University of Southampton

Faculty of Social Science

Southampton Business School

Reputational risk management in the social media age: an evaluation of reputation management in the service industry of an emerging economy

by

Maryam Hussain M Alyahya

Thesis for the degree of PhD in business studies and management

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Abstract

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Drawing upon the existing literature on reputation and social media (SM) risk management, this research investigates reputational risk management in the age of SM by conducting three different empirical studies. The first study investigates how customers' comments on Twitter impact service firms' social media reputation (SMR). While the first study explores the reputational risk on Twitter based on customers' comments, the second study is focused on SM risk management with an emphasis on reputational risk from the firms' perspectives. Lastly, the third research ascertains the antecedents and consequences of corporate reputation (CR). The insurance industry in Saudi Arabia is chosen as a sample for all the studies.

The findings show that customer comments on Twitter do not significantly impact firms' SMR. In addition, the findings reveal that the firms' SM risk management strategies can be divided into two groups: proactive and reactive. Proactive firms have a clear vision toward SM risk, resulting in organizing comprehensive SM governance, the employment of effective SM strategies, and investment in technology. In contrast, reactive firms tend to only manage risks that have already surfaced and then follow the central bank regulations to meet compliance requirements. Moreover, these two groups differ in terms of addressing digital complaints received from customers. Proactive firms have a precise mechanism for digital complaints management, such as utilising technology to increase the quality of how complaints are handled. However, reactive firms lack this mechanism, resulting in the loss of customers, market share, and missed opportunities. Moreover, SM radar is developed based on the study findings, where it is found that proactive firms apply it unconsciously. It is a mechanism used by some firms where they employ digital tools/strategies to seize opportunities and detect threats in the early stages before they escalate into a crisis. Finally, the findings show that chatbot effectiveness positively and significantly impacts customer satisfaction (CS). In addition, both CS and trust influence CR, with the latter having a positive and strong effect on purchase decisions (PDs). Concerning the moderating effects, while customer loyalty (CL) is found to have a positive and significant moderation effect on the relationship between CR and PDs, word of mouth (WOM) negatively and significantly moderates the relationship.

The thesis offers several contributions to the theoretical landscape of reputational risk management in the SM age. Specifically, it identifies that customers' Twitter comments do not significantly impact the firm's SMR. Moreover, it confirms previous work that there is a relationship between the sentiment of customers' comments on SM and the communication strategies that firms employ to respond to customers. Moreover, since the findings show that firms are divided into two groups in managing SM risk (proactive and reactive), this provides insights that can help firms manage SM risk by developing the SM radar concept. The thesis also combines fresh insights that emerged during the analysis stage to develop two conceptual models: SM risk management and digital complaints management. In addition, the results revealed a significant and positive relationship between CS and CR. Lastly, the findings offer several practical implications for service industry firms in general, insurance firms, and regulators in Saudi Arabia in particular, in the age of SM. This includes the development of a comprehensive framework for reputational risk management that considers technologies such as Chatbots.

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Research Thesis: Declaration of Authorship

Print name: Maryam Hussain M Alyahya

Title of thesis: Reputational Risk Management in The Social Media Age: An Evaluation of Reputation Management in the Service Industry of an Emerging Economy

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. 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;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. 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;
5. I have acknowledged all main sources of help;
6. 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;
7. None of this work has been published before submission. However, I have participated in some conferences as follows:
    - I participated at BAM 2023 conference with the first research paper titled ‘The impact of customers’ comments in Twitter on service firms’ reputation’.
    - I applied at BAM 2024 conference with the second research paper titled ‘Social media risk management by Saudi Arabian insurance firms’. (accepted).

