge and skills in understanding how the market and the organization can handle a certain innovative project.

### 3.5.2 Really New

Really new innovations occur at the macro level and result in either a market or technology change, but not both at the same time. These innovations exist in between the two extremes (i.e. radical and incremental innovations) and represent 50% of all types of innovations (Garcia and Calantone, 2002). For example, the first introduction of the tablet personal computer (tablet PC) to the market as a new product line was considered a really new innovation because it caused changes on the market (macro) level, but not technological changes as it was considered an extension of existing technology (i.e. notebooks and tablets).

The role of champions could be seen in this type of innovation in the way they help during the process of developing this new product line. In really new innovations, all types of champions (Executive, Project, and Technical) contribute in different stages of implementing the innovation.

### 3.5.3 Incremental

Incremental innovations can be defined as *“the adaptation, refinement, and enhancement of existing products and/or production and delivery systems”* (Song and Montoya-Weiss, 1998, p 126, cited in Garcia and Calantone, 2002). Incremental innovations result in either a marketing or technological change but *not* both and occur only at the micro level. They represent 37.5% of technological innovations (Garcia and Calantone, 2002). For example, the improved process in decreasing the waiting time of patients in a medical clinic from one hour to 45 minutes would be considered an incremental innovation. This is because it caused changes to the existing waiting time at the micro level but the effect of change is not technological. The efforts of project champions are more evident in this type of innovation because they promote the new idea until it is fully and successfully implemented.

#### **3.5.4 Imitative**

Although not a major classification, imitative innovations may be confused with incremental innovations. Imitative innovations more often have low technological and market innovativeness but are usually new to the organization. Imitative innovations should not be underrated because those organizations who are considered to be early imitators can increase the pace of change in the market and influence the change of the competitors existing in that particular market (Dickson, 1992).

Considering the previous example of the introduction of tablet PCs, if an organization decided to imitate and introduce a similar tablet on the market, this innovation would be considered an imitative innovation. Although it has a low level of innovativeness, it causes changes and increases the level of competition in the market, especially if the company acts quickly enough.

The role of project and executive champions in this type of innovation is more evident in their way of promoting the idea using their influential and persuasive strategies with the goal of increasing the organization's competitiveness and effectiveness by being an early imitator of the new service or product. For example, the executive champion could see a new tablet PC introduced into the market by another company and see it as an essential strategic move. The executive champion could persuade the board to commit to a similar project to introduce a similar tablet PC to the market immediately in order to maintain their competitiveness.

### **3.6 Types of Innovations**

Different types of innovations have been discussed in the literature. In this section, product/service innovations and process innovations will be discussed, as will the difference between them. Then, other subset types of innovations (i.e. administrative and technical innovations) will be briefly mentioned.

### **3.6.1 Product / Service Innovations**

Product innovations are those classes of innovations that have an impact on or result in tangible goods being produced. They are described as the introduction of new products and/or services to cover an external market or customer need (Ettlie and Reza, 1992, Knight, 1967, Utterback and Abernathy, 1975). On the other hand, service innovations are not physical in nature, cannot be stored or transported, and are usually promises of certain actions that could take place on someone's or something's behalf. Usually a combination of the two is presented and/or provided in order to perform a certain desirable function that the organization intends to provide its customers as a product and/or service. The innovativeness comes into play when these products and/or services are in some ways new to the customer, market, organization, industry, or world. These goods/services could be new technologies, new equipment, or new medicines. In summary, product/service innovations are the final result of a series of actions called processes.

### **3.6.2 Process Innovations**

Process innovations, on the other hand, are new ways to produce these goods and services. They are observable but not tangible compared with product innovations because they involve a set of actions, efforts, changes, and functions that bring about an outcome or a result. Process innovations are described as the introduction of new procedures within the organization's internal operations. For example, the process can lead to a new technology or equipment implemented in the organization's working system to help produce services and products (Ettlie and Reza, 1992, Knight, 1967, Utterback and Abernathy, 1975).

When organizations are still growing and expanding, they adopt product innovations more than process innovations. In contrast, when they are already expanded and mature, they adopt more process innovations. This may be because product innovations are driven by the market and the customers while process innovations are efficiency driven and have to do with the internal organization (Utterback and

Abernathy, 1975). Large organizations have already proven themselves in the industry; however, they need process innovations because of their complicated structure and culture. To prove this point, Damanpour (1996) explored this aspect of complexity and organizational size and its relation to process and product innovations. Damanpour (1996) showed that structural complexity and organizational size are more positively related to process than to product innovations.

Product and process innovations also differ when it comes to their rate and speed of adoption in organizations. Damanpour (1991) explored the patterns of adoption at the organizational level of process and product innovations in 101 banks. One of the conclusions emphasised that banks' product innovations are adopted at a higher rate than process innovations. In addition, product innovations seem to be adopted faster than process innovations. Some researchers have speculated that process innovations could be more difficult to implement since they may require changes within the organization's structure, culture, and management system (Ettlie and Reza, 1992).

### **3.6.3 Other Innovations**

A subset of process innovations, sometimes called technical innovations, are associated with the productive process and related to the use of products, services, or technologies to produce products or render services (Damanpour and Evan, 1984). They are adopted by organizations that have more variety of complex structures. Damanpour (1996) revealed that an organization's structural complexity and size are more associated with technical innovations than process ones.

Administrative innovations are those directly related to an organization's management processes, human resources, and basic work activities (Damanpour and Evan, 1984, Kimberly and Evanisko, 1981). They are generally adopted in large organizations with complex hierarchical ranks because they need these administrative innovations to coordinate between units (Daft, 1978).

Technical and product innovations are found to be more testable and have more advantages than process and administrative innovations (Damanpour and Evan, 1984, Frost and Egri, 1991). They are more observable and require more financial resources at the beginning. For these reasons, product and technical innovations require more managerial commitment (Daft, 1992). Moreover, administrative and process innovations are more specific to the organization adopting them because they require many modifications in the innovation and the organization adopting it such as in its environment, culture, and structure. In contrast, product and technical innovations can be easily imitated by other organizations because they are specific to the industry rather than to the organization (Damanpour, 1992).

### **3.7 Summary**

This chapter provided a comprehensive overview of innovations within organizations. First, the chapter discussed the meaning of innovation and organizational innovation as well as the inconsistency found in the terminology and typology of innovation literature. The process of innovation was described and a differentiation between innovation generation, decision of adoption, and implementation leading to full adoption was provided where the role of champions was emphasised in each stage. Then, innovation characteristics (i.e. cost, complexity, and impact) and factors affecting innovation (i.e. slack resources, organizational complexity, organizational size, and managers' perception) were discussed and champions' contributions were stated in these characteristics and factors. The pace of change (i.e. degree of innovativeness) was explained and three classifications of innovations from this perspective were adopted (i.e. incremental, really new, and radical). These classifications were linked to champions. Finally, two major types of innovations; product/service innovations and process innovations, were described.

## **Chapter 4 Champions and Innovations in Healthcare**

### **4.1 Introduction**

This chapter will present an overview of champions and innovations in healthcare. First, the researcher presents an overview of innovation generation versus innovation adoption in healthcare organizations. Then, the researcher discusses the complexity of healthcare organizations, healthcare innovations, and innovation champions in healthcare including the role of executive, clinical, and managerial champions. Finally, the researcher will reflect on the literature and propose the research questions.

### **4.2 The Nature of Healthcare Organizations**

The healthcare sector is undergoing fundamental changes in both developed and developing countries. In a rapidly changing environment of technologies and medical discoveries, healthcare organizations are facing the challenge of staying up to date (Cohen et al., 2004). At the same time, governments are faced with improving the quality of healthcare services and reducing the continuously rising healthcare costs. Therefore, when it comes to the adoption of healthcare innovations, decision-makers in healthcare organizations need to select innovations that better fit the goal of being fully adopted throughout the organization in order to successfully realise their benefits.

#### **4.2.1 Innovation Generation vs. Innovation Adoption**

Many organizations (in general) tend to do both innovation generation and adoption. When it comes to healthcare, however, some healthcare organizations both generate and adopt innovation, while other more specialised organizations either generate or adopt innovations. Since healthcare practices are often specialised, the innovation generating organizations are separated from innovation adopting organizations. For example, a company such as General Electric (GE) which creates medical devices and tools engages only in innovation generation (as it relates to healthcare) while a typical

hospital uses (adopting in case of innovative devices or tools) the medical devices, medicines, and medical supplies from various other organizations that would be best positioned to engage in innovation generation for their respective area of expertise (see section 4.3).

#### 4.2.2 Complexity

Healthcare complexity has traditionally been perceived as a “well-oiled machine” (Morgan, 1997), but this metaphor in large part has failed to answer some critical questions and address issues throughout healthcare. In order to mitigate these shortcomings, we need to change the metaphor to think of healthcare as a “complex adaptive system” in order to benefit from the expanded variability, adaptability, and testability that it offers. Plsek (2003) defined a *complex adaptive system* as:

*“a collection of individual agents with freedom to act in ways that are not always totally predictable [or static], and whose actions are interconnected so that one agent’s actions change the context for other agents.”* (Plsek, 2003)

The word *complex* suggests diversity and open relationships (not rigid) between elements that exist in the system, while *adaptive* implies the ability to alter or change and learn from past experiences (Begun et al., 2003). Considering healthcare organizations as “complex adaptive systems” is important because most of the current frustration when it comes to the adoption of innovation within healthcare organizations may largely have to do with the unconscious application of the metaphor of the machine way of thinking to what is actually a complex adaptive system (Plsek, 2003). Moreover, perceiving healthcare organizations as complex adaptive systems would allow more adaptability to changes and variability, especially when innovative ideas can be expected from anyone in the healthcare organization (see section 4.4).

### **4.2.3 Healthcare Innovations**

Since healthcare innovations are sometimes regulated by laws, introducing changes is more difficult. Moreover, the treatment practices and hospital procedures of innovations in patient care may lead to significant health risks to the patient, as well as financial, social, and ethical issues for the organization (Collyer, 1994, Faulkner and Kent, 2001).

Innovations in healthcare organizations are usually new services or technologies (product/service innovations) and new ways of working (process innovations). From the patient's perspective, the potential benefits from innovations are seen in how they improve healthcare quality and in turn contribute to the improved health of the patient or the decreased suffering due to illness and other factors (Faulkner and Kent, 2001). From an organizational perspective, the intended benefits are usually increased efficiency and effectiveness of internal operations and/or increased quality of delivering healthcare services (Länsisalmi et al., 2006) (see section 4.5).

### **4.2.4 Innovation Champions**

Champions are known to be a key success factor in the implementation of healthcare innovations (Soo et al., 2009). Ash et al. (2003) aimed to identify key success factors for the implementation of a Computerized Physician Order Entry (CPOE) in inpatient and outpatient settings in two hospitals in the United States. According to the study, successful implementation is defined as heavy use of the innovation (over 80%) by the organization. The study showed the role of "special people" who championed the implementation of the innovation. They determined that those individuals were found in each level of the system: leadership level, clinical level, and support level. Regardless of where these individuals came from, they shared different characteristics such as stability through adversity, steadfastness, initiative, and thoughtfulness. They were all excellent communicators who had a vision, commitment, and passion for the project, and demonstrated toughness, all of which positioned them to make decisive contributions to the success of the innovation. Hendy and Barlow (2012) examined the role of champions

in implementing remote healthcare services in three healthcare organizations in England. They showed that champions were most effective in the first phase of adoption.

Despite the “suggested importance” of champions in healthcare innovations and their implementation, little empirical research has been conducted that examined champions in healthcare (Krall, 2001, Soo et al., 2009). Some studies revealed a need to investigate the identity of champions in healthcare innovations and their role in successful implementations of innovations; in addition, studies have highlighted the lack of empirical evidence in how champions can be identified and fully utilised (e.g. Greenhalgh et al., 2004, Soo et al., 2009). The need for more studies on champions in healthcare has demonstrated that champions may not be well understood in healthcare organizations when it comes to who they are, where they can be found, how they are identified, and to what extent they contribute to healthcare innovations (see section 4.6).

### **4.3 Innovation Generating vs. Adopting Organizations**

Some organizations generate innovations, others adopt innovations, and still others both generate and adopt innovations internally (Damanpour and Wischnevsky, 2006). In hospitals that generate and adopt innovations within their different units, researchers have found that these organizations typically generate process innovations and adopt product/service innovations. Damanpour (1992) speculated that process innovations such as administrative and technical innovations are more specific to the organization and have to do with the organization’s internal operations more than product/service innovations that are usually generally applicable and industry specific. In the following section, the researcher will discuss the medicinal, administrative, devices, and social aspects of healthcare innovations.

### **4.3.1 Medicinal**

Pharmaceutical organizations that create new drugs for use by hospitals and their patients belong to the category of medicinal innovations. These innovations involve all substances that facilitate biochemical interactions between living organisms (e.g. humans) and chemicals that affect their function. Pharmaceutical companies usually produce medicine to be bought and used by hospitals. Therefore, pharmaceutical organizations are considered innovation generating when it comes to producing new types of medicine for people to use. When the hospitals buy new and innovative medical supplies, diagnostic devices, and medicine, they would be considered innovation adopting organizations.

### **4.3.2 Administrative**

Administrative innovations usually have to do with management processes and routine work activities. Regarding information technologies, a distinction must be made between management information technology, which has to do with business information, and medical information technology, which has to do with medical and patient care (Djellal and Gallouj, 2005). Service organizations such as hospitals have been the main adopters of new information and communication technologies (Djellal and Gallouj, 2005). For example, accounting software to perform payroll functions would be considered a management information technology, while a CPOE software that helps doctors to better communicate with the pharmacies would be considered medical information technology. Some hospitals prefer generating their own administrative innovations (i.e. process type innovations) rather than adopting them. This preference might have to do with the many modifications that may have to be made in order to implement an internal administrative system to fit within the organization's internal operations for use by potential users. On the other hand, some administrative innovations have nothing to do with adopting or generating technology to coordinate the work of the organization. For example, generating a new innovative way to coordinate nurses' shifts, which results in adding two hours to nurses' productivity while reducing their workload, is considered an administrative innovation.

### **4.3.3 Devices**

Hospitals usually adopt medical diagnostic devices (product innovations) from medical equipment companies that generate these kinds of innovations to be externally sold. For example, it is easy for a hospital to adopt the latest laser device in eye surgery from a medical equipment manufacturer because little modification is needed for it to be used by the hospital. Therefore, many devices that are found in hospitals are not actually made internally but are bought from other organizations.

### **4.3.4 Social Aspects**

Most healthcare innovations are driven by a social aspect, which is taking care of patients and increasing the quality of healthcare services while controlling costs. For example, the innovative ways of providing personalised food service for each patient in the hospital could be considered an innovation in a socially (as well as medically) driven aspect of care in hospitals.

## **4.4 Complexity**

Glouberman and Zimmerman (2002) suggested three general levels of complexity. The first level is a simple problem that is sufficiently understood and has a step-by-step process. The second level is a complicated problem, which has a more flexible approach that requires expert knowledge and multiple teams in order to be solved. The third level is a complex problem, which must often be solved in a unique way that cannot rely on past experience; in most cases, these problems required additional advice from experts to be solved. In the case of healthcare organizations, each organization may have to be treated individually when it comes to implementing change (Plsek and Wilson, 2001) rather than assuming that one innovation worked in hospital A, therefore it would work in hospital B.

It is important to consider the complex system notion in healthcare in order to understand how knowledge of this complexity is useful (e.g. when it comes to

innovation fostering). Sometimes this complexity is considered a negative aspect. Moreover, when we perceive healthcare organizations as complex adaptive systems, we can understand how the relationships between different individuals and units are essential in order to understand the system as a whole. In other words, the outcomes of the system are not simply the sum of different parts (Plsek, 2003). Other researchers have also perceived healthcare organizations as complex systems (e.g. Begun et al., 2003, Plsek and Wilson, 2001, Sweeney and Griffiths, 2002).

In the United Kingdom, social services, secondary services, and primary services each have a separate budget and targets which help in promoting an internal aim on the operation level for each of these parts, but that does not mean necessarily those separate targets are good for the system as a whole (Plsek and Wilson, 2001). In order to achieve the goal of spreading the innovation in complex systems, it is important to describe not only the innovation but also the specific context in which the innovation was successfully implemented and fully adopted (Plsek, 2003). The complexity of healthcare organizations may have to do with different factors, the most obvious of which are that healthcare sector has the technical plus social structure, clinical and administrative perspectives, and the criticality of function (involving human lives).

#### **4.4.1 Technical Plus Social Structure**

The healthcare sector is considered a complex system partly because it can be described by its processes, patterns, and structures and their interactions (Capra, 2002). For example, Plsek (2003) explained that, in order to implement CPOE and change the structure of a medical IT system for ordering medicines for patients, the organization must integrate CPOE with changes in the process of ordering medicines. Otherwise, the medication system may not be fully adopted. Moreover, in changing the structures and processes, researchers must also consider the patterns of relationships, traditions, behaviours, and conflicts of the organizational members, as these are part of the system like the structures and processes (Plsek and Wilson, 2001). Considering the social aspect

in healthcare is important because the initiation and implementation of changes within the system partly rely on the social networks and the key individuals in these networks.

#### **4.4.2 Clinical and Administrative Perspective**

Healthcare organizations are considered complex systems partly because systems are embedded within other systems which are found to influence each other and, therefore, evolve together. For example, the medical group in one hospital is embedded within the administrative system of the hospital, which is embedded within the country's healthcare industry, and so on (Plsek, 2003).

Although these systems are highly interrelated and influenced by each other, sometimes they have different perspectives when it comes to dealing with certain issues and decisions. For example, the administrative and medical groups within one healthcare organization sometimes have different perspectives when it comes to the implementation of a CPOE system. Some physicians might feel that using a CPOE system involves more work than simply writing the prescription on a piece of paper and handing it to the nurse. Administrators would support the new system because it means fewer complaints from patients about the waiting time and results in reduced errors in prescribing their medicine.

#### **4.4.3 Criticality of Function**

Compared to innovations in other organizations, healthcare decision-makers may have to be more careful in selecting innovations to be implemented because of the relatively high risk of the innovation affecting the patients in ways that may not be present in the current processes. The fear of introducing negative consequences is found to be one of the key determinants of innovation in healthcare organizations (Fleuren et al., 2004). The cost of failure would be both financial and personal, as medical innovations directly affect people's lives. For example, if the Electronic Health Record (EHR) system of one hospital suddenly went down without having a backup, the risk of that temporary failure

would not only be financial, but it would also put at risk the lives of patients who are undergoing urgent treatment without access to their medical history.

## **4.5 Healthcare Innovations**

A number of factors affect innovations in healthcare organizations. In complex systems like healthcare, larger changes may have little impact, while smaller changes might have a huge impact. This suggests the non-linearity of changes which actually may give some hope in “bringing about change” (Plsek and Wilson, 2001). For example, implementing a large project like an Electronic Health Record (EHR) system in one hospital may have little effect, while a simpler process innovation may result in remarkably reducing the waiting time of patients, which could save some lives. While many factors contribute to an innovation being introduced in healthcare, some of these factors have gained prominence during the process of considering the adoption of an innovation. A review of the literature revealed the following factors as having the most prominence in affecting innovation in healthcare: cost, resistance to change, cultural aspects, and organizational size.

### **4.5.1 Cost**

As discussed in the earlier chapter, the cost of innovations has been considered to be a critical factor when it comes to innovation adoption or generation within organizations. Researchers have found that the more costly the innovation, the less likely the organization would take the risk of implementing it (Downs and Mohr, 1976, Rogers, 1995). In examining health innovations from the point of view of rising costs, medical innovations are often considered as one of the main factors in the rise of healthcare expenditure (Cutler and Huckman, 2003). For example, a particular new model of MRI (Magnetic Resonance Imaging) for cancer detection costs \$3.5 million each which can lead to a significant increase in healthcare expenditures.

#### **4.5.2 Resistance to Change**

New practices are sometimes slower to spread in healthcare organizations partly because of the resistance to change phenomenon. While resistance to change can happen in any organization, it may be more visible in healthcare organizations partly because of the existence of two different influential groups (i.e. manager and physician groups) who sometimes have different perspectives on certain changes in the organization. Lapointe and Rivard (2006) studied physicians' resistance to new information technology introduction and implementation in three hospitals by mainly interviewing implementers, nurses, and physicians. The study showed how resistance from physicians was more noticed during the implementation phase; in the study, two such instances led to disruption and the withdrawal of the system. Nevertheless, when implementers and administrators handled the resistance by being supportive and by addressing the real issue behind the resistance, the innovations were successfully implemented. In these cases, the implementers and administrators took the physicians' complaints about the system under consideration rather than responding with an antagonistic attitude or ignoring the issues. This situation highlights a need for strong leaders (e.g. champions) to overcome resistance to change that sometimes occurs among the members of the organization and to help in implementing best practices (Plsek, 2003). Many researchers have indicated that it is not an easy task to change the behaviours and attitudes of clinicians (Greco and Eisenberg, 1993), current medical practices, and healthcare organizations (Shortell et al., 1998, Shortell et al., 2001). In order to deal with resistance to change in healthcare organizations, leaders may have to "lead by example" by beginning the change themselves before expecting others to change (Berwick, 2003).

#### **4.5.3 Cultural Aspects**

Organizational culture can be defined as the shared views and perceptions of the members of the organization (Schneider, 1990). Zmud (1982) showed that innovation is not triggered by the structure of the organization but by the organizational climate within which organizational members realise the desirability of innovations. The

organizational climate is represented by the policies and practices of the organization, while the culture is represented by the collective beliefs and values of organizational members. The policies and practices of the organization (climate) make organizational members believe (culture) that the organization either values or does not value innovation. Having a supportive culture facilitates the job of top management when it comes to implementing innovative practices (Ahmed, 1998). In contrast, when top management is not supportive, the beliefs of organizational members (e.g. champions) about change and innovations become important in influencing senior management to embrace a more flexible approach towards either adopting or generating innovations.

It is through organizational culture that opportunities and support for innovations are found. The speed in which innovations are adopted is affected by the degree to which the innovative project requires changes in the culture of the organization. Whether we are talking about incremental or radical innovations, successful adoption of these innovations may sometimes require modifications in the beliefs, values, and norms which are embedded in the organization (Bradley et al., 2004). For example, one of the case studies conducted by Bradley et al. (2004) examined the implementation of the Hospital Elder Life Program (HELP). They showed that, in order to successfully implement HELP, the organization had to develop a different and new perspective when it came to the care of the elderly. Volunteers had to be introduced and integrated into the process of care, and the organization had to increase collaboration across different disciplines. In order to effectively work in all these changes, organizational members had to adjust their thinking when it came to their roles and the importance of collaboration with other departments.

#### **4.5.4 Organizational Size**

In the previous chapter, the researcher discussed how organizational size has an effect on innovation fostering. Organizational size is normally measured by the number of employees, assets, or sales (Weinzimmer et al., 1998). In the hospital context, organizational size is usually measured by the number of beds (Kimberly and Evanisko,

1981). The existence of high competitiveness combined with a higher number of hospital beds is found to be positively associated with the early adoption of technology and service innovative projects in healthcare (Castle, 2001). One of the findings of Nystrom et al. (2002) study about the adoption of medical imaging technology in 70 hospitals in the United States provided support for the positive relationship between organizational size and innovativeness. Larger healthcare organizations may be better at fostering innovations since they have better financial resources and a variety of knowledge due to the diverse set of specialists and professionals.

#### **4.6 Innovation Champions**

A number of factors affect innovation fostering within healthcare organizations. Disseminating innovations is influenced by the perceptions of the organizational members towards the innovation, the characteristics of the adopters, and the contextual and managerial factors within healthcare organizations (Berwick, 2003). To speed up the process of implementing innovations in healthcare, Berwick (2003) suggested that leaders who champion innovative projects have to start the change themselves and be prepared for resistance from organizational members. They have to select sound innovations, identify and support innovators, and make use of the early adopters of the innovation. Project champions who advocate for change are actually found to advocate for new ideas (sometimes innovators' ideas) and support innovations. Executive champions support innovations and innovators financially and have the potential vision of what a particular innovation will turn to in the future.

Many studies have discussed the characteristics of innovation that facilitate their adoption (e.g. Damanpour and Schneider, 2009). However, few studies have explored how innovations arise in healthcare organizations and the factors that facilitate the innovation to be adopted and perceived as a good opportunity. Greenhalgh et al. (2004) recommended that researchers conduct more studies on how and under what circumstances healthcare innovations arise and are adopted.

This section will discuss the ways champions emerge (e.g. informally, etc.) within healthcare organizations. Then, the researcher will present three types of champions in healthcare (i.e. executive, clinical, and managerial champions) and their most valuable characteristics that help in fostering innovative projects.

#### **4.6.1 Emergence**

In their multi-case study, Soo et al. (2009) explored who champions are, what roles they play, and what contexts serve to facilitate their efforts in patient safety initiatives. They stated that innovative initiatives “may depend largely on interpersonal interactions and the presence of individuals who push for the innovation within their organization” and that “champions came into their roles through both informal emergence and a combination of informal emergence and formal appointment” (Soo et al., 2009, p 124-126).

According to the study, champions emerge to support innovations within organizations in two scenarios: informal emergence and informal emergence followed by formal appointment. When it comes to informal emergence, individuals knew about the innovation from an outside source and decided to take an initiative in helping to implement the innovation in their own organization in addition to performing their formal roles in the organization. The second scenario started when a champion expressed passion for the implementation of the innovation and demonstrated other champion’s qualities (e.g. his or her belief in the benefits and value of the innovation). Then, the individual is appointed to a formal position in the implementation process because of his or her earlier contribution and qualities. For example, some champions that played an important role in the success of previous innovative projects might be considered more easily for the formal position in support of a current innovative project if they express their desire to become part of the process. Champions may emerge within healthcare organizations in other ways that have not been explored since few studies have discussed how champion emerge.

Although Soo et al. (2009) focused on clinical champions, they identified three types of champions who all “leveraged their respective organizational position and networks to forward the implementation process.” (Soo et al., 2009, p 125). They are executive champions, managerial champions, and clinical champions. Rogers (2002) defined champions as people who devote their personal influence to encourage and facilitate the innovation’s adoption and recommended utilising champions to promote innovations in healthcare. Building upon these findings, the researcher of the present study proposes three types of champions that can be found in healthcare organizations. They are executive champions, managerial champions, and clinical champions, which will be discussed in the following sections.

#### **4.6.2 Executive Champions**

When it comes to the adoption decision and implementation of the innovation, the support of top management is found to be one of the key determinants of innovation within healthcare organizations (Fleuren et al., 2004). Executive champions are usually located higher in the structure of the organizations. In the hospital setting, these titles might include the Chief Executive Officer (CEO), Chief Information Officer (CIO), the Chief Medical Information Officer (CMIO), and other executives. They are usually senior leaders who facilitate the work of clinicians. They use their positions within the organization to facilitate the work of others (Soo et al., 2009).

In their examination of four cases of the adoption of innovations in healthcare and the key factors affecting their adoption, Bradley et al. (2004) showed that the strong support of administrative senior leaders was found to be central to the successful adoption of innovations in all four case studies. Another study by Ash et al. (2003) examined the key success factors in the implementation of CPOE in two hospitals in the United States. One of the “special people” found to be influential in the implementation of the innovation was the executive champion. Executive champions provided support and vision, influenced others, maintained a “thick skin,” did their best to keep the project going and alive, and strongly connected with staff members. For example, in their study, one of the

staff members mentioned that the CEO considered himself a member of the staff rather than the boss. The participant stated, “He was here over 25 years and politically astute and more of a team builder and got people working together” (Ash et al., 2003, P 241).

Although it is part of the job of the executives of healthcare organizations to support change and innovative projects in a rapidly changing environment, some leaders have a very conservative approach of exercising their roles and may sometimes be resisters to change rather than encouraging change within their organizations (Krall, 2001). Therefore, showing an extra amount of support and expressing certain traits during the process (particularly during strategic processes) such as being a team builder, politically astute, influential, and visionary (as mentioned in the studies in the earlier paragraph) may distinguish a traditional executive from an executive champion.

#### **4.6.3 Clinical Champions**

Clinical champions are usually clinicians who are respected in their field of practice (Soo et al., 2009). Krall (2001) demonstrated that some physicians could influence their colleagues because sometimes physicians in practice rely more on the information they get from their peers rather than spending time on formal training. Therefore, the more powerful the role model, the greater the impact he or she has on his or her peers. Characteristics such as reliability, being a team player, honesty, and having an engaging personality are highly valued in the role model, especially in times of uncertainty and difficulties.

Ash et al. (2003) showed that, at the clinical leadership level, clinical champions were persistent, rarely spoke about the innovation’s weaknesses, understood their peers, and had an influence on them. For example, in the study, one leader mentioned that clinical champions are needed before starting any innovative project and stated, “certainly I would want to have some clinical champions identified before taking on anything of this size, [on] any project” (Ash et al., 2003, P 243).

Bradley et al. (2004) examined four cases to determine the key factors influencing the adoption of healthcare innovations. One of the key success factors was effective clinical leadership. Bradley et al. (2004) revealed that clinical champions helped significantly in speeding up the process of adoption by positively influencing the views of their peers regarding the innovation. In doing so, they actually affected the norms and resistance to change embedded in the organizational culture.

Another form of clinical leaders are known as opinion leaders. Ash et al. (2003) stated:

*“An opinion leader is an influential physician who may be in favor of the new system or work against it. Opinion leaders are respected by peers, usually for both professional and social skills.”* (Ash et al., 2003, P 244)

Locock et al. (2001) showed that, in addition to the existence of the assigned project leaders, opinion leaders were found to be influential in the different stages of implementation of new clinical procedures. Opinion leaders can be expert academics or expert clinicians. Locock et al. (2001) showed that the more the project progressed in its implementation stage, the more the views of the opinion leaders were sought. The involvement of different types of opinion leaders resulted in the successful adoption of new practices in some projects (Locock et al., 2001). However, it is not known to what degree these influences could be affecting changes within organizations. Furthermore, the opinion leaders, while they could be good candidates to be champions, may not necessarily be part of the implementation of a particular innovation, which complicates the process of adoption in hospitals.

#### 4.6.4 Managerial Champions

Managerial champions advocate for healthcare innovations by using their knowledge and capabilities to influence others. During the process of the innovation, they are found to be committed, knowledgeable, and social. One factor that helps in the successful implementation of innovations in healthcare organizations is to have skilful and

knowledgeable healthcare professionals who are involved in the process (Fleuren et al., 2004). Healthcare organizations require champions who are committed and involved (Mintzberg, 1997). Middle managers can make use of new information to advocate their own projects and sell them to top management (Dutton and Ashford, 1993). Pappas et al. (2004) analysed the social network of 89 healthcare professionals in the mid-level of their respective organizations. They found that the strategic knowledge of middle managers (perhaps through their social networks) was positively linked with “championing” new alternative ideas and synthesising new information to upper management, which ultimately help in facilitating organizational change. The study suggested that the strategic knowledge of middle managers involved three broad areas: the organizational environment, the organization’s strategic priorities, and the organization’s existing capabilities, including resources and internal culture. Synthesising role was described in the study as “the interpretation and evaluation of information that alters top management perspective in a substantive way.” (Pappas et al., 2004, P 9).

Their championing activities included evaluating the merits of new proposals, bringing new opportunities to the attention of top management, proposing new programs, and justifying the importance of new opportunities and/or programs that have been already established. In order to accomplish the championing and synthesising roles described above, the study showed that formal networks (i.e. workflow) and informal networks (e.g. communication, relationships networks) were significant moderators when it came to the positive relationship between middle managers’ strategic knowledge activities and influence. In other words, the more important the social position of the middle manager in these networks (more evident in informal ones), the easier he or she can channel the necessary knowledge in order to influence top management. This finding revealed that middle managers’ knowledge and championing activities, which they channel through formal and informal networks within the organization, helped to influence top management in recognising new capabilities and bringing about change.

Similarly, Soo et al. (2009) showed that champions in healthcare advocate for the innovation by using different tactics to send a positive message about the innovation

and defend the innovation from critics. Some champions used an evidence-based approach, irrefutable arguments, and strategic framing to convince others during arguments about the innovation. Some champions even engaged in advocacy both within and beyond their formal roles by explaining the innovation to anyone who would listen. They also educated their colleagues, cultivated relationships with others, navigated boundaries by effectively communicating with others, and reached out to organizational members in different units and professional groups.

#### **4.7 Reflecting on the Literature and Proposing the Research Questions**

The previous discussion shed light on what we know so far about champions within organizations (chapter 2). The researcher looked from different perspectives into champions, their emergence, their behaviours and characteristics, and how they are needed especially when it comes to their contributions to the success of innovations within organizations. Champions' essential role in innovative projects was highlighted, and 20 definitions found in the literature were combined to create a working definition of champions. The researcher provided a classified set of characteristics and behaviours of champions consisting of four contexts: Knowledge, Leadership, Change, and Other identified behaviours and characteristics (see chapter 2, section 2.3). The proposed working definition and the proposed classification of champions' behaviours and characteristics will be used by the researcher as a starting point in studying champions empirically.

In regard to innovations within organizations (chapter 3), it was shown that innovations are important for organizations to survive and develop in today's market. The concept of innovation was examined, and a definition of organizational innovation was adopted (see chapter 3, section 3.2). Different types of innovations within organizations were also examined. It is important to understand the challenges organizations usually encounter during the different stages of the generation, the adoption decision, and the implementation of innovative projects and their relations to champions. Knowing the challenges during the process of innovation would be the starting point in exploring

champions' roles thorough the process of the innovation and in facilitating the successful implementation of innovations within the organization. The role champions play in introducing and implementing innovations is what makes them appear to be potentially essential to the overall success of the organization.

Hospitals are in a complex and sensitive sector where people's lives are involved. Moreover, the healthcare sector encompasses significant variety in terms of different professional groups, such as the managerial group and the clinical group, and the different perspectives each group has towards certain new projects and the implementation and use of innovative programs. Therefore, the importance of innovations and champions, in healthcare organizations in particular (chapter 4), is that the nature of champions and their contribution to innovative projects appears to be essential to the hospital's success.

The discussion in the previous chapters examining the literature on champions and innovations in healthcare showed the importance of being innovative for many organizations to accomplish their goals and to stay innovative in order to succeed and compete with other organizations in the healthcare industry. The literature has shown that champions appear to play a vital role in implementing these innovations within their organizations, but it is not clear how they are identified, and how they accomplish their goals. It is further unknown whether champions exist in every innovative project which would allow us to draw conclusions about what effect they have on the project. Developing sufficient knowledge on the identity of champions in the healthcare sector as well as their behaviours and characteristics would facilitate knowing what champions actually do to increase the success rate of innovative projects within healthcare organizations. As such, it is important to understand empirically what distinguishes a champion from others in terms of their behaviours and characteristics when it comes to the implementation of innovative projects on the department or hospital level.

The research builds upon the current knowledge of innovation champions by first identifying them as a part of innovative projects in healthcare. This involves identifying

champions through the use of semi-structured interviews (based on the literature synthesis), observation, and the testimony of project members who worked closely with the champions (see chapter 5, section 5.7). This process would help answer the questions of who these individuals are and what makes them champions of innovative projects that benefit their healthcare organizations. The next step is to understand their importance and role(s) in terms of the characteristics and behaviours that they exhibit in addition to their routine tasks when it comes to proposing and implementing innovative projects. More specifically, the researcher seeks to understand how these characteristics and behaviours are utilised in various settings to accomplish their goals within their respective environments. Finally, this study will assess their overall effect on innovative projects and healthcare organizations. Therefore, this research will attempt to answer the following research questions:

**RQ1:** What characterizes champions in healthcare organizations?

**RQ2:** What is the role and importance of champions in innovations in healthcare organizations?

**RQ3:** What are the effects of champions on healthcare innovations?

Answering these research questions will add to the literature on what characteristics make champions in healthcare organizations essential to the team and the success of their innovative project. After understanding how champions are identified and their role and importance when it comes to innovative projects, it is also important to know their overall effect on their innovative projects and the organization. More specifically, this study seeks to understand what would happen if the champion was not part of the project and/or the organization.

## **4.8 Summary**

This chapter presented an overview of champions and innovations in healthcare. First, the researcher discussed innovation generation versus innovation adoption in healthcare organizations which included medicinal, administrative, devices, and social aspects. Then, the researcher discussed the complexity of healthcare organizations due to the following factors: technical plus social structure, clinical and administrative perspectives, and criticality of function. The chapter then discussed healthcare innovations and innovation champions in healthcare including the role of executive, clinical, and project champions. Finally, the researcher reflected on the literature and proposed the research questions. The following chapter will presents the research methodology which includes the research paradigm, research approach, research strategy, data collection methods, and data analysis techniques adopted in the current study.



## **Chapter 5      Research Methodology**

### **5.1      Introduction**

In this chapter, the researcher discusses the research methodology starting with the ontological, epistemological, and methodological considerations adopted in this research before describing the research's qualitative approach. This will be followed by a discussion and justification of the case study strategy employed in this research, including the process of determining the unit of analysis and the research sample. The researcher will then elaborate on the preparations for data collection, and the data collection methods. Finally, the researcher will present the data analysis techniques and the measures taken to ensure the reliability and validity of the research.

### **5.2      Research Paradigm: Ontology, Epistemology, and Methodology             Considerations**

The main purpose of this section is to discuss the research paradigm. Paradigms can be defined as “basic belief systems based on ontological, epistemological, and methodological assumptions” (Guba and Lincoln, 1994, p 107). Defining these essential philosophical assumptions will lead to the choice of different paradigms; therefore, the researcher will explain where she stands when it comes to ontological, epistemological, and methodological considerations that determined the adopted paradigm.

Researchers face two concerns which are the nature of reality (ontology) and what is considered to be valid knowledge for them (epistemology). Additionally, a researcher must determine how these concerns are linked with his or her worldview (paradigm) and the methods used to answer the research questions (methodology). Therefore, understanding these assumptions will help the researcher explain the worldview or paradigm adopted in the present study.

Ontology has to do with the nature and form of the reality and what is worth knowing about it (Guba and Lincoln, 1994). The two aspects of ontology are the subjectivist and the objectivist views. In the subjectivist view, reality or, more specifically, a social phenomenon is a result of the perceptions and actions of “social actors”; in contrast, the objectivist stance views a social phenomenon as external from the “social actors” (Saunders et al., 2007). In the present study, the researcher’s ontological position is derived from her belief that her role as a researcher is to seek an understanding of the subjective reality of an innovation’s team members during the process of the implementation and their views on the individuals who affected the implementation most.

Epistemology has to do with the nature of the relationship between the inquirer of reality and what can be known from it (Guba and Lincoln, 1994). Two well-known epistemological stances should be taken into account, the positivist and interpretivist (or anti-positivist). Those who support the positivist stance of epistemology usually:

*“Seek to explain and predict what happens in the social world by searching for regularities and casual relationships between its constituent elements. Positivist epistemology is in essence based upon the traditional approaches which dominate the natural sciences”* (Burrell and Morgan, 1979, p 5).

Those who support the interpretivist stance of epistemology believe that:

*“The social world is essentially relativistic and can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied. Anti-positivists reject the standpoint of the ‘observer’, which characterises positivist epistemology, as a valid vantage point for understanding human activities. They maintain that one can only ‘understand’ by occupying the frame of reference of the participant in action. One has to understand from the inside rather than the outside”* (Burrell and Morgan, 1979, p 5).

The epistemological stance adopted in the current study is interpretive because the researcher wants to understand the topic from the inside and believes that champions are social individuals who demonstrate certain characteristics and behaviours throughout the course of the innovation. The researcher believes that the behaviours of champions and their role(s) in implementing the innovation can be best understood

from the points of view of project members who are directly involved in the process of the innovation's implementation.

Methodology has to do with the way the researcher determines what he or she believes is worth knowing (Guba and Lincoln, 1994). It is concerned with the choice of using the best "method" in order to find the desired knowledge. The current study adopts a qualitative approach. More specifically, the study uses a multiple case study design, which the researcher believes is the most suitable for an in-depth investigation into the role of champions in healthcare innovations (see Section 5.3 and 5.4 for more detail). Knowing and responding to the three defining assumptions of ontology, epistemology, and methodology would help shape the paradigm to be considered in the research.

### **5.2.1 Interpretive Sociology: Paradigm of Choice**

Reviewing the literature surrounding paradigm choices shows a wide array of pragmatic standpoints for research. Although useful, a comprehensive discussion of these paradigms and the reasoning behind the different terms is outside the scope of this thesis. For the purpose of this study, the treatment of paradigms will revolve around the main four types of Burrell and Morgan (1979), and the researcher's choice of paradigm. The term "paradigm" can have multiple definitions, one of which is a way of "examining social phenomena from which particular understandings of these phenomena can be gained and explanations attempted" (Saunders et al., 2007, p 112). A paradigm or worldview can be also defined as "a basic set of beliefs that guide action" (Guba, 1990, p 17). The aim of paradigms is to assist researchers make their way through their research and know where they are and where they are going. Paradigms are also useful in interpreting the researcher's assumptions about his or her view of the nature of society and science (Saunders et al., 2007).

Burrell and Morgan (1979) proposed a categorization for the examination of social theory and research which is illustrated in four paradigms. The researcher believes that such categorization will throw light on central issues that a researcher needs to consider before starting his or her research because the researcher's choice among those beliefs (paradigms) is likely to influence his or her path of research.

The four paradigms stated by Burrell and Morgan (1979) are classified along a spectrum of two conceptual dimensions. The first dimension is the subjective–objective spectrum, which is related to the nature of science (ontology). For instance, if a person considers management as an “objective” entity, he or she might be adopting a positivist point of view. Alternatively, the social phenomenon can be viewed subjectively where it is considered to be created from different points of view of different social individuals. Therefore, the subjective view is more likely to be in line with the interpretivist philosophy (Burrell and Morgan, 1979). The second dimension is the radical change–regulation spectrum. Radical change adopts a critical perspective on organizational activities and how these activities should be achieved and managed. Regulation, on the other hand, adopts a less judgmental point of view; specifically, it aims to describe the process in which the organization is managed and try to provide recommendations. Within these two dimensions, four paradigms are constructed: radical humanist, radical structuralist, interpretive, and functionalist. Radical humanist and radical structuralist paradigms are both interested on achieving fundamental changes through the examination of specific aspects in the organization. However, they differ in their approaches; the Radical humanist uses subjective methods while Radical structuralist uses objective ones. Interpretive and functionalist paradigms emphasize the sociology of regulation; however, the former paradigm uses subjective methods while the latter uses objective methods. Figure 5-1 illustrates these concepts along with the associated dimensions and shows the paradigm adopted in the current study:

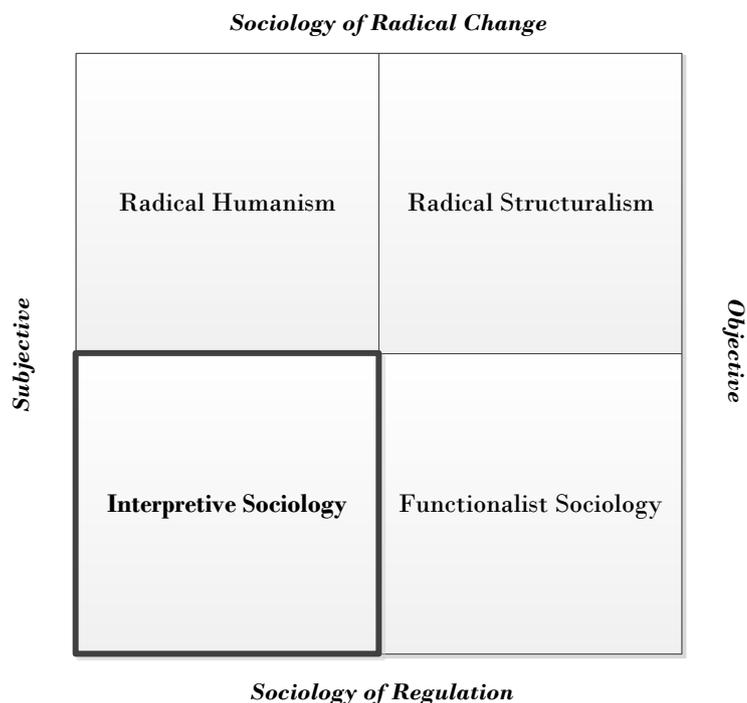


Figure 5-1: The Paradigm Adopted in this Study (Burrell and Morgan, 1979, p 22)

Based on these four paradigms, the researcher considers champions to be social individuals who have certain personal behaviours and characteristics. They use formal and informal processes and interact with others within the organization to contribute to the success of the innovative projects. Therefore, to understand how champions interact with others and work within the organization, it is important to discover the social landscape surrounding the champion (through interviews with team members) and to also view them from the point of view of the organization (external view). The goal is to explore the behaviour of the organization in order to understand how the organization considers those champions.

Under the framework of these four paradigms, the sociology of regulation is most appropriate for this thesis. Moreover, to understand how the organization works, the researcher based her interpretations on her knowledge gained through the use of semi-structured interviews and direct observation of the innovative team members. Therefore, the thesis adopts the subjective view. Since the researcher considers

champions and their role as “social actors” in the organization as a social phenomenon, and in order to view the world from each team member’s point of view, the researcher adopts the *interpretive sociology* framework in this thesis. Additionally, the benefits of understanding the topic from the champions’ and project members’ own perspectives can offer a solid basis of understanding champions’ behaviours and how they affect project success. Therefore, this paradigm will help the researcher to accomplish the aim of the research and answer the research questions more effectively. Table 5-1 outlines the ontological, epistemological, and methodological considerations of the current study.

Table 5-1: Ontological, Epistemological, and Methodological Considerations

Assumption	Question	Researcher’s position
<b>Ontology</b>	What is the nature of reality?	Subjective stance viewing the social phenomenon through participants
<b>Epistemology</b>	What is the relationship between the inquirer (researcher) and the research?	Interpretive stance of epistemology by understanding the topic from the inside
<b>Methodology</b>	What is the way (process) of research?	Qualitative inductive/deductive approach Case study strategy (multiple case study design)
<b>Paradigm</b>	Worldview	Interpretivist paradigm

### 5.3 Research Approach

This research begins with a deductive approach because it draws on existing literature and prior data collection and develops a research framework that illustrates a four-level approach in studying champions (Chapter 1, Section 1.4). However, this research moves from a deductive to an inductive approach as the research progresses. The inductive approach is used when the research subject is not clearly defined and there is limited investigation being conducted in the research area. Therefore, theories are developed rather than being tested (Creswell, 2009). Using the inductive approach, data in this study is gathered qualitatively through semi-structured interviews and

direct observation in a new context in the healthcare sector in Saudi Arabia where no similar study has been conducted before. Therefore, the research moves away from the specific investigation of the role of champions and their effect on the implementation of healthcare innovation to a more general investigation with the goal of answering the research questions and contributing to existing literature by confirming (or challenging) the currently accepted literature on the topic as well as incorporating new insights emerging from the empirical findings.

The research is *descriptive and exploratory*. It is descriptive because prior research has been conducted on the topic of champions which influenced and directed the research questions. It is also considered exploratory because very few studies have investigated specifically, or in depth, the role of champions in healthcare innovations.

#### 5.4 Research Strategy

A qualitative researcher can choose from a number of possible strategies. The most popular ones in the social sciences today are phenomenology, narrative, ethnography, grounded theory, and case study (Creswell, 2009). Although most of these qualitative strategies are more often used within the interpretivist paradigm, each approach has distinctive features and can be used for specific purposes that serve the topic under study and answer the research questions. For example, ethnography may be the appropriate approach to use to study cultural sharing behaviours of a certain group. For reasons detailed in section (5.4.1), this research uses a case study strategy, which Yin (2003) defined as:

*“An empirical inquiry that investigates a contemporary phenomenon in depth and within its real life context, especially when the boundaries between phenomenon and context are not clearly evident.[...]The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis”* (Yin, 2003, p 13-14).

The following section will present the justification behind the choice of multiple case study as the design adopted in the present study.

#### **5.4.1 Multiple Case Study Design: Justification of the Choice**

For this research, a case study strategy is most suitable for many reasons. First, the research is concerned with individuals' behaviours and characteristics. Creswell (2009) defined a case study as "a strategy of inquiry in which the researcher explores in depth a program, event, activity, process, or one or more individuals" (Creswell, 2009, p 13). So, case study is a way to explore and understand a social phenomenon by individuals or groups (Creswell, 2009). In the current study, the researcher wants to conduct an in-depth investigation of champions in healthcare innovations. The need to more deeply investigate the phenomenon is well connected with the interpretivist paradigm chosen for this research. Second, the use of case study in particular comes from the need to understand complex social phenomena by providing a holistic view of each phenomenon and understanding it within its context which adds to our knowledge of "individual, group, organizational, social political, and related phenomena" (Yin, 2003, p 1). In this case, the research is focused on the identification and behaviour of champions within their respective groups. The aim is to identify the champions in healthcare organizations and understand their role and importance when it comes to innovative projects. Such an understanding would aid in determining which behaviours of champions may increase the success rate of those projects. The in-depth investigation is needed because the setting of this research is a complex one. Moreover, according to Yin (2003), a case study choice is the most favourable in generating answers to the overall questions of "what," "why," and "how" when the researcher has less control over events compared to other strategies and "when the focus is on contemporary phenomenon within some real life [empirical] context" (Yin, 2003, p 1).

#### **5.4.2 Unit of Analysis**

Yin (2003) demonstrated that determining the unit of analysis is dependent on the way the questions of the research are formed. It is clear by now that the purpose of this research is first to identify champions of innovative projects in hospitals through their characteristics and behaviours and then to understand their role(s) and importance when it comes to the implementation of these projects and their effect on organizations. While the hospitals are the case studies, the unit of analysis is the multiple innovative projects that are taking place in these hospitals. The unit of observation is the project team, as champions are likely to arise among their members.

Yin (2003) proposed four types of designs for case study research. They are “single-case holistic designs (Type 1)”, “single-case (embedded) designs (Type 2)”, “multiple-case (holistic) designs (Type 3)”, and finally “multiple-case (embedded) designs (Type 4)”, the choice among the four case study designs is dependent on the number of cases and unit of analysis(s) being investigated. Following the classification of case study designs offered by (Yin, 2003), the research employed the multiple case study design as an embedded type 4. The rationale for the choice of multiple case study design is because multiple embedded innovative projects (unit of analysis) are being studied at the same time in four hospitals (cases). Figure 5-2 illustrates the case study design adopted in this research.

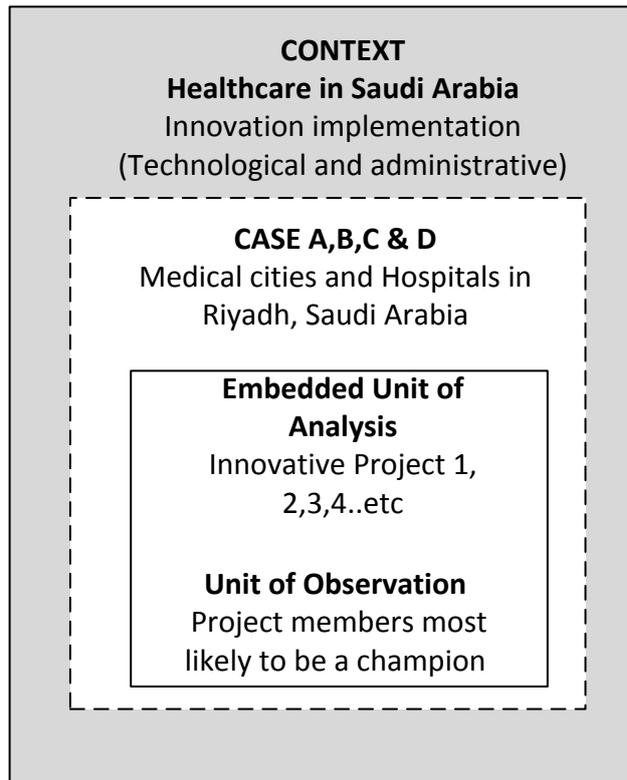


Figure 5-2: Multiple (Four) Case Design (Embedded Type 4)

The multiple case study design is used to provide more compelling evidence and findings compared to the use of a single case study. When it comes to determining the right number of case studies, Yin (2003) explained that, since the sampling technique commonly used in quantitative research, to determine the appropriate sample size, cannot be used in qualitative case study research, the researcher must use his or her judgment to determine the right number of case studies that are good enough to reach a high level of certainty and significance in relation to the topic under investigation. The four cases selected as part of the current study generated enough in-depth data to answer the research questions adequately, providing rich examples of what needed to be studied. Therefore, the empirical results shed light on the phenomenon of champions of innovations.

### 5.4.3 Sample

In order to focus on the cases that generate in-depth insight about the phenomenon under investigation, the sampling technique employed in the current study is the non-probabilistic sampling technique known as purposeful sampling (Patton, 2002). This technique was chosen because Patton (2002) demonstrated that the intention of purposeful sampling in qualitative research is to select and study in-depth cases that are information-rich to the main research inquiry. In order to study the role and effect of champions on the successful implementation of innovations, only those cases with innovative projects were chosen as part of this research. The four cases were conducted in public hospitals in Riyadh, the capital of the Kingdom of Saudi Arabia. The selection criteria were to conduct the research in public hospitals which are known to have many ongoing innovative projects. In addition, public hospitals were selected because the public healthcare sector still provides approximately 80% of health services in Saudi Arabia. The capital was chosen as the specific location of the study because it hosts the most and the largest medical facilities and hospitals in the country. Therefore, the probability of identifying innovative projects in large hospitals is higher in the capital.

In the current study, Innovative project is the creation and/or adoption of ideas and behaviours that are new to the organization (Daft, 1978, Damanpour, 1996). Within each case, the innovations had to be either fully adopted or in the later stages of implementation in order to examine the behaviours of champions that were believed to contribute to the successful implementation of these projects. Moreover, the innovations must have been implemented within the past 24 months in order to facilitate the identification of individuals who were and/or still are part of the implementation process. The choice of relatively recent innovative projects also ensures more accurate recall of events in terms of the project implementation process and those individuals who affected the implementation most.

Table 5-2 illustrates the sampling criteria for the current study based on the sampling parameters suggested by Miles and Huberman (1994). Miles and Huberman (1994) showed that conducting multiple case study research requires clear choices about the research setting, event, participants, and the process to be studied. They explained that the research questions and conceptual framework are central in determining these sampling decisions.

Table 5-2: Sampling Criteria Based on Miles and Huberman’s (1994) Sampling Parameters

Sampling parameters	Sampling
<b>Setting</b>	Four public healthcare organizations in Saudi Arabia (hospitals and medical cities)
<b>Event</b>	Process innovations: administrative and technological innovative projects that have been fully adopted or are in the late stages of implementation within the last 24 months.
<b>Participants</b>	Innovative project members
<b>Process</b>	Innovation implementation

After receiving ethical approval from the university, the researcher started contacting a number of hospitals in Saudi Arabia to request approval to conduct a case study within each hospital. Out of over 10 requests, 6 hospitals responded with different requirements for access, such as a copy of the study purpose, research plan, data collection method, letter from the university, and others. The researcher submitted the information to the hospitals and continued following up with them for several months until 4 hospitals responded with the official approval.

After meeting the head of the planning and training department in each hospital to discuss the innovative projects, the researcher asked them to provide information about innovative projects that they have either fully or partially implemented in the past 24 months. In order to accomplish this, a clear definition of what “innovation” meant was included with the initial information packet submitted to the hospital.

Then, the researcher and the employees working in the relevant department identified a number of projects that met the study's criteria of innovative projects. The researcher met with the heads of the identified departments to further discuss in detail these projects such as the individuals involved in each projects, the scale of each project, and what each project's goals for the hospital. After identifying these projects and the people involved, the researcher began interviewing members of each project in each hospital which was later able to observe their work.

## **5.5 Preparing for Data Collection**

As mentioned earlier, the researcher conducted multiple case studies (embedded type 4), so the development of a comprehensive case study protocol is recommended (Yin, 2003). The case study protocol will act as a guide for the researcher to ensure that the case studies are conducted in the same manner using the same techniques, thereby increasing the reliability of the findings. According to Yin (2003), the case study protocol is used as a guide to be followed throughout the research and includes the following:

1. An overview of the case study: objectives, relevant reading , case study issues, the rationale for selecting the cases, summary describing the project;
2. Field procedures: presentation of credentials, access to case study, sites, protection of human subjects, data collection plan, and organized schedule of the data collection events and the expected completion dates;
3. Case study questions: the specific questions the researcher must keep in mind in collecting data; and
4. A guide for the case study report: outline, format for the data, presentation of other documents, and bibliographical information.

Following the above mentioned guidelines, the following sections will describe the research protocol in detail.

### **5.5.1 Overview of the Study**

Each case study offers insights into the phenomenon and notion of champions in healthcare innovations. The study explores and explains who they are as well as identifying their role(s) and importance when it comes to the implementation of

innovative projects in hospital settings. The study has been conducted as a Doctoral research for a PhD degree in Management from University of Southampton, United Kingdom. Four hospitals (cases) have been accessed in the middle region of Saudi Arabia, specifically in Riyadh City, the capital of Saudi Arabia. These hospitals are considered among the largest and most innovative hospitals in the region, offering higher possibilities of identifying innovative projects. Furthermore, these four cases were selected because they are influenced by similar institutional policies and frameworks and offer similar services to similar patients. However, differences exist and might be revealed as a result of the in-depth analysis. Additionally, these hospitals provided the researcher with full access after she complied with their requirements.

### **5.5.2 Relevant Readings and Researcher's Prior Experience**

In order to develop more understanding of the nature of innovations in the identified four cases, the researcher first visited each hospital and discussed with representative individuals innovative projects that meet the study's definition and criteria of innovation (see Section 5.4.3/Chapter 5). Nine innovative projects were identified that meet such criteria. The type of the innovation, the life cycle of the project, and the people who were involved in the innovative project were also discussed.

Additionally, to gain understanding when it comes to champions and innovations, a review of the literature has been conducted (see Chapters 2, 3, and 4). The review presented different characteristics and definitions when it comes to champions of innovations. Therefore, the researcher tried to synthesize what has been said about champions in the literature and offered a proposed classification of champions' characteristics and behaviours along with a proposed definition of champions. The literature review, along with the identification of knowledge gaps, has influenced the researcher in shaping the research objectives, research questions, and interviews questions.

### 5.5.3 Research objectives and Questions

The study attempts to address the research objectives and research questions as outlined in Chapter 1, Section 1.3.

### 5.5.4 Conceptual Framework

In order to study the phenomenon of champions of innovation, the researcher employed a four-level approach to investigation, illustrated in the research framework below. For more detail see Chapter 1 section 1.4.1.

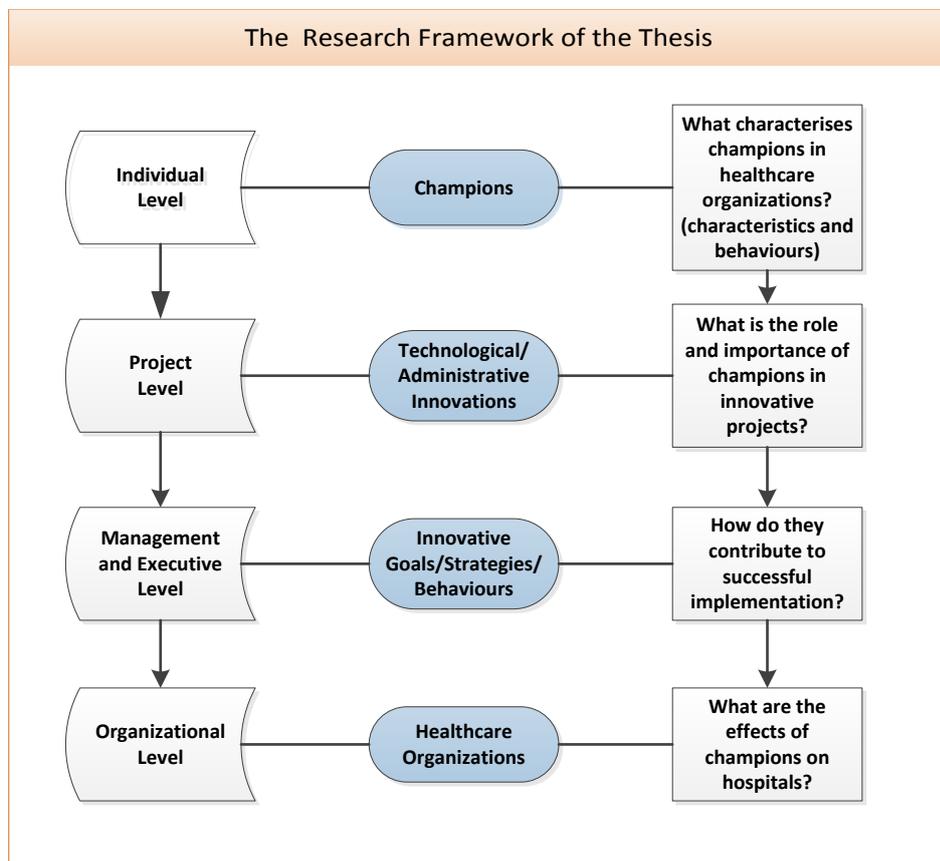


Figure 5-3: The Research Framework in the Present Study

### 5.5.5 Role of the Protocol

This case study protocol was developed to increase the reliability of the four case studies conducted. The aim is to ensure that the data collection procedures were followed exactly in the same manner in all four cases. Therefore, reach the desired target.

### 5.5.6 Data Collection Procedures

The researcher dedicated a significant amount of time to the process of data collection, which involved three phases (three different visits):

- Conducting visits to the research sites to understand the setting and get the specific requirements of each case to get full access (September 2011),
- Fulfilling and submitting these requirements and conducting a pilot study, which was the first project in the first case (C1P1) (December 2011), and
- Conducting the four case studies (April-July 2012).

As explained in Chapter 4, the researcher employed two data collection tools, namely semi-structured interviews (main data collection tool) and direct observation (complementary data collection tool). Table 5-3 shows the number of projects and interviews per case and table 5-4 shows the procedures conducted prior to and during data collection:

Table 5-3 Number of Projects and Interviews per Case

Number of projects identified per case	Number of interviews per project
<p><b>Case A:</b> 4 projects</p> <p style="padding-left: 40px;">3 Technological innovations 1 administrative innovation</p>	<p><b>Case A:</b></p> <p>Project 1: (C1P1) (5) Project 2: (C1P2) (9) Project 3: (C1P3) (3) Project 4: (C1P4) (7)</p>
<p><b>Case B:</b> 1 projects</p> <p style="padding-left: 40px;">Technological innovation</p>	<p><b>Case B:</b></p> <p>Project 1: (C2P1) (4)</p>

<p><b>Case C:</b> 2 projects</p> <p>Technological innovation Administrative innovation</p> <p><b>Case D:</b> 2 projects</p> <p>Technological innovation Administrative innovation</p>	<p><b>Case C:</b></p> <p>Project 1: (C3P1) (5) Project 2: (C3P2) (8)</p> <p><b>Case D:</b></p> <p>Project 1 (C4P1) (3) Project 2 (C4P2) (4)</p>
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Table 5-4: Procedures and Reminders Prior to and during Data Collection

Procedures prior to data collection (establishing access)	Procedures reminders during data collection
<ul style="list-style-type: none"> <li>• The researcher conducted visits to the sites to get a sense of the setting and determine each hospital’s requirements for access.</li> <li>• The researcher submitted the requirements for each hospital in order to get access and followed up with them for months.</li> <li>• After access was granted, innovative projects were identified through multiple visits and discussions.</li> <li>• The project leader for each innovative project identified project team members.</li> <li>• After being contacted officially through office emails by their project leader, each project member arranged a time and place to meet with the researcher.</li> <li>• The researcher obtained consent for observation and audio recording.</li> </ul>	<ul style="list-style-type: none"> <li>• The researcher dressed formally and traditionally to gain more collaboration and to address cultural sensitivity.</li> <li>• The researcher supplied participants with some research themes prior to each interview to prepare them for what was expected from them.</li> <li>• The researcher ensured a logical order of questions, starting from the most general to the most specific ones.</li> <li>• The researcher used formal introductions and ice breaking discussions before each interview.</li> <li>• The researcher developed a careful opening of the interview to minimize worries about time or anonymity.</li> <li>• Interviews were conducted in Arabic or English depending on the respondent’s native tongue and ability to communicate more freely.</li> <li>• Interviews were semi-structured to allow interviewees to openly and freely discuss issues and to allow the researcher to interpret the meaning</li> </ul>

<ul style="list-style-type: none"> <li>All interviews were conducted at hospitals (offices).</li> </ul>	<p>of culture-specific notes to reduce bias.</p> <ul style="list-style-type: none"> <li>The researcher avoided biased nonverbal behaviour and gestures.</li> <li>The researcher offered reminders to help the interviewee during the process to manage time.</li> <li>The researcher used note taking to show her interest in what was being said.</li> <li>Sensitive questions (if any) were reserved for the end when trust was established.</li> <li>The researcher used simple language, avoiding using too many theoretical terms.</li> <li>The researcher ensured that she and the participant shared an understanding of the terminology used.</li> </ul>
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5.5.7 Case Questions

This research explored and described the role of champions in innovative projects in healthcare. Yin (2003) suggested two levels of questions: questions related to the case and questions related to the respondents. Questions related to the case-project are those that reflect the researcher’s thinking in which she has to keep in mind during data collection and revolves around the process of the innovation and individuals who are involved in the innovation directly or indirectly. While questions related to respondents are those specific questions asked during interviews.

5.5.7.1 Questions Related to the Case

*Project level questions* were designed to:

- Develop an understanding of the innovation and its overall aim,

- Construct a description of the innovative project, how the innovation was initiated, duration of implementation, and current stage of innovation,
- Identify and describe the individuals and/or departments involved in the innovative project,
- Uncover any success stories and the impact of the innovation on the department and organization, and
- Determine future plans in terms of the current project and other similar projects.

The research was also driven by the following *Individual level questions/considerations*:

- Develop in-depth understanding of the main contributor of the innovation and his or her characteristics and behaviours that contributed significantly to the success factor in the full adoption of the innovation in the hospital, and
- Determine the identified champion's role in the project, role in the organization, effect on the innovation and hospital, previous experience in healthcare, and previous experience in implementing innovative projects.

#### 5.5.7.2 Questions Related to Respondents

For a complete list of questions related to respondents, please see (Appendix A)

#### 5.5.8 Case Study Report

The case study report will be presented in the following three chapters:

1. Chapter 6 – within-case analysis (four sections: each section represents one case)
2. Chapter 7 – cross-case analysis and discussion (deeper level analysis and discussion: commonalities, relating the findings to the literature, and higher lessons learned)

3. Chapter 8 – conclusion chapter including:
  - Relating the findings to RQS and ROs
  - Research contributions to knowledge and practice
  - Theoretical and managerial implications
  - Research limitations

After presenting the case study protocol, the researcher will discuss next the data collection tools used in the present research.

## 5.6 Data Collection Tools

Data was derived from two different sources in order to minimize bias. The researcher can provide a comprehensive picture of the phenomenon of champions of healthcare innovations by combining semi-structured interviews as a primary data collection tool with the use of observation as a complementary secondary method of collecting data. Using a combination of methods reduces the bias resulting from gathering data from one source and increases the construct validity of the findings (Yin, 2003). Therefore, it allows the researcher to produce more rigorous and useful findings for organizations in identifying and providing a more suitable environment for champions, particularly in the healthcare organizations. The primary and complementary data collection tools will be discussed in the following two sections.

### 5.6.1 Primary Data

In this research, primary data was collected through the use of semi-structured interviews. Semi-structured interviews can be used both when there is prior information from the literature and also when there is an exploratory aspect to the research which aims to further uncover certain aspects related to the phenomenon (in this case, the identification, role, and effect of champions). The researcher started with a list of general themes and questions to be asked (see Appendix A). Although a set of main questions and themes were covered in each interview, semi-structured

interviews provide a level of flexibility compared to structured interviews when it comes to the number and the order of the follow-up questions which are asked depending on the respondents' answers (Saunders et al., 2007). Semi-structured interviews are more organized than completely unstructured interviews where questions are not pre-defined and at the same time less rigid than the structured interview where all questions must be pre-defined and asked strictly in order. This arrangement allows for a greater balance between the use of prior research information and flexibility in exploring certain areas in depth. Because this research has an exploratory element, it is suitable to use non-standardized research interviews in the design (Blumberg et al., 2005). Semi-structured interviews allow the researcher to explore the setting and seek new insights when it comes to the first question of the research: "What characterizes champions in healthcare organizations?" Moreover, this design is helpful in understanding the remaining research questions concerning champions' role, importance, and effect when it comes to innovative projects. Additionally, using semi-structured interviews allows the respondents (interviewees) to explain the phenomenon under study from their point of view, which is in line with the interpretivist epistemology (Saunders et al., 2007). Face-to-face interviews were employed in the present study in order to have more control over the progression of the interview and to allow the interviewer to use other forms of information such as body language, emotions, and attitudes (Denzin and Lincoln, 2000) to aid the researcher in better choosing follow-up questions.

In order to minimize bias in identifying champions, interviewees were informed that the purpose of the study is to identify the main factors affecting the successful implementation of innovative projects. Interviews with project managers and project members were conducted to identify the champions. It is worth noting that the researcher interviewed all the members involved directly in these projects with the exception of those who were no longer part of the healthcare organization. Specifically, the goal was to identify champions (individual focus) based on the testimony of project members who worked closely with the champions. This resulted in 48 semi-structured interviews with project members in order to discover whether there were champions and if so who champions were and what elevated them to that

status. In other words, to identify individuals that other team members and managers decisively thought had the most pivotal and important role in the project's success (through exhibiting champion-like characteristics and behaviours). These interviews also helped investigate in detail the champions' role(s) and importance (project focus) as well as their effect on innovative projects in hospitals (management and organizational focus). Guided by the proposed working definition of champions and the proposed four contexts of champions' key behaviours and characteristics in the literature (see Chapter 2), interview questions were generated (see appendix A). More specifically, the researcher had a list of characteristics and behaviours in a form of follow-up questions that she used to identify individuals as "champions"; in addition, she identified those who affected the implementation and then examined their characteristics profile to see whether or not they could be branded and/or identified as champions. The use of direct observation, which will be discussed next, further helped confirm what has been proposed by previous literature as well as what have been emphasized by project members during interviews.

### **5.6.2 Complementary Data**

Yin (2003) showed that observations can occur within a range from formal to informal. In formal observation, the researcher develops observational protocols as part of the case study protocol and "measures" certain incidents. In contrast, casual or less formal observations might occur during a field visit including those times when other evidence was being collected, such as through interviews. It is important to note that this study involved less structured, casual observations of champions and project members to assess in validating information gained during interviews and to help the researcher provide accurate descriptions of the case studies and projects. Therefore, direct observation served as a complementary method of data collection that allowed the researcher to validate further what key characteristics and behaviours champions' exhibit in their daily routines.

By observing how the organization operated and the project members worked together, the researcher was able to validate the information that was collected in the

interview stage. The use of the direct observation method was influenced by the interpretive paradigm because observation aims to produce data that helps the researcher to obtain a deeper understanding of how individuals within a specific context perceived and interpreted events. It aims to investigate complex social situations linked to a specific context (Jorgensen, 1989, Simpson et al., 1995). In this thesis, the aim was to explore champions and their role, importance, and effect when it comes to innovative projects in healthcare. Therefore, observing champions and how they behave during the implementation of innovative projects contributed to answering the research questions.

The observations were usually conducted after interviewing a certain innovation team. During interviews, project members elaborated on the different characteristics and behaviours of champions that they believed helped to implement those projects. The researcher utilised the information gathered on champions during the interview stage to develop a list of different champions' behaviours and characteristics that she could use and assess during observations. The researcher was able to identify the project champions through the testimony of project members, except in one project where there was a lack of consensus. She observed each of those teams at three separate times for approximately one hour each time, for a total of 18 hours of observation. The observations took place at different stages and under different conditions with each group. For example, the researcher was invited to attend a team's weekly and/or monthly meeting (e.g. risk management project/case A, quality project/case C, and quality project/case D). The researcher recorded observations manually using observational notes by validating themes gathered during interviews regarding champions' behaviours and effects. Some examples of the behaviours being validated during the observations were the champions' self-confidence, confidence in project members, excellent communication skills, and influential nature, as evidenced by having their opinions heard and respected by project members during those meetings.

The observational notes were then manually coded and thereafter analysed by comparing the observational notes with the coded interviews imported in Nvivo software (see appendix D). It is important to note that no observations were made that undermined the information gained during interviews.

The observational notes helped the researcher to articulate a bigger picture of what was going on in real-life situations which helped the researcher making sense of the context of the study and most importantly in providing accurate descriptions of the cases and projects. The observational remarks were also featured in the interpretations and findings mainly through providing more valid and stronger arguments of champions' behaviours that were both reported and observed, such as exhibiting self-confidence and having excellent communication skills.

## **5.7 Data Analysis**

A standard qualitative analysis involved the collection of data, followed by the identification and collection of themes or perspectives, which will then be presented in a concise and understandable form (Creswell, 2009). As part of the analysis, the researcher adopted a deductive approach followed by an inductive approach. It is deductive in the sense that the researcher used prior research to generate interview questions and the conceptual framework to guide the case study analysis. It is also inductive in the sense that themes emerged from the data gathered to answer the research questions. Boyatzis (1998) called such an approach a "hybrid approach" where the researcher uses a data-driven approach as well as prior research and perceptions to articulate a useful meaning of the thematic analysis.

The data analysis in the current research followed Yin's (2003) approach when it comes to case study design, description, and case study protocol discussed earlier in this chapter. The database of the research included interviews and observations. This database was subject to different analysis techniques. More specifically, the researcher followed the data analysis steps proposed by Creswell (2009) as illustrated in Figure 5.3. She also followed the guidelines proposed by Boyatzis (1998) for meaningful

coding. The researcher conducted 48 interviews in either English or Arabic language depending on the native language of the interviewee and/or preference. All interviews were audio recorded, except two, before being transcribed and then translated (those conducted in Arabic language) from Arabic to English using Microsoft Word. It is important to note that the interviewees were from different ethnicity and therefore, it was important for the researcher to respect the interviewees' authenticity in translating and or transcribing interviews and thus, respect their voices. Then, the transcribed interviews were read thoroughly and summarized into relevant and valuable information to be ready to be imported into Nvivo software (see appendix C).

The researcher then worked to analyse the data, generating over (1977) codes overall. Then, the researcher conducted an iterative process of reducing these codes into codes that were highly and directly related to the objectives of the study. The process of creating these codes was based on codes that emerged from the data and codes that were pre-determined prior to data collection based on the literature review (see table 5-5). These codes were then thoroughly examined and (48) themes were identified before being clustered into super themes based on the research questions and framework and then conceptually classified into broader contexts. Finally, interpretations were presented using figures and descriptions. Figure 5-4 summarizes the analysis steps.

In the following sections, the researcher will discuss in detail the generation of codes and the structure of meaningful codes, followed by the data analysis techniques employed in the within and cross case analysis and the measures taken to ensure the reliability and validity of the research.

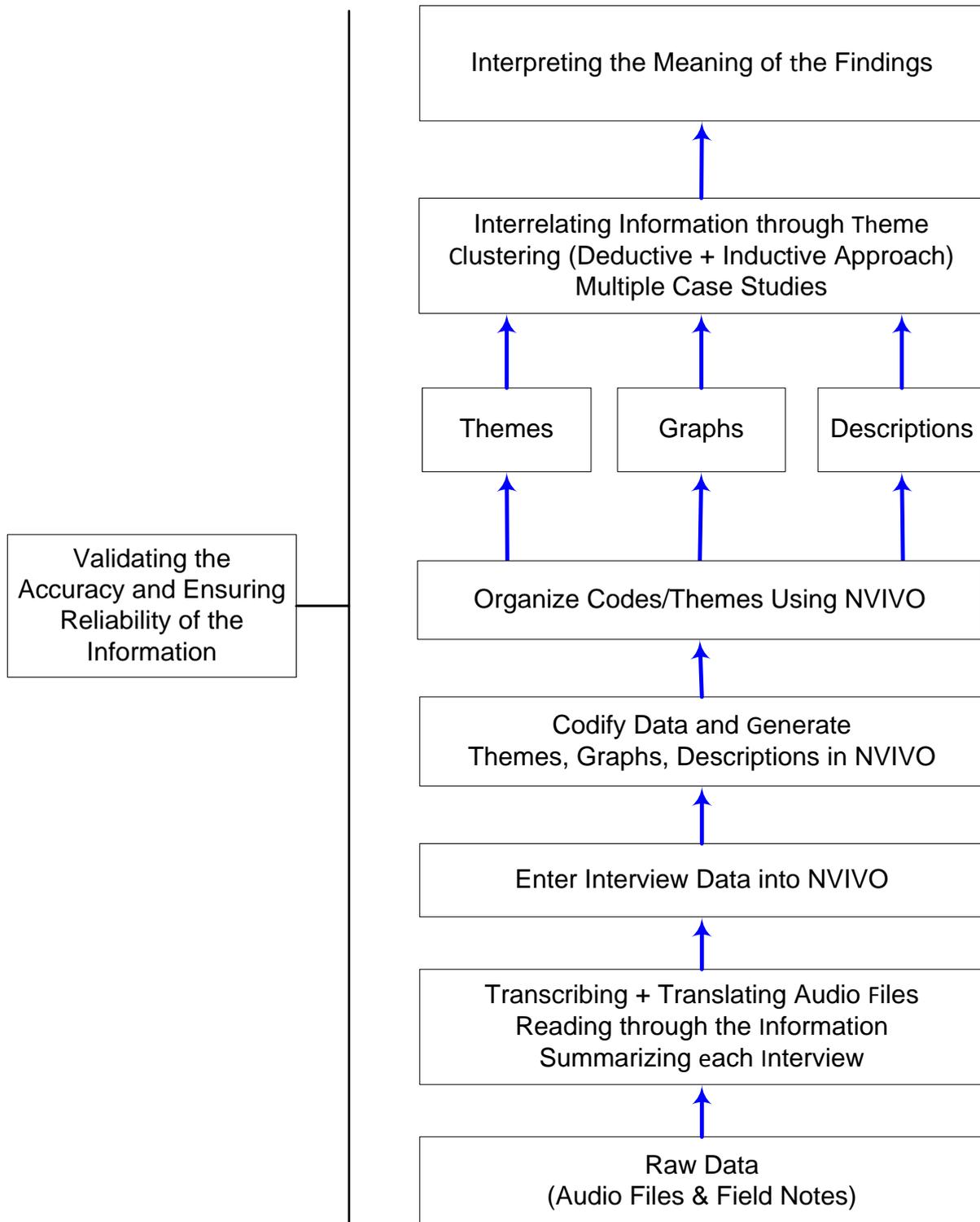


Figure 5-4: Data Analysis Steps Employed in the Research

### 5.7.1 Coding

A “start list,” or an initial set of codes, was created prior to data collection based on the research questions and research framework. These mainly descriptive codes were created in order to make sense of the large amount of data as recommended by Miles and Huberman (1994). Although guided by these initial codes, the semi-structured interviews used in this research allowed a level of flexibility for themes to emerge. As the analysis progressed, additional codes were added to the initial set of codes, and the list was revised. The unit of analysis in coding is champions and the unit of observation is their behaviours and characteristics throughout the course of the innovation. Table 5-5 shows the initial codes developed prior to data collection.

Table 5-5: List of the Initial Set of Codes Prior to Fieldwork

Short Description	Research Question	Code
<b>Project Level</b> <ul style="list-style-type: none"> <li>• Champion Characteristics</li> <li>• Champion Behaviours</li> <li>• Champion Role</li> <li>• Champion Importance</li> </ul>	<b>RQ1-2</b> RQ1 RQ1 RQ2 RQ2	<b>PRO</b> PRO-CH: CHAR PRO-CH: BEHA PRO-CH: ROLE PRO-CH: IMPO
<b>Management/Executive Level</b> <ul style="list-style-type: none"> <li>• Champion Characteristics</li> <li>• Champion Behaviours</li> <li>• Champion Role</li> <li>• Champion Importance</li> <li>• Champion Effect</li> </ul>	<b>RQ1-3</b> RQ1 RQ1 RQ2 RQ2 RQ3	<b>MNE</b> MNE-CH: CHAR MNE-CH: BEHA MNE-CH: ROLE MNE-CH: IMPO MNE-CH: EFCT
<b>Organizational Level</b> <ul style="list-style-type: none"> <li>• Champion Role</li> <li>• Champion Importance</li> <li>• Champion Contribution</li> </ul>	<b>RQ2-3</b> RQ2 RQ2 RQ3	<b>ORG</b> ORG-CH: ROLE ORG-CH: IMPO ORG-CH: EFCT



### 5.7.2 The Structure of Meaningful Codes

The initial set of codes prior to data collection and the codes that emerged from the data were all thoroughly examined to identify the behaviours and characteristics of champions which were then conceptually classified and clustered into super themes based on the research questions and framework. “A good thematic code is one that captures the qualitative richness of the phenomenon” (Boyatzis, 1998, p 31). He elaborated that a good thematic analysis should include five main elements:

1. **A label (i.e. a name):** “Should be conceptually meaningful to the phenomenon being studied. It should be clear and concise, communicating the essence of the theme in as few words as possible and it should be close to the raw data.”
2. **Definition:** “A definition of what a theme concerns (i.e. the characteristic or issue constituting the theme).”
3. **Indicators/Flags:** “A description of how to know when the theme occurs (i.e. indicators on how to ‘flag’ the theme).”
4. **Exclusions:** “A description of any qualifications or exclusions to the identification of the theme.”
5. **Examples:** “Both positive and negative, to eliminate possible confusion when looking for the theme” (Boyatzis, 1998, p 31).

Based on Boyatzis’ (1998) guidelines, each theme was given a label, a definition, indicators of theme occurrence, exclusion criteria, and examples, which all formed a basis for later interpretation and analysis. Table 5-6 is a sample of a theme description. For a detailed overview of all the themes’ descriptions, refer to Appendix B.

Table 5-6: Example of a Theme Description in the Present Study based on Boyatzis' (1998)

<b>Label</b>	Changes old perspectives in the culture to accept change
<b>Definition</b>	All efforts by the champion to increase the awareness of the new concept behind the innovation to be introduced within the hospital to prepare for a steady acceptance of a specific innovation (to be implemented)
<b>Indicators/Flags</b>	Any mention of the champion's efforts to lead the concept they advocate for to its true meaning
<b>Examples</b>	<i>"She started the real change so people can understand the right concept of health informatics rather than the previous wrong perception of it in the culture." (C1P2-1)</i>
<b>Exclusions</b>	Overcome resistance to the project or advocate for the specific project within the hospital

### 5.7.3 Within-Case Analysis

After coding the data, identifying themes, and describing them, the researcher then moved to analyse each case individually. The within-case analysis was mainly influenced by the research framework and research questions. The outcomes of this analysis initially helped in identifying and understanding the champions in terms of their characteristics and behaviours during the process of analysing each case project, which addressed RQ1. As the analysis progressed in all four cases, the researcher was able to capture in-depth understanding of champions' key behaviours and actions that helped in implementing these projects in each case. Moreover, the effect of their presence as part of these projects and hospitals was revealed, which addressed RQ2 and RQ3.

In order to reflect greater understanding of the findings, data displays such as figures, context charts, and matrices (role ordered matrices) were provided, as suggested by Miles and Huberman (1994). They suggested the need for visual displays which allow the systematic presentation of information so that readers can draw valid conclusions.

They further stated that showing unreduced amounts of texts is considered a weak method of displaying qualitative analysis.

Besides the use of these forms of display, the researcher also chose to conduct a frequency analysis on all the emergent champions' behaviours and characteristics. The frequency analysis helped the researcher to have a broader understanding of the most emphasized behaviours and characteristics from the perspectives of the respondents whether in the within case analysis or cross case analysis (see section 6.5.1). The frequency analysis was accompanied by the researcher's interpretations as she clustered them into larger themes to show a more concise and broader understanding of these themes.

#### **5.7.4 Cross-Case Analysis**

The aim of the cross-case analysis is to be able to provide more compelling evidence and confirmation (or not) of the findings of case A. Yin (2003) demonstrated that the use of "replication logic" in multiple case study design will allow the identification of patterns that are emphasized (or not) in each case. In following this understanding, the researcher was guided by the research framework as well as the research questions to analyse case A. After that, cases B, C and D were analysed to detect patterns that were either different from or similar to patterns found in case A. This helped the researcher to draw broader and more rigorous interpretations as the four cases were analysed.

As in the case of within-case analysis, tables, charts, and matrices were used to visualize the findings resulting from the cross-case analysis. Cross-case analysis provided the researcher with the opportunity to highlight possible differences and similarities between the four cases as well as reflect on the empirical findings and related it back to the relevant literature.

## 5.8 Quality Assurance of the Analysis

In quantitative research, the reliability and validity of the findings can be measured using different statistical tests, but it is different with qualitative research. For case study design as in the current research, Yin (2003) identified four criteria that can be used to judge the quality of the research. These criteria, namely construct validity, internal validity, external validity, and reliability, all have to be taken into account throughout the process of the research.

To address the issue of construct validity and to ensure the use of the correct measures for the main concepts under study, Yin (2003) recommended the use of multiple sources of evidence in order to reach greater credibility of the findings. In this study, the researcher uses semi-structured interviews as well as direct observation where the results obtained from those tools were compared with the literature.

Internal validity is more of a concern to explanatory and casual studies, as noted by Yin (2003). Although the current research is exploratory and descriptive, it focuses on determining the indicators of champions' effect on innovation implementation. Therefore, the use of more than one source of data collection and the iterative nature of the data analysis process increase the validity of the interpretations and inferences made by the researcher.

Yin (2003) argued that, in case study research, the concept of external validity cannot be used in the same way as it is used in quantitative research. Instead qualitative research mainly focuses on "analytic generalizability" rather than "statistical generalizability." This means that the findings of qualitative research could be generalized to a broader theory or body of knowledge. In this research, analytic generalizability was attained through the use of multiple case study design with a "replication logic" which helped to increase the strength and robustness of the research findings.

Reliability refers to the consistency of the procedures, such as the data collection tools, in attaining the same results (Yin, 2003). Yin (2003) recommended developing a case study protocol and study database to address the issue of reliability. In this study, the case study protocol (see Chapter 5, Section 5.6) included the context of the study, research questions, research framework, and interview questions as well as measures taken during data collection to ensure that all the procedures taken by the researcher were on target. Table 5-7 summarizes the four concepts addressed by the researcher.

Table 5-7: Criteria for Judging the Quality of Research Design Following(Yin, 2003, p 34)

Quality criteria	Suggested tactics to address it	Actions taken by the researcher
<b>Construct validity</b>	<ul style="list-style-type: none"> <li>• Multiple source of evidence</li> <li>• The evaluation of case study report by key informants</li> </ul>	<ul style="list-style-type: none"> <li>• The use of literature review, semi-structured interviews, and direct observation</li> <li>• The review of the case study report by the supervisors</li> </ul>
<b>Internal validity</b>	<ul style="list-style-type: none"> <li>• Explanation building</li> <li>• Logic models</li> </ul>	<ul style="list-style-type: none"> <li>• Testing conclusions drawn to ensure that all important variables are covered</li> <li>• Models used to establish chain of evidence during analysis</li> </ul>
<b>External validity</b>	<ul style="list-style-type: none"> <li>• The use of replication logic in multiple case studies</li> <li>• Compare outcomes with existing literature</li> </ul>	<ul style="list-style-type: none"> <li>• Four case studies were conducted (type 4 embedded)</li> <li>• Compare findings with literature on innovation and champions</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>• Use case study protocol</li> <li>• Develop case study database, systematic approach in data collection and analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Development of case study protocol prior to data collection (see Chapter 5, Section 5.6)</li> <li>• Development of study database including data collection plan, field notes, codes, interview translation, and transcripts</li> </ul>

In addition to Yin's (2003) four criteria as discussed above, other qualitative measures can be used to ensure the *reliability* and *validity* or, as some authors have called it, the *trustworthiness* of qualitative research. For example, Lincoln and Guba (1986) proposed four constructs to ensure the trustworthiness of qualitative research which are transferability, credibility, conformability, and dependability. Many other authors have either followed Lincoln and Guba's (1986) criteria (e.g. Sandelowski, 1986) or suggested different terms to achieve the trustworthiness and credibility of qualitative research (e.g. Whitemore et al., 2001). However, the researcher chose to follow Yin's qualitative criteria but take it a step further by examining inter-rater reliability. This is because the researcher agrees with Dey's (1993) assertion that displaying some qualitative data numerically can make patterns "emerge with greater clarity" for both the reader and the researcher as well as reassuring the reader that the researcher accounted for all data gathered and has not discounted any data gathered (Dey, 1993:198).

According to Boyatzis (1998), reliability is a "consistency of observation, labeling, or interpretation" (Boyatzis, 1998, P 144). It can be viewed as a consistency of judgment among a number of viewers which is attained when the exact themes are observed by two or more observers who read the same material (Boyatzis, 1998). One of the methods in attaining reliability is double coding (Miles and Huberman, 1994), which occurs when two or more observers observe the raw data and make judgments about it before interacting with one another. Then, the observers compare and discuss their results and observations until agreement is reached. Interrater reliability measures the percentage agreement and the correlation scores between the two coders (Boyatzis, 1998) and increases the reliability by increasing confidence in the findings. The term "confidence" in qualitative research is used to show a sense of trust that the researcher(s) captured the true meaning behind the information gathered and made sound judgments. Such a consistency of judgment among observers can be increased by having a standardized protocol in conducting interviews as well as recording the research data, which this study demonstrated.

Percentage agreement is a known procedure for measuring interrater reliability, but there are some differences in the way the agreement scores are calculated. Two of the most well-known methods are calculating the scores of all judgments or calculating the scores of the presence or absence of coded themes. The researcher followed the latter method in her study, as the percentage of agreement is, according to Boyatzis (1998), the most typically cited measure of interrater reliability.

In the current study, Coder A is the researcher, and Coder B is another researcher who is also working on his research on a different topic but using similar methods of analysis. Since the absence of coded themes in this research does not mean the opposite of its presence, the researcher chose to calculate the percentage of agreement scores based on presence only. To calculate the “percentage agreement on presence,” the following equation proposed by Boyatzis (1998) was used:

$$\text{Percentage Agreement on Presence} = \frac{2 \times (\# \text{ Both coders saw } C \text{ present})}{\# \text{ First Coder saw } C + \# \text{ Second Coder Saw } C}$$

Note: *C* is the code being observed as present.

Table 5.8 illustrates the coders’ percentage agreement scores of case study A in this research. The percentage agreement on presence means that Coders A and B both saw the coded theme present.

Table 5-8: Interrater Reliability Agreement Percentage Scores - Case A

Type	Theme	A	B	C	% agreement on presence
Behaviours	Proposes creative ideas for projects	53	41	41	<b>87.2%</b>
	Advocates for the idea of the project within the hospital	47	40	36	<b>82.7%</b>
	Influential	42	39	38	<b>93.8%</b>
	Unlocks others’ potential, sees the project member as a whole	38	32	31	<b>88.6%</b>

	Fully committed to the project	31	23	23	<b>85.2%</b>
	Provides continuous support and intervention	20	22	19	<b>90.5%</b>
	Use of personal network	17	15	13	<b>81.2%</b>
	Confidence in the project outcomes	13	13	13	<b>100%</b>
	Secures financial and human resources	13	15	12	<b>85.7%</b>
	Critical input in the initiation phase	11	13	11	<b>91.7%</b>
	Understands and overcomes resistance to change	11	12	10	<b>86.9%</b>
	Changes old perspectives in the culture to accept change	8	8	8	<b>100%</b>
	Recognizes the need for the innovation and visualizes its potential	7	7	7	<b>100%</b>
	Confidence in the project team	5	5	5	<b>100%</b>
	Decisive use of authority	4	4	4	<b>100%</b>
	Actions speak louder than words	3	4	3	<b>85.7%</b>
Characteristics	Problem-solver	34	30	30	<b>93.7%</b>
	Experienced, competent, and knowledgeable	30	31	23	<b>75.4%</b>
	Successful strong manager	28	22	22	<b>88%</b>
	Excellent communication skills	25	23	21	<b>87.5%</b>
	Enthusiastic and active	20	17	16	<b>86.5%</b>
	Well-known in workplace for informal contributions over formal status	20	14	14	<b>82.3%</b>
	Strongest supporter of the innovation	15	17	15	<b>93.7%</b>
	Effective team player	13	10	10	<b>86.9%</b>
	Willing to accept the responsibility of the innovation	12	10	10	<b>90.9%</b>
	Hardworking symbol	12	11	10	<b>86.9%</b>
	Strategic alignment-big picture thinker	11	10	10	<b>95.2%</b>
	Initiator	11	11	11	<b>100%</b>
	Persistence in moving the project forward	11	8	8	<b>84.2%</b>
	Familiarity with the innovation, hospital system, and the innovative environment	9	5	5	<b>71.4%</b>
	Knowledge sharing within project and hospital	9	10	8	<b>84.2%</b>
	Strong personality-strong mind-set in decision-making	7	6	6	<b>92.3%</b>
Risk-taking propensity	6	5	4	<b>72.7%</b>	

	Selflessness-hospital recognition over personal recognition	6	4	4	<b>80%</b>
	Planner	6	6	6	<b>100%</b>
	Up-to-date knowledge of the industry	6	4	4	<b>80%</b>
	Very professional	5	5	5	<b>100%</b>
	Proud of the project and the achievements	5	4	4	<b>88.9%</b>
	Believes in self-confident in what he or she does	4	3	3	<b>85.7%</b>
	Successful-which creates supporters and antagonists	4	3	3	<b>85.7%</b>
	Respected by others	2	2	2	<b>100%</b>
	Optimistic	2	4	2	<b>66.7%</b>
Role, Importance, & Effect	Indispensable presence-achievements	51	45	42	<b>87.5%</b>
	What would happen if they leave or were not part of the innovation and organization?	32	32	30	<b>93.7%</b>
	Future impact	9	8	8	<b>94.1%</b>
	Recognized as critical-most needed at different stages of the project- added value and input	17	13	13	<b>86.6%</b>
	Recognized strategies to support the project	12	15	10	<b>74.1%</b>
	757	681	633	<b>88%</b>	

A: Number of Times Coder A saw it present

B: Number of Times Coder B saw it present

C: Number of Times Coder A and Coder B saw it present

$$\% \text{ agreement on presence} = 2 * C / (A + B)$$

Miles and Huberman (1994) stated that an 80% or above agreement level is considered good qualitative reliability. Similarly, Boyatzis (1998) mentioned that scores of 70% or better are needed, which is in line with Miles and Huberman's (1994) estimate of good interrater reliability. Table 5-9 provides the descriptive statistics about the coders in the present study:

Table 5-9: Descriptive Statistics about Each Coder

Variable	Coder A	Coder B
Mean	16.106	14.489
Standard Deviation	13.449	11.579
Kurtosis	0.955	0.469
Skew	1.333	1.187
Range (min-max)	2 – 53	2 – 45

To determine the accuracy of the results of the interrater reliability, three well-known correlation coefficients were used. The Pearson product moment, which is the most popular correlation coefficient, is used with a normally distributed interval data. Kendall’s tau, which is usually referred to as a rank-order correlation, is “based on counting the number of that pairs of things are in the same versus opposite order on both variables” (Cliff, 1996, p 29). Spearman’s rho calculates a Pearson correlation between ranks established through converting scores into ranks. Since the data of this study is normally distributed (as Kurtosis and Skewness were within the range of -2 and +2), Pearson is the more suitable for this study. Nevertheless, regardless of how the data of this study is distributed, all the correlation coefficients are significant, which shows a high degree of confidence in the reliability scores as table 5-10 demonstrates:

Table 5-10: Correlation Calculation for Interrater Reliability

Measure	Coders A & B
% Agreement presence only	88%
Pearson product-moment correlation	<b>.982**</b>
Kendall’s tau correlation	<b>.893**</b>
Spearman correlation	<b>.972**</b>
NOTE: For correlations, N=47	
** Correlation is significant at the 0.01 level (2-tailed)	

## **5.9 Summary**

In this chapter, the researcher discussed the ontological, epistemological, and methodological considerations in choosing to adopt the interpretivist paradigm in the current study. The nature of the research approach, which is a combination deductive/inductive qualitative approach, was provided, followed by a discussion and justification of the case study strategy employed in this research. Next, the researcher explained the process of determining the case study design (multiple case study design/embedded type 4) and the reasons behind this choice. Then, the choice of public hospitals in Saudi Arabia was made for the setting of the research along with a discussion about the research sample and preparing data for analysis. Afterward, the researcher discussed the choice of data collection methods including the use of semi-structured interviews and direct observation. Finally, within-case and cross-case data analysis steps and procedures were discussed, followed by a discussion about quality assurance procedures taken by the researcher to ensure the validity and reliability of the research. In the following chapter, the researcher will present the within case analysis of the four case studies.



## **Chapter 6      Within Case Analysis**

### **6.1 Introduction**

The overall aim is to understand the phenomenon of champions and their role, importance, and effect in a number of identified innovative projects in four cases conducted by the researcher. In this chapter, the researcher will first highlight the nature of the healthcare sector in Saudi Arabia and provide an overview of each case, its projects, and its interviewees' background information. After the overview, each case study will be presented. It is worth noting that, in order to avoid repetition; the researcher presented a detailed description and analysis of Case A in comparison with the remaining cases (Case B, C, and D). For confidentiality purposes, the real names of the four healthcare organizations have been omitted and are referred to as Case A , B, C, or D, respectively. Similarly, the real names of project members have been replaced by alternative names and/or left out.

The data, which was collected mainly through semi-structured interviews and the use of observation, has been analysed using different techniques that were highlighted in chapter 5. It is important to remember that the analysis is guided by the research framework presented in chapter 1 section (1.4.1) and chapter 5 section (5.5.4) which first focuses on profiling champions in terms of their characteristics and behaviours in order to understand who they are in healthcare (individual level). The analysis will reflect their importance and role in healthcare innovations which will be seen through their key behaviours throughout the course of the project (project level). Finally, how they contribute to and affect the successful implementation of the innovative goals and behaviours of the hospital's management will be highlighted (management and organizational level). The following chapter will present a cross-case analysis adopting Yin's multiple case study design (Yin 2006) where the data is first analysed within the case context and then within the cross-case context.

## 6.2 Nature of Healthcare Sector in Saudi Arabia

Healthcare services in the kingdom of Saudi Arabia are provided by a number of governmental bodies along with the private sector. The Ministry of Health is the main provider and financier of healthcare services, providing over 60% of the overall health services, including primary, secondary, and tertiary healthcare services (Almalki et al., 2011). However, other governmental healthcare facilities that are funded outside the budget of the Ministry of Health include the Ministry of Higher Education hospitals, Armed Forces hospitals, National Guard hospitals, and Royal Commission hospitals, which together provide over 80% of health services. Although some of these governmental bodies provide health services for a defined population (e.g. its employees and their dependents), they all, along with the Ministry of Health, ensure that all residents have full and free healthcare services. In contrast, private hospitals provide only 20% of the overall healthcare services and serve both foreigners and Saudi citizens. Figure 6-1 illustrates the structure of the Saudi healthcare sector when it comes to the delivery of services. Gallagher (2002) stated about the Saudi healthcare system:

*“Although many nations have seen sizable growth in their healthcare systems, probably no other nation [apart from Saudi Arabia] of large geographic expanse and population has, in comparable time, achieved so much on a broad national scale, with a relatively high level of care made available to virtually all segments of the population.”* (Gallagher, 2002, p 182)

As in many industrialized countries, public expenditure on healthcare has increased rapidly in recent years. In 2009, government expenditure on healthcare represented 5% of gross domestic product (World Health Organization, 2009). With a rapidly growing population, the government has attempted to reduce the costs of healthcare services through several means, including the introduction of private health insurance in the year 2002 and future plans for the privatization of state-owned hospitals. The proposed plan includes a number of gradual phases transitioning toward mandatory health insurance. When fully implemented, all Saudis and non-Saudis will be offered

basic level of health benefits by businesses and government ministries. Currently, all expatriates are fully insured by their businesses. The transition toward national health insurance is expected to minimize the government expenditure on healthcare and allow the risk of expenditures to be shifted from the government to insurance companies (Walston et al., 2008).

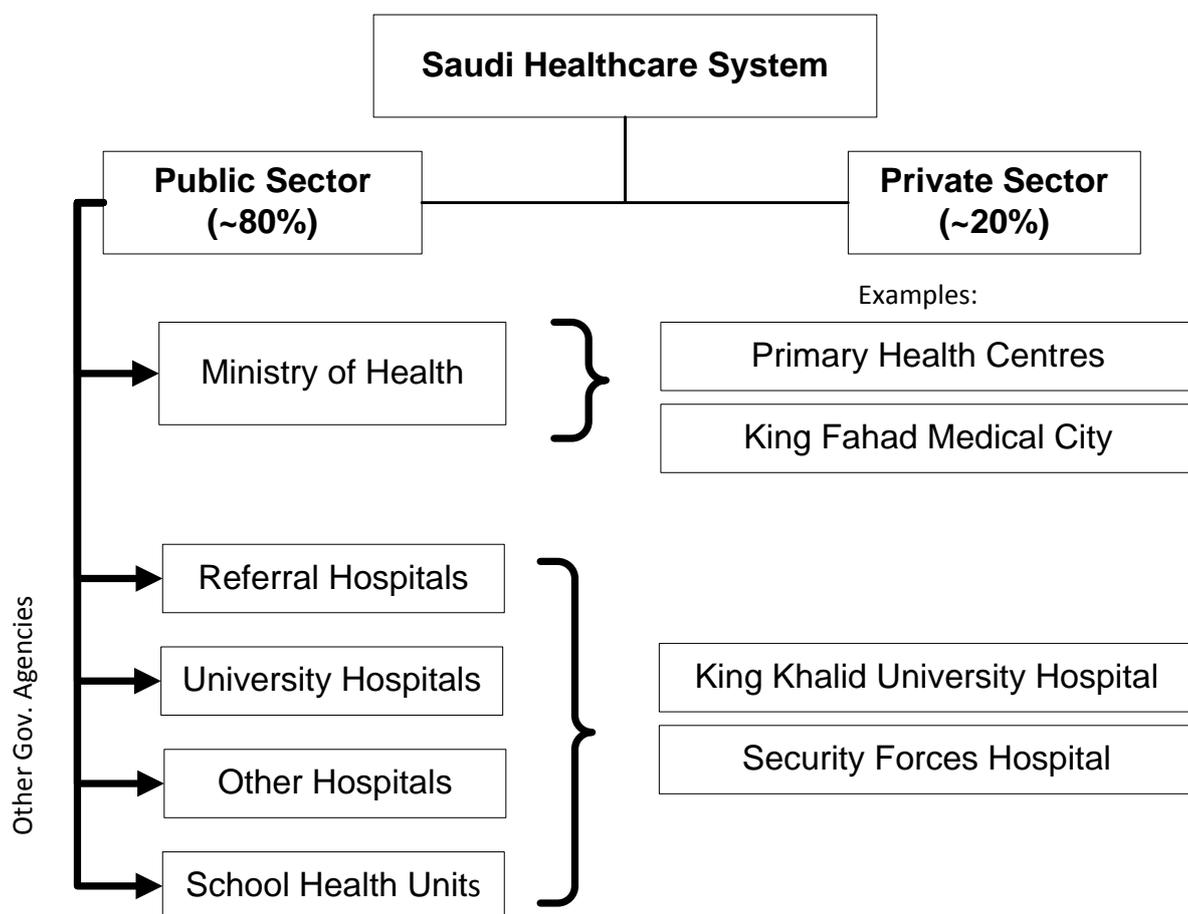


Figure 6-1: Structure of Healthcare Sector in Saudi Arabia

The government is continually attempting to increase the quality of services provided to patients in both public and private healthcare sectors. Currently, public government-owned hospitals are allowed to generate revenue by establishing business centres (offering charged healthcare services) in addition to their annual budget by the government (Walston et al., 2008); therefore, competitiveness does exist between these two sectors in terms of delivering high quality healthcare services. This situation

helps the organizations prepare for the increasing competition and potential privatization in the future.

### **6.3 Healthcare Innovations**

Saudi healthcare focuses on providing better services to patients through advanced innovative means such as new technologies and safety and quality measures. However, the challenge is to select those innovative means that better match the goals and objectives of the hospital. Furthermore, the biggest challenge of all is to successfully implement and integrate them within the hospital.

The innovative projects that have been identified in this study are process innovations: administrative and technological innovations. Administrative innovations took place in departments such as the quality and safety department, the human resources department, and others. Technological innovations, on the other hand, took place in departments such as IT and the pharmacy. The innovative projects investigated in this study include a risk management and safety project, a quality assurance project, electronic nursing board system, and CPOE project (Computerized Physician Order Entry) among others. The following section will discuss Case A and its innovative projects in detail.

### **6.4 Case Study A description**

#### **6.4.1 Organization Overview**

Case study A involved a medical facility that is a leading tertiary care referral centre in the region. It is considered the largest and one of the most advanced medical complexes in the Middle East with a total capacity of over 1,200 beds. It consists of a number of hospitals and medical centres expected to treat annually over 45,000 in-patients and over 550,000 out-patients. It offers different levels and types of care ranging from treating heart and cancer diseases to women's and children's health. The facility has received national and international awards and accreditations for its quality

care, technological advancements, and project performance. It was an excellent environment for the researcher to explore in depth the role of its leading key individuals in its initiatives and achievements.

#### **6.4.2 Case A Innovative Projects**

After multiple visits by the researcher that included discussions with hospital representatives to get a sense of any innovative projects that would meet the study definition of innovation (for details, see chapter 5 /section 5.4.3), four innovative projects were identified; 3 technological and 1 administrative. The ultimate aim of these projects is to deliver the best healthcare services to patients both in terms of technological advancements and within the resources and capabilities available. Table 6-1 presents an overall description of the innovative projects identified Case A.

Table 6-1: Description of the Innovative Projects - Case A

Project code	Type of project	Project description	Duration	Stage of project	%	# of members
C1P1	Administrative	Initiative that came from within the hospital for a new unified policy for risk to enable the hospital to work more efficiently, considering safety, operational, and strategic risks <b>Benefits:</b> patient satisfaction, staff safety, and increasing the quality of care	18 m	Fully adopted	100%	5
C1P2	Technological	Initiative toward paperless health records <b>Benefits:</b> easy accessibility and security, saves time for medical staff and patients, improves effectiveness	18 m	Fully adopted	100%	9
C1P3	Technological	Computerized Physician Order Entry (CPOE) - electronic system for entering the medical treatment of patients and aiding decision support system <b>Benefits:</b> reduces medical errors, decreases delay in the process, patient safety, security, portability	12 m	<b>Phase one:</b> Out-patient: fully adopted <b>Phase 2:</b> In-patient: middle of implementation	100%  50%	3
C1P4	Technological	Mobile health application where patients access their lab results, upcoming appointments, and related materials to their health. Additionally, it serves as a communication point between physicians and patients. <b>Benefits:</b> easy access to health data, enhances relationship between physicians and patients	3 m	Fully adopted	100%	7

The first project (C1P1) aims to develop a creative unified policy to manage the risks in a way that is consistent, repeatable, and visible in order to support better decision making. Moreover, the project aims to implement a process that can proactively identify, assess, and reduce unpredicted adverse safety events in the hospital environment that may affect the delivery of health services. These risks include patient and staff risks, financial risks, among others. The project is currently implemented in one hospital out of the four hospitals within the medical city. The chosen hospital specializes in traumatic and brain injuries and has a capacity of 160 patients. Now with the success of risk management in one hospital, the same team is set to implement the innovation in the remaining three hospitals and four centres (e.g. heart centre) of the medical city. The champion commented on the aim of the project:

*“It was not easy because it was a new concept. Although everyone thinks about safety, but each one perceives it differently; it varies from one to another. The way we thought about it is that we needed to establish a clear common safety process and be consistent about it. [...] Honestly implementing risk management is not an easy thing even internationally. We had to start from scratch, with almost no culture of risk management. So, I thought about coming up with a model to help us implement risk management, and I did.” (C1P1-1)*

The second project (C1P2) aims to have electronic health records for patients to increase the quality of services through the use of electronic checklists, alerts, electronic prescriptions, and standardized guidelines to reduce errors and secure the data of patient files. The project is also intended to help the medical staff and administration in doing their jobs more effectively and easily. The identified champion of the project proposed the idea and provided a full detailed plan which was approved by the CEO of the medical City. The champion recognized the need for the innovation and wanted to put herself forward to head the project. It was successfully implemented within 18 months as opposed to previous attempts to implement similar systems which all failed. With the exception of the main hospital, the project is now implemented in three specialized hospitals with bed capacities that range from 160 to

500 beds each. In addition, the system also covers all the medical city centres with an average of 50 beds each. The system is used by thousands of physicians, nurses, and administrative staffs throughout the medical city as 90% of the inpatient and out-patient files are now fully electronic. Interviewee 1 stated:

*“One of the goals of the medical city is to be a digital healthcare organization. From there, [the champion] started to think about some kind of digital scanning and other similar ideas to transform the patients’ files to electronic ones. We actually decided what was most suitable for the hospital and the resources we had and everything. We came up with a clear plan of what we wanted to achieve, how to achieve it and when [...] We are treating people from all over the kingdom. People are coming sometimes from another city or village and have more than one appointment per day, so we had these issues of sharing the patient file and the verification of it because when it is paper based, it could be lost or destroyed.” (C1P2-1)*

The third project (C1P3) is a technological initiative in which the champion proposed to implement CPOE (Computerized Physician Order Entry). As in project C1P2, the medical city had been trying to implement similar ideas for a while, but with no success. The system allows a physician to enter patient prescriptions which can then be communicated or sent through the computer network to certain departments such as the pharmacy, the laboratory, nursing, or radiology, which are responsible for fulfilling the order. The ultimate aim is to reduce errors that may lead to harm or death of patients. According to respondents, the implementation process was really challenging because such system may take years to be successfully implemented and fully used by end-users. They highlighted how the process was challenging due to the resistance from physicians once they heard about the system. Many refused to use it once it was implemented, which made the presence of key individuals, such as the identified champion, more critical. The system is now implemented in all the out-patient clinics (over 65 primary and specialized healthcare clinics) in the four hospitals and four centres of the medical city.