Signature: Maryam Alyahya Date:23/07/2024

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Maryam Alyahya

Definitions and Abbreviations

AI.....Artificial intelligence

AT .....Agency Theory

B to B .....Business to business

B to C .....Business to customers

CB .....Covariance-Based

CHI .....Council of Health Insurance

CL.....Customer loyalty

COSO .....Committee of Sponsoring Organizations

CR .....Corporate reputation

CS .....Customer satisfaction

ECT.....Expectations Confirmation Theory

ERM .....Enterprise risk management

eWOM.....Electronic word of mouth

IA.....Insurance Authority

KPIs .....Key performance indicators

WOM.....Word of mouth

PD .....Purchase decisions

PLS .....Partial Least Square

SAMA[1] .....Saudi Central Bank

SEM .....Structure Equation Modelling

SMR .....Social media reputation

ST .....Signalling Theory

SM .....Social media

[1] The Saudi Central Bank was previously known as “The Saudi Arabian Monetary Agency” (SAMA). In this thesis, the abbreviation SAMA is used to refer to the Saudi Central Bank.

Chapter 1 Introduction

1.1 Research background

1.1.1 Corporate reputation in the service industry

Scholars have proposed several definitions of corporate reputation (CR) (Fombrun, 2008; Helm, 2011; Clardy, 2012). The present study follows Fombrun's conceptualization, who defined CR as "*the collective representation of a company's past actions and future prospects that describes how key resource providers interpret a company's initiatives and assess its ability to deliver valued outcomes*" (2008, p. 9). Therefore, CR is primarily based on stakeholders' expectations about a firm's capacity to fulfil and satisfy the stakeholders' interests. Reputational risk can be raised by the gap between what stakeholders expect and how firms behave (Eccles, Newquist and Schatz, 2007; Power *et al.*, 2009).

Reputation has become an intangible asset that can be an essential driver of competitive advantage for firms (Airmic, RepTrak and RIMS, 2020). Therefore, having a good reputation is seen as a competitive advantage (Roberts & Dowling, 2002). In comparison to tangible assets, what makes reputation even more important is that a firm's value is determined considerably by its intangible assets, including goodwill, patents, brand recognition, and CR. This is confirmed in research by Ocean Tomo (2015), as intangible assets accounted for almost 80 % of the total value of firms listed on the S&P 500. Therefore, factors like CR, brand perceptions, and intangible assets are all influenced by how much a firm is valued financially. According to Airmic, RepTrak and RIMS (2020), recent and upcoming modifications to international accounting standards and securities disclosure will further increase public understanding of the value and significance of these factors. Currently, since there is an increase in market uncertainty and volatility, firms that effectively manage all the above factors offer a greater probability of stability. This makes intangible asset risk management critical.

Although most of the literature on CR is focused on stakeholders in general, the present research focuses on customers, who are one type of stakeholders (customers). Hence, it is necessary to clarify the term "stakeholders". Freeman and David introduced it as "*any identifiable group or individual on which the organisation depends for its continued survival. (Employees, customer segments, certain suppliers, key government agencies, shareowners, certain financial institutions, as well as others are all stakeholders in the narrow sense of the term)*" (1983, p. 91).

I also have noted in the literature that some studies define the term trust the same as reputation, and sometimes use trust in the context of reputation without offering any clarification if there is a difference or relationship between the two terms. However, in a study conducted by Adler (2001), the author argues that there is a difference between these two concepts, as trust has multiple dimensions to be built, and reputation is one of them. Adler's study does not elaborate on the potential correlation between trust and reputation. Moreover, Dasgupta (2000) indicated that reputational enhancement leads to increased trust. The author explains that "*trust is based on reputation and that reputation has ultimately to be acquired through behaviour over time in well-understood circumstances*" (2010, p. 54). Therefore, although there is an overlap between trust and reputation, they have different meanings. Trust can be built through the availability of information and other parties' intentions, which can be partially built through CR.