The fourth project (C1P4) was an initiative proposed by a physician champion to provide patients with a mobile application where they can view their upcoming appointments among other services at anytime from anywhere. Moreover, it serves as a communication point between physicians and patients where physicians can use the service to see how patients are doing at home after they are given the treatment; at the same time, the patient can simply communicate with his or her physician if he or she has any questions without the need to book an appointment and come to the hospital. The application provides services within four categories: The medical services category is the largest category and allows all the medical city patients (over 550,000 out-patients a year) to view their appointments and lab results, among other services. The employee services category is for employees to view their salaries, vacations, and all personal information. The public category includes the health education and Islamic awareness services among other sub-categories. The health education sub-category includes customized health educational articles and videos based upon on the logged-in patient's medical history. The Islamic awareness sub-category, on the other hand, includes Islamic articles regarding issues such as how to pray during sickness. Finally, the vendors' category is basically a mediator between the medical city and the potential vendors. The physician who proposed the idea stated:

*“We wanted to change people’s perceptions toward what a health service really is. It is not only booking an appointment, seeing a doctor, and have a treatment plan, and that’s it! No! It is way more than that, and this is what we are trying to show in this application. It is a continuous interaction process between the patient and the physician, and we wanted to see this interactive process between the service providers and patients through this application. We wanted this application to be used by patients as an E-clinic where they can view their lab results, their cases, communicate with their physicians if they have any further questions regarding their conditions.” (C1P4-3)*

Another project member elaborated by stating:

*“It is a service where patients can view their appointments and all other medical services anytime anywhere. It saves time and effort for patients and health providers as well. The studies showed that, by mid-2012, there will be enormous use of mobile devices that has never been seen before in the country. The prediction is that over 6 million mobile devices are going to be sold in a year. So it is more convenient for a person to have a healthcare service in his or her mobile. One of the goals of the medical city is to be always the first in everything.” (C1P4-4)*

In the next section, the innovation team and the roles of individuals in Case A will be highlighted.

#### **6.4.3 Role of Individuals: Innovation Team -Case A**

Although most of the above described innovative projects were fully adopted, the teams of the four projects were still conducting continuous enhancements and improvements based on feedback from end-users such as physicians and nurses. Team members from different levels of the organization and different specialties and departments worked together to implement these projects. These team members included executives in supportive roles, middle managers, IT specialists, pharmacists, physicians, nurses, and others depending on the type of the project and where the project was implemented. Clearly these individuals had their own formal roles in the organization in addition to their roles in the innovative project. The team size ranged from three individuals to up to 10 or 11 members. Figure 6-2 illustrates the role of individuals at different organizational levels/specialities in the different stages of the innovation.

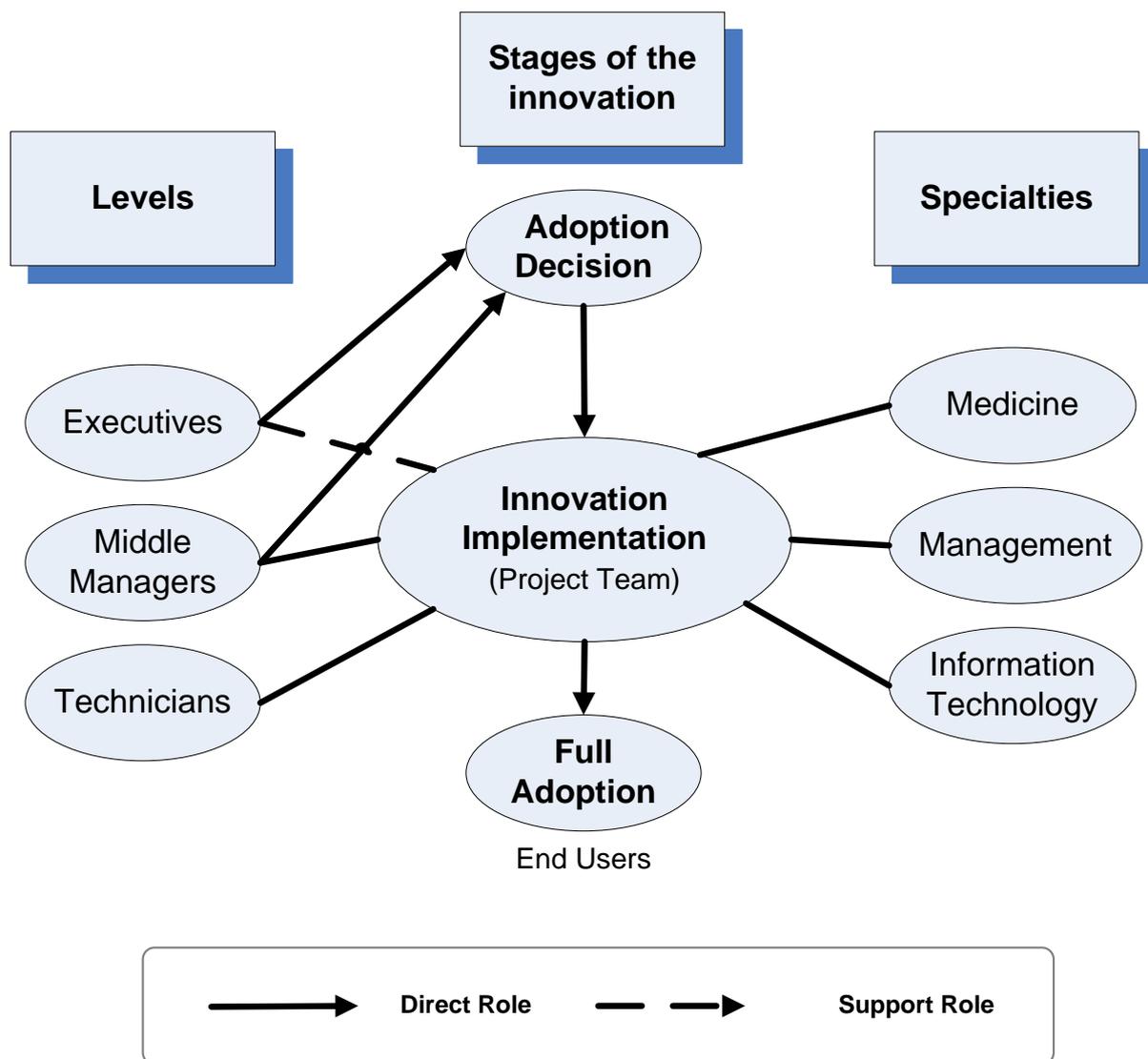


Figure 6-2: The Structure of the Project Team in Different Stages of the Innovation

When asked to identify the champions in three of these projects, the majority of the interviewees reached a consensus on individual(s) widely recognized as the champions of the project. In the last project, four individuals were nominated as the champion of the project. The ambiguity about the champion’s identity is partly because this particular project was not owned mainly by one department, as in the case of the remaining three projects. Therefore, each team member nominated the individual he or she knew best and worked most of the time with in comparison with the other team members who were located not only in different departments but also in different hospitals within the medical city. For example, it was natural for a project member

who was a health educator working with other physicians in the implementation to nominate someone within his or her department rather than someone within the larger project team. Individuals tended to nominate a champion they interact with on a daily basis because they are unfamiliar with the contributions of members from other departments. Likewise, those who joined later in the implementation process were less familiar with how the project was initiated and who was involved; significantly, these individuals also stated that those who were there from the beginning would better know who contributed the most value to the project.

In each project, the project members identified individuals who decisively thought had the most pivotal and important role in the project’s success (through exhibiting champion-like characteristics and behaviours). They talked about the behaviours and characteristics of the person they nominated which they believed helped the project in terms of the adoption decision, implementation, and/or full adoption within the hospital depending on the case and story of each project. Table 6-2 shows the professional background of the interviewees in these projects and the champion(s) nominated per interviewee.

Table 6-2: Professional Interviewee Background Information and their Nomination-  
Case A

Interviewee’s Code	Years of experience in healthcare projects	Role in project	Role in organization	Champion nominated
<b>Risk management project C1P1</b>				
C1P1-1 <b>Champion</b>	20	Project leader	Consultant in rehabilitation and assistive technology	C1P1-1
C1P1-2	3	Risk lead	Speak language therapist	C1P1-1
C1P1-3	1	Risk lead	Risk lead	C1P1-1
C1P1-4	5	Physiotherapist	Risk lead	C1P1-6
C1P1-5	5	Occupational therapist	Risk lead	C1P1-1 C1P1-6
C1P1-6				Left the organization
<b>Chart viewer project C1P2</b>				
C1P2-1	11	Director of health	Supervision	C1P2-10

		records unit Vice director of health information management department (HIM)		
C1P2-2	4	Clinical coder	Testing the system	C1P2-10
C1P2-3	2	Senior technician in HIM department	Filling	C1P2-10
C1P2-4	2	Senior HIM technician	System support and management	C1P2-10
C1P2-5	2	Health informatics specialist	System support and management, training and marketing	C1P2-10
C1P2-6	2	Health information specialist	System support	C1P2-10 +Teamwork
C1P2-7	2	Head of the operation/workflo w progress unit	Physical and electronic file management	C1P2-10
C1P2-8	2	Head of transcription unit in HIM department	Supervisor of transcription and verification	C1P2-10
C1P2-9	8	Head of archiving unit in HIM department	File inventory	C1P2-10
C1P2-10 <b>Champion</b>	13	Director of health information department	Project leader	Not interviewed
<b>CPOE project C1P3</b>				
C1P3-1	5	Pharmacist	Develop and analyse the system, Support and training	C1P3-4
C1P3-2	7	Senior pharmacist informatics	Develop and analyse the system, Support and training	C1P3-4
C1P3-3	10	Head of satellite pharmacy	Business giver and system analyst	C1P3-4
C1P3-4 <b>Champion</b>	18	Director of pharmacy department	Project leader	Left the organization
<b>I-application project C1P4</b>				
C1P4-1	7	Head of system development and integration unit/IT department	Team Leader	CEO

C1P4-2	4	Health educator	Health education material	C1P4-3
C1P4-3	2	Physician in radiology	Designer, health education, idea	C1P4-5 C1P4-7
C1P4-4	12	Director of IT department	Coordination and supervision	C1P4-1
C1P4-5	1	Programmer	System architecture IT technician	C1P4-1
C1P4-6	3	Islamic mentor	Islamic awareness material	C1P4-5
C1P4-7	2	IT intern	iOS developer	C1P4-5

#### 6.4.4 Institutional Support-Case A

The CEO of the medical city, who is a former physician and one of the decision makers in the healthcare sector in Saudi Arabia, was described in almost every interview as a supporter of innovative thinking and change. The interviewees perceived him as “the support umbrella” for all the identified innovative projects in terms of budget, authority, human resources, and facilitating the usual paperwork and long procedures in addition to providing overall support. They perceived his support as one factor to the success of these innovations because such support came from a higher level. They believe that if he, as a CEO, did not show interest in the innovation, more likely people in the organization would not either. The interviewees described a number of projects initiated in the past that did not work because of the lack of a person on the higher level of the organization to approve and support it all the way; a person with authority, they argued. One respondent in the chart viewer project C1P2 stated:

*“When it comes to the hospital administration, I would say [The CEO] who supported us in every way possible and provided everything we needed for the project to be implemented. All the required resources and things that could possibly be barriers to implement such a system were all facilitated by him so the project could be implemented.” (C1P2-7)*

The reason mentioned most often for describing the CEO as supportive was that he was open to and approving of change and new opportunities for new innovative projects. According to the majority, if not all, of respondents, he played a huge role in accepting the innovative ideas of these four projects as well as supporting innovative thinking and new technologies. Likewise, respondents genuinely felt that he had a great vision for the medical city to be considered the best healthcare organization in the region if not the world. His commitment to and support of innovative ideas proposed by the champions was what allowed these champions to emerge with these ideas and work hard in implementing them successfully. It has been stated by one respondent that he believes in the utilization of fresh talents especially when he sees their creativity and love to work regardless of where they are coming from within the medical city. According to the interviewees, he gives these champions a “green light” to be innovative without interference. One individual stated, “He gives his support and he doesn’t interfere.” (C1P1-1)

Another elaborated by stating:

*“[The CEO] is supportive, and he comes from a higher level in the organization so his support is critical [...] always looks for something new and innovative to adopt and support [...] He personally forwarded [C1P4-3] email about her idea for the project and asked me to take care of her request mentioning that this is a great idea that can be done [...] He actually forwarded her email to two different project teams to make sure that one of them was going to be able to implement it. At the beginning, both teams started working on it, but later, we actually succeeded on handling the whole project.”*  
(C1P4-1)

Also, in the case of projects that do not belong to a certain department (as in the case of C1P4), the support of the top management was critical to move forward with implementation. One respondent from the project stated:

*“Since this project doesn’t belong to a certain department like sales or patient affairs because it serves employees and patients as well. However, all these departments have one CEO so if we didn’t have his support, we would go through a lot of hassles of policies, procedures, security, and paperwork that will never end. He gave us the green light to go ahead, and he handled all these things so we move forward with the implementation.” (C1P4-1)*

#### **6.4.5 Behaviours and Characteristics of the Identified Champions-Case A**

The champion of the risk management project (C1P1) is a consultant in assistive technology who is the team leader as well. He had led and introduced a number of innovative technological projects for disabled patients in the medical city. He had critical input during the initiation stage of the project, working on the safety policies, procedures, and a risk model from scratch that were to be implemented before the formal project team was formed. He even developed a website to increase risk management awareness within the hospital. Although the website was not required from him, it was very helpful to staff who were not sure of their responsibilities in terms of risk management. He was a strong advocate of the risk management concept through presentations, informal talks with staff, and during meetings. He was fully committed to his job and to the project, and he had the ability to foresee future challenges surrounding the department’s innovative projects due to his familiarity with the innovative environment which helped in the implementation significantly. He was perceived as the most experienced among the team when it came to risk management, and he shared his knowledge with other project members. He was known for perceiving project members as individuals, caring about them on a personal level, and addressing their needs, rather than viewing them as simply project or staff members. For instance, the department staff and project members lacked experience in risk management as it was a new concept to the medical city, so he used his social network inside the hospital and persuaded the top management to pay for the project members to take a comprehensive exam to be accredited risk leads. This action ultimately helped them be competent in doing their jobs. Project members perceived

him as a key factor in the success of both the department and the project. Some even expressed that the department would suffer and face some pressure in work if he was not part of it; likewise, they stated that, without him, the project would not have been successfully implemented within 18 months compared to other hospitals in the area which took up to 8 years to fully adopt.

The head of the health informatics department was unanimously identified as the champion of the chart viewer project C1P2, and according to those who worked with her, an advocate of change. From the time she joined the medical city, she worked to change the old perceptions toward health informatics. First, she successfully persuaded the top management to change the name of the department from “health records” to “health informatics”; afterward, she proposed the project idea, which was to fully transform patient files to electronic ones. The interviewees described her as a creative individual who thinks outside the box, using unconventional methods to achieve positive results at the project or department level. According to respondents, some in the medical city (e.g. physicians and managers) were sceptical about her ideas, yet realized their benefits at the end when they saw the results. The respondents felt that she had the ability to make people listen to her unconventional ideas which resulted in important lessons about new techniques and new approaches that could work; in response to the lessons learned, people decided to fully support her in the future. According to respondents, she was a leader by example, proved herself through her actions, and was not afraid to be blamed by others, which showed her leadership ability as well. People followed her not necessarily because they had to but because they knew that, somehow, she was going to make it work. She also leads by showing others through her actions that it is not about her but the benefits for the hospital and patients. One respondent stated how she lifted the project, the department, and the hospital to another level of excellence despite receiving tangible benefits, which shows her personal values.

One of her recognized techniques by respondents was sharing success during the implementation phase; specifically, she ensured that even people outside the project knew what was happening, which built confidence in the effectiveness of the project

and project team once implementation had been completed. Through sharing the milestones during implementation, she showed that she was proud of the project, which made others start to feel the same. This simple communication consists of several different elements. Providing an overview of the progress, encouraging project members by rewarding them, and acknowledging their efforts during implementation through public encouragement and endorsement might seem simple, but project members expressed that these techniques were really effective in the success of the project. She was described as a hard-working woman; in fact, one project member called her “Iron Woman.” She worked extra hours and on weekends to get the job done. However, not everyone was supportive of her and her ways; she faced resistance from some non-supporters. She was resented by some for her success and professional attitude due to social and religious norms in the Saudi healthcare environment (See chapter 7 section 7.5).

In the CPOE project C1P3, a unanimous consensus chose the champion who was “the father of ideas and the father of the project,” (C1P3-3) as one interviewee stated. He was a clinical pharmacist and the director of pharmacy services administration. He had previous experience in implementing innovative projects, particularly in implementing the CPOE system in his previous work. Project members most often highlighted his ability to effectively market the project within the organization whether in advocating or talking about its benefits or in persuading and handling the resistance to change from physicians. He invented different techniques and strategies that they used to convince physicians to appreciate and use the system, such as offering public praise for the physicians who adopted it and presentations very early in the implementation process. In addition, project members perceived him as a mentor or a role model who inspired them. Project members were also impressed by his ability to inspire them through difficult times and encourage them to move forward; indeed, several expressed that they felt somehow empowered by him. He always spared time to teach them about his techniques and strategies in marketing the project and dealing with resistance. Even when he left the organization after the project was fully implemented; project members were still influenced by him and turned to him for consultation through emails and phone calls.

## **6.5 Case Analysis and Discussion-Case A**

In this section, the researcher will present the case analysis regarding the behaviours and characteristics of champions. In this case (Case A), 16 behaviours and 26 characteristics of champions were identified which will be discussed in detail in the following sub- sections.

Champions were identified by respondents as the ones who contributed the most to the project due to the behaviours and characteristics they demonstrated throughout the course of the project, that is, from the decision to implement the idea through to full adoption. They perceived the champions as “the basis and centre” of the project and “the main engine of success.” According to respondents, a combination of behaviours and characteristics that these champions showed during the course of the projects contributed significantly to the projects’ success.

Some of these behaviours that have been established as effective in the literature on champions such as being open to new opportunities, proposing novel ideas, advocating for the innovation, and offering their full commitment to the project. It is worth mentioning that most of the respondents spoke very highly about champions and had very little that was negative to say about them. Although some individuals did not support the champion or resisted the innovation or seemed reluctant to use it, the champions’ strong influence and ability to communicate effectively with individuals with different backgrounds and mind-sets were highly emphasized in the findings. What really stands out in the findings is that champions succeeded in their missions not only because they were experienced and competent, but also because they fully utilized their personal networks within the hospital, they possessed the ability to unlock others’ potentials, and they proved themselves through actions rather than words. All of these traits helped tremendously in the implementation process.

A number of the discovered champion behaviours were not prominent in the existing literature. For example, champions were described as preparing the institutional environment by working to change old perspectives in its culture long before introducing the specific innovation. Champions also work to unlock team members' potential and motivate the team to continue working on the project despite challenges. They were also portrayed as selfless and caring more about the hospital's recognition than any personal gain. Interviewees also described the champions as strategic thinkers during implementation and highlighted that the champions perceived the innovation as a step toward a larger goal than as a goal in itself.

Although a few previously unexplored traits were discovered, some that were present in the literature were either not present or not emphasized in the findings. These traits include being aggressive and forceful in defending the innovation. Likewise, the examined champions did not exhibit a risk taking propensity in which they risk their positions within the organization if they must to implement the innovation.

### **6.5.1 Frequency Analysis**

In order to provide an overview of the champion characteristics and behaviours most mentioned by the respondents, the researcher chose first to conduct a frequency analysis for each emergent characteristic and behaviour discussed during the interviews. This analysis can provide information about who champions are as well as describing their importance and effect on implementing innovations in healthcare. This action is in line with Dey's (1993) assertion that researchers can find the meaning of their qualitative data partly in the numbers because numbers represent meaning. The use of numbers assures the reader that the researcher accounted for all the data and has not discounted any of the data gathered (Dey 1993). Also, displaying qualitative data numerically can make patterns "emerge with greater clarity" for both the reader and the researcher (Dey 1993:198). This means that each characteristic and behaviour would be rated based on its occurrence at various points per interview. The results of such empirical observation of the data combined with the researcher's interpretations will help in determining the most popular behaviours and characteristics exhibited by

champions. These findings are based on the respondents' perceptions of which factors contributed to the successful implementation of the identified innovations. The frequency analysis is calculated based on the number of mentions by the respondents at different points throughout the interview on different characteristics and behaviours discussed. The results of this process are as follows, where the popularity index demonstrates the most frequently cited characteristics and behaviours. While the theme frequency demonstrates the number of codes under each theme (characteristic or behaviour) and the overall frequency represents the total number of codes under all the behaviours or characteristics:

Table 6-3: Frequency Analysis of Project Champion Behaviours- Case A

Theme	Overall Frequency	Theme Frequency	Interviews Cited	Popularity Index
Proposes creative ideas for projects	323	53	18	16.4%
Advocates for the idea of the project within the hospital	323	47	14	14.5%
Influential	323	42	16	13.0%
Unlocks others' potential, sees the project member as a whole	323	38	13	11.8%
Fully committed to the project	323	31	17	9.6%
Provides continuous support and intervention	323	20	14	6.2%
Use of personal network	323	17	10	5.3%
Confidence in the project outcomes	323	13	10	4.0%
Secures financial and human resources	323	13	10	4.0%
Critical input in the initiation phase	323	11	7	3.4%
Understands and overcomes resistance to change	323	11	4	3.4%
Changes old perspectives in the culture to accept change	323	8	2	2.5%

Recognizes the need for the innovation and visualizes its potential	323	7	6	<b>2.2%</b>
Confidence in the project team	323	5	5	<b>1.5%</b>
Decisive use of authority	323	4	4	<b>1.2%</b>
Actions speak louder than words	323	3	2	<b>0.9%</b>
<b>Total:</b>				<b>≈100%</b>

Table 6-4: Frequency Analysis of Project Champion Characteristics- Case A

<b>Theme</b>	<b>Overall Frequency</b>	<b>Theme Frequency</b>	<b>Interviews Cited</b>	<b>Popularity Index</b>
Problem solver	313	34	14	<b>10.9%</b>
Experienced, competent, and knowledgeable	313	30	14	<b>9.6%</b>
Successful strong manager	313	28	11	<b>8.9%</b>
Excellent communication skills	313	25	11	<b>8.0%</b>
Enthusiastic and active	313	20	11	<b>6.4%</b>
Well-known in workplace for informal contributions over formal status	313	20	7	<b>6.4%</b>
Strongest supporter of the innovation	313	15	10	<b>4.8%</b>
Effective team player	313	13	8	<b>4.1%</b>
Willing to accept the responsibility of the innovation	313	12	7	<b>3.8%</b>
Hardworking symbol	313	12	7	<b>3.8%</b>
Strategic alignment-big picture thinker	313	11	9	<b>3.5%</b>
Initiator	313	11	9	<b>3.5%</b>
Persistence in moving the project forward	313	11	6	<b>3.5%</b>
Familiarity with the innovation, hospital system, and the innovative environment	313	9	7	<b>2.9%</b>
Knowledge sharing within project and hospital	313	9	7	<b>2.9%</b>
Strong personality-strong mind-set in decision making	313	7	4	<b>2.2%</b>

Risk-taking propensity	313	6	5	<b>1.9%</b>
Selflessness-hospital recognition over personal recognition	313	6	4	<b>1.9%</b>
Planner	313	6	4	<b>1.9%</b>
Up-to-date knowledge of the industry	313	6	2	<b>1.9%</b>
Very professional	313	5	4	<b>1.6%</b>
Proud of the project and the achievements	313	5	3	<b>1.6%</b>
Believes in self-confident in what he or she does	313	4	3	<b>1.3%</b>
Successful-which creates supporters and antagonists	313	4	2	<b>1.3%</b>
Respected by others	313	2	2	<b>0.6%</b>
Optimistic	313	2	2	<b>0.6%</b>
<b>Total:</b>				<b>≈100%</b>

Although the frequency analysis provided the researcher with an overview of the most mentioned characteristics and behaviours based on interviewees' perspectives, it is important to cluster these small themes into larger themes or factors in order to capture the full meaning behind the data gathered in a concise way. This action would enable the researcher to show the intensity of these themes once clustered. Clustering is important because, although one theme scored very high in the popularity index, it must be seen with similar themes to be more meaningful. There are cross-cutting contexts in these smaller themes that need to be clustered into larger ones to make proper sense of the data. Therefore, the researcher selected the four broad contexts proposed for the key characteristics and behaviours found in the literature: Knowledge, Change, Leadership, and Other identified behaviours and characteristics (see chapter 2/section 2.3) to be used as the broader contexts or labels for the clustered themes. Figure 6-3 illustrates the four broad contexts where the numbers in brackets represent the number of codes under each category. The discussion of the clustered themes will be presented in the next section.

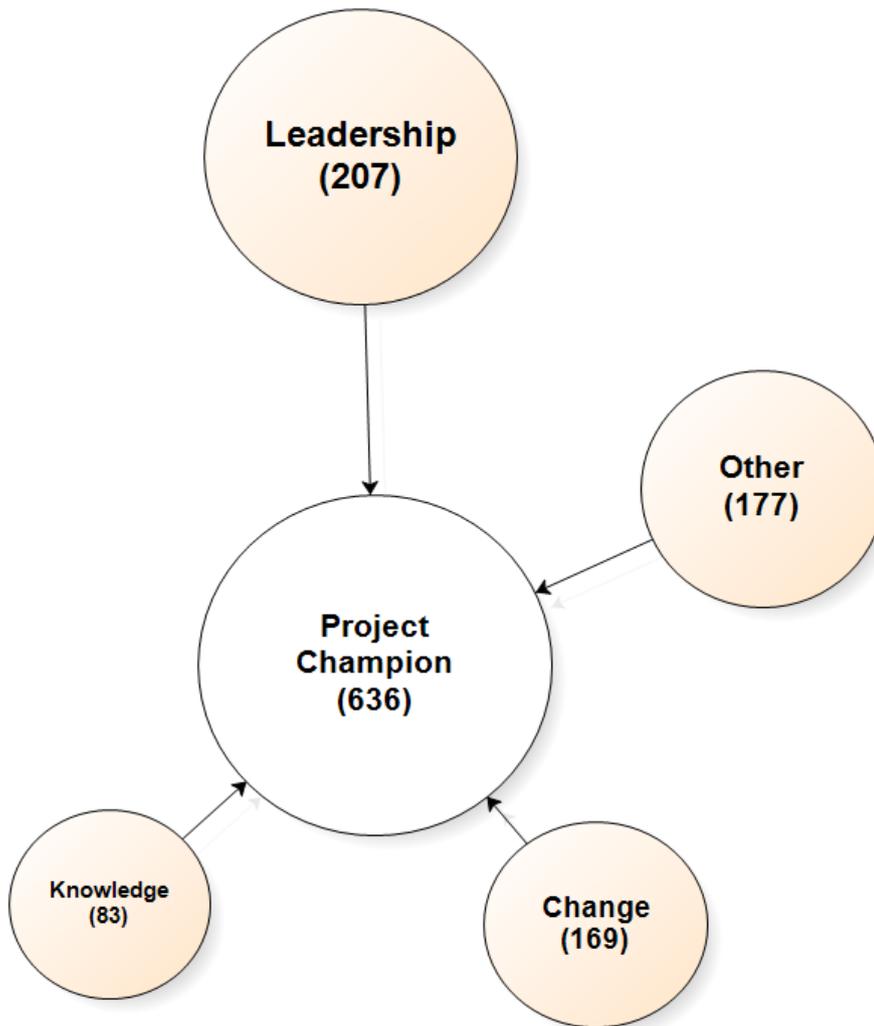


Figure 6-3: Classification of Project Champion's Behaviours and Characteristics

### 6.5.2 Knowledge context

In looking at the emergent characteristics and behaviours of champions, the first and smallest context is knowledge. Most of the respondents expressed that champions are very experienced in their work, quite familiar with the innovation and how the system works in the hospital, and have up-to-date knowledge of the health industry. Their experience and familiarity with innovation and innovative environments together with their self-confidence enables them to solve problems and overcome hurdles encountered throughout the implementation process as described by respondents. Figure 6-4 shows the themes under the label of knowledge which will be discussed in detail next.

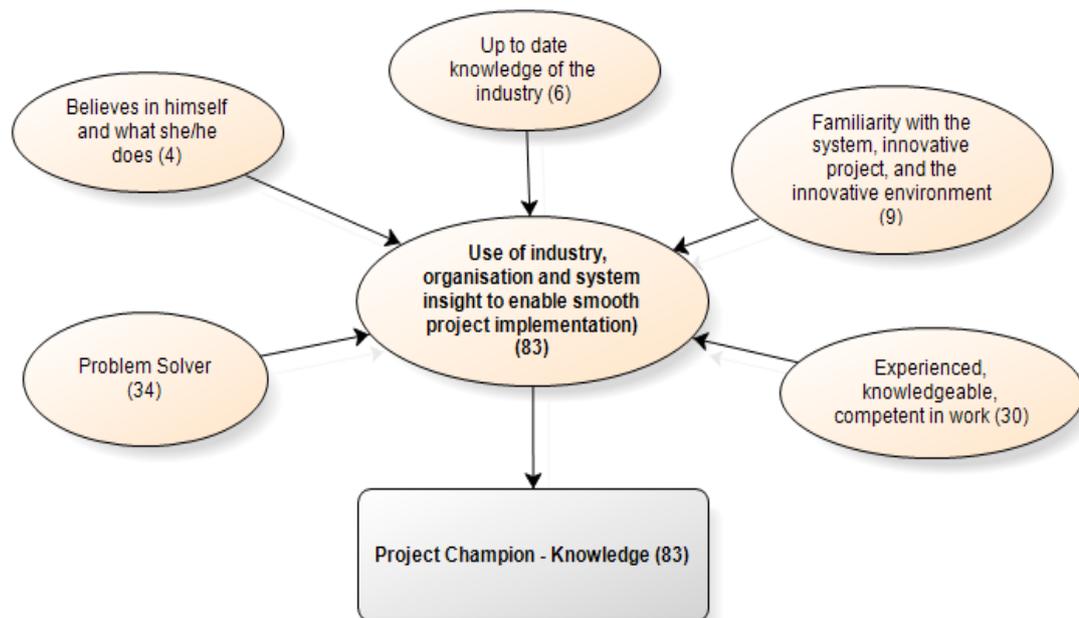


Figure 6-4: Knowledge Themes of Project Champions- Case A

### 6.5.2.1 Use of industry, organization, and system insight to enable smooth project implementation

#### Experienced, competent, and knowledgeable

One of the champion characteristics most emphasized by respondents is their experience. Champions were perceived as the most experienced in their work among the team, and respondents felt that people turn to them when faced with obstacles during implementation. This is partly because people are aware that champions are competent and experienced in their fields. In addition, the champions of these four projects were described as not only being experienced in their fields but also as having experience in other fields; according to project members, this extra experience contributed to the implementation process. According to the majority of respondents, what distinguished champions from other project members is that champions are experienced in their work. For instance, the chart viewer (C1P2) champion has been described as very experienced and knowledgeable in her field of health informatics,

and she is the only experienced person in IT within the team. One project member summed this up by stating:

*“Very experienced indeed, if I sit with her for only 10 minutes—and I said 10 min—I can say that it is worth the training of a month. She is a very experienced person!”*  
(C1P2-5)

Then, he elaborated more on how the project would suffer if she were not part of it. According to him, the project needed experienced people like her in order to be successfully implemented:

*“Yes [the project would encounter problems]. If there is no experienced person managing the project, it wouldn't work [...] because you cannot find in this project someone who is as experienced as she is in IT and health information. They are few here who are experienced in transforming the physical file into electronic and mastering the job.”* (C1P2-5)

Moreover, respondents felt that her opinions were heard partly because she was experienced in her field. One respondent noted, “Her opinions are heard because of her experience” (C1P2-9).

Similarly, in the CPOE project (C1P3), team members strongly emphasized how the champion was competent in his formal role as a director as well as being the most experienced among the team in information technology and marketing a project in its early stages. According to project members, he was most needed for his experience in marketing new projects which facilitated the implementation process. One respondent noted:

*“The ability to effectively market for new system is coming from his experience in how to market for new products. He sees that it is really important that all people in the medical city become aware of the new system and its benefits before it is implemented [...] What really distinguishes him from others is his experience in work.” (C1P3-2)*

The majority of projects’ members showed how the identified champions were competent in their work and the most experienced among the team. They stressed the importance of having an experienced individual like the identified champions for the project to proceed as planned despite the problems encountered. For example, in the chart viewer project (C1P2), one project member stated:

*“Her background and experience in IT before she joined the health Information department played a huge role during the course of the project whether in solving the problems we encountered, project design, suggesting new things and ideas, and in the improvement and enhancement of the project itself [...] Her knowledge in two majors and experience in two fields and the utilization of this knowledge is what distinguish her from other project members.” (C1P 2-4)*

### **Up-to-date knowledge of the industry**

Similar to their experience, champions were perceived as keeping their knowledge up to date when it comes to the healthcare industry. According to respondents, these champions love technology and everything new that could lead to more effective and efficient ways in delivering healthcare services. Technology is a source of new ideas for them, and champions look for ways to generate or adopt ideas for new innovative projects and apply them in their respective organizations. According to the majority of the projects’ members, champions are always the first to know what is happening around them in the industry to achieve competitive advantage. For example, in the chart viewer project (C1P2), project members agreed that the champion’s up-to-date

knowledge and her familiarity with the technology available in the marketplace in terms of innovations enabled her to propose these innovative ideas to be implemented in the hospital. One of the respondents noted:

*“She never stops learning; it is a continuous process to her. She travels and looks for opportunities here and there and sees other people so she can keep herself up to date when it comes to new things in the healthcare sector [...] She also has the knowledge that enables her to see what is up to date and the latest when it comes to innovations and new health projects. [She is] thinking of the hospital and the needs of physicians.” (C1P2-2)*

Similarly, in the CPOE project (C1P3), the champion loved technology and kept himself current when it came to the healthcare industry because he believed that the hospital should work toward being a fully electronic medical city to keep up with today’s market and gain a competitive advantage.

### **Familiarity with the innovation, hospital system, and the innovative environment**

In addition to champions’ work experience and up-to-date knowledge of the industry, members of the four projects agreed that champions were familiar with the innovative project, the hospital’s system, and the nature of implementing new projects in healthcare in general. In some cases, some project members perceived them as the ones who contributed the most to the project’s success because they were familiar with the nature of innovation implementations and all the unexpected challenges surrounding that. One respondent stated about the champion of CPOE (C1P3):

*“[He] is the one who contributed the most to the project [...] He knows very well how the project will be implemented in the hospital and its suitability to the hospital current system” (C1P3-2)*

The champions of all four projects had worked on implementing innovations in their careers before they joined the current projects. Additionally, it seems that the previous projects they were part of were all successfully implemented. For example, the champion of the chart viewer project (C1P2) had previously designed a project within the same medical city that won a best project prize in the Middle East:

*“She designed a project for the call centre [...] We won the prize of the best call centre in the Middle East.” (C1P2-7)*

According to the majority of project members, the fact that they are familiar with the innovative environment in healthcare enables champions to predict the challenges that surround introducing change to the hospital and, therefore, avoid mistakes. For instance, the risk management champion (C1P1-1) talked for a while about the challenges involved with introducing change into hospitals due to his familiarity with what it takes. The following quotation shows his elaboration about a project for disabled patients:

*“One of the challenges is to introduce a service called CTech, and you could consider it as project. It was challenging, and it was 2005-2006. It wasn’t easy because we had no technology for seating. Seating is how you sit the patients, and this is very important because he’s a civil person and he has a secondary disability. A secondary disability is like, for example, scoliosis. So we sit them properly and comfortably. That was very challenging and took time—around 2 years—to set things up. So, we had to introduce the concept. Even though the people understood it, it was challenging because a lot of things didn’t exist and we needed a lot of equipment, budget, and a lot of education and awareness.” (C1P1-1)*

### **Believes in self-confident in what he or she does**

Champions were described and observed as having confidence in themselves and in what they do in terms of new ideas they have for new projects, suggestions, and

solutions for problems. In the chart viewer project (C1P2), the champion was described as being sure and confident when it came to what she was doing and the decisions she was making. Champions' belief in themselves and in what they are doing was perceived as an important quality to the success of the innovation. For example, in the chart viewer project (C1P2), one respondent described the champion as follows:

*"She is a planner and a believer, a believer in health informatics; that is important!"(C1P2-1)*

### **Problem Solver**

The majority of the respondents agreed that these project champions were the ones who solved the problems encountered throughout the process of implementation. According to the respondents, the champions contributed more in solving the administrative strategic problems than the technical ones, which they handed to the technical team to solve. People turned to the champions when faced with problems as well. According to respondents, champions solved these problems using different strategies like using their own networks inside the hospital, drawing upon their knowledge and previous experience, showing persistence, simplifying the problem, and assuring and motivating themselves and others that it would be solved. For example, in the risk management project (C1P1), the champion solved a critical problem encountered during project implementation that had to do with infection control and safety by communicating with top management and initiating a proactive preventive policy to preclude the incident from occurring again.

Respondents stressed the importance of having someone who is capable of solving problems encountered throughout the course of the project and how the presence of such person is necessary for any innovative project's success. In the chart viewer project (C1P2), one project member stated that the champion's problem-solving ability contributed to the project's success:

*“In any project, you would find and face problems and issues, and if you don’t have a smart person who is capable of solving these obstacles and not stopping during difficult times, the project wouldn’t succeed. There should be a person that you can turn to when you face these obstacles that might lead to delaying or even cancelling the whole project.” (C1P2-2)*

Similarly, in the CPOE project (C1P3), one respondent showed how the project would not have been successfully implemented without the champion’s capabilities in handling administrative issues they encountered in implementing the system in a number of out-patient clinics:

*“It won’t work without him being part of it, even if the system went really smoothly! We faced problems in the out-patient clinics, but with his wisdom, good managerial skills, and good communication skills, we overcome it.” (C1P3-1)*

Moreover, two members of the I-application project (C1P4) stated that the champion they nominated was perceived as the biggest contributor because of her ability to solve the problems encountered:

*“Personally whenever I face a problem, I go to her. For example, I faced a problem in the videos’ formats. So, she prepared different ones for me.” (C1P4-2)*

*“We faced a delay issue in the SMS [Short Message Service], and she is the one who fixed it. She is always taking care of the problems coming up throughout the course of the project.” (C1P4-1)*

Champions were problem solvers not only in the projects they were currently working on, but they were also called by other projects and other departments to solve problems those teams encountered. For example, the IT department called the champion of the chart viewer project (C1P2) whenever they were faced with a shortage in equipment that was necessary to continue their work as planned without experiencing delays.

Through communication with other departments, she managed to provide them with what they needed.

Some respondents showed how champions maintained their calm during challenging times. Not only that, respondents noted that champions both tried to simplify the problem and kept themselves and others motivated until the problem was solved. To illustrate that, in the CPOE project (C1P3), one member commented on the champion's behaviour during the physicians' resistance to the system by stating:

*"He is a very cool person during challenging times. He is a smiley person. Whenever we get depressed or almost give up, he always give us a push and says [...] 'it is easy; that's nothing' and 'it can be solved'. This helped us a lot! You know when you are exhausted, these little things really matter." (C1P3-1)*

Similarly, in the I-application project (C1P4), one member stated:

*"She is really relaxed and cool about any problem we face that we can overcome it. Rarely I see her nervous or anxious." (C1P4-7)*

Their ability to keep calm does not mean that they do not take immediate action to solve problems. For instance, in the COPE project (C1P3), the same member who described how the champion maintained his calm during difficult times stated:

*"[He] knows how to solve problems on time, and we learn from him [...] Any problem we face with physicians and others, we turn to him for advice. If the problem stays for like 5 minutes without it being solved, he would likely have a heart attack (she laughs). We were telling him, you are a director, you don't have to do that, but he himself comes personally to address any problem with whoever is involved." (C1P3-1)*

### 6.5.3 Change context

The second context of champions' characteristics and behaviours identified in this study is change. This perspective includes three main themes. First, champions seem to understand the need for change and prepare the institutional environment to accept such change long before introducing the specific innovation. They achieve this by investing efforts in spreading awareness about the concepts they are advocating for to try to guarantee gradual successful implementation of the specific innovative projects that embody these new concepts. Second, these champions are described as open to new opportunity in the sense that they are initiators, constantly proposing creative ideas for new projects within the hospital. Finally, champions are persistent in making change happen by effectively removing barriers during project implementation such as dealing with resistance from end-users and taking calculated risks to achieve the desired results. Figure 6-5 illustrates the themes clustered under the label of change which will be discussed in the following section.

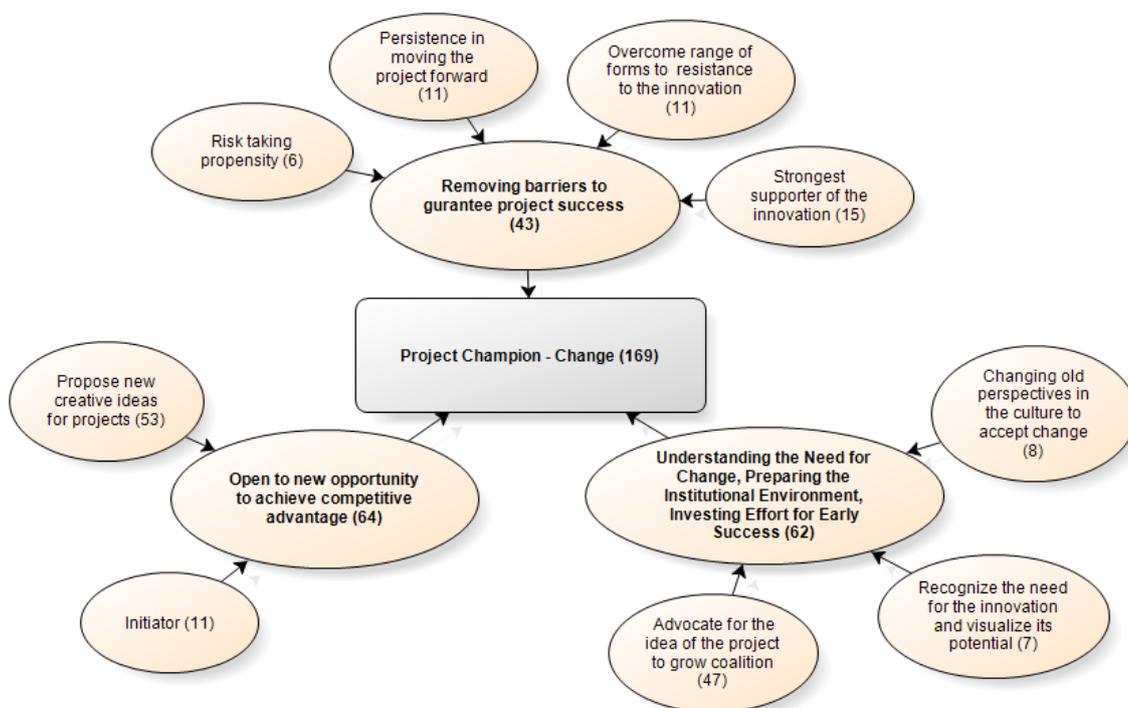


Figure 6-5: Change Themes of Project Champions-Case A

### 6.5.3.1 Understanding the Need for Change, Preparing the Institutional Environment, Investing Effort for Early Success

#### Changes old perspectives in the culture to accept change

One of the interesting findings is that champions of all four projects worked on changing the old perspectives toward the concepts they advocated long before the specific idea of the innovation was even introduced within the hospital. Once champions understood the need for change in the hospital, they started preparing the hospital's environment for the innovation by investing some efforts in increasing the awareness regarding the new concept of the innovation to be introduced. In other words, preparing the hospital's environment for the innovation can be seen as working to guarantee the later steady but gradual acceptance of the planned innovation once it is implemented. For instance, the risk management (C1P1) champion summarized the process in this way:

*“The program was initiated because we needed to change something, and to change something, we needed a project, and my role was to implement a program. A change of culture! [...] We started to work on, if you like calling it, the culture awareness. This is because, at the beginning, employees were scared to report risks. What is risk management? They were wondering about what is needed to be done when it comes to risk management and safety, but after that and after our efforts, the risk reporting's started to increase in time.” (C1P1-1)*

Similarly, in the chart viewer project (C1P2), the champion worked toward establishing a pro-health informatics culture in the medical city before introducing the specific idea of the innovation. She was perceived as one of the leaders of change when it came to health informatics. One project member elaborated on the subject by stating:

*“She is one of the leaders of change when it comes to the concept of HIM [Health Information Management]. She led the concept to the true meaning of it. To confirm what I’m saying here, she re-organized the HIM to better match what is meant by ‘informatics’. Within the three or four years she has been here, she started the real change so people can understand the right concept of health informatics rather than the previous wrong perception of it in the culture. She added some things to better match the vision of the department of health informatics like, for instance, her ability to work with top management to change the department’s name to health informatics.” (C1P2-1)*

He added that the champion:

*“She talked about the concept of health informatics and she started implementing the concept by having the higher administration approve a new hierarchy to have the name of the department as ‘Health Informatics Department’ rather than ‘Health Records’ as before.” (C1P2-1)*

Here the champion prepared the culture for later change by ensuring that the nomenclature reflected the future.

### **Recognizes the need for the innovation and visualizes its potential**

The ability of champions to understand and recognize the need for the innovation and to visualize its potential follows their efforts to change the old perspectives in the hospital’s environment. They are aware of the potential impact of the innovation on the hospital and its benefits once implemented; as a result, they want to communicate this vision to others. They show people how the specific project will address an existing need and/or problem by delivering benefits to patients as well as to them and their work. Once others understand the existing problem or need as champions do, they are then able to see the need for this innovation to be implemented in the hospital. Champions understand that things must change and possibly considerably, which may

cause problems, so they invest some time and effort early in their mission to prove to others the need for this kind of project. With this effort, change not only occurs but is fully accepted by others, and end-users become committed to the change.

For example, in the I-application project (C1P4), the champion identified (by some project members) recognized the need for patients to have better and easier access to their medical files so they can view their upcoming appointments and lab results among other services in the most convenient way, via their own mobile phones. She also recognized the need for better quality communication between physicians and patients that moves beyond appointment times. She proposed the idea for an innovative application that was to fulfil this need in the medical city. In speaking about her, one project member stated:

*“She presented the idea attached with a full and complete plan of how we can implement it. Her proposal included full details on the need of physicians and patients to such service [...] She is creative and has a vision in how things will be.”*  
(C1P4-5)

In contrast, in the chart viewer project (C1P2), an existing problem led the champion of the project to propose a creative solution. The proposal was made with a full comprehensive plan of how to successfully implement an electronic health system in the hospital while earlier attempts had failed. One project member stated:

*“The medical records problem was like a nightmare for the hospital [...] From there, she started to think about some kind of digital scanning and other similar ideas to transform the patients’ files to electronic ones. We actually decided what is most suitable for the hospital and the resources we have and everything.”*  
(C1P2-1)

Champions seem to recognize the needs of their departments as well, which leads to innovations in how work is done. In the same project (C1P2), another team member commented on this issue by saying:

*“It is been a short period of time with a lot of accomplishments. From the moment she started working, she started to recognize the needs of the department, the areas that need improvement and attention, and she suggested a complete clear plan to improve these areas.” (C1P2-3)*

### **Advocate for the idea of the project within the hospital to grow a coalition of support**

Another champion behaviour that has been strongly emphasized by respondents is their efforts to promote the project within the hospital. Champions explore their ability to persuade and convince others of the concept, its advantages, and potential benefits to users, patients, and the hospital in general. This means that they advocate for new projects that would benefit their departments and the hospital and do not tend to engage in advocating change for the sake of change. In other words, they promote only projects with clear, desired end results. For example, the risk management (C1P1) champion was perceived as a person who always positively talks about the project through presentations and meetings as a way of convincing others of the innovation:

*“[He] used to do several presentations to convince others about the risk project. So, I believe his efforts brought a lot of awareness to the risk management project that we need to protect our staff and we need to protect our patients.” (C1P1-3)*

Advocating for the project was of particular importance since convincing others to do risk management was a challenge in the first place. The champion himself stated:

*“There were many challenges like convincing people to do risk management [...] The hard thing was to really find materials easy enough and supporting enough to the staff. So we started awareness and presentation to people, convincing them by talking to them directly or by assigning one person and investing in that person as risk management champion.” (C1P1-1)*

Convincing others of the need for change helps champions build a coalition to change the perceptions about the innovation. The need for someone who has the ability to market for the project by persuading others to accept and use the innovation is greater when the idea of the innovation faces negative or neutral perceptions. In the chart viewer project (C1P2), one team member commented on that by saying:

*“Whenever you implement something new, you face resistance, especially when people usually want to stay in their comfort zone; like if you are used to using paper and pen, then you want it to stay this way. If I want to convince them to use something new, then I have to have skills in influencing and convincing others. She has it!” (C1P2-2)*

In the CPOE project (C3P1), team members all agreed that the champion was a master in the art of marketing, convincing others of the importance of using the system:

*“Beginning of implementation is where he is most needed. He has a skill that you can rarely find in people—‘how to present your product and how to convince people that the product is something big!’ That’s helped us a lot [...] He has brilliant skills in marketing, presentation, convincing. The way he convinced others to use the system was always by using data, statistics, facts. We used to go with him to the physicians’ morning meetings, and he was asking for like 10 minutes of their time to present and show them how fast you will be when using the system compared to doing it manually. He was brilliant in these presentations!” (C1P3-1)*

Moreover, champions seem to be capable of effectively publicizing and marketing the new system during implementation, using formal and informal presentations to enable sceptical stakeholders to better understand the system. One member of CPOE project elaborated on this issue:

*“The first impression about any new system really matters and is really important. If they [end-users, physicians and nurses] have the wrong impression about the system, for example, it is difficult to use, complicated, not everyone can understand it or use it, or no added value, etc. That would make the system fail. His strategy was really effective in a sense that, through these formal and informal presentations and efforts in the early stages of the implementation, he tells them about the system, how to use it, all the functions of the system, and its importance and the benefits of it. This made a difference in accepting it.” (C1P3-2)*

Champions have an effective suite of abilities in persuasion, convincing, and marketing for the project using different strategies. They strengthen these capabilities through experience and familiarity of innovation implementation in healthcare and other sectors. Another technique used by champions to build a coalition of support for the innovation they lead within the hospital is that they act on behalf of the project members as a mediator between departments and as an ambassador for the project in front of top management. They try to gain the support and cooperation of other departments on the innovation and, more importantly, secure the cooperation and support of top management. The following quotes illustrate such an attribute:

*“He helped us in getting other departments cooperating with us in implementing this project. He is the one who facilitated our work with the physicians in term of accepting and using the system.” (C1P3- 2)*

*“He talks to the top management and coordinates with them whenever we need something.” (C1P1-3)*

### 6.5.3.2 Open to new opportunity to achieve competitive advantage

#### **Initiator**

One of the reasons champions are perceived as contributing the most value to the project is the fact that they are initiators. They usually initiate the innovation by proposing the idea, discussing it, and persuading others to better like the idea of the innovation. During implementation, they seek the help of others—whether within or outside the hospital—if needed to start the innovation. The following quotes highlight this point:

*“He is the one who initiated the real work, the project itself.” (C1P1-2)*

*“She is an initiator, always loves to provide the medical city with creative projects and working in implementing them if possible. In the department, she continuously tries to improve the department. She is a person with new ideas for projects whether on the level of the department or on the level of the medical city.” (C1P2-3)*

#### **Proposes creative ideas for projects to achieve wide leadership and competitive advantage in hospital performance**

Part of being initiators is that champions propose novel ideas for innovative projects. This behaviour was one of the most emphasized by respondents, who stated that the identified champions were open to new opportunities and always proposed creative ideas for new projects within the hospital. Their up-to-date knowledge about the market, their openness to new opportunities, and their creativity give them the ability to make use of small ideas and turn them into innovative projects. Such innovative projects in turn allow the hospitals they work for to achieve competitive advantage locally or even internationally in terms of performance and quality of services provided to patients. Champions adopt new opportunities or seize and make use of existing

ones by first proposing new ideas for innovative projects to be implemented in the hospital. These ideas have been translated to successfully implemented projects that are creative enough to meet the expectations of patients and facilitate the work of health providers, as the following quotations illustrate:

*“The original idea and initiative came from her [...] I think the project was creative in the way that meets the expectations of different users because different users have different expectations.” (C1P2-8)*

*“She proposed very creative ideas indeed [...] Thinking of the hospital and the needs of physicians and the needs of the staff and combined it all in one creative idea.” (C1P2-2)*

*“She is the one who proposed the idea of the project to be implemented which is a success now. Her goal was to provide patients with a better quality of services and to facilitate the work of physicians.” (C1P2-3)*

Champions' creativity is valuable to others who work closely with them because they have seen that the champions' creative suggestions and solutions really work. Within their departments, they constantly come up with innovative ways for improving the department. For example, in I-application project (C1P4), one member commented on the creativity of the champion she nominated by stating:

*“Look, we as project members might get so busy and so focused in implementing the project. What she gives besides working with us in the actual implementation process that no other member provided us with is her creative touch every now and then [...] You get excited about the idea of working with her because she is talented, creative, and innovative [...] We have a creative project called ‘visitors oasis’ for women who had gone through breast removal ‘mastectomy’ [...] She was really creative in the designs she made for this project [...] I know that she is working right now on so many creative ideas and new things. Whenever I see*

*something creative the centre did or is going to do, I know that I will see her name attached to it!" (C1P4-2)*

Similarly, in the chart viewer project (C1P4), the champion was known for her creative way of thinking in terms of suggestions during implementation and openness to new opportunities which she works on implementing in the department. Project members agreed that she was creative:

*"She always surprises us in the way she thinks outside the box and always comes up with suggestions that are valuable and innovative [...] Many things that we developed are from her ideas. She always has new ideas for projects." (C1P2-1)*

In the CPOE project (C1P3), the champion was described as "the father of ideas and the father of this project." (C1P3-3). Respondents explained that he constantly proposed new ideas for projects and worked in implementing them with the goal of helping the medical city to be one of the leading health facilities in electronic health and automation. Among these projects are the Decision Support System (DSS), the Drug Duplication Program, the Nurse Pharmacy Communication Program, and the latest project, which is COPE for the outpatient. One team member stated:

*"He constantly has new ideas for projects and new ways of doing things within the current project. He encourages technology, and he himself says we should be an electronic organization where everyone is headed nowadays. He accomplished implementing automation for in-patients before he left which was the first in the Middle East." (C1P3-1)*

The above discussion shows that champions benefit from having their ideas approved and successfully implemented in the medical city because it opens a door for future ideas proposed by them or others to be approved by higher administration as they have seen such ideas work.