In the case of the insurance industry, trust and uncertainty play a crucial role in whether the customers will buy the insurance contracts since customers buy promises, and the insurers' future capacity or willingness to fulfil those promises cannot be tested (Alchian and Woodward, 1988). Insurance firms sell conditional promises to pay a specific amount of money in the future. Thus, the customer must trust that the insurers will be able to meet their financial obligations in the future. Trust can become a competitive advantage once insurance firms have built a positive reputation (Zboron, 2006). According to Schanz (2006), trust capital is being built and accumulated through insurance firms' performance in meeting or exceeding their stakeholders' expectations. Moreover, the study states that insurance firms tend to be more volatile than other types of businesses. Managing reputational risk is important in the insurance industry, whose business often depends on trust. Indeed, empirical data shows that gaining (losing) trust is associated with increased (decreased) revenues and reputations (Schanz, 2006; Heidinger and Gatzert, 2018).

1.1.2 Reputational risk management and the challenges of social media

Managing reputational risk tends to be complex, and it is considered a 'risk of risks' (Eccles, Newquist and Schatz, 2007; Heidinger and Gatzert, 2018). In other words, there are many types of risks (financial and non-financial risks) that can contribute to reputational damage. In addition, the widespread use of SM has increased the importance of reputation risk management. With information spreading rapidly through SM platforms, stakeholders, including customers, can share unfiltered news instantaneously and potentially threaten CR (Heidinger and Gatzert, 2018). Furthermore, it is important to consider that SM effects could go beyond the stakeholders themselves: ''*The mass media may not be successful much of the time in telling people what to think, but the media are stunningly successful in telling their audience what to think about*" (Cohen, 2015, p. 13). This could be applied to modern SM. Floreddu and Cabiddu (2016) argued

that CR tends to be influenced not only by firms' messages and actions through SM but also by how audiences, including customers, perceive them. By focusing on certain issues in SM, audiences may tend to think that these issues are more important than others.

In terms of building and protecting reputations, SM tends to shift power from firms to their external stakeholders, including customers (Bunting and Lipski, 2001). Therefore, firms seem less dominant in the current online environment than before, and their reputations are shaped more by other opinions (external stakeholders) than by firms' actions and posts (Bunting and Lipski, 2001; Rokka, Karlsson and Tienari, 2014). Therefore, pertinent to SM, one important observation is that customers are no longer hesitant to express their opinions online. They actively voice their thoughts and experiences through comments on various SM platforms (Jansen *et al.*, 2009) and by posting product or service reviews (Dellarocas, 2010).

1.1.3 Reputational and social media risk management

Most studies in the field of reputation have focused on its definitions, dimensions and measurements (Rindova *et al.*, 2005; Barnett, Jermier and Lafferty, 2006; Walker, 2010; Clardy, 2012) and how it affects financial performance (Roberts and Dowling, 2002; Gatzert, 2015; Eckert and Gatzert, 2017; Barakat *et al.*, 2019). In addition, a stream in the literature has carried out research on reputational risk management (Perry and de Fontnouvelle, 2005; Schanz, 2006; Stewart, 2006; Eccles, Newquist and Schatz, 2007; Xifra and Ordeix, 2009; Sturm, 2013; Heidinger and Gatzert, 2018). However, most papers have focused on a reactive approach to managing reputation, which deals with reputation repair after crises (Perry and de Fontnouvelle, 2005; Xifra and Ordeix, 2009; Sturm, 2013). By contrast, empirical studies concerning a proactive approach in reputational risk management are scarce (Dowling, 2006; Eccles et al., 2007; Heidinger and Gatzert, 2018). Moreover, although there are many studies in the literature on CR, most are restricted to multiple stakeholder groups, and research focused on a particular set of stakeholders, like customers, is less common (Nguyen and Leblanc, 2001; Walsh and Beatty, 2007; Walsh *et al.*, 2009; Osakwe *et al.*, 2020). It is stated that different groups of stakeholders might hold different perceptions toward one firm, which are constituted based on their expectations and backgrounds (Fombrun and V. Rindova, 1996). Hence, one firm may have multiple reputations according to the perception of its stakeholders' groups (Wartick, 2002). In the present study, customers were chosen, since they are associated with increased reputational risk (Deloitte, 2014). Nevertheless, although this aspect is often overlooked, customers are among the most crucial stakeholders since they are a direct source of revenue.