### 6.5.3.3 Removing barriers to guarantee project success

#### **Risk-taking propensity**

Few respondents showed that champions are analytical risk takers. For example, one member of the chart viewer project showed how the champion's success in proposing the current project and having it fully implemented was partly because she took risks in the first place; however, she noted that she takes only *calculated* risks. The respondent stated:

*"I think part of becoming successful is to take risks. You don't know if you are going to achieve this unless you take risks, risks that are achievable and possible. She will not take risks that are not achievable or possible."* (C12-8)

In contrast, some of the respondents asserted that the identified champions are not risk takers. For example, one member of the chart viewer project (C1P2) stated about the nominated champion:

*"She is not a risk taker because she knows where she is headed with this project. Every step she takes is studied and planned"* (C1P2-5).

#### **Persistence in moving the project forward**

According to the respondents, having an influential individual in a project who is persistent in moving forward despite the difficulties encountered throughout the progress of the project is crucial not only to the success of the project but to preventing delays or even cancellation. In (C1P2), one respondent commented on both the champion's ability to solve problems and the champion's persistence:

*“in any project, you would find and face problems and issues, and if you don’t have a smart person who is capable of solving these obstacles and not stopping during difficult times, the project wouldn’t succeed.” (C1P2-2)*

When he was asked how he would know that the champion was confident in the project, another project member stated:

*“It is seen in her persistence and the way she behaves in challenging situations that probably most people would give up because they were big issues. Nothing stops her. We faced a shortage in the number of people preparing the files to be scanned. We started in the cancer centre and it was manageable [...] When we started implementing the system in the heart centre, it was a bit of a challenge because patients who suffer from heart diseases, they would have appointments in the diabetes centre [...] So we had to make the file available in the system not only in the heart centre but also in the clinics outside the centre where heart patients have their appointments as well [...] She managed the whole thing really well and was persistent in the way she didn’t want anything to stop the implementation process.” (C1P2-7)*

It is clear that project members sense the champions’ persistence in moving forward with the project implementation in the way they behave during challenging situations. It seems that they would persist in the face of adversity when others give up or get stuck on one point or another.

### **Understands and overcomes resistance to innovation**

The champion’s experience and knowledge allows him to deal with resistance from end-users like physicians and nurses. The champion encourages the end-users to embrace the new project by coordinating meetings and workshops as well as being with them in their workplace to provide full support in order to achieve cultural change:

*“When it comes to projects and end-users’ resistance, she has the expertise and knowledge to deal with that by compromising to reach a middle ground, a solution that all parties agree upon.” (C1P2 -2)*

There were some previous attempts to implement similar systems to the chart viewer project (C1P2) in the hospital which were unsuccessful partly because they lacked a plan to deal with resistance to use the system once it was implemented and available to end-users. Once the champion of the project proposed the idea, part of the planning phase was devoted to working with team members to develop a plan to tackle such obstacles. The team used a technique that included the selection of key physicians who were known for their reputation, influence, and cooperation, and who acted as role models in persuading their colleagues to use and support the innovation.

In the CPOE project, the team members were faced with the issue of the physicians not accepting the implemented system. According to interviewees, different groups of physicians exhibited different levels of resistance. One group of physicians was old-fashioned and lacked computer skills. Members of another group were really advanced when it came to computer skills and technology in general and claimed that the proposed system fell below their expectations. A third group of physicians were simply convinced that writing the prescription manually was much easier than using the system. All project members acknowledged that having the support of the identified champion who had previously worked as a clinical pharmacist himself before taking an administrative role played a critical role in tackling such issues early in the implementation. One project member stated:

*“He facilitates our work with the physicians and nurses to use the system. You see, if you are introducing a new idea to the hospital culture, it is important to have someone who eases things out and facilitates the whole implementation process so it progresses smoothly. This is more crucial if you have physicians resistant to the new system you are implementing. That gives a push forward to the team and increases the productivity of the team.” (C1P3-2)*

The champion used different techniques to deal with the resistance, including explaining to the physicians why they should use the system and publicly praising the physicians who used it most. Project members elaborated on these techniques suggested by the champion by saying:

*“He has a really nice technique in convincing physicians to use the system. Whenever we started implementing the system in a new clinic, he arranged a meeting with the physicians of that particular clinic—let’s say an oncology clinic—and gave a presentation about the new system, its importance, its advantages, and what it can do for you as a physician.” (C1P3-2)*

*“He invented an idea/way for us to use to encourage physicians to use the system and convince others in the early stages of implementation. The idea is that whenever we go to a hospital or centre inside the medical city, we use the data of who used the system most in this week and go directly to the physician in his department and in the presence of his boss we thank him. The physician also received a thank you email from [the champion] personally [...] It was a simple idea, but it did wonders in a way that we see physicians waiting for the email of who is the winner this week and chat about who used the system more and compete against each other in a funny way.” (C1P3-1)*

### **Strongest supporter of the innovation**

All identified champions were widely perceived to be the strongest supporters of the innovation to be fully adopted in the hospital. They were perceived as the ones who stood behind the project and supported it all the way from the time the idea was proposed until it was fully adopted. They were likewise perceived as the strongest supporters of the innovative project and team members for a number of reasons which all have to do with the behaviours they demonstrated during the course of the project. According to project members, these behaviours all contributed significantly to the successful implementation of the innovation:

*“He is the strongest promoter of risk management to be honest [...] He is the one who makes sure that the hospital and the risk team succeed in its mission.” (C1P1-3)*

*“She is the source of support—like all sorts of support. Support in terms of providing ideas, directions, suggestions, and training, you name it!” (C1P2-9)*

#### 6.5.4 Leadership context

Champions demonstrate leadership behaviours and characteristics which help them in accomplishing their mission. In Case A, the leadership context of the emergent themes revolves around three main aspects. First, they are successful managers who are influential in the sense that people listen to and are inspired by their talks and who have the ability to unlock others’ potentials through continuous support and communication. Second, according to respondents, their decisive use of authority, social networking, and capital to enable project delivery is considered critical in the project’s successful implementation within the hospital. Finally, respondents expressed that the champion’s confidence in the project’s outcomes and in the project team increased the probability of project success. These three leadership aspects of champions will be discussed shortly. Figure 6-6 illustrates the themes clustered under the label of leadership.

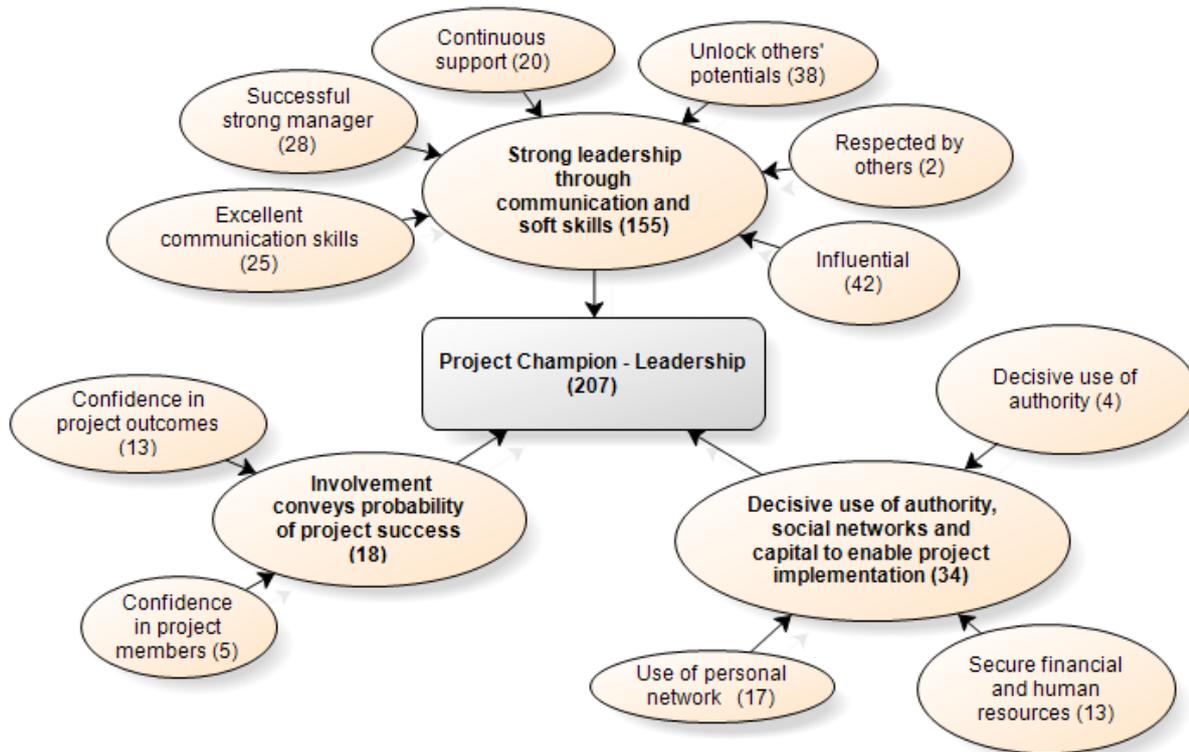


Figure 6-6: Leadership Themes of Project Champions-Case A

#### 6.5.4.1 Strong leadership through communication and soft skills

##### Influential- use weighty influence to inspire others

Most of the respondents stated that champions' opinions are heard and that people turn to them for advice. They are influential in the sense that people listen to their opinions and what they say about the project to the point that people in the hospital associate the project with their names. One respondent in the risk management project (C1P1) stated:

*"Everyone in the hospital associates the risk management project with her name and Dr [the champion's name] as well." (C1P1-4)*

Similarly, in the chart viewer project (C1P2), one team member stated:

“We are consulting her in everything” (C1P2-9), while another project member added that “it became a natural thing here that her opinions are heard and trusted!” (C1P2-4)

According to some of the project members, not only in their own projects, but also in projects that they are not part of, departments that they do not belong to, and even when they are no longer part of the medical city. People turn to them because of their charisma, personality, and experience. The following quotations illustrate this point:

*“People not only from our department, but from different departments come to her. They are not even under her supervision.” (C1P4-5)*

*“Even though he left us now and took another job in Dubai, he is still helpful and we send him emails whenever we need a consultation.” (C1P3-1)*

Moreover, champions are also perceived as having the ability to influence and convince those who are neutral or against the project. Their influence is most noticed as they advocate for the project; for example, one respondent from the CPOE project (C1P3) stated:

*“People are inspired by his talk [...] when he talks about the project, physicians become relieved—convinced about the easiness of the system, and some of their fears disappear. A few even get excited about it. Some even ask when it is going to be fully implemented. Few are capable of creating such influence through public speeches!” (C1P3-2)*

A number of Respondents also showed that people are also inspired by watching champions' work. People are inspired by their creative thinking, as well as their formal

and informal contributions in projects despite being busy physicians and managers. One respondent stated that “it gives you a drive to be creative” (C1P4-2).

### **Respected by others**

Project members and people who work with champions agree that they are respected in the workplace by others. One of the recurring remarks by respondents is that champions of those projects seem to be respected for their efforts and opinions as well as what they have to say about the innovative project. In the risk management project, for instance, one respondent said:

*“People listen to his opinions. Everyone respects him and his words!” (C1P1-2)*

The fact that champions are respected by others helps in making others perceive what the champion says about the innovative project as something worth listening to and worth pursuing, which ultimately serves to reach the champion’s goal within the hospital.

### **Unlocks others’ potential- sees the project member as a whole**

One of the emergent findings is that champions were observed and perceived as having the ability to identify team members’ potential and encourage them. They care about how project members are doing on a personal level, and they see each member as an individual, not simply a member of the current innovative team. To explain this further, in the chart viewer project (C1P2), most of the team members agreed that the champion was able to recognize each member’s potential and assign the tasks accordingly; as a result, they rarely faced a situation where they needed additional people to be part of the team. The champion also aligned the team members’ tasks in their formal jobs in the hospital with their roles in the project; according to the respondents, this alignment helped the team members contribute to the project with their best skills. In addition, she took the people who worked with her to a whole new level of growth and experience in work; one respondent noted, “She takes your hand

and takes you to a whole new road and improves you” (C1P2-1). This is partly because working with her has never been routine or ordinary but rather a series of challenges in terms of implementing new projects which they believe takes them to a whole new level when it comes to their skills and overall experience. One project member stated:

*“We were all like happily exhausted, if that makes any sense [...] The moment we find ourselves celebrating an achievement or overcoming a challenge, we are finding ourselves working toward another one [...] We actually got used to it; this is our routine now. This is a good thing because it really takes us to another level when it comes to our skills and experience.” (C1P2-7)*

Some members decided to capitalize on the experience and new skills they gained through working with her by continuing their studies to keep up with what they had achieved in their workplace.

Champions were also described as being considerate of team members’ needs. In the risk management project (C1P1), the champion talked to top management to ensure that project members had at least two hours a week where they could concentrate on the project only. He also made sure that they received the appropriate training they needed to accomplish their tasks more easily.

Similar to being considerate to team members’ actual needs, champions also were described as standing behind the team members and encouraging them to give more, as these quotes illustrate from the risk management (C1P1), chart viewer (C1P2), and CPOE (C1P3) projects:

*“The team spirit, he was really behind it and promotes that.” (C1P1-1)*

*“All project members were excited about the project, but the one who ‘planted’ this excitement is [the champion].” (C1P2-1)*

### **Provide continuous support and intervention to meet deadlines and accelerate implementation**

One of the reasons champions are perceived as the ones who contributed the most value to the innovative projects is their involvement and presence whenever needed, which distinguished them from others. This is more evident when the champion happens to be the project leader. Most respondents agreed that champions' continuous following up and direction helped team members to achieve their goals on time or even before the deadlines.

According to respondents, the champions preferred face-to-face interaction and communication with the rest of the team on a daily basis, approaching every team member to see his or her progress and how certain tasks were handled. When they had to be away for one reason or another, they kept sending tips and advice via email. In project (C1P2), one respondent commented:

*“Her advice and clear directions were given all the time, day and night; even on weekends, we receive useful emails from her regarding the project.” (C1P2-1)*

In project (C1P4), one respondent explained that the continuous follow up with everyone on the team was a key to the success of the project. The respondent also stated that what distinguished key individuals in each project was the fact that they knew how important it was to keep following up with everyone involved for the project to develop as planned:

*“Following up with everyone on the team is key to success. If you don’t have this skill, the project might fail. I will give you an example: someone sent an email regarding an issue to the HIS [Health information System] team, and he was like I did my part by sending the email and I’m waiting for their response-even if they didn’t respond. He thinks that by sending an email to them telling them about this issue that he protects himself and this is the most important. This is not the case. Following up with them is important; otherwise, delays happen [..] Those key people have the motivation to keep following up with people till the work is done. I guess this is a problem in our society as well.” (C1P4-4)*

### **Successful strong manager**

Champions are perceived as “talented managers” within their departments. They seem to encourage a knowledge-sharing environment with their staff, are open to discussions, and exchange ideas on a daily basis. They have more of a “democratic” approach toward management. One respondent commented on that by saying:

*“She has a democratic approach where we always discuss everything and anything. We have regular meetings where we listen to everyone’s opinions and at the end agree together on what is best for the business.” (C1P2-7)*

Respondents agreed that champions provide the staff with a level of freedom to execute the work the way they want; at the same time, they follow up with the team members to see how they are doing on the tasks assigned to them. With this arrangement, if team members have some inquiries or issues they want to discuss, champions would informally provide immediate consultation rather than waiting until the next formal staff meeting. For example, most of the team members of the chart viewer project (C1P2) explained how this lean management style was actually more effective at moving the team forward and increasing its productivity and engagement. One project member of the same project commented on the champion by saying:

*“When it comes to her staff, motivation, motivation, motivation! This is a key word for her way of management. She is a genius in management [...] She really knows how to lead a team if it happened that she is the team leader. She motivates the team, leads it to success, and then rewards it after the success. She really sees the strengths in the team and tries to use them and the weaknesses and tries to improve them.” (C1P2-2)*

Champions’ skills in managing and leading the group led to positive outcomes because they were able to get the best out of the team. Those outcomes included faster implementation, increased productivity, better team performance, and increased projects’ success rates, as the following quotations illustrate:

*“Every team reached the success with her management, and I cannot really remember any project we had with her that failed.” (P2-2)*

*“He knew how to manage everything. In Saudi healthcare, rarely can you find someone who has the experience in how to manage and lead a group effectively to end up with the maximum benefit from the group. He knew the skills of each project member and how to utilize these skills in the right tasks. If you ask around, you will find out that we had a very fast implementation compared to other projects.” (C1P3-1)*

Generally speaking, champions provided stability to the departments they managed, which respondents perceived as a suitable environment for innovative projects to be initiated, implemented, and ultimately integrated with the goals and objectives of the health organization. As one team member of the chart viewer project (C1P2) explained:

*“It has been four years now since our initiatives became successful, and we took a very serious perspective when it came to implementing projects and finishing them. We now see the goal clearly rather than the obstacles encountered down the road*

*[..] There was stability in the last couple of years in the management of the department with [the champion] as the director. When you have a managerial stability and the right circumstances, innovations happen.” (C1P2-9)*

### **Excellent communication skills**

Champions' excellent communication skills within the project and with people throughout the hospital in general were emphasized in every single project. They have been described as having the ability to deal with people with different personalities coming from different backgrounds and mind-sets. The following quotations illustrate this point:

*“[She] has the education, knowledge, personality and expertise that enable her to deal with people coming from different backgrounds and different mind-sets” (C1P2-2)*

*“She is a people person and good communicator” (C1P4-4)*

*“What distinguish him from others is his effective way of communicating and dealing with people whether supporters, no-supporters, or mutual” (C1P3-1)*

When it comes to communication within the innovation team, respondents felt that champions recognized the importance of excellent transparent communication among the team members for better team performance. Therefore, they have been described as easily and informally approached whenever needed compared to others who may acquire the same position in the hospital but are hard to reach. Their approachability was actually one of the reasons they were perceived as effective members of the team; they are people persons who can effectively and easily communicate with others regardless of the individual's position in the team. The following quotations illustrate this point:

*“You can go directly and easily to him and talk to him [...] He is always available if we need any assistance unlike for instance others who you find them hard to reach.” (C1P1-3)*

*“She addresses us all equally from the vice director of the department to the technicians. Meaning, she communicates with everyone on the team, listens to everyone’s opinions and suggestions when it comes to the implementation process [...] She works with everyone in the team no matter of his/her status/position in the team hierarchy.”(C1P2-7)*

Not only that, champions of these projects made efforts to better communicate as a team when they felt the need for it. The champions recognized that having steady, constant communication among the team members helped to solve problems, rather than waiting for the formal team meeting. For example, in the chart viewer project (C1P2), the champion suggested a daily meeting as a better way to communicate as a team:

*“She communicates with us in a daily bases [...]There were so many efforts done by her to better communicate as a team and overall encouragement.” (C1P2-3)*

Respondents felt that champions also knew how to effectively communicate with end-users such as physicians. The projects’ members agreed that one of the reasons champions are most needed in project implementation is because of their excellent communication skills with end-users; respondents stated that this is what distinguished champions from other project members. For example, in the COPE project, the champion was described as having “good communication skills with the physicians” (C1P3-1).

Innovation team members stressed the importance of having good communication skills in the healthcare field, which is characterized by diversity. In such a field, knowing how to effectively communicate and deal with people from different cultures and professions

is important. Some respondents even highlighted how it is a critical success factor and that projects may fail for the lack of such individuals who have excellent communication skills:

*“Knowing how to deal with different personalities and cultures is key to success. You need the support of different departments to work with you in your project; otherwise, difficulties and delays happen. We see some projects fail because project members although they are qualified and excellent in what they do but they do not have good skills in dealing and communicating with others. Projects in healthcare depend on keeping good relationships with people especially in healthcare where the diversity is more.” (C1P4-4)*

#### 6.5.4.2 Involvement Conveys Probability of Project Success

##### **Confidence in project outcomes to grow team’s self-belief**

Champions were perceived as individuals who expressed confidence in the project’s outcomes. Their confidence in the success of the project was most apparent in the way they behaved when the project was faced with challenges during implementation. Their confidence was also seen in the way they interacted with others during meetings and discussions, the way they talked about the project to others, and in their attitude in certain situations. Their positive attitude and confidence in the project’s success helped to motivate the team to move forward, as one respondent explained:

*“What motivated and excited us is that he was confident about the project.” (C1P3-2)*

Most of the respondents believed that champions would not engage or participate in the project unless they were confident about its success. The following quotations illustrate this idea:

*“I believe she is confident because she won’t go ahead with it unless she knows that it would work.” (C1P2-5)*

*“She never participates in a project she is not confident about its success. Of course things happen sometimes, but usually she is confident whether in this project or other projects she participated in.” (C1P4-2)*

### **Confidence in project members**

Champions were described as not only being confident in the project’s outcomes, but also as showing confidence in the project members. When champions were the project leaders, they displayed confidence that project members were capable of doing their work without constant interference. They trusted team members who were left to do what they were good at: their own tasks. Respondents stated that champions became involved only when they felt they needed to, for instance, when they felt that a project member was struggling with the tasks he or she had been assigned. In the CPOE project (C1P3), one team member commented about the champion’s confidence in them by stating:

*“Whenever he feels that one of the project members has some doubts or fears about some problems or solutions, he says that ‘you can do it and you will solve it’ or ‘you will succeed in this or that’. That gives you confidence and makes you think more and gives you time to think about the issue in order to find the right solution.” (C1P3-2)*

#### **6.5.4.3 Decisive Use of Authority, Social Networks, and Capital to Enable Project Implementation**

##### **Decisive use of authority**

Some of the identified champions were described as having more authority than project members, namely the authority that their formal roles within the organization allow them to have. As one respondent stated, “He has a little bit more authority than us” (C1P1-5). They were described as decisively using their authority to benefit the project.

Respondents showed how having an individual within the team with authority, who is committed to the project, helped in the full adoption of innovative projects in healthcare compared to situations when there is a lack of such an individual.

### **Secures financial and human resources**

The project members agreed that champions helped to secure financial and human resources for the innovative projects they were promoting. For example, in the risk management project (C1P1), the champion arranged funding for external consultants to train project members:

*“The one who makes sure that the project runs and that we have enough funds for the project and we have external consultants”. (C1P1-3)*

Similarly, in the chart viewer project (C1P2), one respondent said the champion “uses every possible resource and all the possible ways to benefit the project” (C1P2-1) and managed to get the right individuals to be part of the team, which was not easy in healthcare. At one point, the team needed programmers to help them design the e-forms for patient health records because project members lacked experience. One respondent noted:

*“She helps in getting the right individuals into the project team when needed. For example, we needed, in one stage of the implementation, programmers and specialists in technology, and she did make them part of the project. Usually it takes time to approve these things and make certain individuals to be part of a project in the hospital, but she managed somehow to make the process much quicker.” (C1P2-9)*

She also managed to get nurses to be part of the team as the team needed help in speeding up the process of preparing the physical files to be electronic through announcements inside the hospital:

*“She managed to make some people part of the project to help us with preparing patients’ files. After getting the approval from higher management, that she needed some employees from nursing to help us, she announced it through an advertisement within the hospital. She managed then to train them before they joined the team.” (C1P2-7)*

### **Use of personal network**

Most of the projects’ members strongly agreed that the champions were social and had their own networks inside the hospital where they maintained good relationships with others. They tended to make use of these work connections to speed up the process of implementation and benefit the chosen innovative project. In some cases, champions used these inside networks to propose their ideas for new projects or even arrive at the decision to be part of a project. For example, the champion of the risk management project (C1P1) decided to initiate the project and start the real implementation based on his networking with top management where together they saw the need for similar ideas to do risk management in the hospital.

The majority of the members of these innovative projects agreed that champions used their networks inside the hospital to support their departments and the department’s innovative projects (as in the case of the four identified projects). In the chart viewer project (C1P2), when there was a need for programmers to be part of the project, the champion communicated with people she knew in the IT department. In response, the IT department cooperated and provided them with the right individuals, which would usually take a lot of time. In addition, she encouraged project members to network with others to support the project if needed:

*“She has a very strong network inside the hospital. She uses her own network inside the hospital to support our projects. She even lets us somehow use our own networks to support the projects we are working on. We needed some people for maintenance, and she was like, ‘Who knows someone who can help us in this?’” (C1P2-7)*

Champions also maintained good relationships with higher administration and networked with top management in order to secure additional financial or human resources to guarantee the project's continuity in some cases:

*“Whenever we need budget approval for new suggested projects, she speaks to the financial department and top management. Yes, she communicates well with them and keeps good relationships and returns to them when needed. She uses them to support her department, and she supports them as well.” (C1P2-4)*

As a last resort, champions also turned to their networks to solve problems encountered throughout the process of implementation, as these quotations illustrate:

*“He has a very strong network within the hospital. He had a good relationship with the CEO. Any problem we face, he tried everything he possibly knew to solve it; when he ran out of ideas, he turned to his network for help.” (C1P3-1)*

*“When we had to scan the patient files that are not so active, we had to request it and wait to have the physical files [...] we would be waiting for the files so we could work. So, what she did is that she communicated with people she knew in management and coordinated with them a way to have some employees help us in this matter to speed up the whole process and reduce the time it usually takes; otherwise, it would take forever.” (C1P2-4)*

The majority of project members highlighted the importance of champions' networks inside the hospital to get things done at some point during implementation. The respondents showed that what distinguishes champions from other project members, among other things, is their use of formal and informal networks to support innovations:

*“What really distinguishes him from others is his experience in work, personal and work networks [...] He is most needed for his [...] networking, both personal and work ones.” (C1P3-2)*

6.5.5 Other identified behaviours and characteristics Context

The final context of the emergent characteristics and behaviours is the “other identified behaviours and characteristics”, which revolves around four main interesting themes. First, champions were perceived as having an absolute selfless commitment to the innovative project that went beyond the job requirements. Respondents saw this dedication in their informal contributions throughout the project’s course and in their willingness to accept the responsibility of the innovation. Second, champions were observed and perceived as effective team players who were dedicated to knowledge sharing. Third, they were described as big picture thinkers who had a holistic view of the project, and had the ability to strategically align the project’s objectives with the organizational goals, which could be seen in their decision making and planning. Finally, they were successful in their jobs where they were valued and sometimes resented for their hard work, success, enthusiasm, and professional attitudes. Figure 6-7 illustrates the themes clustered under the context of Other identified behaviours and characteristics.

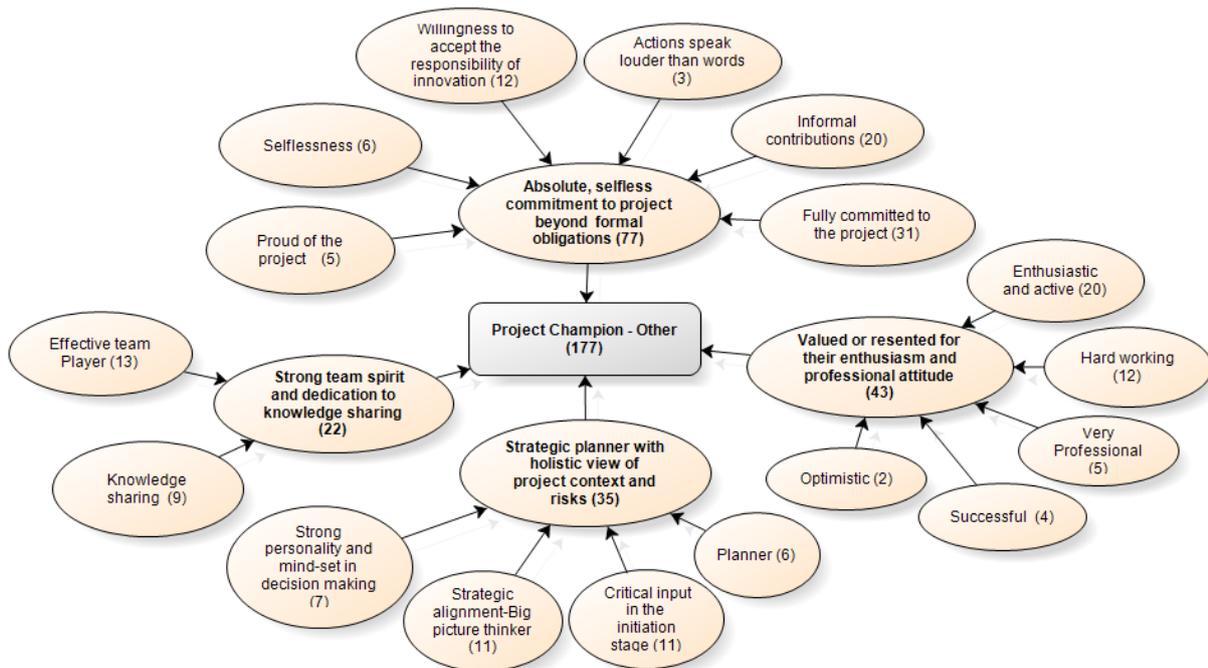


Figure 6-7: Other Identified Themes of Project Champions-Case A

#### 6.5.5.1 Absolute, Selfless Commitment to Project beyond Formal Obligations

##### **Fully committed to the project, goes above job requirement**

Champions of these projects were described as fully involved and committed to the project in order to get the project fully adopted in the hospital. They went above and beyond what the job requirements to make sure the project proceeded as planned. For example, they worked overtime, worked on the weekends, and performed tasks that were not required of them. For example, in the risk management project (C1P1), the champion developed a website about risk management during the project implementation to increase the awareness of risk management and safety among staff and more specifically project members, which was not required from him. When asked what distinguished the champion from other project members, one respondent stated:

*“Only one person who goes beyond what it takes. [the champion] who is the risk manager. He usually spends extra time to make sure that the project proceeds as planned [...] He was so involved in the project, like 60% of his time was given to the project [...] his presence whenever needed and his involvement are what distinguishes him really.” (C1P1-3)*

Similarly, in the chart viewer and CPOE projects (C1P2) and (C1P3), the champions were described as personally involved in the project and working extra time to ensure the project succeeded. A number of respondents in these projects stated:

*“She is really committed to work in a way that she wanted the project to come out in the best way possible.” (C1P2-5)*

*“He himself was the presenter every time we started our work in a new clinic while he could delegate the task to others. He gave the physicians the motive to use it, and his goal was to get them excited about it. That helped us in a sense that when the system is implemented in a clinic, it is actually used.” (C1P3-2)*

*“We were telling him: you are a director, you don’t have to do that, but he himself came personally to address any problem with whoever was involved.” (C1P3-1)*

This commitment was also described in terms of ownership of the project. According to respondents, the champions protected the idea across the project lifecycle until it was a reality. Some project members believed such dedication is necessary for the successful implementation of the project within the hospital. The following quotations from the chart viewer project (C1P2) illustrate this point clearly:

*“Her advice and clear directions were given all the time, day and night; even on weekends, we receive useful emails from her regarding the project [...] She is the project owner.” (C1P2-1)*

*“Yes, the project would suffer indeed. The idea of the project is not something that no one thought about before; it was there from the beginning. What we needed was a doer, someone capable of making it happen. Not any doer, someone who is sharp, professional, and detail oriented. The project was her number one priority that had to be successful and had become successful!” (C1P2-7)*

### **Well-known in the workplace for informal contributions over formal status**

According to respondents, the identified champions were well-known in the workplace and recognized for their informal contributions in these innovative projects more than their formal titles in the hospital. The respondents illustrated that champions were known for their contributions not only to the current project but also to other, similarly innovative projects that had taken place in the hospital; in some cases, the champions had proposed the ideas for these projects.

For example, in the I-application project (C1P4), one of the nominated champions is talented in her formal role as a physician and was recognized across the medical city for her innovative thinking and contributions in a number of projects. She was also

recognized for her talent in design as other project leaders called on her to design for them. Her informal input in these innovative projects that she was not formally part of was highly regarded and valuable. One respondent noted:

*“We consider her the designer of the cancer centre. Whenever we needed a design or logo for any project she provided us with one. [...] When it comes to the designs and sketches, we have here in the hospital an audio-visual group who is responsible for that. Although this is their work, they acknowledge her designs and sketches. Sometimes they even ask her about certain things or ask her to design something [...] She also has some contributions when it comes to IT and health informatics, always working with the IT department [...] She supported us as health education specialists, she supported the National Cancer institute, and she also provides her support to patients in our wards. So you find her everywhere.” (C1P4-2)*

Another respondent showed how people in the hospital associated the IT department with the nominated champion’s name. The champion has been recognized by top management because of her involvement in a number of successful innovative projects, as noted in the following comment:

*“She is a technical person who took a leading role. I would say something: when it comes to the organizational hierarchy, she is not the one who is right after the director of IT, there are other people with higher status than she is. However, she is the only supervisor in IT who gets invitations to join meetings with the CEO and other meetings. She has her own signature all over the IT department. Almost everyone in the hospital knows that IT department means [the champion’s name].” (C1P4-5)*

### **Actions speak louder than words**

The majority of respondents agreed that the identified champions were quiet, easy going, and easy to work with. They were described as focused on what they do to the point that they prove themselves and what they believe through actions rather than

simply words. To illustrate this point, in the I-application project (C1P4), one respondent commented on the champion she identified by stating:

*“She has this quality of calm and quietness in her personality. You get excited about the idea of working with her because she is talented, creative, and innovative. For example, if we have a task, you would find me anxious and always asking her ‘[name of the champion], did you finish? When you are going to be done with this task? You know we have to submit it today?’ She would be like really smiley and really quiet, and at the end of the day she will submit her work on time. Not only that, the work she submits would be of quality and really impressive.” (C1P4-2)*

She continued by saying:

*“We find ourselves doing what she suggested. It is really a pleasure to work with such a person who is quiet and never forces her opinions, yet we listen to her. She is really like the wind; it is light and you cannot see it, but you feel it! She is spontaneous, and when you see her act the way she acts, it gives you a drive to be creative. Unlike other physicians or people, when you ask them to join in any project, they would set their own rules and demand certain things before they even start working with us. Or sometimes you find them very opinionated, but with her it is very different. That’s definitely something!” (C1P4-2)*

These quotations reveal that others enjoy working with such individuals partly because they are unlike others who are in the same positions as champions. These other individuals are described as being noisy and demanding, setting their own rules before even providing their services. On the contrary, respondents described their identified champions as quiet individuals who let their actions speak for them. Not only that, but it seems that the champions proved to others, whether they were supporters or non-supporters, the importance and value of what they were advocating through the positive results of their actions rather than defending what they do with simple speech. For example, in the chart viewer project (C1P2), the champion was faced with opposition when she began advocating for a new understanding of health informatics

within the hospital. However, when the specific innovation she proposed was a success and others witnessed the benefits gained by implementing such a new concept, they were convinced by the results. One respondent stated:

*“She is not afraid to be blamed by others, and at the end, they realized she was right. She let her actions speak for her rather than words.” (C1P2-1)*

### **Willing to accept responsibility for the innovation**

Respondents described the identified champions as being willing to accept the responsibility of implementing the innovative project, which is not an easy task since they would be blamed if things did not work as planned. Their willingness to accept challenges can be seen from the beginning, when they proposed the project idea to be implemented, changed the old perspectives within the hospital, and worked on the implementation of the innovation afterwards. In the chart viewer project (C1P2), the champion was described as voluntarily accepting the responsibility of implementing new projects in the department. One respondent said:

*“She suggested to go ahead and implement the idea of the project, and all the staff agreed on the idea. The idea was there from the beginning; the hospital had been thinking about it for a while, but the question was more like who is going to implement it in reality [...] her presence increases the chances of implementing projects successfully in our department as well as voluntarily taking the responsibility of implementing them in the first place. Take this project, for instance!” (C1P2-7)*

Moreover, respondents explained that, because champions accepted the responsibility of implementing the project, they take the blame if something went wrong. They were responsible for the project’s success or failure in the view of top management. The following quotations illustrate this point:

*“She is responsible for the project in front of everyone. The CEO is not watching me or any other project member in terms of what we do to the project. When it comes to her, she represents the project to him, so if anything goes wrong, it would be discussed with her, not us.” (C1P2-7)*

*“If the project fails, he would take the blame.” (C1P3-3)*

The majority of Champions were also described as accepting the responsibility of implementing other similar innovative projects within the hospital. For example, in the chart viewer project (C1P2), one respondent described how working with the champion had been like a series of accepting challenges and turning them into successes. The experience was never ordinary or routine, as she explained:

*“Working with her, we were all like happily exhausted, if that makes any sense—like we didn’t have so much time to just celebrate what we accomplished together. The moment we find ourselves celebrating an achievement or overcoming a challenge, we are finding ourselves working toward another one and dealing with the next challenge. We actually got used to it; this is our routine now.” (C1P2-7)*

### **Selflessness-hospital recognition over personal recognition**

Some respondents commented on the identified champions’ selflessness. According to the respondents, the champions were actually not looking for personal recognition or any personal credit for what they accomplished; rather, they sought to achieve significant results in the name of the team, department, and hospital. This attribute was most emphasized by the team members of the chart viewer project (C1P2). When asked what would happen if the champion were not part of the project, one respondent stated:

*“Not only would this project suffer, the whole department will. She really cares about what benefited the department in a way that is more than caring about her position as the director or any personal gains, the interest of the department over anything else [...] She cares about reaching big results under the name of the team as whole to better serve the patients and employees of the medical city in general.” (C1P2-3)*

Another team member also elaborated on how the champion succeeded in help the hospital gain another level of excellence once she joined the hospital without looking for any personal gain:

*“a physician who used to work in different hospital came to work here. His colleague, a physician from his previous workplace, met him and asked him about his new work. He replied, saying, ‘It is great! We have Health Information Management System: chart viewer; we can view the patient files over the computers. I can be in the United States and be able to view my clinic and what is happening.’ The friend said, ‘Great? Who did that?’ He replied, saying, ‘I don’t really know.’ That shows that, when it comes to her, it is not about her—it is about the hospital. She transferred the hospital to another level without taking any credit.” (C1P2-2)*

### **Proud of the project and the achievements**

Respondents described the champions of these four projects as being really excited and proud once they started talking about the projects’ results in terms of serving patients and increasing the quality of services provided to patients. For example, in the risk management project (C1P1), the champion stated:

*“You can ask me about the results. I’m proud of the results [...] we really worked so hard, and we have achieved a lot in a very efficient way because the results were really impressive.” (C1P1-1)*

Furthermore, respondents noted that champions not only felt pride in the results of a successful project implementation, but they also announced the milestone achievements to everyone in the hospital throughout the implementation. Respondents believed that this was the champions' way of engaging and exciting everyone in the hospital to ensure better acceptance of the project once implemented:

*"She even makes sure that everyone in the department, including those who are not part of the project, knows how far along we are when it comes to implementation, what we are doing now, what we are dealing with, and what the next stage is. For example, when we transferred 100,000 patient files electronically, she made sure that everyone knew that and what we were going to do next in terms of the plan." (C1P2-3)*

#### **6.5.5.2 Insists on Strong Team Spirit and Dedication to Knowledge-Sharing**

##### **Effective team player**

Champions were described by a number of respondents as effective team players who worked in the name of the team by cooperating with other project members to achieve the goal of implementing the innovation successfully in the hospital. The following quotation illustrates this point:

*"She is an effective team player in this project and other projects." (C1P2-2)*

##### **Knowledge sharing within project and hospital**

Champions were perceived as knowledge sharers both on the project level and on the department level when they fulfilled their everyday tasks as the following quotations illustrate:

*“He is the one who communicated with an international company to eventually get accredited. So, he was attending their meetings and he went back to the hospital and taught us what he had learned so we can be better when it comes to risk management. He was trying to provide us with everything he learned from this company” (C1P1-2)*

*“She has never been selfish when it comes to giving us from her time, knowledge and advice.” (C1P2-2)*

In the chart viewer project (C1P2), the champion stressed the importance of knowledge sharing for the project to be fully adopted and for the department to improve. She encouraged knowledge sharing and the exchange of ideas once she joined as the director of the department. When one respondent was asked about the person that in his opinion solved the problems encountered during project implementation, he replied:

*“There is a strategy that the health information management is trying to teach us which is that any information that I know or get, my colleagues should know about it as well. It is not cool to have information about the project that my team doesn’t know about. So, we were all pretty much on the same level [...] The knowledge-sharing environment that the management of the department [the champion] tried to create makes it hard to tell. She and others who are higher in positions were sharing with us what they know through training courses and meetings, especially in the first three months I joined them. They were telling us about the characteristics of the project, errors, weaknesses, problems, and how to solve them. We have a slogan in the department that says, ‘One team, one deal.’” (C1P2-6)*

### 6.5.5.3 Strategic Planner with Holistic View of Project Context and Risks

#### Strategic alignment-big picture thinker

Champions were perceived as having the ability to look at the full and bigger picture of the innovative project while others focused only on their specific tasks. More specifically, respondents noted that the identified champions had a comprehensive overview of the whole process and could tell when a portion of the project was sufficiently complete good enough to stop and have a comprehensive overview of the whole process. For instance, the champion of the risk management project (C1P1) was able to articulate to the researcher the bigger picture of the project, considering different components like administration support and monitoring, cultural awareness, and other factors compared with the rest of interviewees. In the CPOE project (C1P2), one respondent commented on the champion's strategic thinking during project implementation by stating:

*"I was detail oriented and he is target oriented. This combination is a success in the sense that he knew when to say 'Stop, this is good enough'. While for me it is as if you are looking into a beautiful wall and all you can see is a tiny scratch and you are working on it." (C1P3-3)*

Similarly, one respondent from the chart viewer project (C1P2) stated:

*"She knows when it's good enough to stop working—let's say in forms—or start in this part rather than that, or pausing the work in one area of the project for a while to work in another area." (C1P2-5)*

Not only were champions identified as strategic thinkers within the project, but they were perceived to have the ability to link and align the objectives of the project during the initiation stage with the hospital's objectives. According to respondents, champions looked at the project as a means to achieve more substantial innovations rather than as a goal in itself. For instance, one respondent from the chart viewer project (C1P2) stated:

*“She considered the project a way to facilitate the road to our goal, while other hospitals considered having electronic chart viewer a goal in itself and once reached, so they would considered themselves successful at this point! That’s the difference.” (C1P2-1)*

### **Strong personality-strong mind-set in decision making**

Some respondents described champions as having a strong personality and mind-set, especially when it came to decision making. For instance, in the chart viewer project (C1P2), the champion was described as the “mastermind behind the project.” (C1P2-2) When asked about the identified champion’s contributions to the successful implementation of the project, one respondent stated:

*“She is decisive, sure, confident, and strong when it comes to decision making [...] She has the right mind-set and power. The power and art of decision making and only few who has this in healthcare [...] I have been working with her for four years now, and I call her the iron woman.” (C1P2-1)*

Similarly in the COPE project (C1P3), the champion was perceived as having a strong personality and being strong minded in decision making. On respondent stated that “when he sets his mind on doing something, he does it!” (C1P3-1).

### **Planner**

Champions were described by a number of respondents as good planners who knew what they wanted, where they were headed, and planned for it appropriately. When asked about a technique used by the champion he nominated to support the innovative project, one respondent said simply, “Planning, planning, planning” (C1P4-4).

In the CPOE project, one respondent said that the champion was most needed for his “clear and comprehensive planning ability” (C1P3-1).

### **Critical input in the initiation phase**

Champions were perceived as having critical input in the initiation stage of the project, According to respondents, their good planning sense and strategic thinking, together with their decision-making abilities, help them contribute significantly at the beginning of the project implementation, which extends from the time the idea is proposed to the start of the actual implementation, For example, in the risk management project (C1P1), the champion described how he developed a model to help implement risk management. One team member also showed how the identified champions were the ones who decided “what and how they are going to implement risk management” (C1P1-5) and the ones who worked with a consultant firm on the safety policies and procedures that did not exist previously.

Similarly, in the CPOE project (C1P3), one respondent explained the champion’s critical input when it came to marketing the product within the hospital very early in the implementation process:

*“Beginning of implementation is where he is most needed. He has a skill that rarely you can find in people, how to present your product and how to convince people that such product is something big! That’s helped us a lot.” (C1P3-1)*

#### **6.5.5.4 Valued or resented for their enthusiasm and professional attitude**

##### **Enthusiastic and active**

When it comes to projects and work, champions were perceived by some respondents as active, energetic, and enthusiastic to the point that these traits were infectious.

People around them felt their activeness and enthusiasm when they started working with them. One respondent in the chart viewer project (C1P2) stated about the champion:

*“She is active, enthusiastic, which gets the team excited about work to the point they start enjoying it.” (C1P2-3)*

In some instances, the champions’ enthusiasm about implementing innovative projects was perceived as a key to the project’s success. One respondent from the I-application project (C1P4) stated:

*“The most important thing is when you find a person who is excited about the project, and they are few. This is the key to the success in my opinion.” (C1P4-2)*

It seems that even the departments where the champions worked began to be recognized within the hospitals as active departments in terms of project implementations and involvement in changes. In the chart viewer project (C1P2), one respondent expressed how the department shifted from 2009/ 2010, this was when the champion joined as a new director and proposed ideas for a number of projects:

*“We are a very active administration; like each year, we have two projects or more. If you see it this way, in 2010 we had some weakness in our health records, and by 2011 we received two accreditations.” (C1P2-1)*

### **Hardworking symbol**

Champions were described as hard-working individuals; according to respondents this trait was what enabled these champions to accomplish significant results in a relatively short period of time whether on the level of the innovation, department, or hospital. For example, in the chart viewer project (C1P2), one respondent explained that the champion is a symbol of hard work and one that sets the standards high when it comes to productivity. She stated:

*“Her contributions are countless; you cannot really keep track of them. Since she came and in a very short period of time, everything is almost electronic: coding, files, call centre. She is an icon representative of a hardworking Saudi woman.”*  
(C1P2-2)

Similarly, in the I-application project (C1P4), the nominated champion did most of the work when it came to the database, which was not an easy task to accomplish given the time provided:

*“This girl never sleeps [she laughs]. She always meets the deadlines and finishes her work on time. The work she is producing is not only what is required from her; no, she always exceeds the expectations, and the work is a high quality one. She does not work just to work and get done with the task with the minimum effort. This is not her.”* (C1P4-3)

### **Very professional**

Some respondents described champions as very professional in their work. They perceived such professionalism as needed when it comes to work and implementing projects. Some respondents indicated that champions preferred focusing on work and what needed to be accomplished to meet the deadlines. However, champions’ professionalism may not be always valued. A number of respondents showed that, champions are sometimes resented for their professionalism due to social norms, particularly from non-supporters and those who value traditions:

*“She is very professional and never takes any matter personally, direct and to the point which sometimes is resented for”* (C1P2-1)

*“She is so focused on work and very professional and practical in a society with certain traditions that need to be given time to.”* (C1P2-5)

### **Optimistic about project**

Just as the identified champions were confident in their projects' outcomes, they also exhibited an optimistic outlook that things will work out as planned throughout the process of implementation. Respondents recognized their optimism in the way they talked about the project whether formally in team meetings, presentations, and workshops or informally during discussions with colleagues and people involved in the implementation process. This optimism was also seen in the way they dealt with problems encountered throughout the process of implementation such as resistance to using the system or a shortage of necessary technical experts.

### **Successful—which creates supporters and antagonists**

Champions of these projects were perceived as successful in general when it came to their work and their mission of implementing their chosen projects. However, according to some respondents, not everyone supported what they were advocating. There were supporters, non-supporters, and those who were neutral. For example, in the chart viewer project (C1P2), one respondent commented on the champion's success by stating:

*“You cannot really make all people supportive of you, and at the same time not all people are antagonists. With her success, she faces like nine people who are supportive of her and like one person who resists whatever she is calling for. So, with her intelligence, she lets even this person acknowledge her efforts.” (C1P2-2)*

Another respondent from the same project also showed the identified champion responded to antagonists:

*“Every person who is successful like her has some enemies, but that makes her more determined.” (C1P2-5)*

## 6.6 Role and Importance of Champions in Innovations- Case A

Champions were described as using different techniques to support the innovative project. Champions primarily spread awareness about the project early in the implementation, convinced others during implementation to accept the project, and marketed it through the use of statistics and facts, public praise, formal and informal presentations about the advantages of the project, and open discussions with end-users who had certain worries or complaints.

Within the project, each champion unlocked the team's potential by providing continuous support and training. They expressed confidence in the team and their capabilities and encouraged them to give their best by constantly reminding them of the ultimate goal, which was serving patients. If the project lacked the right individuals or resources, they worked toward securing them by negotiating with top management or using their personal networks when necessary. After elaborating in the techniques used by the champion, one respondent in the chart viewer project (C1P2) stated:

*“When you see the results and success of this project plus the challenges we had before, you could tell she has certain strategies to support the system. When you think about it, this project was a dream for us four years ago with all the challenges back then. Now it became a reality! That tells you something.” (C1P2-9)*

The majority of respondents asserted that champions were needed in all stages of the project implementation; however, some explained that the beginning of the implementation was the hardest and most critical where everything has not yet been figured out in terms of what is required from end-users. Therefore, respondents felt that champions were most needed at the beginning of the implementation for their good planning, persistence, creative thinking, and advocacy. One interviewee noted:

*“At the beginning, in the initiation stage, which is the hardest and most critical, [she was most needed].” (C1P4-4)*

## **6.7 Effect of Champions on Innovations- Case A**

### **6.7.1 Indispensable Presence and Contributions**

Respondents perceived champions as key individuals within the projects. They felt that each champion was a success factor in the chosen innovative project because of the behaviours he or she demonstrated throughout the project lifecycle that facilitated the full adoption of the project. The following quotations illustrate this point best:

*“The project now successfully implemented and many hospitals visited us to learn from our experience. The success is because of so many reasons, and she is one of the success factors. You can say, on the level of the department, she is a main factor.” (C1P2-1)*

*“It was a success story when he took the responsibility and led the project somehow.” (C1P3-1)*

The majority of respondents perceived the presence of champions in these projects as indispensable for many reasons. One of the most mentioned reasons was that their presence sped up the process of implementation, which helped meet the established deadlines. The respondents perceived project success in terms of adherence to the due date, acceptance of the project, and the percentage of utilization among other factors. The following quotations illustrate this point:

*“The project was successfully implemented within a year of his arrival as opposed to previous attempts; if he wasn’t there, there would be a delay in work and the implementation process altogether.” (C1P3-2)*

*“If you ask around, you will find out that we had a very fast implementation compared to other projects. He has a good communication skill with the physicians and also knows how to solve problems on time, and we learn from him. Without him as part of the group, this project wouldn’t be successful, frankly.” (C1P3-1)*

Interestingly, champions are not only meeting their project goals but also helping the medical city meet its goals. The success of these projects received national and international recognition which was in line with the medical city’s goals. For instance, respondents of the chart viewer project (C1P2) described how they went from suffering from weaknesses in the health information system to receiving many national and international accreditations within four years of the champion joining as the director of the department. In the I-application project (C1P4), one respondent related how one hospital in the region was impressed by the innovative idea of the project and wanted to learn from their successful implementation experience. Similarly, the risk management champion elaborated on the project’s success story and the recognition the medical city has received by stating:

*“Because we have achieved big results, people took notice of us. This is because we have started from zero, you have to remember. There is one hospital in 2009, and it’s a major hospital here in Saudi. We went to see them to see how they have done their program for the risk management, and in 2009 they had risk management for eight years and they really have very little risk management, and for us for 18 months we have achieved a huge amount of things. The reason I’m saying huge is because what has been accomplished is important. Now there is a standard called measurement of risk which is a British standard or guidance owned by the British government, and we are using it here because I was in the UK for a while. It shows how mature you are when it comes to risk management. It’s called maturity assessment. They assess how mature you are in risk management, and it has 5 levels. If you are in level 2, then it would be okay [...] by this December we have achieved level 4, and this is the highest in the world and because of that from zero to 4 in 18 months is impossible and not easy.” (C1P1-1)*

According to respondents, champions contributed significantly to their projects, their departments, and the medical city within a relatively short time following their arrival. For example, the champion of the chart viewer project (C1P2) was described by almost all project members as a hardworking individual who achieved a great deal in a short time compared to her predecessors. The identified champions' presence helped in implementing innovative projects in the medical city successfully. The following quotations about these champions illustrate this point:

*"She joined us as the director of the department only three or four years now, and she accomplished a lot of things in such a short period of time compared to previous individuals in her same position. We managed to successfully implement projects that we weren't able to before her within the time given." (C1P2-3)*

*"His contributions are a lot especially when it comes to implementing projects in healthcare." (C1P3-1)*

*"His contributions are many when it comes to the department itself. Since he joined us, his efforts were huge in implementing projects successfully. We received some prizes of best projects being implemented in the medical city." (C1P3-2)*

While the champions' presence increased the chances of successfully implementing innovative projects, respondents also demonstrated how the departments in which these projects were implemented were significantly improved as a result:

*"Her contributions are countless; you cannot really keep a track of them. Since she came and in a very short period of time, everything is almost electronic: coding, files, call centre [...] you can also view some pictures of hospital wards and places before (Ms.) arrival and after; you would be amazed!" (C1P2-2)*

*"We accomplished a lot of things in her presence as the director of the department. Like getting a number of accreditations like JCI [Joint Commission International]*

*and other accomplishments and projects like the employees' update project and others." (C1P2-7)*

### 6.7.2 What Would Happen if They Were not Part of the Innovation?

The majority of respondents, if not all, described how these projects would suffer if champions had not been part of them. Some explained that the project would face pressure in terms of meeting its deadlines or would fail to proceed as planned. Others stated that the project would not work because the champion was needed to overcome the obstacles faced throughout the implementation process such as end-users' resistance to the system. Another group of respondents asserted that the project simply would not be successful if the champion were not part of it. One respondent stated:

*"Without him as part of the group, this project wouldn't be successful, frankly. I know that because the department tried to implement this project before and they failed." (C1P3-1)*

In all four projects, respondents explained that, not only would the project suffer on the technical side, but the project would lack the impact it enjoyed because of the champion's presence. They described far more complicated projects that have been successfully implemented in the medical city but that lacked the impact of these projects within the medical city or even in the region. Other respondents expressed that the organization would suffer from a lack of enthusiasm, brilliance, and positive constant state of changes if the champion were not part of the project or part of their departments. The following quotations illustrate this point the best:

*"It won't work without him being part of it! Even if the system went really smoothly [...] The impact of the system was huge, I guess, because of him." (C1P3-1)*

*"If she leaves us, the brilliance of the department would disappear and many projects would face delays or would not be suggested in the first place" (C1P2-1)*

*“We experienced a period of just routine work while she was abroad. When she came back and started working with us, her presence brought excitement and enthusiasm when it comes to work.” (C1P4-2)*

Interestingly, some respondents argued that these projects would not have been suggested in the first place if the identified champions were not part of the departments or the medical city. Some stated that they would forever be ideas written on paper. The identified champions initiated the whole process by proposing the ideas for these projects attached with clear frameworks and realistic goals which have now been successfully implemented and integrated with the medical city’s goals and objectives.

They further explained how the idea(s) of these projects were not new, but what was previously lacking was a *doer* or an executor—someone who would turn the idea into reality. These projects would suffer by not having a person who was personally committed to the project in all stages and who would carry the idea and nurture it until it was a reality—that is, until it was fully implemented.

The respondents showed how current projects by champions opened doors for similar projects in the near future to be approved and implemented in the same sub-category. Once a few of their ideas emerged as successful projects, people started believing that their ideas would actually work and benefit the hospital. The majority of respondents described how the identified champions would be needed in future projects for the same reasons they were perceived as critical to the success of the current projects. One respondent noted:

*“Her presence is needed in future projects; with the success right now of the chart viewer, I can see more projects coming from her.” (C1P2-8)*

## 6.8 Case Study B description

### 6.8.1 Organization Overview

The second case is one of the oldest and continuously expanding hospitals in Saudi Arabia working under western healthcare standards. It is a 600-bed capacity hospital which provides health services to the Ministry of Interior employees and their families. The hospital offers different levels of health services and surgical operations in fields such as orthopaedics and plastic surgery. It includes a centre for dialysis and an eight-story-tower for specialized medical purposes. The hospital is also considered an educational and internship institution and has obtained a number of international accreditations such as the Canadian Council of Health Services.

### 6.8.2 Case B Innovative Projects

The project identified in Case B is a technological project that aims to have an electronic nursing board system instead of the regular nursing boards to save the time of nurses and increase the quality of services provided to patients in wards (see table 6-5). When discussing the aim of the project, the identified champion said:

*“We actually calculated the amount of time nurses spend on the board and showed how we don’t need them to spend too much time on the board writing and figuring out stuff. So, that was a major issue because that time spent on the board could be spent on delivering services to patients [...] We wanted to innovate a system that integrated the existing patients [...] and related each room with a nurse and whatever the patient was suffering. So, the doctor will figure out what is happening around the clock and here comes the electronic boards. In these boards you can find everything you need to know about the patient [...] after that, we had to see how much money we could save in term of papers printed [...] so we created a prototype and showed it to six senior nurses and 32 nurses in one section, and they really liked it.” (C2P1-3)*

Table 6-5: Description of the Innovative Projects - Case B

Project Code	Type of project	Project description	Duration	Stage of project	%	# of members
C2P1	Technological	<p>Initiative that came from within the hospital for a new electronic nursing board system. This software/hardware system is installed in all in-patient nursing units to view the status of each bed in the unit around the clock. Basic changes to the board can easily be made by health providers.</p> <p><b>Benefits:</b> saves time for nurses and physicians in viewing the status of each bed and entering the required changes. It also increases the quality of healthcare services provided to patients by making the process more organized and decreasing errors compared to the use of basic nursing boards.</p>	6 months	Fully adopted	100 %	5

### 6.8.3 Role of Individuals: Innovation Team-Case B

In this particular project, respondents reached a unanimous agreement on two project members as the identified champions. Project members strongly believed that the two nominated members worked side by side as the champions of the project. While one of the identified champions was on sick leave (C2P1-5), the other champion (C2-P1-3) also nominated himself and his colleague as the champions of the project, illustrating that it would not have worked without their combined efforts. Table 6-6 illustrates the professional interviewee background information and the nominated champions.

Table 6-6: Professional Interviewee Background Information and their Nomination-Case B

Interviewee's Code	Years of experience in healthcare projects	Role in project	Role in organization	Champion nominated
<b>Nursing Board System C2P1</b>				
C2P1-1	3	Devices coordinator	Senior programmer	C2P1-3 C2P1-5
C2P1-2	7	Network security	Network security engineer	C2P1-3 C2P1-5
C2P1-3 <b>Champion 1</b>	3	System developer	Application developer	C2P1-3 C2P1-5
C2P1-4	13	Team leader	Development team leader	C2P1-3 C2P1-5
C2 P1-5 <b>Champion 2</b>	4	Programmer	Senior programmer	Sick leave

#### 6.8.4 Institutional Support-Case B

The top management support in Case B was not highly emphasized. Nevertheless, the respondents and more specifically the champion described the management of the IT department in particular as being supportive of innovative thinking. The head of the IT department was described as the strongest promoter of the project and other technological innovative projects to be implemented in the hospital. For example, the champion C2P1-3 described how his proposed idea for the current project was supported by his boss:

*"Since the time I joined the hospital, my boss Khan is the kind of guy who has never said no to me and always likes new innovations in information technology so if there is any innovation that will save the time of patients and employees and reduce resources, he will give the green light to go ahead with it and implement it [...] If I need any information or assistance from any department like the nursing department, he helped." (C2P1-3)*

Then he explained that, as a result of the department support, he has developed a growing commitment to the organization to utilize his skills to the fullest in his roles in both the organization and project implementation:

*"For me, I think the more time you spend here, the more you want to be helpful to others and utilize your time and skills to the fullest."(C1P1-3)*

#### **6.8.5 Behaviours and Characteristics of the Identified Champions-Case B**

The champions of the nursing board system were technical employees who both worked in the IT department, one as a system developer and the other as a programmer. They participated in implementing a number of technological innovative projects such as a patient referral system. They were perceived as hardworking "implementers" of these projects and the individuals most familiar with the project and the infrastructure of the hospital system. According to some project members, the champions' familiarity with the hospital infrastructure led to a faster implementation process and immediate action toward problems encountered during implementation. Both champions brainstormed together and turned to one another when faced with issues during implementation. They were comfortable and more productive working together compared to the rest of the project members, as one of the champions stated:

*“Because Sam [champion 2] and I are on the same level, we are both developers, so we think in the same way. That is the difference. I have a bunch of work colleagues here, but they will not understand the core and procedures of what we are trying to do in terms of development.” (C2P1-3)*

## **6.9 Case Analysis and Discussion-Case B**

The champions identified in Case B were perceived contributing the most to the projects because there was a consensus that they were the actual “implementers” of the project. They were fully committed to the project and did most of the work when it came to the project. They, together with their bosses, generated the idea of the project and proposed it because they saw the need for it. After that, the two identified champions, who were both technical employees, handled most of the project responsibilities like problem solving, persuading people to use the new system, and working in more than one area during project implementation while others stuck to their assigned tasks. Their colleagues credited them with most of the creative ideas in terms of suggestions and solutions during implementation. The frequency analysis of the champions’ most popular behaviours during the implementation process will be presented next.

### **6.9.1 Frequency Analysis**

Tables 6-7 and 6-8 illustrate the frequency analysis of the most mentioned behaviours and characteristics of champions in this project (C2P1). The top three characteristics of champions in this case are being hardworking symbols, working as problem solvers, and being familiar with the innovation and the hospital system. Regarding their most popular behaviours, respondents noted that they proposed new ideas, were fully committed to the project, and recognized the need for the innovation. In the following section, a discussion of these behaviours and characteristics divided into the four conceptual contexts (knowledge, change, leadership, and other identified behaviours and characteristics) will be presented.

Table 6-7: Frequency Analysis of Project Champion Behaviours- Case B

Theme	Overall Frequency	Theme Frequency	Interviews Cited	Popularity Index
Proposes creative ideas for projects	48	12	4	25%
Fully committed to the project	48	11	4	22.9%
Recognizes the need for the innovation and visualizes its potential	48	6	4	12.5%
Use of personal network	48	4	3	8.3%
Influential	48	4	3	8.3%
Advocates for the idea of the project within the hospital	48	4	2	8.3%
Confidence in the project outcomes	48	3	3	6.2%
Confidence in the project team	48	2	2	4.1%
Unlocks others' potential, sees the project member as a whole	48	1	1	2.0%
Critical input in the initiation phase	48	1	1	2.0%
<b>Total:</b>				<b>≈100%</b>

Table 6-8: Frequency Analysis of Project Champion Characteristics- Case B

Theme	Overall Frequency	Theme Frequency	Interviews Cited	Popularity Index
Problem solver	45	9	3	20%
Hardworking symbol	45	6	4	13.3%
Enthusiastic and active	45	5	2	11.1%
Familiarity with the innovation, hospital system, and the innovative environment	45	4	2	8.8%
Strongest supporter of the innovation	45	3	3	6.6%
Experienced, competent, and knowledgeable	45	3	2	6.6%
Strategic alignment-big picture thinker	45	3	2	6.6%
Effective team player	45	3	1	6.6%
Initiator	45	2	2	4.4%
Persistence in moving the project forward	45	2	2	4.4%
Excellent communication skills	45	1	1	2.2%
Risk-taking propensity	45	1	1	2.2%
Up-to-date knowledge of the industry	45	1	1	2.2%
Believes in self-confident in what he or she does	45	1	1	2.2%
Optimistic	45	1	1	2.2%
<b>Total:</b>				<b>≈100%</b>

### 6.9.2 Knowledge Context

Team members highly emphasized champions’ work experience and problem-solving efforts. Respondents perceived champions as having an analytical approach in dealing with issues that arose, such as the issue of screen blurring. According to respondents, the two identified champions usually turned to each other when faced with problems and brainstormed together during implementation to find solutions for those problems.

They were also perceived as being self-confident, being familiar with the innovation, and having up-to-date knowledge of the healthcare industry (see figure 6-8). For example, as the following quotation illustrates, respondents believed that the champions' familiarity with the innovation and the hospital infrastructure as a developer led to faster implementation and prevented delays compared to the use of a developer who was new to the hospital:

*"[Champion 2] knows the infrastructure of the application, so if you have a foreign guy he would sit and study and it would take him time to understand it. Therefore, the project would take a longer time to be implemented and may even stop at one point because it needed a guy who is fully familiar with the infrastructure and the application itself."* (C2P1-3)

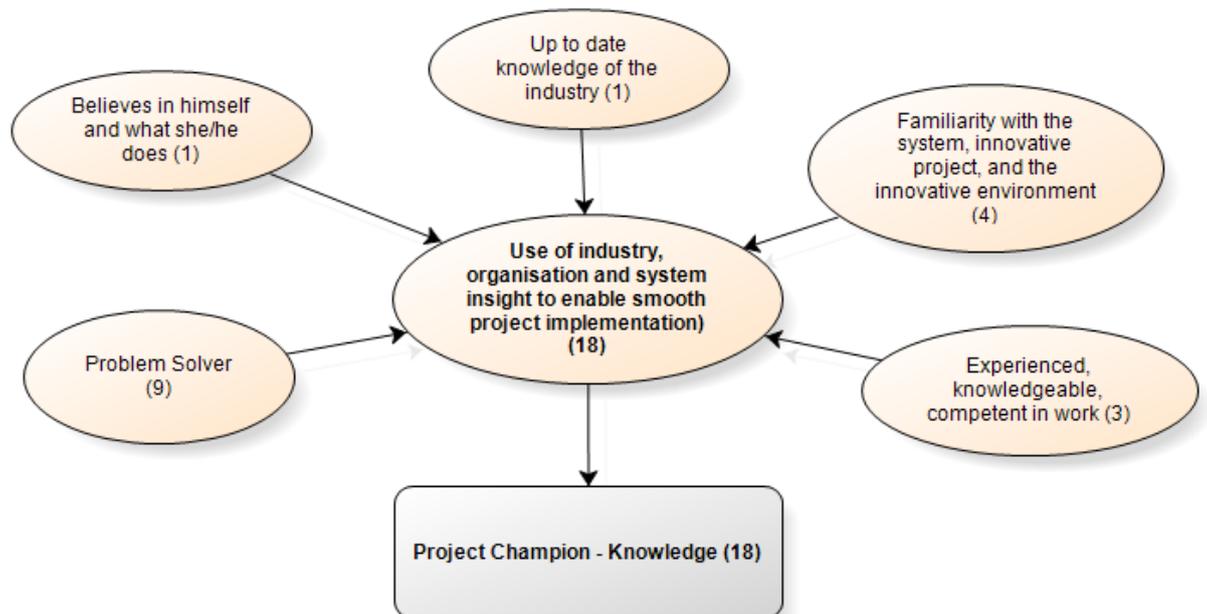


Figure 6-8: Knowledge Themes of Project Champions-Case B

### 6.9.3 Change Context

In Case B, the most-emphasized themes that related to the change context included the champions' being open to new opportunities to achieve a competitive advantage by proposing creative ideas for projects and within project implementation. Both champions suggested creative ideas and strategic changes within the project implementation such as system integration and the use of smart PCs. The team leader stated:

*"[Champion 1] is a creative person with new ideas. One of the things he suggested is to have a central control for all the nursing electronic boards via a certain network to view whether these boards were switched on, turned off, etc. So, basically it will present continuous and around the clock control and overview of the status of the nursing boards." (C2P1-4)*

The findings also highlighted champions' efforts to remove barriers to implement the innovation by being persistent in moving forward. Also, project members emphasized how the champions recognized the need for the specific innovation and advocated for it (see figure 6-9). The team leader commented on champions' recognizing the need for the project and visualizing its potential by saying:

*"They had a vision and visualized the project realistically which led to the successful execution of the project in my opinion [...] They are aware of the way they implement new systems that address exactly the specific needs and make full utilization of any new system to be implemented." (C2P1-4)*

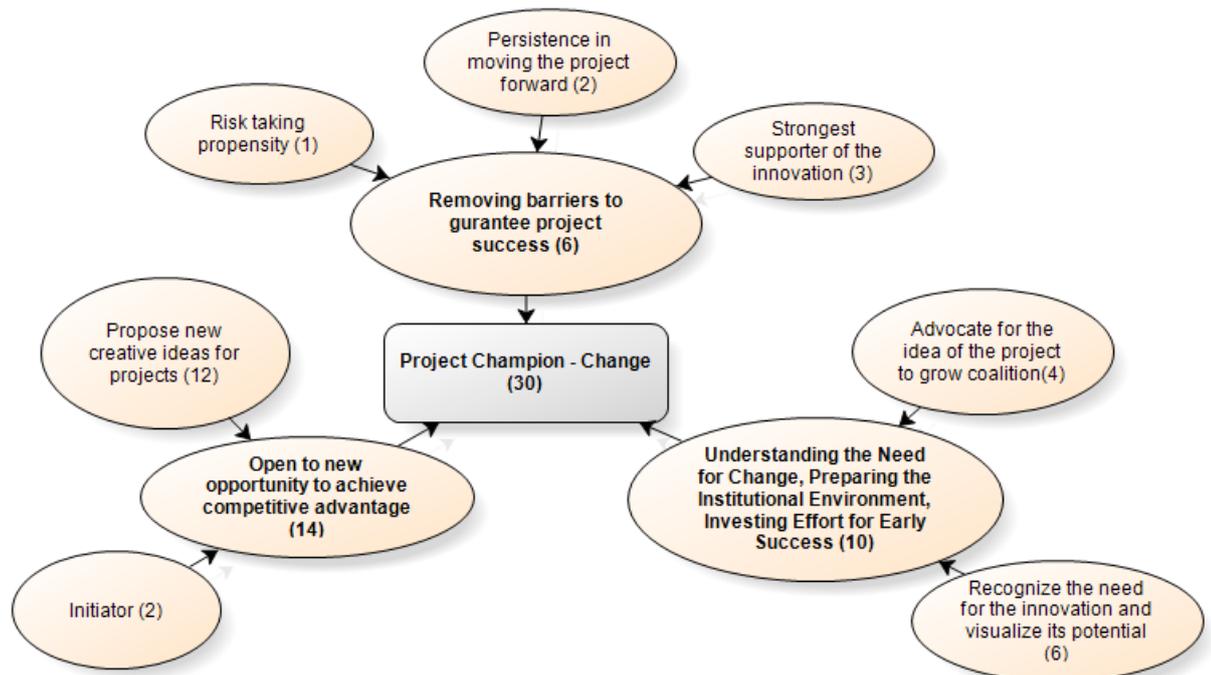


Figure 6-9: Change Themes of Project Champions-Case B

#### 6.9.4 Leadership Context

In Case B, respondents did not emphasize champions’ strong leadership or decisive use of authority and capital to enable project delivery. The champions were perceived more as technical employees and implementers of the project. Nevertheless, they were described as influential in the sense that their opinions were heavily considered by their boss, team leader, and colleagues in the department (see figure 6-10). For example, on the project level, the team leader stated:

*“People listen to their opinions because they are the main key players of the project. Therefore, they visualize the project clearer than the rest of us; therefore, their opinions are heavily considered by everyone including me.”(C2P1-4)*

They were also perceived as having excellent communication skills with end-users which they used in applying the end-users’ suggestions effectively. Their confidence in the team and the project’s success were also highlighted in the findings:

*“They were confident in the project in the sense that they knew it would be a success from the beginning. This is because they worked so hard on it from the beginning.” (C2P1-2)*

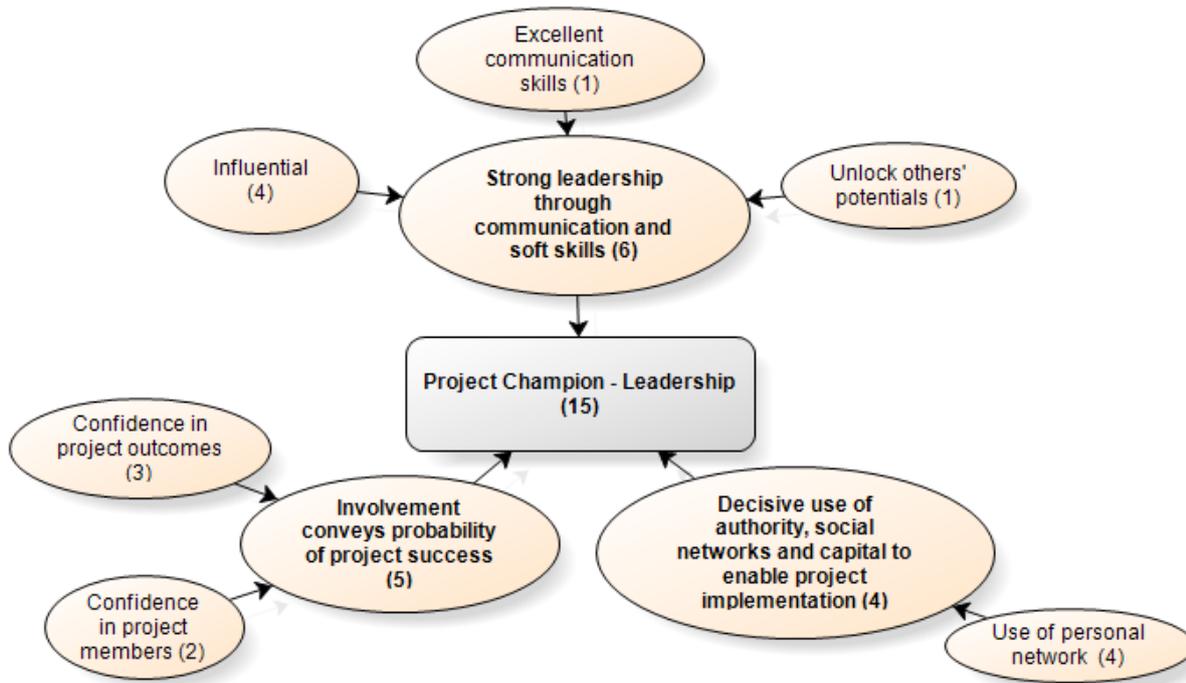


Figure 6-10: Leadership Themes of Project Champions-Case B

### 6.9.5 Other Identified Behaviours and Characteristics Context

When it comes to the other identified themes that do not belong to the above three contexts (knowledge, change, and leadership), the two most emphasized themes in Case B were the champions’ hard work and their full commitment to the project that went beyond formal obligation. For example, the team leader described how one of the champions developed an application to use in his personal cell phone to check the project’s progress. He further stated that what distinguished the champions from other members was their full commitment to the project:

*“What distinguish them is their excitement, dedication, and commitment to work. They don’t have a problem to work overtime and stay late to finish the work even though they were not asked to. Since we are in the testing stage, if any problem occurs in the system like at any time, they are the ones who come to fix it even if it is midnight.” (C2P1-4)*

As for their hard work, one project member stated:

*“I believe the biggest two contributors are [champion 1] and [champion 2]. This is because they have done most of the work and the biggest load was on them [...] they did it in a remarkably short time compared to similar projects in the same category.” (C2P1-2)*

Champions were also perceived as insisting on team spirit. For example, one of the champions constantly used “we” instead of “I” for the things he developed. He stated, “I considered myself an effective team player because I think if you don’t act as a team player, you will never learn” (C2P1-3).

They were also described as strategic planners with a more holistic view of the project’s contexts and risks than the rest of the team. Respondents also observed that champion 1 (C1P1-3) talked about the project perhaps more comprehensively and at a greater level of passion and detail than other team members. The team leader also described the champions’ holistic view of the project by saying:

*“They perceive the process of implementation from a number of layers and from a very deep perspective and zone.” (C2P1-4)*

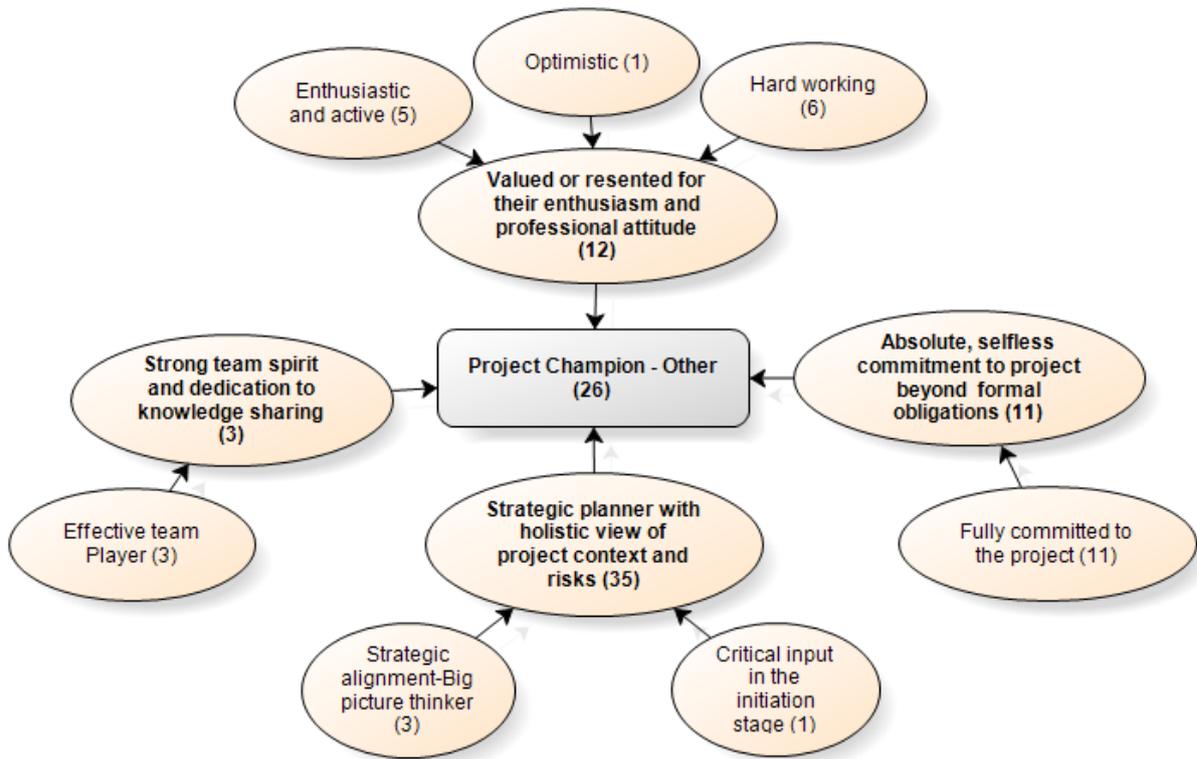


Figure 6-11: Other Identified Themes of Project Champions-Case B

### 6.10 Role and Importance of Champions in Innovations- Case B

In Case B, champions were perceived as implementers or “doers” while the management of the department was perceived as “an encourager.” (C2P1-1) Team members expressed how the champions played huge roles and were considered to be main success factors in supporting and implementing innovative projects in the hospital by demonstrating the behaviours mentioned in section 6.10 Project members showed how they had faster implementation in the current project due to champions ‘presence and hard work:

*“They were really excited about implementing it here in the hospital, and they did that in a remarkably short time compared to similar projects in the same category.” (C2P1-2)*

Champion 1 (C2P1-3) exhibited an analytical approach in dealing with issues concerning the project. Both champions spent substantial time testing the system and playing different scenarios, which is considered effective strategy as champion 1 (C2P1-3) stated:

*“I spend a lot of time testing. This is my strategy; it is a basic strategy but works every time.” (C2P1-3)*

Respondents indicated that champions were most needed at the beginning of the implementation, as the following quotations illustrate:

*“At the beginning of implementation because if you don’t have a solid foundation you won’t succeed.” (C2P1-4)*

*“Of course at the beginning, the planning and the conception of the idea is the most critical and important stage that needs individuals like them. Encourager of change [the department] and doer, implementer [the champions].” (C2P1-1)*

### **6.11 Effect of Champions on Innovations- Case B**

The findings showed how the project would face delays and fail to meet deadlines if the champions were not part of the project, did not give their full commitment, and did not work hard. They Respondents even stated that half of the department’s projects would fail if they were not part of the department.

Some respondents argued that the presence of the champion in future projects would be necessary to the project’s success because the champion is considered a key player. On the other hand, the team leader stated that the champions’ presence was not necessarily needed for future projects to succeed, but indicated that their overall impact and their own fingerprint in executing the work perfectly would definitely be missed.

## 6.12 Case Study C Description

### 6.12.1 Organization Overview

Case C is an 850-bed university hospital which provides all general and sub-specialty health services. It is considered one of the first educational hospitals in the country affiliated to a college of medicine in one of Riyadh's universities. The hospital's vision is to become one of the leading medical schools and healthcare providers to make a positive impact on health in Saudi Arabia.

### 6.12.2 Case C Innovative Projects

Two projects were identified in Case C, one technological and one administrative. The first project (C3P1) is an electronic prescription system that the IT management suggested be implemented in the hospital to help the medical staff writing patient prescriptions. The goal was to reduce the errors caused by the paper-based prescriptions and increase the quality of healthcare services (see table 6-9). It was initially implemented in three paediatric wards and intensive care units. With the successful implementation of the system in these wards, the same team is about to implement it in all in-patient hospital wards and out-patient clinics. One project member commented on the aim of the project by stating:

*“The advantage it has is that it saved time and reduced the ‘turnaround time’ until the order is delivered to the patient. At the same time, it addressed the issue of ‘illegible handwriting’ of physicians. So, it did serve us in so many ways.”*  
(C3P1-3)

The second project (C3P2) is a quality project that aims to implement a number of quality standards such as risk management and patient safety processes in both clinical and administrative departments. The following quotations illustrate the aim of the project:

*“I could say that we have achieved 75% when it comes to our ultimate goal of this innovation. People started noticing the importance of quality, understanding it, and started talking about quality and standards. Before the project, you can see clearly that people did not fully know or understand what quality is, or what quality policies really mean nor the techniques in practicing quality in the workplace, identifying risks and addressing them, or setting a goal and working toward it through a defined process. Now the case is different [after implementing the project]; people started talking quality, quality assurance, and even trying to meet the international standards when it comes to quality.” (C3P2-3)*

*“There are objectives for what we are doing. That once we accomplished implementing all the standards, we would be more coordinated, we would be actually following the international standards of quality in hospitals and get accredited so that in itself would increase the appeal of the hospital when it comes to people who want to work here or patients who want to get quality treatment. Patients would start to trust more the healthcare providers and healthcare services. Patients would know that they are provided with better health services and all patient rights.” (C3P2-3)*

Table 6-9: Description of the Innovative Projects - Case C

Project code	Type of project	Project description	Duration	Stage of project	%	# Of members
C3P1	Technological	<p>Computer-based electronic system that is used for the generation, filing, and transmission of medical prescriptions to replace the paper-based prescription</p> <p><b>Benefits:</b> saves time of nurses and physicians, provides help level, and reduces medical errors and thus increases the quality of healthcare services</p>	2 months	<p><b>Stage-1:</b> fully adopted, in paediatric wards and intensive care units</p> <p><b>Stage-2:</b> implementing it in all in-patient wards and out-patient clinics</p>	70 %	5
C3P2	Administrative	<p>Quality project that includes the implementation of a number of quality policies and procedures such as patient safety and risk management standards in both administrative and clinical departments</p> <p><b>Benefits:</b> increases the quality of the services provided to patients</p>	One year	Fully adopted-Enhancement stage	100 %	7

### 6.12.3 Role of Individuals: Innovation Team-Case C

In the E-prescription project (C3P1), respondents reached a unanimous consensus on the champion of the project (see table 6-10). The five project members (including the champion himself) perceived him as the one who contributed the most to the project because he was the one who developed the system and the one who accomplished

over 60% of the project alone. Respondents described the identified champion as hardworking, fully committed to the project, and going beyond what the job required.

Similarly, in the quality project, the majority of project members including the champion herself who is also the team leader, perceived her as the project champion and the one who contributed the most to the project. For example, one team member stated:

*“It has to be unbiased. I have to say [the champion] [as the main contributor]. This is because she was giving all these presentations and guiding the traffic [...] you know dots and crosses were in the right infinite details. She gave quite a few presentations, and she is really trying to be positive and get us all focused.”*  
(C3P2-4)

In addition to having a consensus on the team leader as the champion of the project, three team members perceived the contribution to the project from different organizational levels. They agreed with the rest of the team on the project champion, but they also nominated the quality chief executive as a main supporter on the level of the quality department, and the hospital dean as a main supporter on the level of the hospital's top management. To illustrate this point, the project champion commented on this topic by stating:

*“If it is the doer, I'm the doer. If it is the person who takes decisions and make this happen, then it's Dr. Musaad. If it is the person who is facilitating all those things, then it is Dr. Omar [...] So, the three of us [Dean, quality executive, and herself] have three different contributions which never can cross each other. The three of us have major contributions at different levels. Dr. Musaad was facilitating everything; we needed a budget, [and] he supported us with a budget [...] Dr. Omar, while there are thousands of policies need to be reviewed, he would review them. We ask him for things to be created, [and] he would say 'Okay, I will make this happen, and I will take it to Dr. Musaad' [...] For me, I was the planner, the designer, and the doer. Telling people that this is how it should be done, this is*

*how it will go. So, we, the three of us, were major contributors at three different organizational levels.” (C3P2-7)*

Interestingly, two team members shared the same view. When asked about the main contributor to the project, one project member stated:

*“I perceived it like a chain of people. We have Dr. Musaad, who was like the top in leadership skills. He has all the characteristics that you can imagine in an excellent leader. [...] Dr. Omar and Dr. Farah now still giving a push and has power, but not as Dr. Musaad, given his position as the dean. It is like the family and the levels of power each member has; in our case, it is like a father, the big brother, and the children who work like Dr. Farah. It is a bit complicated, and that is why I cannot actually separate these three chains of power at all. In order for these above-mentioned individuals or ‘levels’ to achieve what we have achieved, we have Dr. Farah who did all the actual work. So basically it is three levels of main contributors; without one of them, it wouldn’t work.” (C3P2-6)*

So, although the quality executive and the hospital dean did not have direct roles in the actual implementation process, it is clear that respondents perceived them as two additional levels of organizational support for the project. Such support from individuals within the department and the hospital enabled the identified champion to contribute the way she contributed to the project. The following section presents a discussion on the institutional support provided by the executives of the hospital to the innovative projects and project champions.

Table 6-10: Professional Interviewee Background Information and their Nomination-  
Case C

Interviewee's code	Years of experience in healthcare projects	Role in project	Role in organization	Champion nominated
<b>E-prescription project C3P1</b>				
C3P1-1	8	Infrastructure provider	Senior manager of network and infrastructure	C3P1-4
C3P1-2	16	Data transfer	[Senior] Application manager	C3P1-4
C3P1-3	1	Mediator/coordinator	Senior clinical pharmacist	C3P1-4
<b>C3P1-4 Champion</b>	7	System developer	Programmer	C3P1-4
C3P1-5	17	Supervisor of training and coordinator	[Senior] System manager	C3P1-4
<b>Quality project C3P2</b>				
C3P2-1	7	Team coordinator	Secretary of the quality management director (the champion)	C3P2-7
C3P2-2	17	Patient safety officer	Specialist nurse	C3P2-5
C3P2-3	10	Quality document supervisor	Quality document supervisor	C3P2-7
C3P2-4	20	Quality auditing	Quality coordinator	C3P2-7
C3P2-5	16	Quality coordinator	Senior quality coordinator	C3P2-7 [Champion] C3P2C [Quality executive-supporter] <b>Two levels</b>
C3P2-6	3	Quality indicator	Quality performance specialist	C3P2-7 [Champion] C3P2C [Quality executive-supporter] C3P2CC [Hospital dean-supporter] <b>Three levels</b>

C3P2-7 <b>Champion</b>	12	Project leader	Director of quality management department	C3P2-7 [Champion] C3P2C [Quality executive-supporter] C3P2CC [Hospital dean-supporter] <b>Three levels</b>
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#### 6.12.4 Institutional Support-Case C

In general, top management support was not highlighted in Case C. Nevertheless, a number of key individuals in different levels of the organizational hierarchy were supportive of innovative thinking and helped in the projects’ implementation. Moreover, respondents emphasized the departmental support to champions in both projects as facilitating the successful implementation of these projects. For example, the quality chief executive was described as a “source of empowerment” and “a strong believer in quality,” (C3P2-6) as illustrated in the following responses:

*“Not all vice deans who take a job like that, take it very seriously, taking into account the ultimate goal which is to get accredited. The goal is patient safety; the patient comes first. Some who would have the same position as vice deans would take it as a title, as a regular job; they wouldn’t completely believe in what they do in every step they take, and in this case believe in quality.” (C3P2-6)*

*“Dr. Omar provided support, resources, and—as they say—took the stones away from our path [...] It was not something that is part of the job; no, it was something to show everybody that it is possible.” (C3P2-5)*

The support that key individuals in higher levels of the organizational hierarchy gave to the innovative projects as well as their belief and recognition of the identified champions resulted in the champions developing some sort of a bond with the organization. To confirm that, the champion of the quality project stated:

*“I think the recognition, if I speak for myself, the recognition from top management and the trust really played a major role for me [...] At that time, he [the quality executive] gave me a title that ‘she is my man’. I love the title that he gave to me. There is a lot of personal motivation in all that we have done... the energy from him, the empowerment, the delegation, and the trust. It was a lot. [...] When I came here, the initial assessment by accreditation Canada was already done, and there was a long journey waiting for the hospital to do it, more than 300 recommendations. Thank god, they believed in me, and we did it together.” (C3P2-7)*

#### **6.12.5 Behaviours and Characteristics of the Identified Champions-Case C**

The champion of the E-prescription project is an application programmer who has seven years of experience in implementing innovative projects. He is also a member of the quality team where he played an important role in getting the hospital accredited. Respondents indicated that he developed the innovative project through hard work and full commitment. When the champion was asked about the project and who contributed the most to it, he stated:

*“There is no question about it. Most of the project I did it myself. More than 60% of it [...] Complete E-prescription from printer set and coding [...] I took over everything [...] Everything including coding, store procedures, user manuals, user training, I did it myself.” (C3P1-4)*

The champion of the quality project is a paediatrician by profession and a certified risk administrator. She is also the director of the quality management department. She was involved in quality management initiatives in her previous job where she held the same title. She was perceived as a skilful team leader who, along with her team, initiated and successfully implemented a number of quality projects, policies, and standards. She was described by team members as the most experienced in quality management. One respondent stated, “Her biggest contribution is getting the hospital accredited” (C3P2-6) after previous failed attempts by others. After her success,

people in the hospital started trusting the quality department despite earlier disappointments with the previous management. The champion stated:

*“It was more than 92 standards that we worked on. It was totally new for the hospital. And of course getting into the standards, then hospital-wide policies and procedures along with starting a major project really led everyone to start trusting the quality department.” (C3P2-7)*

Nevertheless, she was faced with resistance from physicians and others to adhere to the new quality standards. According to respondents, what made it more challenging to make people listen to her and what she said about the project was the fact that she is a foreigner (see section 6.4.3 for quotations). She was described by respondents as being a visible leader who is persistent and has a strong personality.

### **6.13 Case Analysis and Discussion-Case C**

The identified champions in Case C were perceived as the ones who contributed the most to the project because they were fully involved and went above and beyond the job requirements to make sure the projects progressed as planned. Table 6-11 and 6-12 show the frequency analysis of champions’ behaviours and characteristics during the course of the innovative project:

Table 6-11: Frequency Analysis of Project Champion Behaviours-Case C

Theme	Overall Frequency	Theme Frequency	Interviews Cited	Popularity Index
Fully committed to the project	118	25	9	<b>21.2%</b>
Advocates for the idea of the project within the hospital	118	20	7	<b>16.9%</b>
Proposes creative ideas for projects	118	11	5	<b>9.3%</b>
Influential	118	9	7	<b>7.6%</b>
Secures financial and human resources	118	8	5	<b>6.8%</b>
Unlocks others' potential, sees the project member as a whole	118	7	3	<b>5.9%</b>
Understands and overcomes resistance to change	118	6	4	<b>5.1%</b>
Confidence in the project team	118	5	3	<b>4.2%</b>
Changes old perspectives in the culture to accept change	118	5	1	<b>4.2%</b>
Confidence in the project outcomes	118	4	4	<b>3.4%</b>
Recognizes the need for the innovation and visualizes its potential	118	4	2	<b>3.4%</b>
Provides continuous support and intervention	118	3	2	<b>2.5%</b>
Critical input in the initiation phase	118	3	3	<b>2.5%</b>
Use of personal network	118	3	2	<b>2.5%</b>
Decisive use of authority	118	3	3	<b>2.5%</b>
Actions speak louder than words	118	1	1	<b>0.8%</b>
Forceful in defending the project	118	1	1	<b>0.8%</b>
<b>Total:</b>				<b>≈100%</b>

Table 6-12: Frequency Analysis of Project Champion Characteristics-Case C

Theme	Overall Frequency	Theme Frequency	Interviews Cited	Popularity Index
Experienced, competent, and knowledgeable	141	29	11	20.5%
Problem solver	141	14	7	9.9%
Effective team payer	141	12	10	8.5%
Enthusiastic and active	141	9	8	6.3%
Hardworking symbol	141	9	6	6.3%
Successful strong manager	141	8	4	5.6%
Excellent communication skills	141	7	4	4.9%
Initiator	141	6	4	4.2%
Familiarity with the innovation, hospital system, and the innovative environment	141	6	4	4.2%
Well-known in workplace for informal contributions over formal status	141	5	4	3.5%
Up-to-date knowledge of the industry	141	5	3	3.5%
Strongest supporter of the innovation	141	3	3	2.1%
Persistence in moving the project forward	141	4	4	2.8%
Believes in self-confident in what he or she does	141	4	4	2.8%
Optimistic	141	4	4	2.8%
Strategic alignment-big picture thinker	141	4	3	2.8%
Knowledge sharing within project and hospital	141	3	3	2.1%
Strong personality-strong mind-set in decision making	141	2	2	1.4%
Risk-taking propensity	141	2	2	1.4%
Planner	141	2	2	1.4%
Willing to accept the responsibility of the innovation	141	1	1	0.7%
Selflessness-hospital recognition over personal recognition	141	1	1	0.7%

Respected by others	141	1	1	0.7%
<b>Total:</b>				<b>≈100%</b>

### 6.13.1 Knowledge Context

As illustrated in figure 6-12, in the knowledge context, the work experience of the champions and their familiarity with the innovative project and innovative environment were highly emphasized by respondents in Case C. Respondents believed that such experience and familiarity contributed significantly toward the successful implementation of the project. For example, one of the team members of the quality project commented on the champion's experience:

*“She was hired for her experience [...] I don't think anybody here has neither her experience nor her knowledge in quality management. Experience in the way she put things together for the ultimate goal. Because otherwise, we could come and spend the money, and the result wouldn't be good or things would go wrong [...] I think Dr. Omar and Dr. Farah were needed in all the stages of the project, because Dr. Omar was the one facilitating the road and Dr. Farah was providing all the knowledge.” (C3P2-5)*

Champions were also found to be the most familiar with the innovative project. Both identified champions worked in implementing similar projects in their current and previous jobs. For example, the champion of the quality project had worked to get other hospitals internationally accredited in the past. The following respondent commented on that topic:

*“She has a very excellent experience in how to start implementing quality projects. That helped us especially when it came to the first cycle of the project. So, her contribution was huge in this matter, the way she ‘pushed/drove the boat forward precisely,’ built the structure, and ‘lift up the hospital’.” (C3P2-6)*

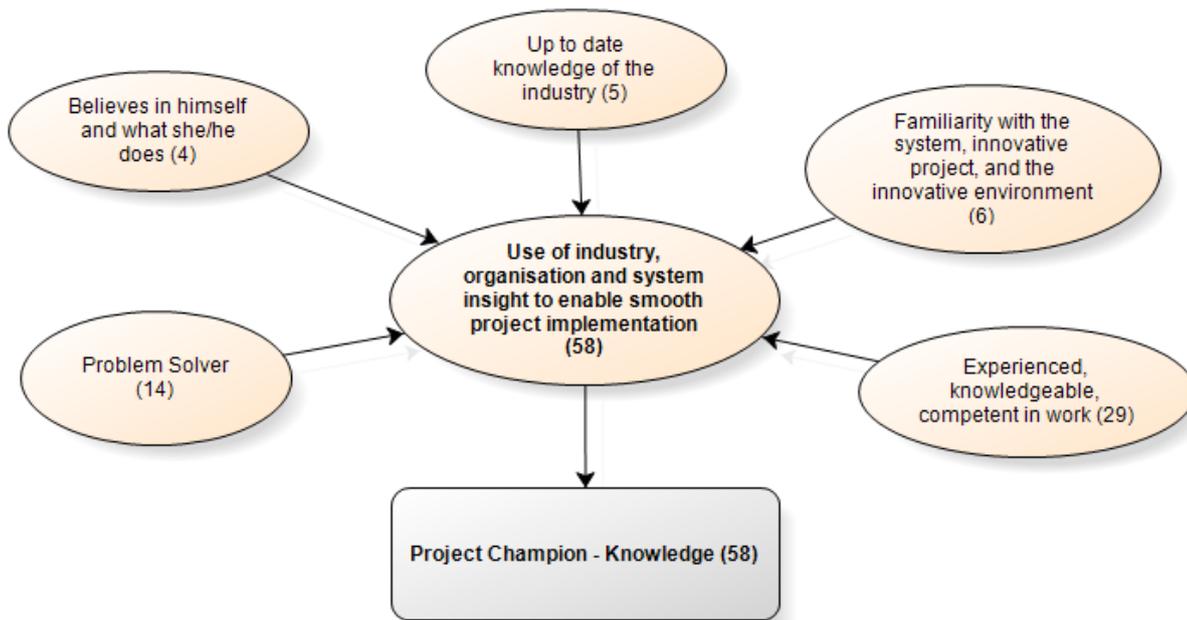


Figure 6-12: Knowledge Themes of Project Champions-Case C

Champions were also perceived as having up-to-date knowledge of the healthcare industry. For instance, the champion of the quality project was described as a team member who “understands really well what quality is in hospitals nowadays” (C3P2-3). She was also perceived as “a believer in the quality” (C3P2-4). She herself also stated:

*“We were believers in that [quality and its projects]. We knew that the accreditation would be one of the strongest tools to bring change to this hospital.” (C3P2-7)*

Moreover, champions were also perceived as problem solvers. Respondents perceived the champion of the quality project as a problem solver for the administrative and more strategic issues that were encountered during the course of the project. On the contrary, the champion of the E-prescription project was more of a technical employee, so he was perceived as the one who fixed the technical issues encountered during the project like the network and infrastructure problems. He was also described as “cool” and “never frustrated” during these challenging situations:

*“When there is any problem, I would call him immediately, even sometimes calling his personal mobile when there was something urgent, and he never turned me down or said, ‘No, I’m busy,’ or ‘This is not one of my responsibilities,’ or ‘I’m not available,’ like at all. And of course, this has to play a big role in the success of the project.” (C3P1-3)*

### 6.13.2 Change Context

As for the change context, most of the respondents emphasized how champions understand the need for institutional change, invest efforts in changing old perspectives in the culture, and advocate for the specific idea of the innovation (see figure 6-13). For example, in the quality project, the champion herself highly emphasized the important role the culture of the hospital has in successfully introducing change to the hospital. She explained that, at the beginning, people were affected by the old perspectives in the culture, a culture that believed that there was no need for quality standards and policies. Nevertheless, the team managed to some extent to make people believe in quality by showing them positive evidence. The identified champion stated:

*“Because in the beginning, there were many people who were affected by the previous culture and believed that it was not going to work. It was a culture that believed and said that ‘the hospital has been working for many years without these policies and procedures and without accreditation and we were just fine. So, what is the need for it now? You are only trying this to hang the quality certificates on the walls, and it’s not going to bring any change, and it won’t do anything for the patients and nothing for us!’ Nevertheless, eventually, we managed to sustain what we were saying, I think, and I believe that the characteristics of the three of us are transparent, hardworking, devoted, and committed, and that was what led people to trust us. Talking updates and bringing evidence, and there is only one message to everyone, and I think, from that perspective, they started to believe that there was somebody who was actually a hard worker, making sustained effort, and bringing the logic. We*

*managed to show them small, successful projects, and we brought a lot of evidence and benchmarks that led them to start believing in quality and its projects.” (C3P2-7)*

*“At the end, everybody believed, and this happened in every organization. Those who believed in it will continue and those who just did it because it was time and they had to do it, and those who declined [..]. It comes with time; changing the culture takes seven or ten years to be changed, and we did it dramatically here, and I think the role of Dr. Musaad and the people who believed in him and the role of Dr. Omar and the people who believed in him and my role and the people who believed in me, made a difference in the culture.” (C3P2-7)*

The fact that the champion was faced with hard time making people in the hospital believe in quality may have to do with the setting where the innovation took place, public hospitals. One respondent asserted that, because employees have more career stability in a public hospital as opposed to a private hospital, many individuals showed less commitment in practicing quality standards:

*“The culture of this hospital as a public hospital, where employees are protected in a sense that they are going to receive their salaries at the end of the month whether they worked really hard or simply did the minimum required work [as opposed to private ones], allows more manipulation, playing around the roles, and less commitment in practicing and implementing quality standards.” (C3P2-6)*

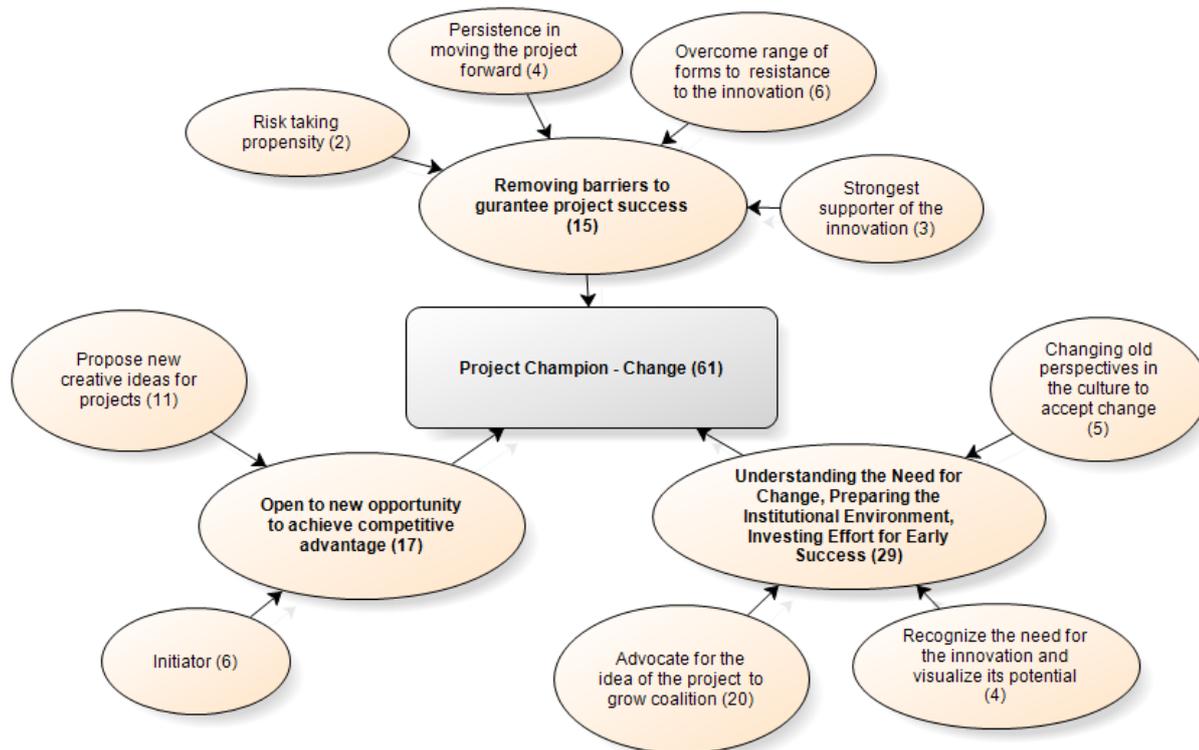


Figure 6-13: Change Themes of Project Champions-Case C

Also, respondents emphasized that champions advocated for their projects using different techniques ranging from training and incentives to exercising authority:

*“Because in introducing quality or any change in the form of new projects to hospitals, comes the resistance. You have people who support it and people who are against it. So, this is the way it works, they [the quality chief executive and the project champion] took those who supported the change and made them help them in advocating for it and convincing those who were against it [...] They [the quality dean and the project champion] did the impossible to convince others of the project. One of the things they did [...] was the ‘motivation’ through public praise and giving away gifts for those who practiced quality most in each unit or department like electronic tablets [...]. They also tried to convince people to do quality by arranging big events so they could talk to people about quality. They used booklets and pamphlets, small gatherings and meetings. They also contracted with external consultants in quality for training purposes... a lot of things, you name it.” (C3P2-6)*

*“When we celebrated our small achievement, we managed to show them with data and numbers that this is what we did and this is how it is happening and awarding the people. Okay, you have worked all of this, and we really appreciated and recognized what you are doing. We never sat down in our offices; we were always there in the hospital, going there and moving here, and we were so early in our offices and when we leave very late [...] And as I’ve said, I think the feeling and readiness was there, but they were just waiting for a push to let those things happen.” (C3P2-7)*

However, the champion of the quality project acknowledged that it is never easy to advocate for quality in a complex setting like a healthcare organization where your message is constantly interrupted due to the critical work of the end-users you are trying to address such as physicians:

*“We were still trying to work on it, but of course you still have some gaps. For example, you conducted a very important presentation, but [...] some people suddenly got a call from the OR [Operation Room] or clinic and then left. The whole message was not given to them. So there are many levels where your message can be broken down.” (C3P2-7)*

Nevertheless, the identified champions were perceived as persistent individuals who never gave up in the face of diversity. For example, one team member on the quality project commented on the champion’s persistence and how it was a key aspect in protecting any innovative project from cancellation. She stated:

*“The problem here is that projects are initiated but stopped in the middle and die before they see the light. So, to have someone like her, who is capable of ‘holding her breath till things get done’ or having the persistence and patience to deal with many and different parties to get the job done is the key.” (C3P2-3)*

As for the champions' risk-taking propensity, one team member stated that the champion consciously took risks in the sense that she was introducing something new to the hospital. The following quotations shed light on the topic:

*“For sure, we [the champion and the quality executive] took a risk because we were introducing a new idea; the biggest risk for sure was that people were not trusting that the quality department was here and it would continue because they have seen many people change, and to be honest the previous leadership in the quality department had very few things to add to the hospital.” (C3P2-7)*

*“At that time, they [the champion and the quality executive] were stepping on many risks. As you know, they were doing something new that wasn't done before. They were making many changes like moving people around too much and bringing new people constantly. Bringing a lot of resources in that could put them in risks and benefits. Now they have the glory of the success and the achievements.” (C3P2-5)*

Moreover, both champions were faced with resistance from people in the hospital. In the E-prescription project, the physicians and nurses were slow to use the system; nevertheless, the project team never gave up. The quality project met resistance from physicians in particular to practice quality standards. More specifically, the project champion faced resistance from physicians to comply with her instructions. According to respondents, such resistance was mainly demonstrated by the “old generation” of physicians. In addition, two project members asserted and hinted that the champion faced more resistance from physicians because she was a woman and a foreigner. The following quotations shed more light on the issue:

*“Do you know why there is a high resistance? Because physicians here, especially the old generation, didn't actually study healthcare quality [...] since the emphasis on the quality of health services increased significantly over the past decade or two. My observation is that the new generation of physicians who*

*studied quality in universities would have more understanding of the concept of quality and know the importance of documenting everything [...]*

*“I guess the fact that she is non-Saudi and a director is a challenge in itself. She tolerated what you cannot imagine, oppression ... you name it. You have to see this point; she is a non-Saudi director, more particularly Pakistani, who has to give instructions to physicians, Saudi physicians, consultants, and surgeons who basically didn’t listen to anyone. So, you can imagine how the situation was, a non-Saudi Pakistani female director gives them orders. It was a very ‘sensitive’ cultural situation. Some people wouldn’t even listen to her. One time we had a meeting with a cardiologist consultant who was the president of heart disease committee, who basically told her, ‘I don’t believe in quality’.” (C3P2-6)*

### 6.13.3 Leadership Context

Since the E-prescription champion was a technical employee, most of the leadership behaviours were found to describe the champion of the quality project (see figure 6-14). She was perceived as an influential “visible leader” who was respected by others. She even managed to influence the dean of the hospital to believe in quality (see section 6.16). The following quotation demonstrates this point:

*“We had so many people in and out of this office because her table used to be just the opposite of mine. I tell you what; I think I saw everyone in the hospital like managers or head nurses; they were back and forth. So definitely, and I could hear so, I knew that people in the hospital were looking for her advice [...] obviously, she was like a team leader even though there were Dr. Omar or Dr. Musaad who were there, but I think hospital-wide everybody would acknowledge her. Even when I was going into the ward areas, if I said that I was there because Dr. Farah had asked me to come in [...] it’s amazing that just saying her name gave me empowerment. It was amazing seriously. Why! Because as I have said before, she was the visible leader.”*  
(C3P2-4)

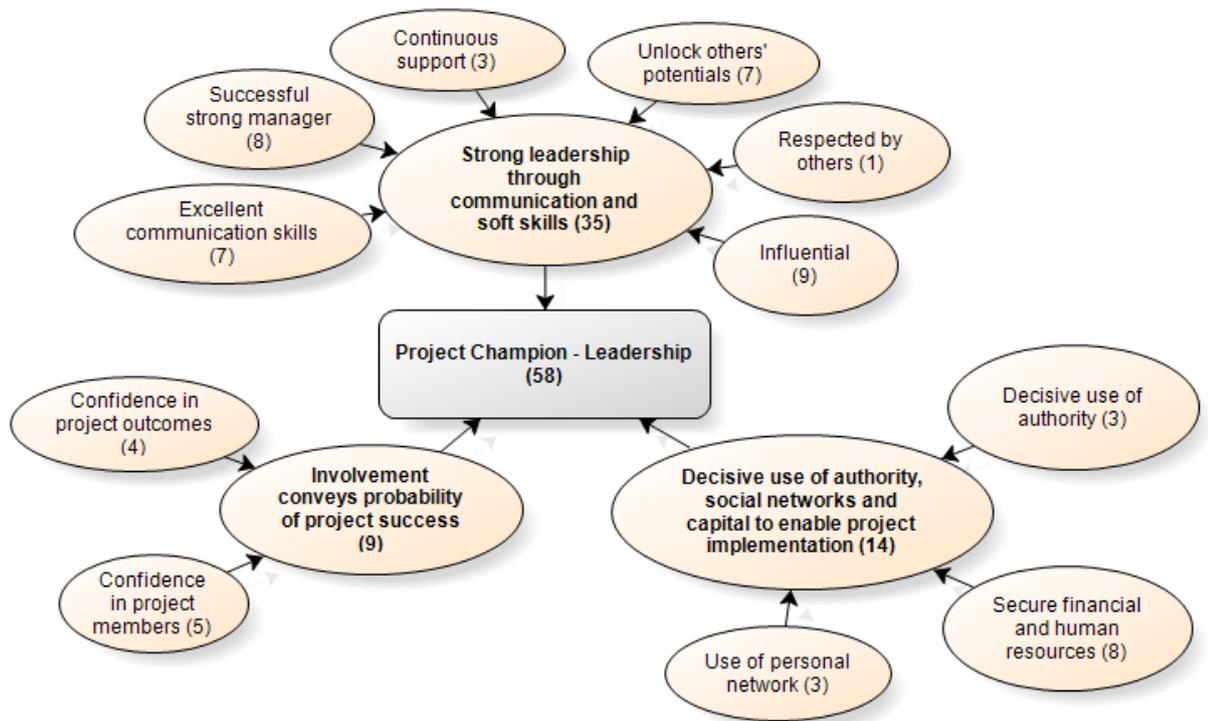


Figure 6-14: Leadership Themes of Project Champions-Case C

She was also found to be a strong manager who unlocked the team members' potential through encouragement. One team member, who had been in the department for over 16 years, described how most of her experience came from working with the champion:

*“So, together with Dr. Omar, they did many strategies. Like moved people, promoted people, encouraged people [...] She would send encouraging messages to the employee saying good job and that she is proud [...] I can see most of my experience came from the last few years as Dr. Farah [the champion] became the new director.” (C3P2-5)*

Interestingly, the champion herself talked for a while about unlocking others' potential and the emotional intelligence concept. She stated:

*“You have to be smart and I like the book about ‘emotional intelligence’ and the people who have been selected on their emotional intelligence so I believe I’m intelligent [...] I have worked previously with a team and supervisors who really trained me to make me the best. So, the training and who trained you is really important. Your own character is transparent, honest, self-motivated [...] So, if you want to be successful, you should be an intelligent student of a perfect teacher with the grace of God.” (C3P2-7)*

She was also described as a good team leader with excellent communication skills who provided continuous support and intervention, as the following quotation illustrates:

*“The most important thing is to have someone like her, who is able to involve everyone on the team and unite the team in the way she does now [...] She usually likes to have all the quality team in one place as a way of motivating them and getting them more into quality and work.” (C3P2-3)*

Moreover, she was found to be the strongest promoter of the project by decisively using her authority and social capital as a quality management director to enable project delivery. According to project members, she not only managed to secure resources for the project by communicating with the top management, but she also removed people from the quality department when she saw they were not suitable for the job. She herself stated:

*“Not all of them, and that’s why many of them have been transferred to other areas. Their experience and specialty were not purely with quality management.” (C3P2-7)*

She also emphasized the importance of keeping good relationships with people in the hospital such as physicians and nurses to support the quality projects:

*“Encouraging everyone, including very close and professional relationships with the top management, very good communication that keeps everybody involved [...] Our network was basically all the team leaders who were working in different areas, keeping good relationships with the head nurses and nurses. Also, being in the hospital, and I have learned from my experience that you need to be close with those who are ‘the hidden soldiers’. So, when you are close to them, you get the things done. Being in this position as quality director [...] you have to be close with everyone. Your friendship and leadership style let you get close to everyone. Especially we have physicians who make a major part of any hospital and then we have nurses [...]. If you are close to this group, that makes a difference! I learned this, and I practiced being close with the nurse staff, and I think here it would make you close to the technicians and close with housekeeping staff.” (C3P2-7)*

Given the position of the quality champion as a team leader, she expressed confidence in the team members by trusting their expertise in getting the job done:

*“I managed to trust in their expertise. I know they can do it alone and never go back and ask them how did they do it because they know how to do it and when to do it. They are experts, and they are champions in that [...] They were the best extension of the quality department to communicate, to take feedback, and to identify different gaps [...] handling the whole project by themselves without coming back for support at each and every step. They are independent.” (C3P2-7)*

Both champions were also found to be confident in the team and the project outcomes. The E-prescription champion expressed how his confidence in the project increased with the validation from the Canadian accreditation:

*“I'm confident in the project. I will tell you one thing; we had this quality standard that we took the certificate from the Canadian accreditation. When the Canadian surveyors came here and they saw this application, they themselves got excited, and they were asking if we developed it here [in-house]!” (C3P1-4)*

#### 6.13.4 Other Identified Behaviours and Characteristics Context

When it comes to champions' other identified behaviours, one of the most emphasized themes is that both champions, operating in different organizational levels, have absolute commitment to the project beyond any formal obligations (see figure 6-15). For example, the champion of the E-prescription project (C3P1) was found to be involved in every aspect of the project including those aspects where his presence was not mandatory. One team member stated:

*“He was 100% dedicated [...] He was involved from the beginning in basically everything regarding this project. He was 100% involved in the training, modification, and even the decision making.” (C3P1-2)*

Similarly, the champion of the quality project who described herself as a “fully devoted medical person for quality” was also found by all project members to be fully committed to the project and willing to accept the responsibility of the project:

*“She arrives really early in the morning and leaves very late, like 7 or 8 in the evening. She sacrificed a big part of her time and ad being a former physician for the sake of quality [...] For Dr. Farah and Dr. Omar, implementing the project and getting accredited is like a dream that they want to have in reality [...] She obviously is the one who goes beyond the job requirements because to successfully implement quality in the hospital means a victory for her. She is the one who will get blamed at the end if it is not successfully implemented and the one who will receive the ‘success torch’.” (C3P2-6)*

*“Just from what I see, she was really passionate, committed, and dedicated to quality management and quality projects [...] She showed how the project was worth pursuing just through dedication and commitment that I don’t think there was a day that she didn’t come to work or backed off in any way. She was consistent.” (C3P2-4)*

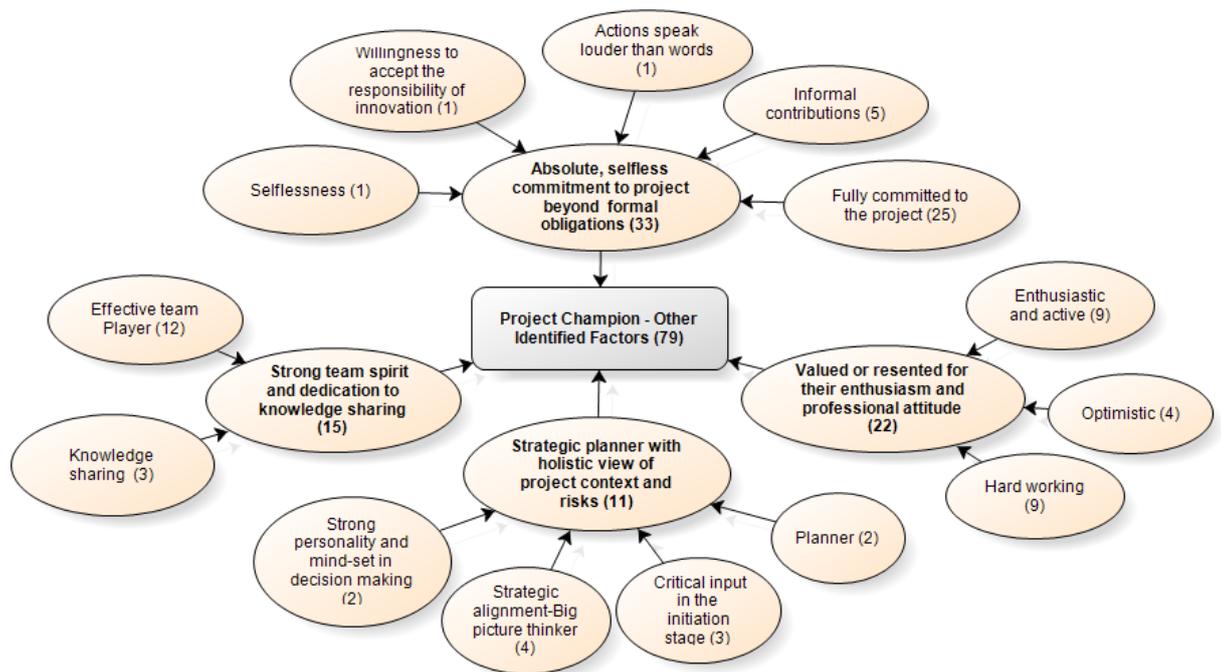


Figure 6-15: Other Identified Themes of Project Champions-Case C

When quality executive asked the champion what she wanted for herself, she said that she wanted to implement the project successfully and work on the quality policies. This attitude showed that she cared about the hospital over any personal payback. The champion said:

*“Although he [the quality executive] didn’t know me, we started to develop that trust. I think the first meeting between me and him, he started saying, ‘What do you want?’ I said, ‘I want this and that for that time’ and ‘I want this and that for this department’ [...] at the end, he said to me, ‘Do you want something for yourself?’ I said, ‘I have everything, and doing these things for quality would be a major success for me.’” (C3P2-7)*

She was also perceived as a strategic planner with a holistic view of the project. One respondent stated:

*“She is the one who can and has the ability to see the bigger picture of the project [...] She has a wider picture of what is going on in all the aspects of the project. All of us return to her as the centre communication point.” (C3P2-6)*

Moreover, team members described her as having “a very strong personality” (C3P2-3). Interestingly, the champion *herself* stated:

*“They call me ‘iron woman’ (she laughs) which has been recognized even with other hospitals.” (C3P2-7)*

Finally, both champions were valued for their hard work, team spirit, and enthusiasm. For example, the champion of the E-prescription project was described by all project members as hardworking. Respondents described him as “a quiet person” (C2P1-3) whose actions speak louder than words:

*“Whatever is given to him, he will work and finish it without taking that much time [...] he’s hardworking. He never cares for time. Once he sits for something, he will finish it [...] Fahad was totally dedicated to this, and it was a very huge task to do this in a very short span of time—and he did it. I want to congratulate Mr. Fahad for this.” (C3P1-5)*

#### **6.14 Role and Importance of Champions in Innovations- Case C**

By demonstrating the above-mentioned behaviours, the identified champions were perceived as playing instrumental roles in the successful implementation of these projects. In the E-prescription project, the champion developed the system and did most of the work. Respondents recognized his immediate action toward the issues encountered throughout the course of the project and the fact that he was easily approached by others whenever needed in an environment like the hospital. One respondent noted:

*“His quick response and being easy to approach and communicate with in an environment like the hospital environment where everyone is constantly busy is, I believe, his strategy in supporting the project within his job authority.” (C3P1-3)*

In the quality project, the champion was described as “the right tool” for implementing quality standards in the hospital due to her experience. She played an instrumental role in changing old perspectives in the culture when it came to quality and advocating for the project, including adjusting the perspective of the hospital dean, who was not a believer in quality. The following quotations demonstrate the role the champion played in implementing the project successfully:

*“I [the champion] was the planner, the designer, and the doer, telling people that this is how this should be done [...] I think I was the main person [contributor]. This is because the hospital was really looking for a person who had experience in accreditation, who had experience in quality, with a medical background. Now I still remember Dr. Omar [the quality executive] saying to me, ‘When you came to me, I felt that somebody handed me the right tool, and I couldn’t believe my luck that I could get a person like you to work in the project.’” (C3P2-7)*

*“The dean of the university of medicine for three years [...] was not convinced about the idea of the project and the accreditation [...] It was 2007, and they tried to implement the project, but they failed. So, by 2010, Dr. Farah [the champion] arrived, and Omar supported her and believed that she was the one who was going to make it happen. She is going to be the boat that takes us there, and the dean started to be convinced more about the idea when he saw the possibility of someone like Dr. Farah to implement the project due to her experience.” (C3P2-6)*

*“Another success story was where we updated all the quality policies for all hospital departments either clinical or managerial. That was after the hiring of Dr. Farah as the director of the quality management department.” (C3P2-5)*

Regarding the point when the champion was most needed in the course of the project, most team members perceived the champion of the E-prescription project as being instrumental during the actual implementation stage. He himself stated:

*“In the middle where all the work was, I was most needed in the project.” (C3P1-4)*

The champion of the quality project was found to be most needed in the initiation stage to set the foundation and build the right structure for quality standards and policies, as the following quotation illustrates:

*“I believe she was needed in all the stages of the project. In my opinion, she was most needed though in the initiation stage, the stage of establishing things, the stage of ‘planting’ and initiating the idea and putting it into place.” (C3P2-6)*

Overall, the key individuals (including the champions) in these innovative projects and in other projects that took place in those departments were found to share certain behaviours that distinguished them from others. Those behaviours included their knowledge and willingness to work and learn regardless of the payback. The following quotation demonstrates this point:

*“Six key persons [...] that if they wouldn’t have been there, there would be something wrong. You cannot though easily locate what is wrong or why it is different without them. They are willing to work, willing to learn, help whenever and wherever the situation regardless of the payback. What is more important to them than any personal return is to see their work implemented in the hospital and see the complete finished product of what they pictured in their minds and, therefore, worked toward what they pictured in their minds.” (C3P2-3)*

### 6.15 Effect of Champions on Innovations-Case C

Champions were found to have a positive effect on their department and the hospital overall. However, the indispensable presence of the champion of the quality project was more emphasized than that of the E-prescription champion. Respondents expressed that the presence of the quality project champion changed the hospital for the better in terms of the increased percentage of implementing innovative projects as opposed to previous quality management initiatives that “didn’t get recognized” (C3P2-5). Respondents also showed how the quality project and the process of getting the hospital accredited would be difficult if the champion were not part of the hospital. Therefore, respondents showed that she should be part of the process of implementing future quality projects. The following quotations clearly illustrate these points:

*“The percentage of implemented innovative projects in the quality management department increased with their presence [the project champion and the quality dean] [...] The hospital, when Dr. Farah first joined the staff, was ‘one of the disasters of the world when it comes to quality.’ No clear policies, no procedures, no forms. So, what Dr. Farah has been trying from the moment she arrived here is to build a structure for quality from scratch, and now the hospital is accredited, but we are still dealing with resistance.” (C3P2-6)*

*“It would have suffered for sure [...] Because otherwise, we could come and spend the money, and the result wouldn’t be good or things would go wrong [without someone experienced like her]. By her being there, the results were very good. Many hospitals get accredited but through many and many conditions [...] With Dr. Farah, she made the process of this project and the accreditation easier.” (C3P2-5)*

## 6.16 Case Study D Description

### 6.16.1 Organization Overview

Case D is considered one of the largest and oldest Military Affairs medical facilities in Saudi Arabia. It is 1,200 beds in capacity, providing health services to military personnel and their dependents. It also includes a 160-bed medical heart centre. One respondent commented on the hospital's old foundation in relation to implementing innovative projects by stating:

*"The hospital is considered one of the oldest hospitals in Riyadh city; therefore, because of such history, it is not easy to adopt change in the culture of the hospital compared to the relatively recent hospitals and medical cities in Saudi Arabia. This is because their foundations are relatively new and up to date, so they create new projects based on an advanced foundation in IT compared to us. Thus, we have to update the foundation first to build on it these new projects; therefore, it takes a longer time and more effort in order to see the results." (C4P1-1)*

### 6.16.2 Case D Innovative Projects

There were two innovative projects identified in Case D. The first project is an electronic web-based system that aims to manage a physician's issuance and completion of both short sick leaves (7 days or less) and long sick leaves (above 7 days). Physicians can utilize a secure login to issue sick leave certificates to patients supported by evidence-based guidance on the sick leave duration for various diseases to improve patient's transparency and quality standards. One team member commented on the aim of the project by stating:

*"This project is to manage the sick notes for patients through an electronic secure application. In order to provide a sick note to patients with the new application, it requires the fingerprint of the physician. This application prevents the misuse of*

*sick notes from providers as well as patients. It secures each physician's sick notes in a way that no one could get access to but through the physician himself using his account and password. After approving a sick note by one physician, it goes through a security verification process and then is sent to be printed out and received by the patient. The application is used by more than 4,000 physician so far." (C4P1-3)*

The second project is an infection control project to effectively support the management of the infection control and prevention program in the hospital. The system, along with the implementation of infection control processes, also supports clinical care and quality improvement efforts throughout the hospital and, thus, improves the hospital performance. Table 6-13 shows the innovative project descriptions.

Table 6-13: Description of the Innovative Projects - Case D

Project code	Type of project	Project description	Duration	Stage of project	%	# of members
C4P1	Technological	Web-based electronic application that supports the issuance and management of sick leave certificates by physicians <b>Benefits:</b> ensures the compliance to quality standards in issuing sick notes and increases patient's transparency	6 months	Fully adopted	100%	4
C4P2	Administrative /technological	Infection control project which included the implementation of infection control processes along with the implementation of an electronic infection control surveillance system <b>Benefits:</b> supports the clinical and quality improvement efforts throughout the hospital using evidence-based processes	2 years	Final stage- Stage 4	70%	5

6.16.3 Role of Individuals: Innovation Team-Case D

In the electronic sick leave project (C4P1), respondents reached a unanimous consensus on who contributed the most to the project. All project members agreed on one team member, the system developer, as the champion of the project because he was found to be an experienced individual who solved the technical problems encountered during the process of the project. One project member stated:

*“Ibrahim is the one who contributed the most to the project. This is because he is the one who successfully handled the issues that were complicated and challenging in the project.” (C4P1-2)*

In the infection control project, the majority nominated the team leader as the one who contributed the most to the project while the identified champion himself stated that it was a team effort (see table 6-14). Project members described him as the problem solver when it came to the administrative issues encountered during the course of the project. They stated that he was able to implement the project in the first place because of his previous efforts. First, he was the main person behind successfully convincing key individuals in the hospital to make the infection control unit an independent department. Second, he provided significant support to the founding of an infection control committee, issuing a number of strategic infection control policies throughout the hospital. Finally, he began working as a team leader on the current project. The following quotations support this point:

*“Dr. Abdullah is the biggest contributor because he is the facilitator and obstacles solver. Such quality is important and difficult to find in a person in healthcare, a person who is willing to facilitate everything that comes our way for the sake of quality and infection control initiatives.” (C4P2-1)*

*“I have to say Dr. Abdullah [is the one who contributed the most to the project] because he is the one who support the project all the way. It was a long journey, and you have to see it this way. Before, the infection control was a unit, and Dr. Abdullah was the one who supported the unit and talked with key individuals in the hospital to have it as a department. So, now the infection control is a department by itself. He also supported the formulation of an infection control committee as well. Now they are implementing a number of infection control processes, and they saw the need for having the infection control surveillance as an electronic system instead of hard copy.” (C4P2-3)*

Table 6-14: Professional Interviewee Background Information and their Nomination-  
Case D

Interviewee's code	Years of experience in healthcare projects	Role in project	Role in organization	Champion nominated
<b>Sick leave electronic system C4P1</b>				
C4P1-1	16	Project manager	Application senior manager	C4P1-4
C4P1-2	3	System requirement engineer and programmer	Software engineer	C4P1-4
C4P1-3	2	System developer	Software development engineer	C4P1-4
<b>C4P1-4 Champion</b>	5	System developer	Application system developer	<b>Left the organization</b>
<b>Infection control project: Electronic surveillance system C4P2</b>				
C4P2-1	9	Quality strategic planner	Quality specialist	C4P2-4
C4P2-2	1	Quality specialist	Quality specialist	C4P2-4 C4P2-1
C4P2-3	6	System developer	Software developer	C4P2-4
<b>C4P2-4 Champion</b>	13	Project leader	Director of quality and patient safety department	Teamwork
C4P2-5	15	Quality facilitator	Quality specialist	C4P2-1

#### 6.16.4 Institutional Support-Case D

In Case D, respondents did not emphasize institutional support in terms of top management or departmental support for innovative projects and innovative thinking. For example, the champion of the infection control project was described as continuously working to convince top management and key individuals of the

change. He also touched on the issue of leadership turnover as a barrier toward implementing change successfully:

*“There are six factors that are key/affect any change to happen in the hospital [...] Leadership turnover, middle and top management turnover with a lack of a strategic plan to be continued by the next leader, you would be moving in circles [...] the most important part is sustainability, which sometimes is challenging. Like one of the challenges is the turnover in the hospital leadership, which sometimes affects the sustainability of continuous improvement. In order to make sure that we are continuously improving, we have to make sure that we obtain the leadership support and to have it continued.” (C4P2-4)*

#### 6.16.5 Behaviours and Characteristics of the Identified Champions-Case D

The champion of the electronic sick leave system was an out-sourced technical employee who worked as a system developer in the project. He had five years' experience in implementing projects in healthcare, and he was perceived as the most experienced among team members, the problem solver, and an effective team player. One respondent noted:

*“He is out-sourced and not an employee in the hospital. This is because we were faced with a shortage in staff and we were looking for an expert to do the job so we brought him to participate in the project. We heard about him from one of the companies, and he supported us all the way.” (C4P1-1)*

The champion of the infection control project was the director of the quality and patient safety department and the project leader. He was perceived as “respectful and respected” (C4P2-1). As mentioned in section 6.18.3, the majority of respondents perceived him as the one who contributed the most to the project because he was described as the strongest supporter of infection control initiatives. He played a critical role in the initiation stage of the project from supporting the infection control unit to

being an independent department to the implementation of the electronic surveillance system. He stated:

*“Every department including the hospital director contributed to the project. We still have a long way ahead of us, but it was such an achievement to go from one person handling infection control to having an infection control department and infection control committee and now working on implementing infection control projects. It was not easy to convince the decision makers to do such a change. If they were faced with any problem, we would provide the support to make it happen. We did convince the decision makers to have such a department. I usually convince others of these changes. I try to communicate with everyone.”*  
(C4P2-4)

He was also described as persistent in working toward changing old perspectives in the culture of the hospital to accept change and overcome resistance to change. As a team leader, he was described as a strong, successful manager who had confidence in his team (for further details and quotations, see section 6.19). He was recognized for his excellent communication skills and good relationships with key individuals like top management and directors of various departments, which he used to support quality projects. According to respondents, the percentage of implementing innovative projects increased with his presence, as did the department’s reputation:

*“What led me to recognize his efforts is his relations with top management and the departments’ directors to facilitate all the issues we have [...] he knows how to deal with people with different personalities, backgrounds, and professions.”*  
(C4P2-1)

*“There are many projects that were successfully implemented in the hospital with his presence, his good relationship with others such as the directors of the departments and other key individuals for the success of these projects, his experience and authority that enabled him to support and work in such projects” (C4P2-2)*

### 6.17 Case Analysis and Discussion-Case D

The identified champions in Case D were perceived as the ones who contributed the most to the projects because of the behaviours they demonstrated throughout the course of these projects. The respondents emphasized that the identified champions were experienced and problem solvers of technical or administrative issues, depending on their roles in the projects. They were fully committed to each project and advocated for it. Tables 6-15 and 6-16 illustrate the most popular behaviours and characteristics of champions in Case D as identified by respondents.

Table 6-15: Frequency Analysis of Project Champion Behaviours-Case D

Theme	Overall Frequency	Theme Frequency	Interviews Cited	Popularity Index
Proposes creative ideas for projects	83	12	5	14.4%
Fully committed to the project	83	9	6	10.8%
Advocates for the idea of the project within the hospital	83	9	5	10.8%
Secures financial and human resources	83	8	6	9.6%
Influential	83	7	5	8.4%
Confidence in the project team	83	6	5	7.2%
Confidence in the project outcomes	83	6	5	7.2%
Critical input in the initiation phase	83	6	3	7.2%

Use of personal network	83	4	4	<b>4.8%</b>
Changes old perspectives in the culture to accept change	83	4	2	<b>4.8%</b>
Unlocks others' potential, sees the project member as a whole	83	<b>3</b>	<b>3</b>	<b>3.6%</b>
Understands and overcomes resistance to change	83	3	3	<b>3.6%</b>
Provides continuous support and intervention	83	3	3	<b>3.6%</b>
Decisive use of authority	83	3	3	<b>3.6%</b>
<b>Total:</b>				<b>≈100%</b>

Table 6-16: Frequency Analysis of Project Champion Characteristics-Case D

<b>Theme</b>	<b>Overall Frequency</b>	<b>Theme Frequency</b>	<b>Interviews Cited</b>	<b>Popularity Index</b>
Experienced, competent, and knowledgeable	65	10	5	<b>15.3%</b>
Problem solver	65	9	5	<b>13.8%</b>
Enthusiastic and active	65	6	4	<b>9.2%</b>
Effective team player	65	6	3	<b>9.2%</b>
Strongest supporter of the innovation	65	5	5	<b>7.7%</b>
Initiator	65	5	2	<b>7.7%</b>
Successful strong manager	65	4	2	<b>6.1%</b>
Excellent communication skills	65	3	3	<b>4.6%</b>
Persistence in moving the project forward	65	3	2	<b>4.6%</b>
Familiarity with the innovation, hospital system, and the innovative environment	65	2	2	<b>3.0%</b>
Optimistic	65	2	2	<b>3.0%</b>
Knowledge sharing within project and hospital	65	2	2	<b>3.0%</b>
Up-to-date knowledge of the industry	65	1	1	<b>1.5%</b>
Hardworking symbol	65	1	1	<b>1.5%</b>

Believes in self-confident in what he or she does	65	1	1	1.5%
Strategic alignment-big picture thinker	65	1	1	1.5%
Strong personality-strong mind-set in decision making	65	1	1	1.5%
Risk-taking propensity	65	1	1	1.5%
Willing to accept the responsibility of the innovation	65	1	1	1.5%
Respected by others	65	1	1	1.5%
<b>Total:</b>				<b>≈100%</b>

### 6.17.1 Knowledge Context

In the knowledge context, champions were perceived as the most experienced and the ones who solved the administrative and technical issues encountered in the project implementation depending on their roles in the project (See figure 6-16). For example, the champion of the electronic sick leave project, who was the system developer, had technical experience and solved the technical issues encountered. One team member stated:

*“Ibrahim is the one who solves solved the problems encountered throughout the process of project implementation and because he handled the physician side of the project which was far more complicated than the patients side of the project [...] He is creative where you provide him with an idea or issue, and he provides you with a solution [...] He provided us with so many solutions for the best ways possible to implement the system.” (C4P1-1)*

*“He is experienced and very knowledgeable [...] what distinguishes him from others is his technical experience in a wide range of technologies which enables him to provide effective solutions and help other project members.” (C4P1-3)*

In the infection control project, the technical issues were solved by the technical team, but the champion, who was also the team leader, facilitated the administrative issues

encountered in the process of the project. Respondents perceived him as remaining calm during these challenging situations and as being the most familiar with the hospital system:

*“The most striking feature about his personality [C4P2-4] that you would come across is that he is calm. There is a very calm sense of urgency in him.” (C4P2-5)*

*“He is the most familiar with the hospital system and the budget of the hospital, the policies and how things work here; he is experienced in his field.” (C4P2-2)*

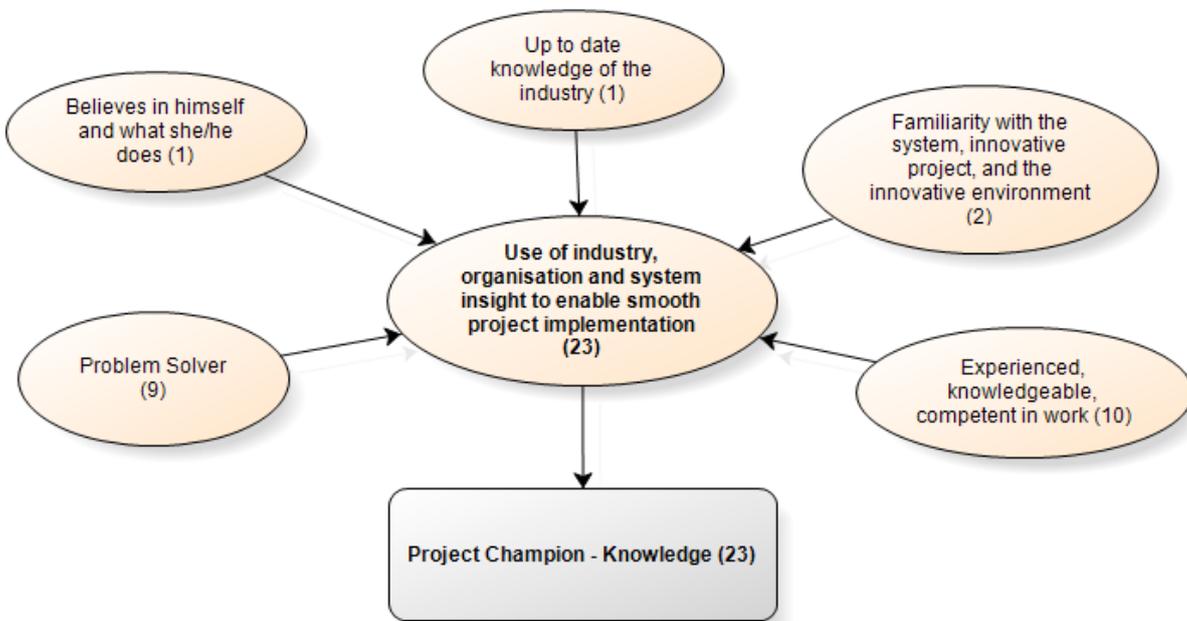


Figure 6-16: Knowledge Themes of Project Champions-Case D

### 6.17.2 Change Context

In the change context, respondents perceived the identified champions as being open to change, suggesting innovative ideas for projects, and functioning within project implementation depending on their roles in the hospital (see figure 6-17). The champion of the sick leave system suggested innovative technical ideas within the project for implementing the system, while the champion of the infection control

project suggested ideas for projects to be implemented within the quality department. The following quotations demonstrate this point:

*“He is a creative thinker, and he not only received the tasks and did it automatically. No, he is a thinker with many ideas that may change the direction of the project in a good way! He provides you with new ideas constantly. This on its own is what distinguishes him from others.” (C4P1-1)*

*“Not because he is my boss but he is really supportive of new ideas for innovative projects [...]the fact that he supports innovative thinking and suggests innovative ideas, made us more involved recently in implementing innovative projects as opposed to before when we were using surveillance and manual check lists.” (C4P2-2)*

In both projects, respondents expressed that resistance to change can be found more in older groups of medical and administrative staff who have worked for a longer time in the hospital compared to others. One respondent commented on that by stating:

*“The resistance from end-users is also high socially from those who worked here for a very long time which are not few compared to the resistance coming from the younger generation of end-users.” (C4P1-1)*

Nevertheless, the champion of the infection control project was described by most, if not all, project members as the one who worked toward changing old perspectives in the culture and overcame resistance to accept change in the form of innovative projects. One team member stated:

*“He has been responsible for the quality department for over two years now; the reputation and the understanding of quality as a concept was not heard before he joined the hospital. Physicians here were like, ‘These are the roles we have been doing for a while and everything is fine without these quality standards,’ and they didn’t feel the importance of quality as they should. They were like, ‘What benefit could come out from this, and what is the added value?’ So to have someone like Dr. Abdullah who came and worked in shifting the way people think here in terms of quality and to start making people understand the real concept of quality and its importance in healthcare was key and one of his achievements in a sense. Because it was the most difficult part of any change, to change the way the culture thinks and perceives quality and the quality department. So, when we arrived, the most difficult part was already done by him. He is well-educated and well-spoken and smart in a way that he made other departments and top management feel that they needed us just the way we needed them. YOU need us in order to be the best in your work, that actually created a quality culture, in a healthy environment. His attitude and the way he convinced others is what made the quality initiatives work in the hospital in the past year or so. [...] played a role in creating the quality culture in the hospital.” (C4P2-2)*

During the interview, the champion also talked for a while about the important role the culture of the hospital plays in introducing any change:

*“There are six factors that are key to any change to happen in the hospital: one is the organizational culture including the communication, respect, reward, appreciation, and we are working in that [...] The motivation is the most important factor in any change. If there is an added value and motivation, a person can convince others of the change. The strongest supporter of the project was me. In any change, some people would resist unless we communicate with them.” (C4P2-4)*

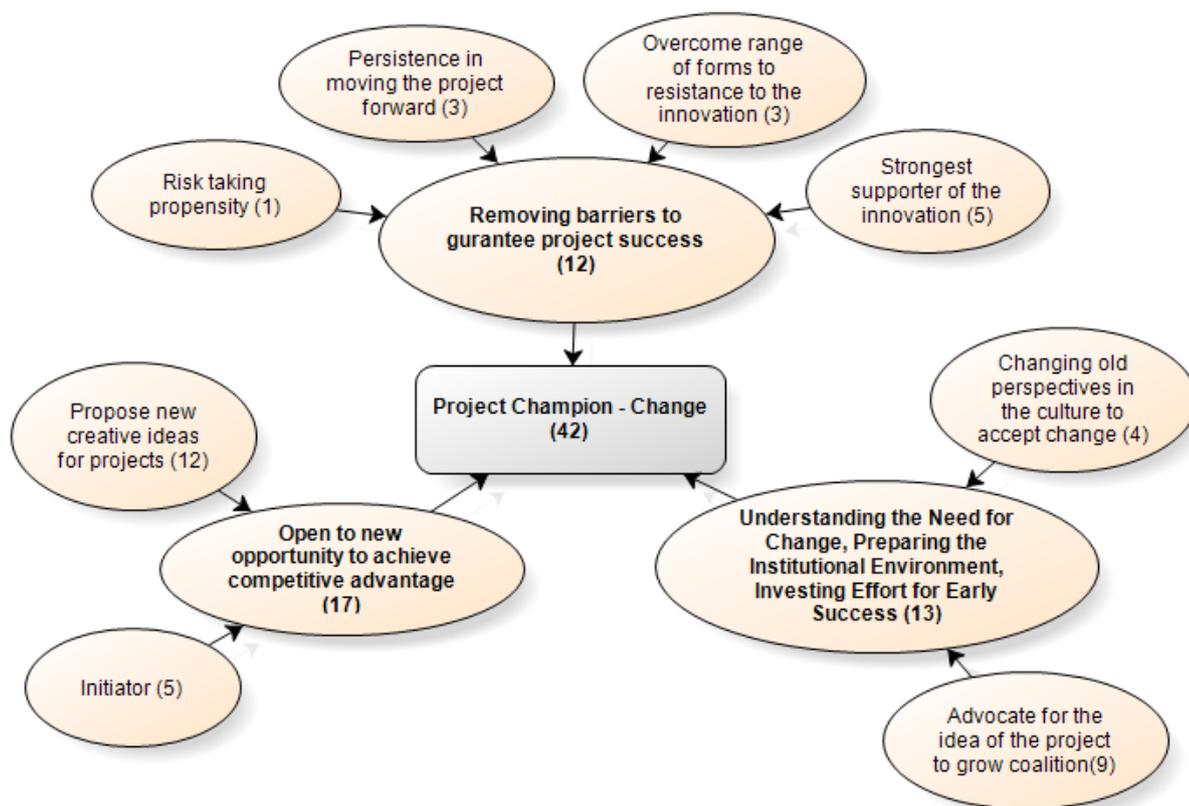


Figure 6-17: Change Themes of Project Champions-Case D

Moreover, the champion of the infection control project was also described as a “calculated person” who takes “calculated propositions” (C4P2-5) rather than being described as a risk taker. Respondents also perceived him as a persistent leader who moved the current and other projects forward, they showed that having a persistent leader is an important quality in a leader in healthcare. Without this quality, projects may get cancelled or stopped in the middle, as one team member noted:

*“He would never give up. Some people before him tried, and they reached a point where they gave up; he didn’t. I know that because I worked on these projects before as I was the system developer, and it stopped in the middle and got cancelled [...] Of course the project would suffer if he was not part of it; it needed someone like him who is supportive of the project and owns it no matter what until it is implemented. Someone who would not give up, as you know that is a problem here that projects are initiated but stopped or get cancelled or would not*

*be used after all, but I can see how this project is going in the right direction because of a person like him.” (C4P2-3)*

### 6.17.3 Leadership Context

In the leadership context, both champions were found to be influential (see figure 6-18) because people turned to them for advice and even observed them in the way they worked for inspiration, as the following quotations show:

*“He is inspirational. He always says our domain is just like medicine: if you stop learning, you will die [...] He is an active person. For example, when I feel like tired or not that active, I would go and observe him while he is doing his work and sometimes we chat a little bit about the project. I find myself afterwards more energetic and enthusiastic to go back to my work [...] When he left us, I benefited a lot in the way that people started turning to me for advice as a change instead of him (he laughs).” (C4P1-2)*

*“He is very inspirational because within two years he managed to organize the quality department, and with collaboration with them, we started implementing electronic quality projects. People turned to him for advice and not necessarily only regarding the project implementation but in general.” (C4P2-3)*

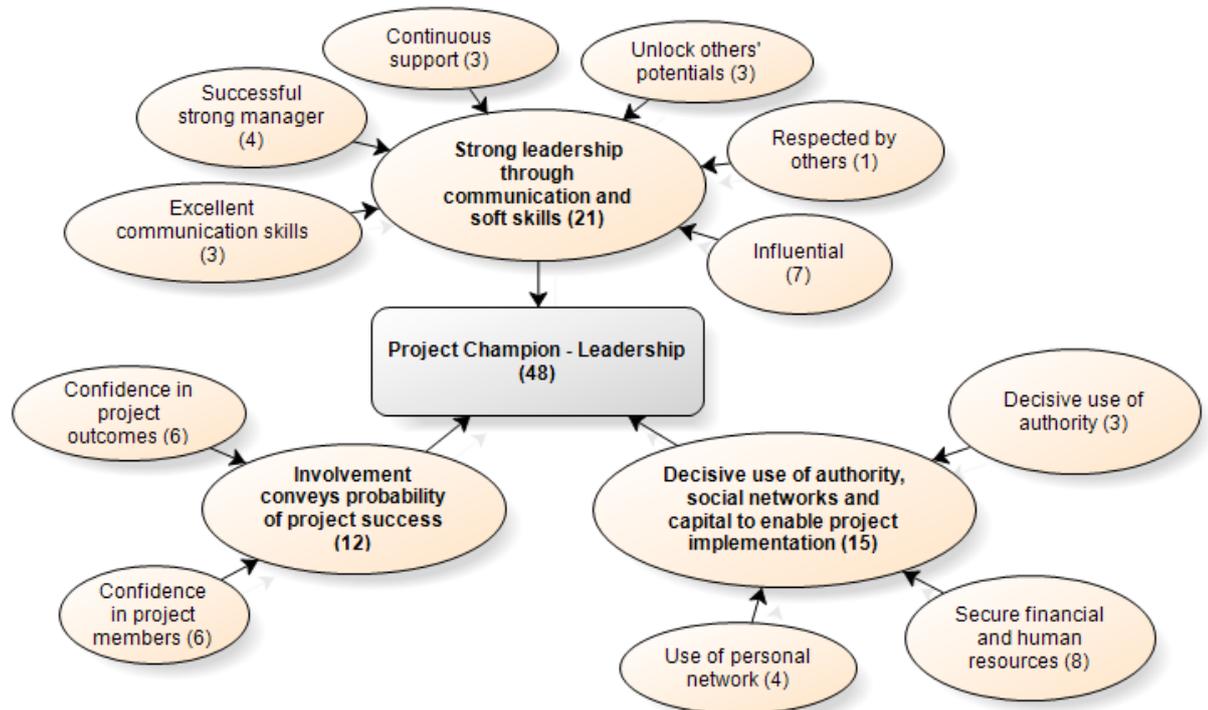


Figure 6-18: Leadership Themes of Project Champions-Case D

Given the role the champion of infection control had in the project as a team leader, the team members emphasized the confidence he had in them and their capabilities which unlocked their potential:

*“This is one of his good qualities that he has a confidence in his team and the delegation of tasks with the belief that we can do it; he also provided us with the support and gave us the authority to work and speak on his behalf, to achieve our goals in the best and most efficient way possible.” (C4P2-2)*

*“I try to communicate with everyone including my staff and coach them instead of just giving them their responsibilities, and I give them space to be creative [...] Creativity is very important; that helped me to delegate with confidence and according to their skills.” (C4P2-4)*

The champion explained how managing hospitals is challenging compared to other industries. He stressed the importance of having good communication to successfully implement change, especially in an environment like a hospital with different professional groups and employees from different cultures and backgrounds. He added:

*“The most difficult and most challenging is to manage hospitals among other industries as we have a multi-cultural, multi-professional personnel with high technology... Patient safety and the change is more frequent in knowledge and all that is very challenging [...] Lack of effective communication as part of the culture and destructive conflicts are the two most challenging things in making any kind of change in the hospital [...] The most important thing is to communicate because in a big hospital with different buildings and different specialties, sometimes there were some projects where communication was not effective, and they still struggled and worked in implementing them successfully. While in other projects, the communication was good; therefore, the impact was huge and excellent. ”*  
(C4P2-4)

In addition, the champion of the infection control project was found to decisively use his authority and social capital within the hospital to support the project and secure resources. The following quotations demonstrate these behaviours clearly:

*“ I can see how this project is going to the right direction because of a person like him, a person with authority to support it [...] He is well-known, and he tries through his good relations with the top management and key individuals like directors of departments to make them collaborate with him for the sake of quality projects, and he also support the changes as well coming from other departments—like our department, for instance.”* (C4P2-3)

6.17.4 Other Identified Behaviours and Characteristics Context

When it comes to other identified behaviours of champions, both champions in Case D were perceived as active, effective team members that were fully committed to the project beyond their job requirements (see figure 6-19). The following quotations illustrate these points:

*“It is the way he contributed in many things in the hospital that was not required from him. For example, meeting physicians from different specialties to discuss the different applications they needed and listening to what they said about the system. This is the work of a system analyst actually.” (C4P1-3)*

*“His enthusiasm was seen in the way he worked during implementation where he would not mind staying two or three hours after work to work on the project.” (C4P1-2)*

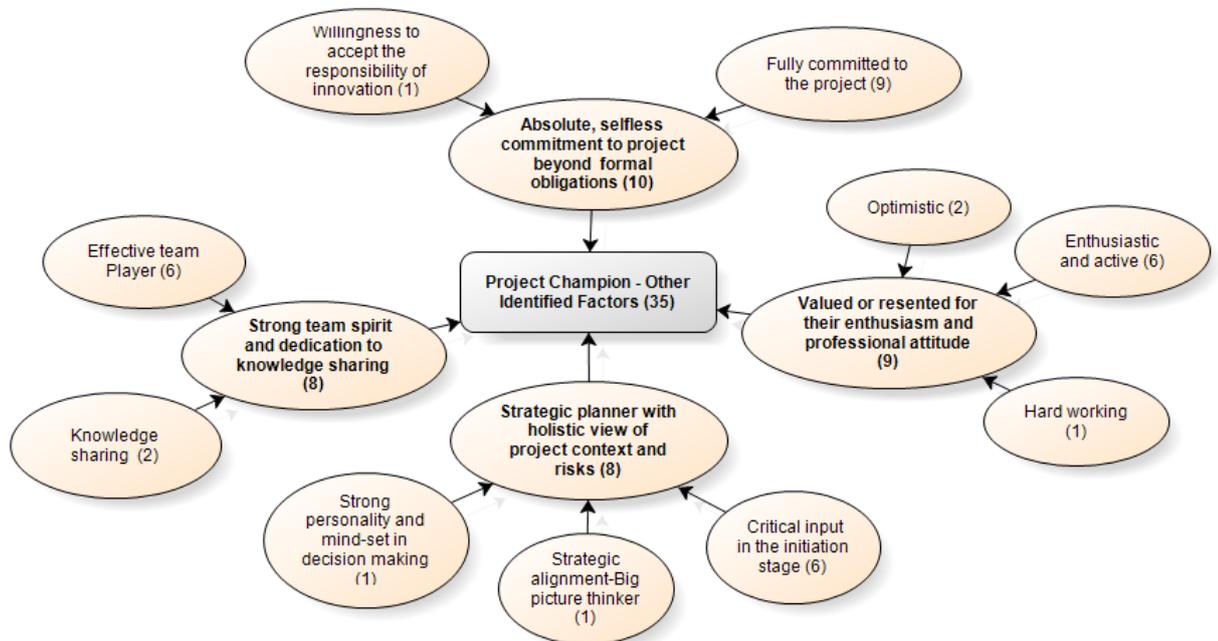


Figure 6-19: Other Identified Themes of Project Champions-Case D

When asked about the champion of the infection control project, almost all project members emphasized his critical input in the initiation stage of the project due to his “strong mind-set” (C4P2-5) and strategic alignment:

*“He prepared the idea itself; he prepared the drop list, and all the necessary papers for the project. He coordinated with all the key persons and provided us with all the right tools to start the implementation. His role didn’t finish there; he continues to work with us, and he is the team leader.” (C4P2-2)*

The champion of the sick leave system was distinguished from other team members in the way he shared knowledge with other team members and colleagues. One project member stated:

*“He was helping other colleagues like all the time! Like for example, when someone joined us in the department, he was asking him about stuff to the point we felt as if he was his personal trainer. He actually sets an example that knowledge sharing and helping others wouldn’t actually mean you are losing anything, but on the contrary you are winning.” (C4P1-2)*

### **6.18 Role and Importance of Champions in Innovations- Case D**

Champions in Case D were perceived as having instrumental roles in the implementation process. The champion of the sick leave project was needed for his technical experience and problem-solving capabilities, while the champion of the infection control project was needed for his efforts in advocating for the project and using his network and communication skills to change people’s perspectives toward quality in healthcare projects. Nevertheless, in terms of supporting the project idea until it was implemented, respondents placed greater emphasis on the significant role of the champion of the infection control project compared to the champion of the sick leave system:

*“Dr. Abdullah is the strongest supporter of the project; without him, we wouldn’t have the project. He is the one that owns the idea, the one who encourages it, and the one who supports it, the one who coordinates with others including top management and key individuals.” (C4P2-2)*

When asked to identify when champions were most needed in the implementation process, respondents indicated that the champion of the infection control project was most needed at the beginning of the implementation. In contrast, respondents felt that the champion of the sick leave project was needed in the middle of the implementation, where the majority of the work was done:

*“The actual implementation phase was where he was most needed due to his hard work.” (C4P1-1)*

*“In the initiation stage and the recruitment stage for the project was where he was most needed. His success in making the infection control unit an infection control department and then work in implementing the infection control project.” (C4P2-1)*

### **6.19 Effect of Champions on Innovations- Case D**

Similarly, the effect of the champion of the infection control project was more emphasized in the findings than the effect of the champion of the electronic sick leave project. Although the latter was needed for his technical expertise and some respondents stated that the project would not work if he was not part of it, this assertion paled in comparison to the statements made by the infection control project members. The infection control project members explained that the presence of the champion as the director of the quality department resulted in many positive outcomes within the project, department, and throughout the hospital. The outcomes included an increased percentage of implementing innovative projects successfully and increased department reputation. The following quotations by respondents illustrate this point clearly:

*“As a department, it has been only two years to have the department in such an organized way as you see it now. He also supported the infection control unit until it became a department by itself [...] His presence, commitment, and engagement in quality activities in general increase the chances of implementing them successfully. He always supports creative projects, and not only that, he provides. For example, if you discuss with him some idea, he would not only agree but participate and offer things.” (C4P2-1)*

*“I know he worked in implementing a number of quality projects successfully in the hospital, and I know that the quality department reputation increased with his presence as a quality director, as opposed to prior to his arrival.” (C4P2-3)*

## **6.20 Summary**

In this chapter, the researcher first highlighted the nature of the healthcare sector in Saudi Arabia. Then, in each case, the researcher provided an overview of the case, its projects, and its interviewees' background information. The within case analysis also highlighted the institutional support provided to champions, the behaviours and characteristics of the identified champions. In order to provide an overview of the champion characteristics and behaviours most mentioned by the respondents, the researcher chose first to conduct a frequency analysis for each emergent characteristic and behaviour discussed during the interviews in each case. The researcher then clustered the identified behaviours and characteristics into larger themes in order to capture the full meaning behind the data gathered in a concise way. The researcher selected the four broad contexts proposed for the key characteristics and behaviours found in the literature: knowledge, change, leadership, and other identified behaviours and characteristics (see chapter 2/section 2.3) to be used as the broader contexts for the clustered themes. Finally, the researcher discussed in each case the role of champions in the identified innovations and their effect on innovations and the organization. In the following chapter, the researcher will present the explanatory cross-case analysis examining the empirical findings regarding the behaviours, role, and effect of healthcare innovation champions in the four organizations studied.



## **Chapter 7      Cross-Case Analysis and Discussion**

### **7.1 Introduction**

Building upon the within-case analysis in Chapter 6, the researcher will now present the explanatory cross-case analysis examining the empirical findings regarding the behaviours, role, and effect of healthcare innovation champions in the four organizations studied. Chapter 5 (figure 5.1) presented a research framework which included a four-level approach to investigation. The researcher empirically examined this framework within the context of four healthcare organizations in order to meet the following research objectives:

- to investigate the behaviours and characteristics of champions (at the individual level),
- to explore the role and importance of champions in the projects (at the project level), and finally
- to consider the effects of champions on projects and the wider healthcare organization (at the executive and organizational levels).

This investigation was accomplished through semi-structured interviews as a primary data collection tool, with observation as a complementary data collection tool. The aim of this chapter is to provide a deeper-level explanation of the phenomenon of innovation champions detailed in the preceding chapters and to look for “meaning derived from a comparison of the findings with information gleaned from the literature” (Creswell, 2009, p 189). The researcher will therefore confirm (or contradict) the currently accepted literature on the topic as well as incorporate new insights emerging from the research findings. The following sections will specifically reflect on the empirical findings of this research guided by the research framework and related back to the relevant literature.

As seen in chapter 6, participants in all four case studies consistently referred to the institutional support provided to champions. Therefore, it is logical to start the cross-case analysis with an overview of the importance of institutional support provided to champions in the case studies. This will be followed by a discussion of the identification of champions in these innovative projects and their professional background before presenting their different behaviours, roles, and effects on healthcare innovations.

## 7.2 Institutional Support and the Emergence of Champions

This study uncovered variations in the amount of institutional support provided to champions in the case study organizations. Institutional support is related to the organizational climate that is supportive and/or unsupportive of innovation. An organizational climate has a number of different layers, each with different values and norms (Mullins et al., 2008). The current research viewed institutional support from the perspective of an organizational climate that is conducive to innovation. Following Mullins et al. (2008), the current study defined institutional support as a context defined as “the extent to which the organization supports creative thinking and problem-solving on the part of its employees” (Mullins et al., 2008, p 455). In Case A, respondents in all four projects described the CEO and top management of the medical city as strong supporters of innovative thinking. Likewise, they described the management of the departments where innovative projects took place as fully supportive of creative thinking. Management provided continuous support for all such projects to be successfully implemented in the hospital. The following quotations illustrate this point clearly:

*“We have (Dr.) as the umbrella for the project [...] We needed him to get the budget, support, and authority [...] he was sound and clear when it comes to this. He was saying ‘whatever you need, I will provide it so we can successfully implement this project.’” (C1P1-1)*

*“When it comes to financial and human resources, having the experienced people in the right place and providing them with everything they need, overcoming the bureaucracy by facilitating [bypassing] the long usual procedures for us and all the difficulties just to have the project implemented in the medical city.” (C1P2-1)*

On the other hand, respondents in Cases B and C did not emphasize top-level management support to champions, although they did highlight departmental support of innovations and champions. Respondents in both cases reported the existence of key individuals perceived to be supportive of the projects at different organizational levels. As a result of such support, champions in both Cases B and C expressed a growing commitment to utilize their abilities to the fullest whether in their formal roles within the organizations or in implementing innovative projects (see sections 6.10.4 and 6.14.4). In contrast, respondents in Case D did not emphasize institutional support at all. The champion of the infection control project (C3P2) in Case D was constantly trying to convince key individuals in the hospital of the need for change (see section 6.18.4).

Although some studies in the literature suggested how champions could emerge in unsupportive environments (e.g. Howell and Higgins, 1990a, Schon, 1963), other studies concluded that a very unfavourable environment may limit champions' emergence (Lichtenthaler and Ernst, 2009). The findings of this current research showed that champions emerged in all four cases, regardless of the level of support provided to them from top management or their departments. Nevertheless, champions in organizations where institutional support was not emphasized, such as in Case D, faced more challenges in convincing key people of the benefits of the change. This finding suggested that institutional support is important in paving the way for the emergence of champions and maximizing their role and effect on innovations within organizations.

In relation to the institutional support provided to champions, Howell (2005) suggested that champions need to be supported in and recognized for their work. The

findings of this research suggested that champions value the support of their top management and departments, in particular in relation to their belief and confidence in their abilities and creative ideas. Some of the champions also valued the opportunity to work with other champions on a project, as in the case of the nursing board system (C2P1) where two champions were identified. In this particular project, the first champion (C2P1-3) expressed that he felt more comfortable working with the other champion than with the rest of the team. This finding corroborated the argument provided by Coakes and Smith (2007) about the need for a Community of Innovation (CoI) to support champions within organizations.

In summary, the current study indicates that champions emerge in both supportive and unsupportive environments. Findings show that champions in unsupportive environments need to redouble their efforts to gain support for an innovation. This finding may suggest that only the most committed of champions are likely to emerge or sustain their role as champions in unsupportive environments.

### **7.3 Champions' Identification and Emergence in Healthcare Innovations**

Before discussing what characterizes champions in healthcare and their role in identified projects, it is important to clarify whether team members reached a consensus on individual(s) widely recognized as the champions of the project. From that point, we can further discuss from where and how they emerged within the organization to work in the identified innovations. In this section, the following points will be discussed:

- Champions' identification within the innovative projects: whether champions were clearly identified as the ones who contributed the most to the project (or whether there was a lack of consensus on who the champion was);
- Champions' emergence within the organization: which level/department of the organization they emerged from and their professional background; and

- How champions were assigned to work on these innovative projects: formal assignment or informal emergence followed by formal assignment.

In four of the nine projects identified across the four cases, respondents unanimously identified champions as the ones who contributed the most value to the project based on the behaviours they demonstrated throughout the project. However, in the nursing board project (C2P1) of Case B, respondents reached a unanimous consensus on *two* project members as champions. This dual identification may partly be because they were both Technical Champions working side by side on the project. Therefore, it was harder for project members to identify exactly which individual had contributed the most value to the project. In three of the nine projects, the majority of respondents (e.g. 4 out of 5) reached a consensus on the champion of the project. Respondents failed to reach a consensus about the project champion only in the I-application project (C1P3) in Case A, where members nominated four champions. This cross-departmental project was not owned by a specific department; as a result, project members from different departments nominated the member with whom they worked most closely. This project was complicated with members working not only in different departments but also in different hospitals within the medical city. This finding indicated that team members may not be able to identify champions unless they experience their championing attributes first hand.

Regarding the professional background of champions, the champions identified in five projects out of nine were directors and consultants within the departments where the projects took place. They were also formally assigned to lead these projects. Although they had managerial roles within the organization, the majority of identified champions had medical backgrounds and had worked as physicians and/or pharmacists before taking their current positions within the organization. The fact that the project leader happened to be the champion as well showed a potential linkage between formal leadership and championship. However, this correlation is not a simple explanation that is predictably consistent; in the remaining four projects, the identified champions were not project leaders, but technical employees, such as

programmers and system developers. Table 7-1 shows the professional background of the identified champions across the four cases.

Table 7-1: Professional Background of Champions Identified in the Four Case Studies

Project	Champion identified	Role in organization	Role in project	Years of experience in healthcare projects
Risk management	C1P1-1	Consultant in rehabilitation and assistive technology	Project leader	20
CPOE	C1P4-4	Director of pharmacy	Project leader	18
I-application	No consensus	--	--	--
Chart viewer project	C1P2-10	Director of health information department	Project leader	13
Nursing board project	C2P1-3	Application developer	System developer	3
	C2P1-5	Senior programmer	Programmer	4
E-prescription	C3P1-4	Programmer	System developer	7
Quality Project	C3P2-7	Director of quality management department	Project leader	12
Sick leave electronic project	C4P1-4	Software development engineer	System developer	5
Infection control project	C4P2-4	Director of quality and patient safety department	Project leader	13

Analysing the professional background of champions revealed that they were either middle managers or technical employees within the departments where these projects took place. Although the literature suggested that champions can emerge from the executive, management, and lower levels of an organization (Day, 1994), findings in the current study indicated that champions emerged from the ranks of middle managers and/or technical employees. The researcher does not claim that executive champions cannot emerge in healthcare organizations; rather, the innovative projects examined here may not be strategic enough to organizational goals for executive

champions to emerge. In other words, if the chosen innovations were larger, more cross-cutting, or more strongly related to the organization's strategic goals, they might require the emergence of executive champions. For example, Day (1994) showed that top management champions are usually associated with innovations that are costly and involve new strategic directions for the organization. Figure 7-1 illustrates champions' emergence within the four healthcare organizations from within the technical and or mid-level management levels.

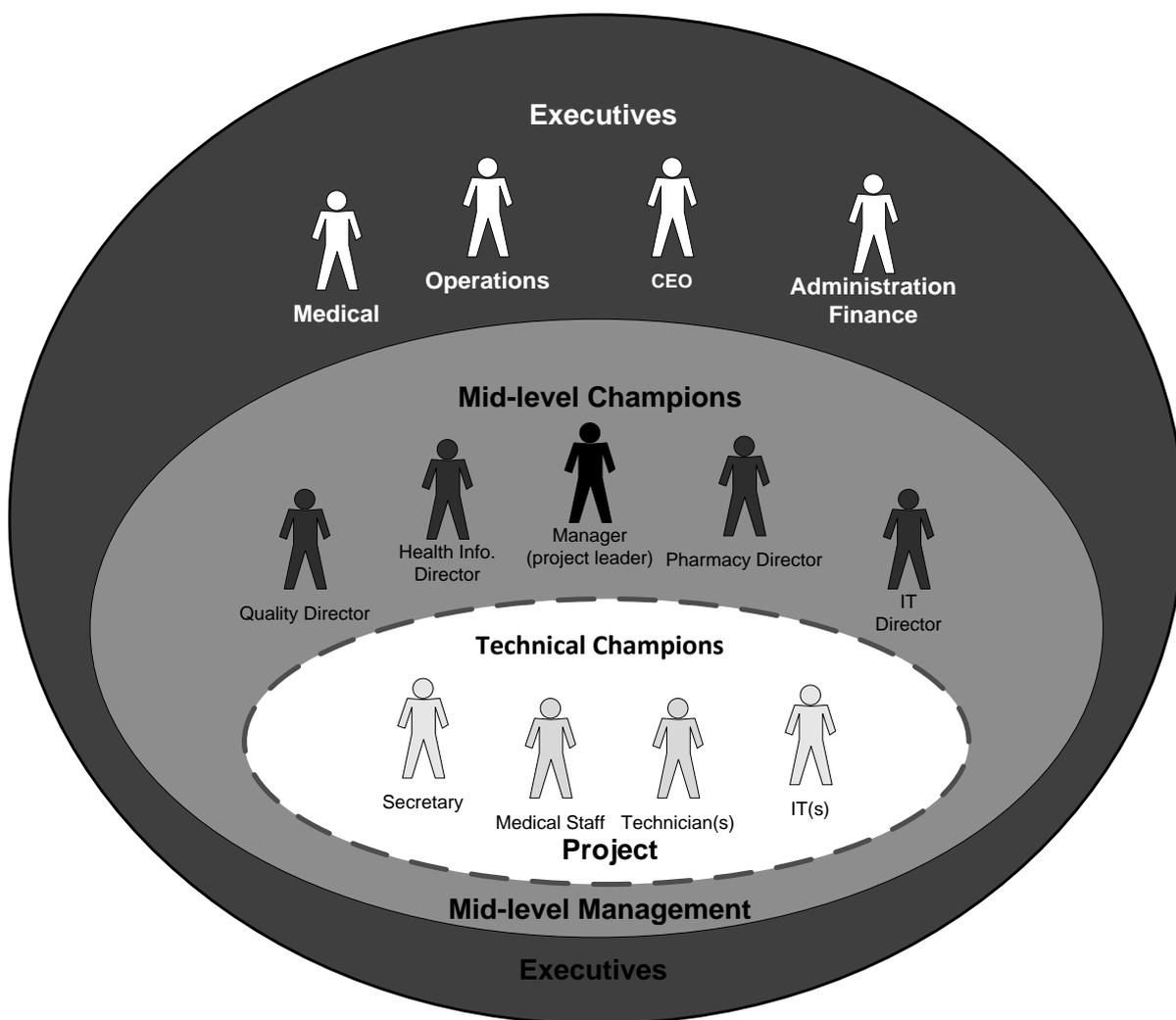


Figure 7-1: Emergence of Champions within the Four Healthcare Organizations

Whether champions were drawn from mid-level management or technical specialism, empirical findings revealed that the majority of champions were formally appointed to an implementation role due to their previous successful contributions in similar projects either within the organization or in other healthcare organizations. For example, the champion of the CPOE project in Case A and the champion of the quality project in Case C were appointed to lead the innovation implementations based on their track records.

Nevertheless, some champions did not experience such scenarios; instead, they emerged informally by initiating and proposing their ideas to top management. Once their ideas were approved, they were formally assigned to have a direct role in the project. Examples of this scenario were both the risk management and the I-application projects in Case A. In the former project, the champion saw the need for risk management in the hospital, developed a full proposal, and pitched it to top management. After a series of negotiations, management approved the project and assigned him to lead it. Similarly, in the I-application project, a full-time physician informally emailed the CEO of the medical city with her idea of developing a smartphone application that would allow patients to view their upcoming appointments and lab results. The CEO supported the proposal, selected a team for the project, and formally assigned her to it. In this project, respondents lacked consensus on the identity of the champion; however, she exhibited championing characteristics and behaviours and was nominated by more than three project members as the main contributor of value to the project.

These emergence scenarios support the view of Soo et al. (2009) that champions' emergence in healthcare organizations can be either through informal emergence or informal emergence *followed by* formal assignment when individuals demonstrate "champion-like qualities." The current research increases our understanding by showing that champions can be formally assigned to lead projects not only because they show interest in the innovation but also because they have previously implemented similar projects successfully.

These findings contradict studies of champions in other sectors such as New Product Development (NPD). In a number of these studies (e.g. Howell and Shea, 2001), champions were defined as individuals who “informally” emerged to advocate for an innovation. Howell and Boies (2004) even argued that formally “assigning” champions to advocate for an innovative idea may not be the best approach as their credibility and commitment could potentially be in question as they did not *choose* to be involved in the innovation. It may be that the different organizational cultural contexts of the healthcare sector and of NPD explain why formal assignment of champions can work in the former sector but not in the latter.

## **7.4 Top Behaviours and Characteristics of Champions in the Four Organizations**

### **7.4.1 Frequency Analysis**

Table 7-2 and table 7-3 present the results of the frequency analysis of the most mentioned behaviours and characteristics of champions in all four case studies. The top *behaviours* of champions in these projects (greater than 5% in the popularity index) are:

- proposing creative ideas for projects,
- advocating for the innovation,
- fully committed to the project,
- influential,
- unlocking other project members’ potentials, and
- securing financial and human resources.

The most-mentioned *characteristics* of champions in the four organizations are:

- experienced, competent, and knowledgeable
- problem solver,
- enthusiastic,
- successful strong manager,
- having excellent communication skills,
- effective team player, and
- hardworking symbol.

Table 7-2: Frequency Analysis of Project Champion Behaviours in the Four Cases

Theme	Overall frequency	Theme Frequency	Interviews Cited	Popularity Index
Proposes creative ideas for projects	1129	88	32	<b>15.4%</b>
Advocates for the idea of the project within the hospital	1129	80	28	<b>14.0%</b>
Fully committed to the project	1129	76	36	<b>13.3%</b>
Influential	1129	62	31	<b>10.8%</b>
Unlock others' potential, sees the project member as a whole	1129	49	20	<b>8.6%</b>
Secures financial and human resources	1129	29	21	<b>5.1%</b>
Use of personal network	1129	28	19	<b>4.9%</b>
Confidence in the project outcomes	1129	26	22	<b>4.5%</b>
Provides continuous support and intervention	1129	26	19	<b>4.5%</b>
Critical input in the initiation phase	1129	21	14	<b>3.7%</b>
Understands and overcomes resistance to change	1129	20	11	<b>3.5%</b>
Confidence in the project team	1129	18	15	<b>3.1%</b>
Recognizes the need for the innovation and visualizes its potential	1129	17	12	<b>3.0%</b>
Changes old perspectives in the culture to accept change	1129	17	5	<b>3.0%</b>
Decisive use of authority	1129	10	10	<b>1.7%</b>
Actions speak louder than words	1129	4	3	<b>0.7%</b>
Forceful in defending the project	1129	1	1	<b>0.2%</b>
<b>Total:</b>				<b>≈100%</b>

Table 7-3: Frequency Analysis of Project Champion Characteristics in the Four Cases

Theme	Overall frequency	Theme Frequency	Interviews Cited	Popularity Index
Experienced, competent, and knowledgeable	1129	72	32	12.8%
Problem solver	1129	66	29	11.7%
Enthusiastic and active	1129	40	25	7.1%
Successful strong manager	1129	40	17	7.1%
Excellent communication skills	1129	36	19	6.4%
Effective team player	1129	34	22	6.0%
Hard working-Symbol	1129	28	18	5.0%
Strongest supporter of the innovation	1129	26	21	4.6%
Well-known in workplace for informal contributions over formal status	1129	25	11	4.4%
Initiator	1129	24	17	4.3%
Familiarity with the innovation, hospital system, and the innovative environment	1129	21	15	3.7%
Persistence in moving the project forward	1129	20	14	3.5%
Strategic alignment-big picture thinker	1129	19	15	3.4%
Willing to accept the responsibility of the innovation	1129	14	9	2.5%
Knowledge sharing within project and hospital	1129	14	12	2.5%
Up-to-date knowledge of the industry	1129	13	7	2.3%
Believes in self-confident in what he or she does	1129	10	9	1.8%
Risk-taking propensity	1129	10	9	1.8%
Strong personality- strong mind-set in decision making	1129	10	7	1.8%
Optimistic	1129	9	9	1.6%
Planner	1129	8	6	1.4%
Selflessness-hospital recognition over personal recognition	1129	7	5	1.2%

Very professional	1129	5	4	<b>0.9%</b>
Proud of the project and the achievements	1129	5	3	<b>0.9%</b>
Successful-which creates supporters and antagonists	1129	4	2	<b>0.7%</b>
Respected by others	1129	4	4	<b>0.7%</b>
<b>Total:</b>				<b>≈100%</b>

Although the frequency analysis provided the researcher with an overview of the most mentioned characteristics and behaviours based on interviewees’ perspectives (See Chapter 6 Section 6.5.1), in order to show the intensity - and not only the popularity index of -of the characteristics and behaviours of champions in the four organizations, the next section will reflect on them based on four contexts: Knowledge, Change, Leadership, and Other identified behaviours and characteristics.

**7.4.2 Reflecting on the Four Contexts: The Most Prevalent Behaviours and Characteristics of Champions**

Figure 7-2 illustrates the broad contexts for analysis proposed prior to data collection: Knowledge, Change, Leadership, and Other identified behaviours and characteristics (see chapter 2, table 2-2). The numbers in parentheses represent the number of codes under each context. Figure 7-2 reveals that respondents emphasized the Leadership context of champions’ behaviours and characteristics most often, followed by Other identified behaviours and characteristics, Change, and finally Knowledge. This finding suggests that champions in this study demonstrated leadership-like behaviours and characteristics the most throughout the course of the project in comparison with the remaining three contexts. This contradicts the results of Heng et al. (1999), who studied 10 organizational champions of technological innovation in the Netherlands and concluded that the leadership aspect of champions in their study was the *least emphasized* in contrast to creativity and organizational acceptance of the innovation. One explanation of the contradictory results could be the different contexts of the current study and that of Heng et al. (1999). Despite the potential differences of

championship due to cultural variation, this finding further validates and sheds comparative light on how champions are generally depicted in the published literature, demonstrating leadership behaviours such as the qualities of a charismatic leader and influence tactics (e.g. Ash et al., 2003, Howell and Higgins, 1990b, Schon, 1963).

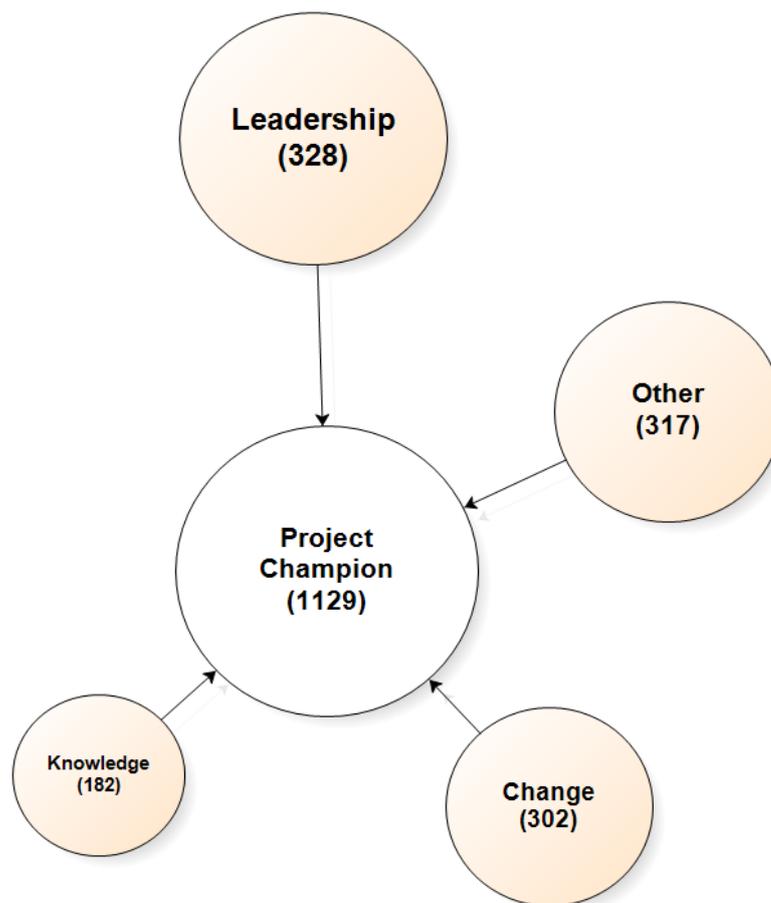


Figure 7-2: Classification of Project Champion’s Behaviours and Characteristics in the Four Cases

Respondents from these projects have provided data regarding which behaviours and characteristics define champions as the main contributors of the implementation of innovation. Table 7-4 arranges all of the behaviours and characteristics of champions that emerged from the analysis of the case studies into the four proposed contexts. All

of the emergent behaviours and characteristics of champions mapped into the four proposed contexts well, validating many of the findings prevalent in the relevant literature. The behaviours and/or characteristics listed in bold in table 7-4 represent those most frequently mentioned by respondents (5% and above). This approach helped the researcher appreciate conformity with and conflict between the current research and previous studies.

Table 7-4: The Behaviours and Characteristics of Champions Classified in the Four Cases

Context	Behaviours	Characteristics
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>Familiarity with the innovation, hospital system, and the innovative environment</li> <li>Up-to-date knowledge of the industry</li> </ul>	<ul style="list-style-type: none"> <li><b>Experienced, competent, and knowledgeable</b></li> <li><b>Problem solver</b></li> <li>Believes in self-confident in what he or she does</li> </ul>
<b>Change</b>	<ul style="list-style-type: none"> <li><b>Proposes creative ideas for projects</b></li> <li><b>Advocates for the idea of the project</b></li> <li>Changes old perspectives in the culture to accept change</li> <li>Recognizes the need for the innovation and visualizes its potential</li> <li>Understands and overcomes resistance to change</li> </ul>	<ul style="list-style-type: none"> <li>Initiator</li> <li>Risk-taking propensity</li> <li>Persistent</li> <li>Strongest supporter of the innovation</li> </ul>
<b>Leadership</b>	<ul style="list-style-type: none"> <li><b>Influential</b></li> <li><b>Unlocks others' potential</b></li> <li><b>Secures financial and human resources</b></li> <li><b>Use of personal network</b></li> <li>Provides continuous support and intervention</li> <li>Decisive use of authority</li> </ul>	<ul style="list-style-type: none"> <li><b>Excellent communication skills</b></li> <li><b>Successful strong manager/leader</b></li> <li>Confident in project outcomes</li> <li>Confident in project members</li> <li>Respected by others</li> </ul>
<b>Other identified behaviours and characteristics</b>	<ul style="list-style-type: none"> <li><b>Fully committed to the project</b></li> <li>Actions speak louder than words</li> <li>Willing to accept the responsibility of the innovation</li> <li>Knowledge sharing within project and hospital</li> </ul>	<ul style="list-style-type: none"> <li><b>Hardworking Symbol</b></li> <li><b>Active and enthusiastic</b></li> <li><b>Effective team player</b></li> <li>Well-known for informal contributions</li> </ul>

	<ul style="list-style-type: none"> <li>• Critical input in the initiation phase</li> </ul>	<ul style="list-style-type: none"> <li>• Selfless - hospital recognition over personal recognition</li> <li>• Proud of the project and the achievements</li> <li>• Strategic alignment - big picture thinker</li> <li>• Strong personality and strong mind-set in decision making</li> <li>• Planner</li> <li>• Optimistic</li> <li>• Very professional</li> <li>• Successful</li> </ul>
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In the following sections, the researcher will highlight the following in the analysis and discussion of each context (if applicable):

- The behaviours and characteristics represented in the data that **supported** findings reported in the established literature;
- The **emergent** behaviours and characteristics found in the course of this research; and
- The behaviours and characteristics emphasized in the literature that **were contradicted by or did not feature** in the empirical findings.

#### 7.4.2.1 Knowledge context

Regarding the Knowledge context, the frequency analysis revealed that interview participants emphasized champions' experience, knowledge, and competency at work as well as their problem-solving abilities. This supports the views of many published studies (e.g. Chrusciel, 2008, Howell and Higgins, 1990b), but the research findings indicate that how these types of issues are handled by champions depends heavily on their roles within the project. Respondents described Mid-level Champions who were also team leaders as the ones who added value by solving administrative issues throughout the course of the project. In contrast, Technical Champions had the technical knowledge necessary to develop and implement the innovations. Moreover, the findings revealed that champions' familiarity with the project, the hospital system,

and the environment of the innovative work were more heavily emphasized as a characteristic of champions.

#### 7.4.2.2 Change context

In the Change context, respondents strongly emphasized champions' efforts in advocating for the changes made possible by an innovation. They convinced people inside the hospital environment to use the innovation by employing different techniques ranging from providing incentives for uptake to strategically using the support and authority of top management when needed. This finding confirms the characterization of champions in the literature (e.g. Esteves et al., 2004, Howell and Shea, 2006, Markham, 2000, Roure, 2001). The frequency analysis reveals that respondents heavily emphasized champions' openness to new opportunities to achieve competitive advantage by proposing creative project ideas, which is in line with how champions have been portrayed in the literature (e.g. Chrusciel, 2008, Howell et al., 2005).

In addition to confirming commonly accepted behaviours and characteristics of champions in the literature, the current study identified a number of behaviours and characteristics that were not typically highlighted in previous studies. What emerged from the findings within the Change context is that champions, especially those who emerged *informally* followed by formal appointment, recognized the need for an innovation long before they began explicitly advocating for it. Indeed, they tended to prepare the institutional environment by first working to change old perspectives in the organization's culture regarding the concepts they were promoting. When they encountered resistance to the innovation, these champions worked to overcome this through persistence. While the champion has usually been portrayed in the literature as an individual advocating for a specific innovative idea using different techniques, the current research suggests that some champions begin their mission long before the introduction of a specific idea by laying the groundwork for it.

For example, the champion of the chart viewer project first advocated for the concept of health informatics. She persuaded top management to change the name of the department of Health Records to Health Informatics a full year before she began advocating for and implementing the software application. The data collected provide two additional examples of similar situations. First, the champion of the quality project Case C explained that the previous leadership regime at the hospital did not believe in the new quality model in delivering healthcare services, so the champion made efforts to deliver to this agenda by altering their perceptions. In another example, the champion of the risk management project Case A discussed how he and his team prepared the hospital environment for the eventual change long before the commencement of the project and his formal involvement in it. He referred to this process as building “the culture awareness.”

On the other hand, champions have been characterized in the literature as typically having a greater propensity to take risks than non-champions (see Howell and Higgins, 1990a, Maidique, 1980, Markham, 1998, Markham and Griffin, 1998). However, the empirical findings were not consistent with this view. In only a few instances, respondents commented that their champions took analytical and calculated risks, but they noted that this risk-taking was conservative and did not threaten their positions within the organizations. Conversely, many previous studies have defined champions as an individual who, for example, is “willing to put [himself or herself] on the line for an idea of doubtful success” (Schon, 1963, p 84) or is “willing to risk his or her position and prestige to make possible the innovation’s successful implementation” (Maidique, 1980, p 64). Admittedly, this lack of agreement between the literature and these research findings may have much to do with the healthcare organization context of this study, especially as most of the previous studies on champions were conducted in the area of NPD. One may speculate that a champion in the healthcare sector may not be able to be as much of a risk taker as champions in other industries. It may also be harder to make bold decisions in a complex and critical sector such as healthcare where people’s lives are involved and the risks of litigation and bad publicity are significant. Another possible explanation may be that the public healthcare sector is less competitive than private organizations. In general, embracing radical change is

rarer in healthcare than in other contexts such as NPD. Therefore, champions in healthcare may be unable or unwilling to have as large a risk appetite as champions in other contexts.

#### **7.4.2.3 Leadership context**

In the Leadership context, respondents across the four case studies most often emphasized champions' strong leadership competences through communication and soft skills. Respondents consistently referred to champions as influential, which confirms the expectations of some published studies (e.g. Esteves et al., 2004, Howell and Higgins, 1990b, Markham and Griffin, 1998). Respondents also noted that, when champions led projects, they were successful and strong leaders who provided continuous support and intervention to the innovation team to meet deadlines and accelerate implementation. Moreover, whether the champions were the project leaders or not, findings emphasized champions' confidence in the innovation and project members, which reportedly had a positive effect on the team performance, consistent with the view of Howell and Shea (2006).

On the other hand, the current study identified a number of leadership behaviours and characteristics of champions that are not typically highlighted in the published literature. Respondents recognized champions as unlocking the team's potential; this was most evident in Cases A and C. Respondents frequently reported that champions encouraged team members and cared about the team members' wellbeing on a personal level, implying that champions saw each team member as a whole person, not simply as part of a workplace team. This emergent finding was important because, according to team members, this human interest motivated them to continue working on the project despite challenges. Further, respondents expressed that working with a champion on a series of innovative projects improved their experience and capabilities. One respondent in Case A stated about the champion, "She takes your hand and takes you to a whole new road and improves you" (C1P2-1). Similarly, champions' excellent communication skills, within the team and with end-users, also emerged as an important characteristic of champions within this context.

Champions' excellent communication skills and their ability to unlock the potential of team members are similar to the behaviour of *formal leaders* with high emotional intelligence. Salovey and Mayer (1990) first introduced the term "emotional intelligence," which they described as "relevant to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feeling to motivate, plan, and achieve in one's life" (Salovey and Mayer, 1990, p 185). Sunindijo et al. (2007) studied the leadership styles of project leaders and the benefits of emotional intelligence. They concluded that leaders who scored high in emotional intelligence used stimulating, listening, open communication, delegating, rewarding, leading by example, participating, and proactive behaviours more than leaders who scored lower in emotional intelligence. Therefore, emotional intelligence of the formal leaders is associated with effective leadership which could result in positive organizational outcomes (Sunindijo et al., 2007). It is evident from the findings in this research that champions used those strategies to promote for the innovation.

#### **7.4.2.4 Other identified behaviours and characteristics context**

In the Other identified behaviours and characteristics, respondents described champions as being fully committed to the innovation beyond any formal obligation. In addition, they described champions as effective team players who were enthusiastic and optimistic about the innovation. These findings support the views of many published articles where champions were depicted as effective team members who were fully committed to the innovation (Howell et al., 2005, Markham, 1998, Schon, 1963), active (Esteves et al., 2004), and optimistic about the innovation (Chrusciel, 2008).

Shedding further light on champions' characteristics and behaviours in the healthcare field, this research has found that respondents in a number of projects portrayed champions as selfless in the sense that they cared about the recognition of the hospital

as embracing innovation more than any personal gains. This finding supports the work of Chrusciel (2008) who studied the motivation behind champions adopting significant change and stated that “the individual [champion] was not looking for self-recognition, but for recognition that change initiatives were indeed important to the organization” (Chrusciel, 2008, p 155). Respondents in the current study took Chrusciel’s (2008) finding a step further by emphasizing the selfless nature of champions.

Howell and Boies (2004) concluded that champions chose to strategically align the innovation’s goals to different organizational outcomes such as profitability and organizational reputation. The current findings showed that champions were not only perceived as strategic thinkers that aligned projects with organizational goals, but they were also described as big picture thinkers within the innovation. In other words, champions had both a holistic and a strategic view of the project and its fit in complementing the overall organization, and they also had a powerful understanding of the detail of the innovation itself when compared to their colleagues.

Respondents in the current study also reported that champions were willing to accept the responsibility of implementing the project in the hospital. Champions were known to have had critical input in the initiation stage of the project, even before designing the project team. The findings showed that these informal efforts, including sometimes undertaking activities unrelated to their formal roles within the organization, provided the champions with recognition. Champions were also characterized as hardworking individuals, as seen in comments such as “[an] icon representative of a hardworking Saudi woman” C1P2-2 and “This girl never sleeps” C1P4-3.

Moreover, respondents described champions, specifically Mid-level Champions, as having a strong personality and mind-set for decision-making as well as being very professional and successful. In two projects in Cases A and C, the managers described their champions as “iron women,” indicating the strong personality and professionalism for which they were valued, especially by their bosses. In some instances, respondents commented that champions were resented for their strong

personality, success, and professionalism by those who were non-supporters or neutral about the change and the innovation within the healthcare organization.

In addition, the findings revealed that champions are valued for and recognized as being knowledge-sharers within projects in hospitals. They are further known to be proud of innovative projects and their achievements in them. In a significant number of instances, respondents told the researcher that champions took a positive approach to sharing knowledge with colleagues.

On the other hand, although most of the definitions of champions in the literature emphasized how they “vigorously” or aggressively promote innovation (e.g. Beath, 1991, Markham, 1998), empirical findings were not consistent with this view and showed little evidence of champions being described in these terms, even when confronted by opposition. On the contrary, respondents described champions as having excellent communication skills and influential tactics to enable cooperative behaviours. These skills and tactics ensured that even those who opposed or were neutral about an innovation had no choice but to acknowledge the champion’s efforts to achieve implementation. This contrast with expectation may be associated with the fact that, in the context of healthcare organizations, the organizational structure is designed around different professional communities such as the medical and managerial. Therefore, managers, for example, may not be able to gain support by being aggressive when convincing physicians to adopt an innovation, especially when there is neither reward nor consequence for the physician’s adopting or resisting the innovation. The following section will discuss the behaviours and characteristics of champions with particular reference to Saud Arabia.

### **7.5 Innovation Champions with Particular Reference to Saudi Arabia**

The examination of the empirical findings regarding champions’ behaviours and characteristics, with particular reference to the Saudi context, showed how the majority of the champions’ behaviours in Saudi healthcare organizations are similar to

the behaviours of champions are reported in the published literature elsewhere and in varying organizational contexts. Champions are, for example, reported to be:

- Experienced, competent, and knowledgeable
- Fully committed to the project
- Persistent
- Hardworking, and
- Effective team players.

Nevertheless, respondents in the current study repeatedly emphasized one behaviour that could be explained by the specific context where the champions worked and the innovations took place.

In the chart viewer project within Case A and the quality project within Case C, the champions nominated were mid-level female individuals. They were both described as successful, strong managers in a workplace and a society that is mainly male-dominated. More particularly, each has been described as an “iron woman” due to her strong personality, her mind-set in decision making, her professionalism, and her persistence in ensuring that her mission succeeds despite opposition from non-supporters.

In the chart viewer project, a respondent shared with the researcher that, because the champion is female, she was faced with more opposition from non-supporters to the change she advocated, mainly from male individuals driven by attitudes based on social and religious norms. Similarly, two respondents in the quality project within Case C explained to the researcher (after asking her to stop recording) that the champion faced more opposition because she is both a woman and a foreigner.

These responses reveal that female champions may face more resistance to what they are advocating compared to male champions due to social and religious norms in the Saudi healthcare environment. This finding explains the “iron woman” label applied to female champions as they have to be more professional in their advocacy for an innovation, while maintaining a higher level of persistence and a thicker skin than a

male champion would be required to use. This difficulty is compounded when the champion is also of non-Saudi origin.

Research on women in management and leadership positions reported similar behaviours of that of female champions in the current study. Paludi and Coates (2011) showed in their book about women as transformational leaders, that women in the workplace are most often have to work harder than their male colleagues in order to be perceived as “equally competent”. Moreover, Catalyst (2007); an American organization committed to studying women in the workplace, surveyed 1231 senior executives from United States and Europe in 2007. The results indicated that women who were described as focused on work, assertive, and ambitious, or in other words, act in ways that are seen as more masculine, are perceived as “too tough” and “unfeminine”.

Nevertheless, it is important to acknowledge that Saudi Arabia has a unique context not only compared to the Western world but even among other Islamic countries. Saudi Arabia is governed entirely by Islamic law, resulting in a near-absolute segregation of males and females in all public spheres. Health organizations are one of the very few workplaces where female employees work alongside male employees. The healthcare sector enjoys a “relaxation of normal employment law” (Vidyasagar and Rea, 2004). Saudi healthcare organizations usually employ approximately 80% of their staff from overseas, mainly nurses and clerical workers from countries such as the Philippines and Pakistan as well as physicians and senior managers from Western countries. Although the number of Saudi women joining healthcare organizations as nurses, managers, and physicians has significantly increased compared to past decades, Saudi women (e.g. doctors) constitute a smaller work group compared to male and foreign workers (Vidyasagar and Rea, 2004). These factors combined with other cultural factors may have contributed to the difficulty for women to be perceived as equal to men in Saudi workplaces, despite some recent significant changes. For example, Vidyasagar and Rea (2004) investigated Saudi female doctors’ perceptions of the difficulties faced in their careers and concluded that female physicians felt that they were not perceived in the same way as male physicians

because society did not provide them with equal rank, whatever their qualifications. Many respondents in the study expressed the perception that people inside or outside the organization felt that Saudi female doctors would be unable to fulfil all their job obligations as they could not always travel easily or sit in meetings with men.(Vidyasagar and Rea, 2004) Moreover, some male employees would find it difficult to take instructions from women. Islam does not prevent women from taking leadership positions (except in prayer), but this significant problem lies in the attitudes of some individuals in powerful positions within Saudi healthcare organizations (Vidyasagar and Rea, 2004).

Based on the discussion above, it is understandable that female champions in this study faced more resistance to what they were advocating compared to male champions due to the social and religious norms in the Saudi healthcare environment. Female champions needed to show more persistence and professionalism than male champions may need to achieve their intended goals.

Very little research has investigated female champions and the differences in the behaviour of male and female champions in advocating for organizational innovations. The research sample of many of the studies on champions seem to be male dominant (e.g.Howell and Boies, 2004, Howell et al., 2005, Howell and Higgins, 1990a, Howell and Shea, 2006). Howell et al. (2005) even questioned whether their study findings could be generalized to female champions. Moreover, no studies have been conducted on any champions of healthcare innovations in Saudi Arabia, let alone on female champions. Therefore, the current study provides new insight on gender relationships within the Saudi context and offers important theoretical and practical contributions to the body of knowledge on how female champions advocate for innovations within organizations and the difficulties they face compared to male champions.

The next two sections will elaborate on the different behaviours of the Mid-level and Technical Champions by discussing the role of first Mid-level Champions and then Technical Champions. Then the researcher will discuss the effects of each type of

champion on the innovations in question and the healthcare organization in line with the research questions and research framework.

## 7.5 The Role of Champions in Implementing Innovations in Healthcare Organizations

Some of champions' behaviours and characteristics were consistently mentioned across the four case studies, while other champion behaviours were reported in only one or two case studies. This discrepancy can be explained by several factors, such as the organization's attitude toward the change, the institutional support provided to the change and the champion, and, most importantly, the type of champion identified in each case (Technical and/or Mid-level Champions). Although both types of champions share common behaviours and characteristics, a number of behaviours and characteristics were associated primarily with the Mid-level Champions, while other behaviours were used to describe Technical Champions. For example, only Mid-level Champions were described as *securing resources to a project* and *overcoming resistance to the innovation*, which could explain why those two behaviours, for instance, did not emerge from the analysis of Case B, where no Mid-level Champions were identified. On the other hand, having technical experience was, of course, a characteristic of the Technical Champion (see table 7-5).

Table 7-5: Examples of the Dominant Behaviours and Characteristics of Mid-level and Technical Champions

Behaviours and Characteristics of Mid-level Champions	Behaviours and Characteristics of Technical Champions
<ul style="list-style-type: none"> <li>• secures financial and human resources</li> <li>• Decisive use of authority to enable project delivery</li> <li>• A successful, strong manager/leader</li> <li>• Provides continuous support and intervention</li> <li>• Unlocks others' potential</li> </ul>	<ul style="list-style-type: none"> <li>• A problem-solver</li> <li>• Experienced, knowledgeable, and competent</li> <li>• Active and enthusiastic</li> <li>• An effective team member</li> </ul>

The literature on champions has generally agreed that there can be executive, project, and technical champions (Lichtenthaler and Ernst, 2009) or, as some studies defined them, bottom-up, top-down, and dual role champions (Day, 1994). However, the nature of the projects identified in the current study allowed the identification of Mid-level and Technical Champions. Regardless of classification, each champion in this study was perceived as playing an instrumental role in the preparation, initiation, development, and delivery of an innovation because of his or her key behaviours throughout the implementation process. This finding supports those of many published studies (e.g. Howell and Boies, 2004, Howell and Shea, 2006, Rothwell et al., 1974). However, the current findings also reveal that a champion's level of contribution within an innovation varies depending on his or her role within the project.

In the following section, the researcher will highlight the champions' roles within the four case studies and demonstrate at which stages of project implementation their intervention and qualities were believed to have added the most value. First, the researcher will discuss the role of Mid-level Champions and highlight the behaviours that their team members emphasized as having helped achieve successful project implementation. Then, the researcher will discuss the role of Technical Champions.

#### **7.5.1 The Role of Mid-level Champions (Case A, C, D)**

Respondents in the case studies where Mid-level Champions were identified (Cases A, C, and D) stressed their critical role in working to change old perspectives in the culture of the hospital. For example, champions advocated for actions to operationalize concepts such as risk management, quality standards, and health informatics. The study findings indicated that they first identified with the hospital's environment by understanding the need for change and preparing the institutional environment by investing efforts for early successes.

Once they established a suitable context for the innovation and the specific concept of the innovation gained approval, these champions often became the strongest

supporters of the project. They supported these projects using different strategies appropriate to the required inputs. Howell and Boies (2004) demonstrated that champions used formal and informal strategies to build support for the innovation, which is entirely consistent with the findings of the current research. Respondents referred to strategies to build support and consensus, such as formal public presentations, meetings with end-users, training sessions, communicating with top management, and even informal interactions with end-users.

The following quotation provides an example of the efforts of a champion of the quality project (C3P2):

*“She is trying to encourage everyone in the hospital through trainings and the lectures that she is giving for all teams and administrations. Going through the preparations for quality talks and all that, she’s encouraging everybody to believe in quality and do the quality process without hesitation.” (C3P2-1)*

Nevertheless, respondents noted resistance to the use and potential use-value of a proposed innovation in a number of projects, such as the chart viewer project (Case A), the quality project (Case C), and the sick leave electronic system and the infection control project (Case D). Team members in these projects reported that the champion worked hard and often used cooperative strategies to overcome resistance, even when faced with entrenched opposition. The following quotation from Case C illustrates this point:

*“She has a very strong personality. There are departments that refused to collaborate with us and what she did is that she had meetings with those who resisted practicing quality in their departments and listened to them, convinced them about the importance of having quality standards and so on.” (C3P2-3)*

Moreover, Mid-level Champions were reported to decisively use their authority and social capital to enable project delivery. Respondents described them as constantly seeking to communicate and build support with top management as well as exploiting

their personal networks inside the hospital, for example, to secure resources for a project. The following quotation from Case B illustrates this point:

*“She is the director of HIM [Health Information Management Department] and she also has the connection with higher administration. If specific requests need approval from higher administration, she is the one who does that through her connections. Based on my knowledge, through meetings with the higher administration, she discusses her projects and if there are any concerns involving the project.” (C1P2-8)*

Within the project level, such champions were perceived as strong and successful managers who provided continuous support to and interventions with project members to ensure that deadlines were met and performance accelerated. Respondents saw these champions as consistently unlocking their team’s potential, as highlighted in the following quotations from Case A:

*“She perceived our involvement in this project as an opportunity for us [technicians], and that we have the potential to be working in this project. So, she recognized the staff needs, capabilities, and talents, and based on that, she involved us in the right projects. It is somehow like encouragement by seeing our potentials.” (C1P2-8)*

*“Whenever he sees that the team spirit is down or experiencing a difficult task, he always tries to cheer us up, lift our spirits up [...] He encourages us and motivates us to do better, to be more active, and give more and more. Although these things might be more of morale side but it plays a major role in our success.” (C1P3-2)*

Respondents from all four case studies also continually emphasized the Mid-level Champions’ influence on project members and end-users as well as their excellent communication skills with people inside the hospital with different personalities and from different backgrounds. As highlighted in the within-case analysis (chapter 6), such qualities were believed to be key success factors in achieving the delivery of innovative

projects in healthcare where people from different departments, professions, and backgrounds are involved in, affected by, and capable of impeding the innovation. The following quotations reinforce this point:

*“She has people skills, and this is one of the success factors. Different departments participated in this project, and with these different departments come different personalities and perspectives in looking into things. The key to success is to have a person capable of communicating and managing these things all together. You see people having the capabilities and qualifications, but their problem lies in the way they deal with other people or let’s say the lack of such ability or skill. She has excellent communication skills.” (C1P4-4)*

*“People trust her judgment even in the smallest things and routine everyday situations [...] She is a quiet person in nature. However, there is something about her that makes people listen to her, her religious side maybe.” (C1P4-5)*

As noted in chapter 6, respondents described champions as *good planners* and *big picture thinkers*; in other words, they know when to stop working on some areas of the project and move on to the next stage. They were also described as consciously strategically aligning the project’s goals with those of the hospital. The following quotations illustrate this point:

*“We started dividing the file itself into sections and pay attention to these details. She knew how to control the whole process like when to say, ‘That’s enough for now; now let’s focus on this or that.’ That directed us to the right path and to achieve the goals we set on time. She is capable of seeing the whole picture and at the same time paying attention to details.” (C1P2-9)*

*“She is the one who can and has the ability to see the bigger picture of the project. For instance, I’m responsible for the surgery [...] so I cannot really know what is going on in the other parts of the project as she is. She has a wider picture*

*of what is going on in all the aspects of the project [...]. Such a role allows her to identify where the gaps are, and she can actually connect the dots and all that.” (C3P2-6)*

*“She sees the performance of the team and the staff as the basis for the success of the organization.” (C1P2-8)*

Respondents within the four case studies perceived Mid-level Champions as being needed at each stage of the project, but they emphasized that the champions were most needed in the *initiation* stage of the project due to all the behaviours mentioned above. The following quotations are examples from Cases A and C that demonstrate the recognized role of Mid-level Champions in adding value at the project initiation stage:

*“I would say at the beginning, definitely at the beginning. This is because she needed to place a structure, as you know, a foundation and a structure for all the quality processes. Everyone needed to know what is required of them. So, she set the foundation that helped in building the structure.” (C3P2-4)*

*“At the beginning, when we were trying to figure out the business needs is the time when we needed her most.” (C1P4-5)*

This finding validates the view of Hendy and Barlow (2012), who explored how champions of remote healthcare in United Kingdom were most effective in the first phase of adoption. However, their study did not specify which *type* of champion they were discussing.

### **7.5.2 The Role of Technical Champions (Case B, C, D)**

The Technical Champions identified in Cases B, C, and D were perceived as the implementers of, and effective team players in, each innovative project. Respondents saw them as the individuals who handled most of the work of the project and usually

referred to them as hard-working individuals who went “above and beyond” their formal job requirements to ensure that the project proceeded as planned. The following quotations from team members in the E-prescription and nursing board system projects shed light on this:

*“Most of the work is done by Fahad. Because he was 100% involved.” (C3P1-2)*

*“We would face delays because they [the two identified champions] are hard workers and probably more committed to the project to be implemented than the rest of us, handling the main work of the project.” (C2P1-2)*

In contrast to the Mid-level Champions, who added the most value during the initiation of projects, Technical Champions were generally perceived as being most impactful in the middle of the implementation process, i.e. in the period when the majority of the project tasks have to be done. This finding could be explained by the respondents’ perception that they were the most experienced individuals amongst the team and the most familiar with the project. Both of these features enabled them to solve technical issues that threatened the project. Regarding successful project implementation, respondents highlighted that these champions spent time “testing” different scenarios, making them valuable during the middle of the implementation.

However, it should be noted that some respondents stated that Technical Champions were most needed at *both* stages: initiation and middle of implementation. In either case, these findings contradicted earlier scholars, such as Markham (2000) and Frost and Egri (1991), who concluded that “bottom-up” or Technical Champions were most needed in the early stages of such projects due to their technical knowledge (Day, 1994). One explanation for this lack of coherence between the literature and these research findings may have much to do with the healthcare organization context of this study. Technical Champions in healthcare may be more involved in healthcare-related innovative projects than the NPD projects found in the literature. Another

explanation may be that technology plays a much more central role in healthcare implementations than in other contexts such as NPD.

## **7.6 Effect of Champions on Innovations in the Four Organizations**

The findings from the four case studies showed that champions affect:

1. the innovation (project level),
2. their respective departments (department level), and
3. the healthcare organization (hospital level).

In contrast Markham's (1998) view, the research findings reported here have shown that champions are known to have positive effects on healthcare innovation. This finding is consistent with many studies that maintained that champions have a positive effect on project performance and organizational success (e.g. Howell and Shea, 2001, Shim and Kim, 2004). However, the nature and depth of such effects were unclear in the literature; more importantly, previous studies have not demonstrated whether all types of champions can be expected to have similar effects on the delivery of innovation.

The empirical findings revealed a variation in terms of the effect of the champion on the project, the department, and the hospital depending on the type of championship manifested or required. In other words, the degree of a champion's impact and visibility depended on the champion's role in the organization and his or her formal role within the project. Respondents emphasized the effect of Mid-level Champions at all three levels. In contrast, they emphasized the effect of the Technical Champion mainly at the project level. This may be partly because Mid-level Champions have more significant hierarchical authority within the organization than Technical Champions. The following two subsections will elaborate on the effect of both types of champions.

### 7.6.1 The Effect of Mid-level Champions (Case A, C, D)

In all four cases, the Mid-level Champions were shown to have an effect on the project, the department, and the hospital. The majority of respondents expressed that the Mid-level Champions were indispensable and maintained that projects were successfully implemented when champions took responsibility for the implementation. Respondents considered champions to be a success factor during project implementation. For example, in the COPE and chart viewer projects in Case A and the quality project in Case C, respondents described previous failed attempts to implement the project prior to the arrival of the champion. A respondent from the chart viewer project in Case A noted that success was always the end result whenever the identified champion took responsibility for implementing any project: “I cannot really remember any project we had with her that failed” (C1P2-2).

Within their respective departments, then, the presence of champions increased the chance of successful project implementation. Respondents reported that champions accomplished what their antecedents failed to accomplish – and in a relatively short time:

*“I heard [...] that they always wanted to implement a similar project to chart viewer in the hospital; there were some attempts, but they were not successful. Then, they started implementing the current project with Ms. as the team leader, and it now in its last stage. I can say we are almost there, and everything is going well and that we are 95% outside the danger zone when it comes to failure.” (C1P2-5)*

Moreover, the majority of respondents in the four case studies believed that departments significantly improved *in general* when champions joined a department. In a number of projects, respondents expressed that both the innovative projects and the daily work of departments would not be as effective as they had become if the champion left. They also believed that the reputation of the department increased

across the hospital due to the champion's presence. The following quotation from Case A exemplifies these observations:

*"It would be like any other project if she is not part of the project, a normal one that could succeed and could fail as well. However, it wouldn't have the powerful impact and influence that it has now across the hospital [...] If she leaves the department, I would say that we will be back to what we used to be—productive department, yes, but with few improvements along the way. It would be a very routine, normal administration. If she leaves us, the brilliance of the department would disappear and many projects would face delays or would not be suggested in the first place."* (C1P2-1)

Respondents also believed that the presence of Mid-level Champions increased the chances of getting approval for implementing innovative projects within the hospital:

*"Her presence increased the chances of implementing projects successfully in our department as well as voluntarily taking the responsibility of implementing them in the first place. Take this project, for instance!"* (C1P2-7)

It is important to remember that implementation of the innovative projects examined in this research had often been considered and even attempted before. What had prevented commitment to the proposal for an innovation or the successful delivery of one that had been approved was the absence of "a doer" or "implementer" to turn those ideas into reality with full commitment and persistence. This finding supports the view of Schon (1963) as expressed in his famous quotation, "A new idea either finds a champion [to implement it] or dies" (Schon, 1963, p 84).

These findings demonstrated how champions are believed to be critical to future projects because of their successes after others had failed; indeed, the majority of champions were being handed future projects in the same sub-category. The following quotation from Case C illustrates this point:

*“She is needed in future projects because she was the first one who came here and succeeded in organizing everything in terms of quality standards in this particular way and improved the quality of everything in the hospital.” (C3P2-1)*

In a number of projects, such as the risk management project, the chart viewer project, and the I-application project, the champion’s hospital received local and even international recognition based on the successful project delivery. For example, in the risk management project, other hospitals in the region asked to learn from the champion’s experience and requested retaining him as an external consultant on similar projects. Such Mid-level Champions can gain recognition, be effective, and improve quality not only within their employing hospital but across the local, regional, and international hospital communities.

#### **7.6.2 The Effect of Technical Champions (Case B, C, D)**

The findings of Cases B, C, and D showed how the effect of Technical Champions was not as emphasized by respondents as that of the Mid-level Champions. As discussed above, respondents felt that Mid-level Champions had a positive effect on the project, the department, and across the hospital. On the other hand, the effect of the Technical Champions was mainly emphasized at the level of the project. This finding can partly be explained by the fact that Mid-level Champions have more authority than Technical Champions within healthcare organizations.

Nevertheless, respondents expressed that the implementation process was faster due to the presence of Technical Champions. Technical Champions are experienced and familiar with both the innovation and the hospital systems. Respondents held conflicting views about whether Technical Champions were needed for project success. Although some respondents perceived them as being *indispensable*, the majority stated that the project would face delays and missed deadlines but would not necessarily fail if the Technical Champion was not part of it. Managers explained that

the Technical Champion's fingerprint in executing the work perfectly and submitting it on time would be missed if the Technical Champion was not part of the project.

## **7.7 Summary**

The cross-case analysis and related discussion presented in this chapter showed that institutional support helped pave the way for the emergence of champions and maximized the benefit of their contributions to the institution. Regarding the identification and emergence of champions, the current study suggests that their emergence can be either through an informal appearance followed by formal appointment *or* through formal appointment due to the champion's track record in implementing similar projects. Analysis also revealed the most emphasized behaviours and characteristics of champions in the four healthcare organizations. More precisely, champions demonstrated Leadership behaviours and characteristics more often than qualities in the three remaining contexts (Knowledge, Change, and Other identified behaviours and characteristics). The study also revealed that champions prepare the institutional environment by working to change old perspectives in its culture long before introducing the specific innovation. Champions also work to unlock team members' potential and motivate the team to continue working on the project despite challenges. The current study also identified two types of champions: Mid-level Champions and Technical Champions and analysed their different behaviours, their roles in projects, and their overall effect on the projects and the organizations. The empirical findings revealed that respondents emphasized Mid-level Champions' effect at the project, the department, and the organizational level. On the other hand, Technical Champions' effect was mainly emphasized at the project level. The following chapter reflects on the previous analysis and related discussion to present concluding observations, summarize the contribution to the research field, identify any limitations, explore emerging implications, and propose recommendations for future research.

## **Chapter 8      Conclusions and Future Work**

### **8.1 Introduction**

This concluding chapter will summarize the research conclusions and reflect on the overall contribution of the current research to the relevant areas of the academic literature. Then, any limitations of the research will be explored. Finally, research implications and brief recommendations for future research will be presented across three dimensions: implications for theory, methodology, and practice.

### **8.2 Research Conclusions: Revisiting the Research Objectives**

The research objectives comprised identifying the characteristics of champions and their behaviours in healthcare organizations, understanding their role and importance in helping teams succeed in delivering innovative projects, and finally assessing their overall effect on innovative projects and healthcare organizations. Before revisiting each of the research questions, the researcher will present a summary of the pertinent findings regarding the institutional support provided to champions, champions' identification within the innovative projects, and champions' formal and informal emergence in innovations.

- Institutional support and the emergence of champions: The findings showed that, regardless of the level of support provided to champions from top management or their departments, champions emerged in all four cases. Nevertheless, champions in organizations where institutional support was not emphasized faced more challenges and were required to constantly convince key people of both the need for and their ability to deliver change (see Chapter 7, Section 7.2).

- Champions' identification within the innovative projects: In five of the nine identified projects across the four cases, team members *unanimously* identified champions as those who had contributed the most to a project based on the behaviours they demonstrated throughout the course of that project. In three projects, the *majority* of team members reached a consensus on the champion of the project (e.g. 4 out of 5). In only one case (a cross-departmental project) was there *a lack* of consensus on a team member being the project champion (see Chapter 7, Section 7.3).
- Formal and informal emergence of champions: The study revealed how the majority of champions were formally appointed to an implementation role due to their track record in successfully delivering similar projects in the healthcare sector. The current research complements the literature that addresses the emergence of champions within organizations. Specifically, the research demonstrates that such emergence can either occur formally (i.e., through selection and appointment to an implementation role based on the champion's track record in implementing similar projects successfully) or informally *followed by* formal assignment when individuals show interest in an innovation and are thereafter charged with its implementation. Understanding how champions emerge in healthcare can lead to better cultivation of an environment that allows champions to emerge more rapidly which in turn contributes to the successful implementation of innovative projects within organizations in general and healthcare organizations in the case of this study (see Chapter 7, Section 7.3).

Based on this understanding of how champions were identified and emerged in the innovative projects, the following sections will revisit each of the research questions and summarize the pertinent findings. Research Objectives (ROs) and Questions (RQs) were presented in Chapter 1 of the thesis.

### 8.2.1 Outcomes of RQ1

Research question 1 (RQ1) asks: what characterizes champions in healthcare organizations? The findings related to RQ1 suggested that champions in healthcare innovation would be characterized more by Leadership-like behaviours and characteristics than by characteristics of the remaining three contexts: Knowledge, Change, and Other identified behaviours and characteristics. All of the emergent behaviours and characteristics of champions gathered from the empirical data most often mapped onto the four proposed contexts well (see Chapter 2, Section 2.3). This approach helps the researcher appreciate conformity with and conflict between the current research and the expectations that had been grounded in the literature.

This analysis supports many of the findings prevalent in the relevant literature. For example, champions are characterized as being experienced, as being advocates for the innovation; as being open to change by proposing creative ideas for projects, and as being influential and fully committed to the project beyond their formal obligations. Furthermore, the empirical findings validated the working definition of champions:

*Champions are individuals who decidedly contribute the most to the success of innovations; are able to persuade and influence others to support the innovation are personally committed to the success of the innovation; persist in the face of problems; strongly and aggressively promote and advocate the innovation; and are active and enthusiastic about the innovation and its successful implementation.*

This working definition provided an overall comprehensive description of champions and was developed from the analysis of 20 definitions of champions found in the literature (See Chapter 2, Section 2.6). In one area, the matter of champions' aggressive promotion of innovation (underlined above), the working definition was not validated by the empirical findings. As noted in Chapter 2, previous studies have characterized champions as typically being aggressive in their promotion of innovation and as having a higher propensity to take risks than non-

champions. However, the empirical findings showed little evidence of champions being described in these terms. Admittedly, this disagreement between the literature and these research findings may have much to do with the healthcare organization context of this study, especially as most of the previous studies on champions were conducted in the area of new product development (for more detail, see Chapter 7, Section 7.4.2.2).

On the other hand, the current study identified a number of behaviours and characteristics that are not typically highlighted in the published literature. For example, champions employed a strategy of preparing an institutional environment long before introducing the specific idea of a new approach, let alone the actual innovation, which might well be one centred around a piece of technology.

Similarly novel was the empirical finding that effective and respected champions constantly encouraged team members and cared about their welfare. In addition, they knew and treated each team member as a whole person and not simply as part of a workplace team. This behaviour is important because, according to team members, such human interest motivated them to continue working on a project despite challenges. In addition, team members realized that working with a champion who exhibited such qualities on a series of innovative projects led to improvements in their own experience and capabilities. These champion behaviours correlate with the reported behaviours in the literature of formal project leaders with high emotional intelligence scores, which has been associated with an effective leadership style that could result in positive organizational outcomes (Sunindijo et al., 2007) (for more details, see Chapter 7, Section 7.4.2.4).

Additionally, champions were recognized and respected for being selfless, in the sense that they cared about the recognition of the hospital as an institution that embraced innovation over and above any personal gain or benefit. Respondents also reported that champions were willing to accept responsibility for implementing a project in the hospital and known to have had critical input in the initiation stage of the project even before establishing the project team. The findings suggest that champions gained

recognition for these informal efforts, including undertaking activities unrelated to their formal roles within the organization. They were also characterized as hardworking, successful, and professional individuals, although non-supporters sometimes resented them for these qualities.

### 8.2.2 Outcomes of RQ2

RQ2 asks: what is the role and importance of champions in innovations in healthcare organizations? The outcomes suggested that a champion's instrumental role in the preparation, initiation, development, and delivery of innovation was due to the key behaviours he or she demonstrated throughout the implementation process. The study identified two types of champions:

- Mid-level Champions and,
- Technical Champions.

Although both types of champions shared common behaviours and characteristics, they differed in the frequency and strength of those behaviours and characteristics (see Chapter 7, Section 7.5). The empirical findings also indicated that a champion's level of contribution within an innovation varies depending on his or her role within the project. Understanding the value and the level of contribution of each type of champion will offer organizations a chance to better utilize their potentials in future innovations.

One important conclusion is that Mid-level Champions were most needed in the *initiation* stage of the project mainly due to their strategic planning, critical role in working to change old perspectives in the culture of the hospital, and critical input in the initiation stage of the project. In contrast, Technical Champions were generally perceived as having the most impact in the *middle* of the implementation process (see Chapter 7, Section 7.5).

### 8.2.3 Outcomes of RQ3

RQ3 asks: what are the effects of champions on healthcare innovations? The findings indicated that the effects of champions could be seen at the following three levels: project, departmental, and organizational. It was not clear from the literature what the nature and depth of such effects were and, most importantly, if all types of champions could be expected to have similar effects on the delivery of innovation. The study revealed variation in terms of the effects of the champion on the project, the department, and the hospital depending on the type of championship manifested or required. In other words, the degree of a champion's impact and visibility changes with the role that the champion holds in the *organization* as well as his or her formal role within the *project*. The effect of Mid-level Champions was emphasized in all of the abovementioned three levels. On the other hand, the effect of the Technical Champion was mainly emphasized at the level of the project. This may be partly because Mid-level Champions have more significant hierarchical authority within the organization than Technical Champions. Understanding the different effects of champions could allow organizations to better assign champions for an implementation role depending on the scale of the project and the desired effect or influence.

## 8.3 Research Contributions

The previous section addressed the research questions, while this section will discuss the research contributions of the current study. The researcher will explore these findings in terms of their contributions to theory, methodology, and practice.

### 8.3.1 Theoretical Contributions

The theoretical contribution of the current research is to advance the specific parts of the innovation literature which deal with the role of the champion as one of the success factors in implementing innovation. As discussed in Chapters 1 and 2, the significance of this research lies in addressing the existing gap in the literature by

reporting on what characterizes champions in healthcare organizations, their role in implementing innovation, and their effect on both those innovations and their host organizations. Since the current study focused on how innovations were successfully implemented in organizations, the concept and activities of the champion were studied from the innovation-management perspective. Therefore, despite the specific context that underpins this thesis, its theoretical contribution is to organizational innovation and change literature where the champion is perceived as one of the success factors, yet remains less explored in the literature than other success factors (e.g. Howell et al., 2005, Kamal, 2010, Krall, 2001, Mullins et al., 2008, Soo et al., 2009).

In regard to the healthcare context, previous studies have provided little empirical evidence on how champions can be identified and fully utilized in healthcare (e.g. Greenhalgh et al., 2004, Krall, 2001, Soo et al., 2009). The present study therefore addressed this knowledge gap by exploring and clarifying what characterizes champions in healthcare and how they affect the implementation and management of healthcare innovation. Thus, the empirical findings regarding champions' emergence in healthcare organizations, the presence or absence of key reported behaviours of champions in healthcare organizations, the different levels of champions' contribution, and the different effects of champions depending on the type of championship manifested can be a starting point for future academic studies in this under-researched area.

A noteworthy theoretical contribution of the current research is its examination of the behaviours and characteristics of champions identified in the literature as informal leaders (Howell and Higgins, 1990a). The empirical findings regarding champions' leadership-like behaviours and characteristics throughout the course of the project advances our understanding of those informal leaders in healthcare organizations, particularly when previous research emphasized formal leaders rather than the informal leadership of champions.

Very little change management literature and, more particularly, innovation management literature has been undertaken in Saudi Arabia. The work reported in this thesis represents a substantive contribution to academic research on the contemporary realities of organizations in Saudi Arabia. The investigation of champions' roles in the implementation of innovations and their effect on both those innovations and healthcare organizations in Saudi Arabia is novel. Therefore, the empirical findings regarding the identification of the key behaviours and characteristics of champions as well as the roles of Mid-level and Technical Champions and their effects on innovations, their departments, and the overall organization open the door for more academic research and publications in this particular area of research. The current study provided a basis for further studies to consider the champions' effects on public and private sector organizations in Saudi Arabia and neighbouring countries.

Little research has explored female champions or the differences in the behaviours of female and male champions in the way they advocate for innovations within organizations. An important contribution of this study is that it explores some gender relationships within the Saudi context in ways that no previous studies have done. It provides new insight and an important theoretical contribution on how Saudi female champions accomplished their missions of implementing innovations successfully within healthcare organizations. In particular, these female champions demonstrated more persistence and professionalism compared to male champions. Once additional studies on female champions are conducted in other parts of the world, the ability to undertake comparative analysis between similar and less similar cultural contexts will add to our understanding of the phenomenon of female champions of innovations.

### 8.3.2 Practical Contribution

*“Change is rarely accomplished without someone championing it [...] investing in developing skills in managing change is a high payoff investment for organizations of all types and sizes and should be a high priority for any organization that is committed to thriving or even surviving in rapidly changing times.” (Warrick, 2009, p 14-15)*

Since an organization’s competitive advantage and success depends at least partly on innovation (Mullins et al., 2008, Schmidt et al., 2009, Warrick, 2009), understanding how champions identify new ideas and advocate for them could benefit organizations in this particular matter. The researcher believes that the multiple case study research conducted can inform best practice guidelines for organizations seeking to encourage and enable their employees to identify opportunities for and successfully implement innovation. This is because understanding “how champions and innovation teams are supported and made a conscious part of the innovation process is probably an organization’s single most important area of leverage for maintaining and improving effective innovation.” (Howell and Shea, 2006, p 206).

Championship may also be a group of behaviours that can be learned and nurtured within organizations and therefore contribute to greater organizational efficiency, effectiveness, and competitiveness. The current research provides greater insight for policy-makers to better identify and select potential champions to lead projects (i.e., to function as Mid-level Champions) based on their key behaviours and characteristics and, thus, motivate them and maximize their contributions. Policy-makers could also use champions’ key behaviours and characteristics as extracted in the current study as a basis for interviewing individuals for implementation roles. Identifying those individuals who have ‘champion potential’ (to be either Mid-level or Technical Champions) to lead and work in projects could be a source of competitive advantage by accelerating team and project performance. Champions in the present study demonstrated and acquired different skills depending on their type (Technical and/or

Mid-level Champions); therefore, understanding the strengths and value of each type of champion and when they are most needed throughout the course of the project offers organizations a chance to better utilize their potential in future innovative projects.

Moreover, the content of the current study offers a learning insight for those who want to become champions. The study offers practical insight for those who have been effective in preparing the way for, shepherding support for, and implementing innovative change. Future champions could begin to consider the skills, techniques, and knowledge required to present their ideas in a more compelling way or develop strategies to convince others of the need to endorse or lead change.

Finally, the study offers practical insight on innovation champions and how they operate and contribute to innovation implementation in a new and little-studied context: that of Saudi healthcare organizations. Understanding how champions are identified and selected to work in innovative healthcare projects could be a source of competitive advantage for Saudi organizations seeking to increase the success rate of their innovation implementation, especially when the success rate of implementing innovations in Saudi healthcare is not promising. Indeed, in a study on technological projects in Saudi healthcare, Abouzahra (2011) reported 41 out of 52 projects examined failed to meet their targets in terms of scope, schedule, or cost goals.

### 8.3.3 Methodological Contributions

Despite the range of existing published studies on champions of innovations, the approach applied in the current research has not previously been used to understand the phenomenon of innovation champions. The current study applied a four-level approach of investigation as reflected in the research framework (see Chapter 1, Figure 1.1). Therefore, the current study offers a *comprehensive* explanation of the phenomenon of champions at the individual, project, management, and organizational levels.

In Chapter 2, the researcher argued that, if champions have not been identified reliably in earlier empirical studies on champions, there is a danger that those studies may not be studying champions at all. Some studies relied on one interview question to identify champions (e.g. Ettl et al., 1984, Smith et al., 1984). Many other studies did not report how champions in their studies were identified (Burgelman, 1983, Chakrabarti, 1974, Galbraith, 1983, Schon, 1963). In order to identify champions more thoroughly, the present study followed a substantially more thorough and rigorous process through the use of semi-structured interviews and observation (see Chapter 5, Section 5.7.1) that involved identifying champions based on the testimony of project members who worked closely with the champion. This process resulted in unanimous agreement on the project champion(s) in all the innovative projects except one (a cross-departmental project). Such an approach could be used by other researchers to identify potential champions of innovative projects within organizations and to revisit contexts to see whether those who had been previously identified as champions actually were.

#### **8.4 Research Limitations**

All researchers must acknowledge the limitations of their research. With regard to the research design of the current study, one of the most common limitations of case study research is that of the generalizability of the findings (Yin, 2003). Generalizability in the current study could be problematic because the findings are drawn from four healthcare organizations in Saudi Arabia. Nevertheless, the use of the replication logic in conducting the multiple case studies allows the findings to be generalized analytically to a broader body of knowledge (see Chapter 5, Section 5.8.4). As Yin (2003) showed, the focus of qualitative research is on “analytical generalizability” rather than “statistical generalizability” as is the case with quantitative studies. Stake (1978) discussed the concept of the “naturalistic generalizability” of case study research, which allows the transfer of the findings of one case to similar cases and situations, stating that just as “readers recognize essential similarities to cases of interest to them, they establish the basis for naturalistic generalization” (Stake, 1978, p 7). Therefore, it could be logical to argue that the Saudi healthcare context has

common applicable realities with other contexts where the lessons would be transferrable if the researcher, consultant, or policy-maker judges that the other context is likely to be an environment conducive for those lessons to make a positive impact.

Another noteworthy limitation is that, although the researcher conducted 48 interviews with project members, a small number (9) of champions were identified and, in one instance, no consensus was reached on any team member(s) being the project champions. As such, one limitation is arguably the relatively small number of champions identified. However, it is important to note that the phenomenon of champions is in itself a relatively rare one (Howell and Higgins, 1990a). Moreover, the current research used a clear and rigorous identification process in order to reliably identify champions and study their role and effect on innovations. Howell and Boies (2004) explained that “the combination of the rare occurrence of champions and the need to identify them reliably imply that conducting research on champions requires a considerable investment of time and resources” (Howell and Boies, 2004, p 138). It is not practical to identify large samples of champions because they are a scarce resource. However, this research seeks to contribute to techniques both to more accurately identify champions and to encourage their growth in number.

An arguable limitation of the current study is the need to rely on the retrospective recall of events by project members regarding the innovation process and the individuals who contributed the most to its successful implementation. As such, the researcher took a number of measures to ensure a more accurate recall of past events. To be included in the current study, the innovations had to have been implemented within the past 24 months or be at the later stages of implementation. Moreover, the researcher used a case study protocol while conducting the semi-structured interviews with team members. In addition, the researcher was guided by Golden (1992) who showed that behaviours and past facts can be expected to be more accurately recalled than accounts of past intentions and beliefs. Therefore, it is reasonable to assume that the behaviours and characteristics of champions reported by project members were representative of real situations.

Finally, due to the inevitable time constraints of researcher conducted as part of a doctoral degree, the nature of the investigation was cross-sectional. Therefore, in order to capture the long-term impact of champions on organizations, a longitudinal study can be conducted in the future.

## **8.5 Implications for Future Research**

The results of the current study prompted a number of recommendations for future research as well as implications for practitioners. They are categorized into the following three sections: implications for theory, methodology, and practice.

### **8.5.1 Implications for Theory**

The theoretical contribution of the current study includes refining the concept of champions. The literature is fragmented and lacks a coherent concept of champions or championship. The term champion is used differently and loosely in different literatures. As a result, researchers may look at different studies which have touched on the concept of champions and automatically apply certain findings to champions, although they may not be applicable. As seen in Chapter 2, the researcher first considered the need to discuss the concept of the champion from different disciplines such as innovation literature, change management, and leadership. Then, the author synthesized what the concept really means in the literature (cross-cutting silos of disciplinary practice) and, more specifically, narrowed the definition of the term “champion” in the context of innovation. To understand how an important factor as the project champion is relevant to the successful implementation of innovation, future researchers need to clearly define the concept being investigated. Otherwise, it would be difficult to know, understand, and explain the champion’s role and impact on innovation implementation.

Most studies conducted on champions have been carried out in the United States, Canada, and Europe. To the best of the researcher’s knowledge, no research has previously been conducted on innovation champions in Saudi Arabia. By examining the

empirical findings with particular reference to Saudi Arabia, the majority of the champions' behaviours in Saudi healthcare organizations were similar to the behaviours of champions reported in the published literature elsewhere and in varying organizational contexts. The one significant exception concerns the empirical finding on how female champions were perceived (see Chapter 7, Section 7.5). The research offers context-specific, multi-dimensional insight on innovation champions in Saudi Arabia. Once more research is carried out on champions of innovations in healthcare and other sectors in other parts of the world such as the Middle East, North Africa, and Asia, the ability to undertake comparative analysis between similar and less similar cultural contexts will add to our understanding of the phenomenon of innovation champions.

### **8.5.2 Implications for Methodology**

The study suggests that champions of healthcare innovation may not be easily recognized and identified by individuals who were not working closely with champions and experiencing their championing attributes first-hand (as in project 4/ case A). The majority of the projects in the current study took place in one organizational unit and/or department. This singular setting played an important role in facilitating team members' clear identification of the champion(s) as the ones who contributed the most value to the project. In the case of the cross-departmental project (C1P4), team members nominated more than three individuals as the champion of the project. Therefore, the present study entails a cautionary note for future researchers to consider the implication of the difficulty in identifying champions by individuals who were not working closely with champions when studying champions in large-scale and/or cross-departmental innovations.

### **8.5.3 Implications for Practice**

The following implications for practice were identified resulting in future research questions:

- The study reported the instrumental role of individual champions in implementing innovative projects within healthcare organizations and, therefore, supporting organizational change efforts. However, the findings also caution policy-makers in organizations not to rely entirely on the super-human efforts and impact of a few individual champions. Instead, the current study shows that organizations and their strategic leadership should give consideration to and comprehend all of the factors that contribute to bringing projects to successful implementation and acknowledge the challenges and the complexity surrounding such change. Specifically, findings suggest that leaders' efforts to the removal of barriers to the effective emergence and operations of champions would seem to be desirable.
- The present study indicates that champions emerge in both supportive and unsupportive environments. Findings show that champions in unsupportive environments need to redouble their efforts to gain support for an innovation, which may lead champions to diverge from their main mission or lose energy, initiative, or organizational loyalty. As a result, this finding may suggest that only the most committed of champions are likely to emerge or sustain their role as champions in unsupportive environments. One question that arises from this empirical finding is: what are the contextual factors that affect champions' emergence and, thus, their behaviours? Further, how can these contextual factors be managed to enable champions to emerge and work most effectively, and are these factors generalizable?
- Champions in the current study most valued the recognition of top management for their efforts. This finding may be due to the context of the

study—public hospitals—where policies limit intrinsic rewards. This emergent finding raises the following question: what motivates champions in public healthcare organizations besides feeling valued for their work? Can these drivers or motivation be harnessed in other contexts, either organizational or cultural?

- The study demonstrates that champions were very familiar with the innovation they lauded, the hospital environment, and how they used their connections inside the hospital to support the project and enhance its performance. A significant number of champions identified in the study had previous successes in other healthcare organizations and were hired either permanently or temporarily in the organization for their experience and set of transferrable skills. This empirical finding provides a basis to explore, in depth, whether championship is a set of transferrable skills or whether champions have to be embedded in the organizational environment to achieve success in their mission. In other words, could some champions be ‘parachuted into’ almost any context and achieve desired outcomes?
- The current study has implications for the association between formal leadership and the actions of champions as informal leaders. (Howell and Shea (2006)) differentiated between formal leaders or project managers who are formally assigned to lead projects and champions. The latter group, by their definition, informally emerges within an organization to advocate for an innovation. This study suggests that the opposite is also true: that champions and formal leaders such as project leaders can be the same individual.
- The current study suggests that champions in healthcare organizations may emerge either informally (and thereafter are formally assigned to an implementation role) or are formally assigned to an implementation role based on their track record in leading similar projects to successful implementation. This empirical finding raises the question of the differences in achieving

successful implementation between champions who informally emerged and those who were formally assigned to a role in the innovation.

- The present study revealed how champions work to unlock the team's potential. According to team members, this humanistic concern motivated them to continue working on the project despite challenges. Questions remain about what strategies champions use to unlock the team members' potential and how the champion interacts with the rest of a team's members to enhance performance. If these are generalizable strategies, these could be of great value to organizations' change efforts.
- The empirical findings revealed how champions first begin their mission by identifying with the hospital's environment, understanding the need for change, and preparing the institutional environment for the innovation. This emergent finding suggests that it would be a worthwhile research endeavour to further study how champions lay the ground for their championing work. Specifically, future research could examine how they change old perspectives in the organization's culture long before they begin explicitly advocating for new technology or processes, thereby reducing the risk of implementation failure, perhaps especially around a lack of endorsement and take-up.
- The nature of the projects identified in the current study allowed the identification of Mid-level and Technical Champions. Future research that focused on more strategic healthcare projects may allow the identification of Executive Champions and the investigation of their role(s) and effect on healthcare innovations.
- In the case of the cross-departmental project, team members nominated more than three individuals as the champion of the project. This finding may suggest that it is useful to have local champions when projects run across departmental or other boundaries. Therefore, this empirical finding provides a vehicle for future research opportunities that shed light on the idea of champions who are

local to the community in which championing occurs. The process by which this may be designed could add value to the identification and cultivation of local champions.

- The current study showed that Saudi female champions faced more resistance to what they were advocating compared to male champions due to social and religious norms. As a result, they demonstrated more persistence and professionalism in their advocacy. This finding provides a basis for future studies to explore how female champions advocate for innovations within organizations. One might ask: are there any differences in the behaviours of female and male champions in regard to championing innovations within organizations? More specifically, are there any differences between female champions' behaviours in different contexts?
- All the innovations identified in this study were incremental innovations. The study showed that mid-level and lower level champions were the most influential in implementing these incremental innovations. It would be interesting to see if this finding would differ if the innovations were more radical or system wide. One might assume that executive champions and those holding formal leadership roles would be the most influential in implementing radical innovations. Nevertheless, one of the findings of Kelman's (2005) study on unleashing change in governmental organizations in the United States revealed that the most influential individuals in implementing strategic procurement reform changes were actually those front-line employees respected by their co-workers because people turned to them for advice. Based on the finding of the current study, one might ask: which type of champion is most influential in radical and system wide healthcare innovations?
- Many of the champions in the current study were described as trusted in that project members and co-workers trusted their opinions and respected them. Therefore, they turned to champions for advice when they needed it. This

finding may suggest that the notion of trust is an important element to the process of championing. More specifically, part of the process of the emergence and recognition of champions' contributions is the need for the potential champions to be trusted by their communities in the first place. This argument can be supported by Kelman (2005), whose case study on federal government' s procurement system reform in the United States showed that many of the "change vanguard" group (those who supported the system reform) were respected co-workers, such as opinion leaders, who were trusted and solicited for advice. As a result of that trust, those most respected co-workers provided some sort of behavioural facilitation toward system change resulting on large impact on the successful experience with change (one of the largest in his model). It would be a worthwhile endeavour to investigate in-depth the relationship between the notion of trust and the championing process within organizations.

- In the cross-departmental project, each project member nominated a trusted and respected individual with whom he or she worked closely. This resulted in four different nominations for the project champion. This finding may suggest that first-hand subjective experience and proximity in working with the individuals resulted in their being recognized and respected for their trustworthiness and championing qualities. Therefore, Proximity may contribute to the recognition of champions' trustworthiness, thereby leading to the emergence and identification of champions, especially in cross-departmental or system-wide innovations.

## 8.6 Thesis Conclusion

The research reported here constitutes an exploration of the phenomenon of champions of healthcare innovations. The collected evidence clearly indicates the instrumental role and indispensable effect of champions on the successful implementation of healthcare innovations due to the key behaviours and characteristics they demonstrated throughout the process of the innovation. The study revealed that champions prepare an institutional environment long before introducing the specific idea of a new approach, let alone the actual innovation.

The successful introduction of innovations in healthcare is a challenging and complex process. Being able to identify and select individuals who have champion-like characteristics and behaviours to informally lead healthcare innovations and facilitate their emergence could be a great source of sustainable and practical advantage to healthcare organizations in introducing and speeding up the process of implementing innovations successfully. Champions can be obtained from within the organization and identified by asking project members to name the individual(s) who demonstrated champion-like behaviours. Champions can be formally assigned to an implementation role based on their track record in implementing similar projects, or they may informally emerge by showing interest in an innovation before being charged with its implementation. In the words of one respondent, the champion is:

*“One of the leaders of change [...] The success is because of so many reasons [...] she is one of the success factors.”*  
(C1P2-1)

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## Appendices

### Appendix A: Semi-Structured Interviews Questions

The researcher will ask first the introductory and general questions and based on the answers given, a number of follow-up questions will be asked.

Table A-1: Semi-Structured Interviews - Introductory Questions

Interview Questions
<b>Introductory Questions</b>
<ol style="list-style-type: none"><li>1. name of the innovative project(s) you have participated in</li><li>2. describe the project(s):<ul style="list-style-type: none"><li>• How many people involved in the project?</li><li>• How long did it take [so far]?</li><li>• As a percentage, how far are you along?</li><li>• At what stage is the project in? give a percentage</li></ul></li><li>3. Describe your role in the project.</li><li>4. Describe your role in the organization.</li><li>5. What projects you have previously worked in? What was your role in each? And was it innovative?</li><li>6. How many years of overall experience do you have in working in projects in healthcare?</li><li>7. What is your level of education?</li></ol>

Table A-2: Semi-Structured Interviews - General Questions

Interview Questions
<b>General questions</b>
<p><b>RQ1</b></p> <p>1. <b>M:</b> Who is in your opinion contributed the most to (name of the project)? Why do you think that?  <b>P:</b> Who do you know in your team that you think contributed the most to the project? Why do you think that?</p> <p>2. <b>M:</b> Who proposed the idea for the project to be implemented? And who was the most influential in its acceptance? explain  <b>P:</b> Did the idea of the project come from one of the team members? If yes, elaborate. If no, how do you know?</p> <p>3. <b>M:</b> Who goes above and beyond (over) their responsibilities in order to make sure the project proceeds as planned? Why do you think that?  <b>P:</b> Who in your team goes above and beyond (over) their responsibilities in order to make sure the project proceeds as planned? Why do you think that?</p> <p>4. <b>M:</b> Who usually solves the problems encountered throughout the course of the project? Can you elaborate?  <b>P:</b> Who do you know in your group that usually provides solutions for the problems encountered throughout the course of the project? Elaborate more.</p> <p>5. <b>M/P:</b> Who is the strongest promoter/supporter of the project?</p> <p><b>RQ2</b></p> <p>6. <b>M/P:</b> Can you tell me about (name of identified individual)'s role in the project? Can you list some of his/her contributions?</p> <p>7. <b>M/P:</b> If the person was not part of the project, would the project suffer/encounter problems? In what way?</p> <p>8. <b>M/P:</b> Can you tell me about (name)'s role before the project? What were they doing before they started/joined this project?</p> <p><b>RQ3</b></p> <p>9. <b>M/P:</b> Among the projects that are completed and you know of, how many individuals were there that you consider important (key) to the success of those projects? Why?</p>

Note: M means that the question is targeted to managers & P means that the question is targeted to project members

Table A-3: Semi-Structured Interviews - Follow up Questions - RQ1

Follow-up Questions RQ1
<ol style="list-style-type: none"> <li>1. Does (He/she) try to convince people to like or better understand the new idea? Can you describe how they did that?</li> <li>2. Does (He/she) usually talk about the project? Can you describe an example?</li> <li>3. Does (He/she) talk to top management about it?</li> <li>4. <b>[if the person originally did not come up with the innovative idea]</b> <ol style="list-style-type: none"> <li>a. How did (He/She) react to the idea of the new project? Please explain</li> </ol> </li> <li>5. <b>[if the person originally did come up with the innovative idea]</b> <ol style="list-style-type: none"> <li>b. How did (He/She) present the idea of the new project? Please explain</li> </ol> </li> <li>6. How does (this person) behave in challenging situations that come up during the course of the project?</li> <li>7. Would you say that (he/She) is/was persistent? How so?</li> <li>8. Is (he/she) a kind of person that people trust or turn to? How so?</li> <li>9. Did (he/she) help others do better in their work? Please give an example!</li> <li>10. Would you say that (he/she) took risk(s) in pushing for the new project?</li> <li>11. Would you say that (he/she) took risk(s) to keep the project going? Please explain</li> </ol>
<ol style="list-style-type: none"> <li>12. Was (he/she) confident in the project? How do you know that?</li> <li>13. Was (he/she) overly confident/arrogant about the project? How do you know that?</li> <li>14. How did (he/she) show that the project was worth pursuing?</li> <li>15. What reasons/evidence did (he/she) show that proved/made clear the project was worth pursuing?</li> <li>16. In what way project members trust him/her?</li> <li>17. Do people listen to his/her opinions? Please explain</li> <li>18. Do people listen to what he/she is saying about the project? Please explain</li> <li>19. Were people looking to her/him for advice? Explain?</li> <li>20. When issues came up, did people usually to (him/her)? Give an example</li> <li>21. Were people inspired by his/her talk?</li> <li>22. Does (he/she) usually talk about the (current/future) impact of the project?</li> </ol>
<ol style="list-style-type: none"> <li>23. Was (he/she) effective as part of the project? Elaborate how?</li> <li>24. Is (he/she) experienced in his/her area of work?</li> <li>25. Was (he/she) capable of foreseeing future challenges?</li> </ol>

26. Does (he/she) propose original and/or fresh ideas about new projects?
27. Was (he/she) sure about their ideas for projects and solutions for problems during the project? did their ideas work?
28. Was he/she active and enthusiastic about the project? Explain how?
29. Was he/she show confidence in the team members that they can do and capable of solving any issues? Explain how?
30. Did he/she show optimism about the success of the project and usually provides reasons why the innovative project will be successfully implemented?

Table A-3: Semi-Structured Interviews - Follow up questions - RQ2

Follow-up Questions RQ2
31. <b>M/P</b> What actions and/or practices led to you recognizing their contribution(s)?
32. <b>M/P</b> Are there any certain strategies and techniques he/she does in order to support the project? If yes, what are they?
33. <b>M/P</b> In your opinion, is (his/her) presence increases the chances of approving new projects and/or implementing them successfully?
34. <b>M/P</b> What kind of strategies they use to convince and influence others?
35. <b>M/P</b> Do you consider (him/her) an effective team player? why?
36. <b>M/P</b> When there was a lack of necessary resources for the project, did he/she try to secure or demand the needed resources on behalf of the project? how?
37. <b>M/P</b> In case the project team lack the right individual(s), did he/she help in getting them into the project team?
38. <b>M/P</b> What was the network of that person inside the hospital like? Did he/she use them in helping supporting innovative projects for their department?

Table A-3: Semi-Structured Interviews - Follow up Questions - RQ3

<b>Follow-up Questions RQ3</b>
39. <b>M</b> Would you say that the presence of (him/her) in future projects is necessary to its success? Why?
40. <b>M</b> In your opinion at which stage of the project (he/she) was most needed and effective? why?
41. <b>M</b> If (him/her) was not there, how many projects would fail and not been suggested at all?
42. <b>M</b> What distinguishes (him/her) from other project members?
43. <b>M</b> Among the projects that are completed, what are the practices that this individual made which contributed to the successful implementation of the project?



## Appendix B: Detailed Themes from Semi-Structured Interviews

RQ1-RQ2-RQ3 Behaviours of champions

<b>Label</b>	Proposes creative ideas for projects
<b>Definition</b>	Suggesting creative ideas in terms of new products or services to be implemented that could benefit the hospital- suggesting creative ideas within the project
<b>Indicators/Flags</b>	Any mention of the champion proposing new ideas for new projects including the current project as well as creative suggestions within the project.
<b>Examples</b>	<i>“He constantly has new ideas for projects and new ways in doing things within the current project..”(C1P3-1)</i>
<b>Exclusions</b>	Proposing ideas that are not creative for projects and within projects.
<b>Label</b>	Advocates for the idea of the project within the hospital
<b>Definition</b>	to seek others’ support and collaboration of the innovation in the hospital through convincing them of its benefits
<b>Indicators/Flags</b>	Any mention of the champion talking about the benefits/advantages of the innovative project to others inside the hospital and what it can do to the hospital.
<b>Examples</b>	<i>“[He] used to do several presentations to convince others about the risk project. So, I believe his efforts brought a lot of awareness to the risk management project that we need to protect our staff and we need to protect our patients.” (C1P1-3)</i>

**Label** Influential- use weighty Influence to inspire others

**Definition** Having considerable effect on project members and others by what he says or does which resulted in inspiring others.

**Indicators/Flags** Any word and or statement that indicates the weighty influence of champion's words or actions on others.

**Examples** *"People trust her judgment even in the smallest things and routine everyday situations...She is a quiet person in nature. However, there is something about her that makes people listen to her, her religious side maybe." (C1P4-5)*

**Label** Unlocks others' potential, sees the project member as a whole

**Definition** Identify team's potentials and encourage them where he cares how they are doing on a personal level

**Indicators/Flags** Any mention of the champion's recognizing and encouraging the team members' skills/ or addressing their personal needs

**Examples** *"She takes your hand and takes you to a whole new road and improves you" (C1P2-1)*

**Exclusions** Influential- use weighty influence to inspire others or provide continuous support and intervention

<b>Label</b>	Fully committed to the project
<b>Definition</b>	The one who goes above and beyond what the job required in order for the innovation to be fully adopted in the hospital.
<b>Indicators/Flags</b>	Any word and/or statement that shows the extra efforts by the champion within the project
<b>Examples</b>	<i>“He usually spends extra time to make sure that the project proceeds as planned [...] He was so involved in the project like 60% of his time was given to the project [...] his presence whenever needed, his involvement are what distinguishes him really”(C1P1-3)</i>
<b>Exclusions</b>	Full commitment to their formal roles within the hospital.

<b>Label</b>	Provides continuous support and intervention
<b>Definition</b>	Contentious follow up with project members and others to meet the deadlines and accelerate the implementation process.
<b>Indicators/Flags</b>	Any word or statement that indicates the champion’s consistent follows up with the rest of the team and others.
<b>Examples</b>	<i>“Those key people have the motivation to keep following up with people till the work is done. I guess this is a problem in our society as well.” (C1P4-4)</i>

<b>Label</b>	Use of personal network
<b>Definition</b>	The use of their own personal connections inside the hospital to benefit the project and their departments.
<b>Indicators/Flags</b>	Any mention of the champion use of his personal network inside the hospital to benefit the project in term of resources and problem solving.
<b>Examples</b>	<i>“She has a very strong network inside the hospital. She uses her own network inside the hospital to support our projects. She even let us somehow use our own networks to support the projects we are working on”(C1P2-7)</i>
<b>Exclusions</b>	Excellent communication skills

<b>Label</b>	Confidence in the project outcomes to grow team’s self-belief
<b>Definition</b>	Belief in the positive outcomes and success of the innovation.
<b>Indicators/Flags</b>	Any word or statement that show champions ‘confidence in the project through words or actions-especially through difficult times.
<b>Examples</b>	<i>“What motivated and excited us is that he was confident about the project.” (C1P3-2)</i>
<b>Exclusions</b>	Proud of the project and the achievements

<b>Label</b>	Secures financial and human resources
<b>Definition</b>	Demanding and/ or providing budget and individuals for the sake of the project continuity.
<b>Indicators/Flags</b>	Any word and or statement that indicates the champion demanding or providing financial resources or individuals to be part of the project team so the project proceeds as planned
<b>Examples</b>	<i>“uses every possible resource and all the possible ways to benefit the project”(C1P2-1)</i>
<b>Exclusions</b>	Decisive use of authority

<b>Label</b>	Understands and overcomes resistance to change
<b>Definition</b>	All the efforts done by the champion to spot and minimize resistance to the innovative project within the hospital through transparent communication, public praise and other means.
<b>Indicators/Flags</b>	Any word and/or statement that indicate champion’s efforts to minimize the resistance to the innovative project.
<b>Examples</b>	<i>“When it comes to projects and end users resistance, she has the expertise and knowledge to deal with that by compromising to reach a middle ground, a solution that all parties agree upon” (C1P2 -2)</i>
<b>Exclusions</b>	Promote/advocate for the innovation.

<b>Label</b>	Critical input in the initiation phase
<b>Definition</b>	The champion Contributes significantly in the project during the initiation phase
<b>Indicators/Flags</b>	Any mention by project members of the champion's efforts in the initiation stage which they consider significant
<b>Examples</b>	<i>"He prepared the idea itself; he prepared the drop list, and all the necessary papers for the project. He coordinated with all the key persons and provided us with all the right tools to start the implementation. His role didn't finish there; he continues to work with us, and he is the team leader." (C4P2-2)</i>
<b>Exclusions</b>	Contributions throughout the course of the project: middle of implementation or at the end
<b>Label</b>	Changes old perspectives in the culture to accept change
<b>Definition</b>	All efforts by the champion to increase the awareness of the new concept behind the innovation to be introduced within the hospital to prepare for a steady acceptance of specific innovation.
<b>Indicators/Flags</b>	Any mention of the champion's efforts to lead the concept they advocate for to its true meaning
<b>Examples</b>	<i>"She started the real change so people can understand the right concept of health informatics rather than the previous wrong perception of it in the culture" (C1P2-1)</i>
<b>Exclusions</b>	Overcome resistance to the project or advocate for the specific project within the hospital

<b>Label</b>	Recognizes the need for the innovation and visualizes its potential
<b>Definition</b>	Recognize the importance of the innovation to be implemented in the hospital to address existing need and/or increase the quality of services.
<b>Indicators/Flags</b>	Any mention of the champion expressing the need for the innovation and act upon that.
<b>Examples</b>	<i>“The medical records problem was like a nightmare for the hospital [...]From there, she started to think about some kind of digital scanning and other similar ideas”(C1P2-1)</i>
<b>Exclusions</b>	Propose creative ideas for projects

<b>Label</b>	Confidence in the project team
<b>Definition</b>	Confidence in project members that they are capable of performing their tasks without interference.
<b>Indicators/Flags</b>	Any word and/or statement that indicate the champion expressing confidence in project members and their capabilities
<b>Examples</b>	<i>“I managed to trust in their expertise. I know they can do it alone and never go back and ask them how did they do it because they know how to do it and when to do it. They are experts, and they are champions in that [...] They were the best extension of the quality department to communicate, to take feedback, and to identify different gaps [...] handling the whole project by themselves without coming back for support at each and every step. They are independent.” (C3P2-7)</i>
<b>Exclusions</b>	Confidence in the project outcomes

**Label** Decisive use of authority

**Definition** The champion's use of his positional authority within the organization for the benefit/sake of the successful implementation of the innovation.

**Indicators/Flags** Any mention of the champion exercising his/her authority for the benefit of the innovative project.

**Examples**

**Exclusions** Influential- use weighty Influence to inspire others.

**Label** Actions speak louder than words

**Definition** Prove themselves more through actions rather than words.

**Indicators/Flags** Any word and/or statement that indicate the champions letting their actions and noticeable efforts speak for them instead of words.

**Examples** *"She is really like the wind, it is light and you cannot see it, but you feel it!! She is spontaneous and when you see her act the way she acts, it gives you a drive to be creative. Unlike other physicians or people, when you ask them to join in any project, they would set their own rules and demand certain things before they even start working with us" (C1P4-2)*

**Label** Forceful in defending the project

**Definition** The champion as being aggressive in defending the project especially when they face opposition for what they are promoting.

**Indicators/Flags** Any word and/or statement that indicate the champions are aggressive in defending the innovation or when face opposition.

**Exclusions** Strongest supporter of the innovation

## RQ1, RQ2, RQ3 Theme: Characteristics of champions

<b>Label</b>	Problem Solver
<b>Definition</b>	The champion as the one who solves problems encountered throughout the course of the innovation and other projects they are not part of.
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champion as the problem solver and their behaviour during difficult times
<b>Examples</b>	<i>“We faced problems in the outpatient clinics, but with his wisdom, good managerial skills, and good communication skills, we overcome it” (C1P3-1)</i>

<b>Label</b>	Experienced, competent, and knowledgeable
<b>Definition</b>	Skilful in a particular field through previous experience and knowledge.
<b>Indicators/Flags</b>	Any mention of how experienced and knowledgeable the champion in their fields which is considered important to the project initiation and or implementation in the hospital.
<b>Examples</b>	<i>“Very experienced indeed, if I sit with her for only 10 min and I say 10 min, I can say that it is worth the training of a month. She is a very experienced person!” (C1P2-5)</i>
<b>Exclusions</b>	Familiarity with the innovation, hospital system, and the innovative environment

<b>Label</b>	Successful strong manager
<b>Definition</b>	The champion perceived as a successful manager of their teams and departments.
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champions as effective manager of their team and their departments.
<b>Examples</b>	<i>“Every team reached the success with her management and I cannot really remember any project we had with her that failed (C1P2-2)”</i>
<b>Exclusions</b>	Unlock others’ potential, sees the project as a whole

<b>Label</b>	Excellent Communication Skills
<b>Definition</b>	The champion being easily reached and having excellent communication skills with team members and others where he knows how to deal with people coming from different cultures and having different personalities which perceived as important for faster implementation
<b>Indicators/Flags</b>	Any mention of the champion being capable of communicating effectively with others and easily reached when needed.
<b>Examples</b>	<i>“He knows how to deal with people with different personalities, backgrounds, and professions.” (C4P2-1)</i>
<b>Exclusions</b>	Use of personal network to benefit the project

<b>Label</b>	Well-known in workplace for informal contributions over formal status
<b>Definition</b>	The champion being recognized more for his informal contributions in projects in the workplace over their formal roles within the hospital.
<b>Indicators/Flags</b>	Any mention of the champion's informal contributions that they have been recognized by.
<b>Examples</b>	<i>"We consider her the designer for the cancer centre that whenever we needed a design or logo for any project she provided us with one.. Despite being a busy physician who is always on call [...] whenever you see here a successful implementation of any project, you will find out that she participated in it... She leaves her own finger print in every project she touches, A personal touch, her own fingerprint" (C1P4-2)</i>
<b>Exclusions</b>	Formal contributions in their formal roles in the hospital.

<b>Label</b>	Enthusiastic and active
<b>Definition</b>	The champion being described as energetic and enthusiastic during innovation implementation and in their everyday jobs.
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champion as active and enthusiastic about the innovation and/or work.
<b>Examples</b>	<i>"She is active, enthusiastic, which get the team excited about work to the point they start enjoying it" (C1P2-3)</i>
<b>Exclusions</b>	Optimistic

<b>Label</b>	Strongest supporter of the innovation
<b>Definition</b>	The champion being described as the strongest promoter/supporter of the project to be successfully implemented in the hospital by providing all kinds of assistance and support-tangible or non-tangible.
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champion as the biggest supporter of the project due to particular reasons.
<b>Examples</b>	<i>“He is the strongest promoter of risk management to be honest[...]he is the one who make sure that the hospital and the risk team succeed in its mission” (C1P1-3)</i>

<b>Label</b>	Persistence in moving the project forward
<b>Definition</b>	The champion as being unstoppable when faced with obstacles but rather persistent in moving the innovation forward.
<b>Indicators/Flags</b>	Any word and/or statement that indicate the champion being persistent in moving forward and not giving up during difficult situations that come up during the course of the innovation.
<b>Examples</b>	<i>“This is because in any project, you would find and face problems and issues, and if you don’t have a smart person who is capable of solving these obstacles and not stopping during difficult times, the project wouldn’t succeed.”(C1P2-2)</i>
<b>Exclusions</b>	Problem solver

<b>Label</b>	Effective team Player
<b>Definition</b>	Champion as effective as part of the team, working sincerely on the name of the team in order to achieve the goal of implementing the innovation successfully, not looking for personal attention or credit
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champion as effective team player
<b>Examples</b>	<i>“She is effective as part of the team and works on the name of the team not looking for personal attention or credit”(C1P4-2)</i>
<b>Exclusions</b>	Dedication to knowledge sharing within the team and/or selflessness-hospital recognition over personal recognition.

<b>Label</b>	Willing to accept the responsibility of the innovation
<b>Definition</b>	The champion willingness to accept challenges such as voluntarily accepting the responsibility of implementing the current innovative project or other innovative projects in the hospital where they are the ones who will take the blame if anything goes wrong.
<b>Indicators/Flags</b>	Any word or/and statement that indicates the champion willingly accept challenges and work responsibilities such as implementing the innovation.
<b>Examples</b>	<i>“Her presence increases the chances of implementing projects successfully in our department as well as voluntarily taking the responsibility of implementing them in the first place, take this project for instance!” (C1P2-7)</i>

<b>Label</b>	Hardworking symbol
<b>Definition</b>	Champion as hard working individuals during project implementation and/or in their departments which resulted in big achievements in short time
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champion working hard
<b>Examples</b>	<i>“Her contributions are countless; you cannot really keep a track on them. Since she came and in a very short period of time, everything is almost electronic: coding, files, call centre. She is an icon representative of a hardworking Saudi woman” (C1P2-2)</i>
<b>Exclusions</b>	Persistence in moving the project forward

<b>Label</b>	Strategic alignment-big picture thinker
<b>Definition</b>	Champion as being big picture thinker during implementation and in term of the innovation itself as a mean to bigger things aligning it with bigger goals.
<b>Indicators/Flags</b>	Any word and/ or statement that indicates the champion as being strategic thinkers.
<b>Examples</b>	<i>“She considered the project a way to facilitate the road to our goal, while other hospitals considered having electronic chart viewer a goal in itself and once reached, so they would considered themselves successful at this point! That’s the difference.” (C1P2-1)</i>
<b>Exclusions</b>	Planner

<b>Label</b>	Initiator
<b>Definition</b>	Champion are described as initiators (in general) when it comes to proposing ideas, seeking help from others, and starting the real work of the project.
<b>Indicators/Flags</b>	Any word and /or statement that indicates champions as initiators
<b>Examples</b>	<i>“He is the one who initiated the real work, the project itself.” (C1P1-2)</i>
<b>Label</b>	Familiarity with the innovation, hospital system, and the innovative environment
<b>Definition</b>	Champions being familiar if not, most familiar with the innovative project, hospital’s system, and the nature of implementing new projects in healthcare in general.
<b>Indicators/Flags</b>	Any word or statement that indicates champions’ familiarity with the innovation, innovative environment and hospital system due to previous experiences in implementing innovative projects
<b>Examples</b>	<i>“[Champion 2] knows the infrastructure of the application, so if you have a foreign guy he would sit and study and it would take him time to understand it. Therefore, the project would take a longer time to be implemented and may even stop at one point because it needed a guy who is fully familiar with the infrastructure and the application itself.” (C2P1-3)</i>
<b>Exclusions</b>	Experienced, competent, and knowledgeable.

**Label** Knowledge sharing within project and hospital

**Definition** Champions are described as dedicated to knowledge sharing on the level of the project and/or their departments and hospital which helped innovation implementation.

**Indicators/Flags** Any word and/or statement that indicates champions dedication to knowledge sharing

**Examples** *“She never been selfish when it comes to giving us from her time, knowledge, and advice “(C1P2-2)*

**Exclusions** Effective team player

**Label** Strong personality- strong mind-set in decision making

**Definition** Champions are perceived as having strong mind-set especially when it comes to decision making.

**Indicators/Flags** Any word and/or statement that indicates the champion as having strong personality and mind-set in decision making and others.

**Examples** *“She has the right mind set and power. The power and art of decision making and only few who has this in healthcare [..] I have been working with her for 4 years now and I call her the iron woman” (C1P2-1)*

**Exclusions** Planner

**Label** Selflessness-hospital recognition over personal recognition

**Definition** Champions are described as selfless in term of not looking for personal recognition for what they do rather than hospital recognition and serving patients.

**Indicators/Flags** Any word and/or statement that indicates how champion care more about achieving big results serving patients rather than personal gains or credit.

**Examples** *“She really cares about what benefited the department in a way that is more than caring about her position as the director or any personal gains, the interest of the department over anything else” (C1P2-3)*

**Exclusions** Effective team player

<b>Label</b>	Risk-taking propensity
<b>Definition</b>	The tendency of the champions to engage in actions that may affect them negatively or risk their positions within the hospital, yet may provide positive outcomes.
<b>Indicators/Flags</b>	Any mention of the champion taking risky decisions to benefit the innovation that may or may not succeed in the initiation and or implementation of the innovation
<b>Examples</b>	<i>“I think it is part of becoming successful is to take risks, you don’t know if you are going to achieve this unless you take risks. Risks in a matter of achievable and possible, she will not take risks that are not achievable or possible” (C1P2-8)</i>
<b>Exclusions</b>	Strong personality and strong mind-set in decision making

<b>Label</b>	Up-to-date knowledge of the industry
<b>Definition</b>	Champions are perceived as acquiring up to date knowledge of healthcare industry and healthcare innovations.
<b>Indicators/Flags</b>	Any word and/or statement that indicates their up to date knowledge of the health industry and new opportunities in the health industry.
<b>Examples</b>	<i>“She can keep herself up to date when it comes to new things in healthcare sector[...] She has also the knowledge that enabled her to see what is up to date and the latest when it comes to innovations and new health projects. Thinking of the hospital and the needs of physicians..(C1P2-2)”</i>
<b>Exclusions</b>	Familiarity with the innovation, hospital system and the innovative environment

**Label** Planner

**Definition** Champions are perceived and/or observed as good planners in the innovation and/or in workplace, know how to plan effectively what they want to achieve in the future.

**Indicators/Flags** Any word and/or statement that indicates the champion as a planner

**Examples** *“Planning, planning, planning [that is her strategy]” (C1P4-4)*

**Exclusions** Strategic alignment-big picture thinker-

**Label** Proud of the project and the achievements

**Definition** The Champion showing pride in the innovation and the achievements and share that with others during and/or after the implementation process.

**Indicators/Flags** Any word and/or statement that indicate how champions are proud of the innovation and what have been achieved.

**Examples** *“You can ask me about the results, I’m proud of the results” (C1P1-1)*

**Exclusions** Confidence in the project outcomes

**Label** Very Professional

**Definition** Champion is Characterized by business-like manners in the workplace to get the job done.

**Indicators/Flags** Any word and or statement that indicates the professional attitude champion has toward their roles within the project or in the hospital.

**Examples** *“She is very professional and never takes any matter personally, direct and to the point”(C1P2-1)*

**Exclusions** Hardworking symbol

<b>Label</b>	Believes in self-confident in what he or she does
<b>Definition</b>	The Champion believes in himself or herself, his or her capabilities, and what he or she has to offer
<b>Indicators/Flags</b>	Any word and/or statement that indicates the champion's confidence and belief in himself/herself and what he has to offer.
<b>Examples</b>	<i>"She is a planner and a believer, a believer in health informatics, that is important!"(C1P2-1)</i>
<b>Exclusions</b>	Confidence in project members

<b>Label</b>	Successful-which creates supporters and antagonists
<b>Definition</b>	Champion being characterized as successful in their formal jobs and more specifically in implementing innovative projects which create supporters and non-supporters of them.
<b>Indicators/Flags</b>	Any word and/or statement that indicate the champion as being successful in what they do and people's attitude toward it.
<b>Examples</b>	<i>"With her success, she faces like 9 people who are supportive of her and like one person who resist whatever she is calling for" (C1P2-2)</i>

<b>Label</b>	Respected by others
<b>Definition</b>	Champions are characterized as respected by their peers in workplace, having high regard for their words and actions.
<b>Indicators/Flags</b>	Any word and/or statement that indicates the respect others have for champions.
<b>Examples</b>	<i>"Everyone respect him and his words!" (C1P1-2)</i>
<b>Exclusion</b>	Influential-use weighty Influence to inspire others

<b>Label</b>	Optimistic
<b>Definition</b>	Champions are characterized as having a positive thinking where they expect the best outcomes throughout the project course.
<b>Indicators/Flags</b>	Any word and or statement that indicates the champion as optimistic.
<b>Examples</b>	<i>"I'm also optimistic about the project" (C3P1-4)</i>
<b>Exclusion</b>	Active and enthusiastic

## Appendix C: Data analysis using Nvivo

The screenshot shows the Nvivo software interface with a table of data for 'Case A'. The table has columns for Name, Sources, Referenc, Created, Created, Modified, and Modified. The 'NKBE' node is selected and highlighted in blue.

Name	Sources	Referenc	Created	Created	Modified	Modified
BE	24	446	15/10/20	R.A.	26/03/20	R.A.
KBE	0	0	15/10/20	R.A.	15/10/20	R.A.
<b>NKBE</b>	<b>24</b>	<b>446</b>	<b>15/10/20</b>	<b>R.A.</b>	<b>26/03/20</b>	<b>R.A.</b>
+ - Percieved as the one who contributed the most to the project	23	29	16/10/20	R.A.	26/03/20	R.A.
Actions speaks louder than words	2	3	26/11/20	R.A.	26/03/20	R.A.
Confedience in the Project outcomes to growing team self-belief	11	14	16/10/20	R.A.	26/03/20	R.A.
Confedience in the project team without interference	7	8	17/08/20	R.A.	26/03/20	R.A.
Critical input in the initiation phase	7	13	17/10/20	R.A.	26/03/20	R.A.
Decisively use the authority to enable project implementation	9	13	17/08/20	R.A.	26/03/20	R.A.
Emotional Intelligence to unlock others' potentials-sees a whole	17	56	17/10/20	R.A.	26/03/20	R.A.
Forceful - to defend the innovative project against attack or canc	1	3	16/10/20	R.A.	26/03/20	R.A.
Fully involved-committed in the project to get the project fully ad	17	43	16/10/20	R.A.	26/03/20	R.A.
Influential- use weighty influence - to inspire project members	19	50	16/10/20	R.A.	26/03/20	R.A.
Open to opportunity- Known as the one who Proposes new-Cre	20	63	16/10/20	R.A.	26/03/20	R.A.
Promoting-advocating for the idea of the project within the hospit	15	50	16/10/20	R.A.	26/03/20	R.A.
Provides contineous support and intervention - to meet or excee	15	24	07/11/20	R.A.	26/03/20	R.A.
Recognize the need for the innovation and Visualize the potential	7	20	02/08/20	R.A.	26/03/20	R.A.
Secures financial and human resources - to guarantee project c	11	15	16/10/20	R.A.	26/03/20	R.A.
Understands and overcomes barriers to implementation - to ove	5	14	07/11/20	R.A.	26/03/20	R.A.
Uses personal Networking to enable project delivery	12	19	16/10/20	R.A.	26/03/20	R.A.
Work toward changing old perspectives in the culture to accept	2	9	18/10/20	R.A.	26/03/20	R.A.
CH	24	384	15/10/20	R.A.	26/03/20	R.A.
GeneralL	20	67	06/10/20	R.A.	26/03/20	R.A.
ROLE IMPO EFCT	16	34	15/10/20	R.A.	26/03/20	R.A.

Figure C-1: Screenshot of Nvivo software used for data analysis of the case studies



**Appendix D: A Sample of Manual Coding of Observational Notes**

RM project	<u>Initial Coding</u>	<u>Focused Coding</u> Confirming interview data
<u>Observation</u>		
expressing how he is confident that (A) is going to solve the issue with IT	Confident in the team	Confidence in project team (leadership context)
Casually asks (B) how he is doing when it comes to her preparations for RM test and if she needs any help to return to him	Cares about how project members are doing on a personal level	Unlock others' potential, sees the project member as a whole, not simply as a member of inno team (leadership context)

Figure D-1: Screenshot of manual coding of observations used for data analysis of the case studies