In addition, SM has recently gained attention for its utilisation in various management contexts, such as project management (Ram and Titarenko, 2022), customer knowledge management

(Chen et al., 2022), process management (Prodanova and Van Looy, 2019) and crisis management (Eismann, Posegga and Fischbach, 2021). For example, Eismann et al. (2021) in a systematic review of 128 papers developed a framework for organisational learning in crisis management. In doing so, the study identifies and categorises SM affordances in crisis management, including the effects of transparency, interactivity, responsiveness, the empowerment of non-organizational users, and participation. However, although SM crisis management would help firms and researchers gain a deeper understanding of firms' capabilities, willingness, and preparation for the crisis, this study focuses only on crisis responses (reactive approach). Therefore, empirical research to proactively manage SM risk, including reputation, is needed.

In terms of reputation management in the SM, a study was conducted by Szwajca, (2017) to assess the scope and the way firms operating in the Polish market utilise SM for reputation management. The findings revealed that Polish firms are aware of the potential of SM and endeavour to incorporate them into their marketing strategies. However, the prevailing approach views SM merely as another promotional tool primarily utilised by the marketing and public relations departments. It can be argued that characterising SM solely as a communication channel lacks an integrative perspective and hinders the effective building and protection of firms' reputations in the online environment.

Cwiak's (2014) study stresses the importance of CR as the most crucial asset that firms have; it is shaped by the perceptions of diverse audiences with whom the firms interact, both directly and indirectly. These perceptions have the power to either enhance or diminish the reputation. Recognising the pivotal role played by these audiences, the author suggests that firms should be actively incorporated into a reputation management strategy. The study introduces the 360-analysis model, which evaluates the benefits, detriments, and potential fallout associated with different audiences when formulating policies or making significant organisational decisions. The audiences analysed for this model were organisations, stakeholders (e.g., customers), the public, and the government. The primary aim of the model is to encourage well-informed policies and decisions that actively protect the CR. Although Cwiak's (2014) study considered several parties in the analysis who might have an impact on CR not only the customers, identifying the benefits, detriments, and fallouts in advance for these parties highlights the importance of proactive reputation management.

The power of SM and customers' comments has been considered in the marketing literature (Hu and Olivieri, 2021; Chen, Harncharnchai and Saeheaw, 2022). For instance, Chen et al. (2022) propose a framework for SM marketing strategy for Small and Medium Enterprises (SMEs) using customer knowledge management. The study involves capturing information about customers'

feedback through text mining, and then highlighting the concerned issues. After that, these issues were used to design the questionnaire. The questionnaire aimed to identify the customer's requirements and extract insights from them. Lastly, a componential analysis was conducted in the literature based on the customer's requirements. This process reveals crucial requirements, termed "knowledge for customers," which are then utilised in crafting the SM marketing strategy framework. The framework consists of five fundamental components applicable to SMEs engaging in SM marketing: context, channel, content, communication, and continuity. Despite that, Chen et al. (2022) study was conducted from a marketing perspective; these components might also be applicable and important in reputation management in the age of SM. For example, the context component for insurance firms may refer to their objectives as an entity and their objectives from SM platforms, customers, regulations, and competitors. In addition, for the channel component, insurance firms should properly choose the right platform to communicate with their customers. The content component highlights the importance of paying great attention to what firms post and monitoring what is being shared about the firms on SM platforms. Moreover, the communication component emphasises the importance of interactivity and dialogue between firms and customers. Finally, it is deduced from the continuity component that insurance firms should be sustainable in many aspects that might impact CS and CR, including the quality of services provided and communication.

In addition, Hu and Olivieri's (2021) the study revealed that hospitality firms incorporate SM into their marketing strategies as a key point of interaction throughout all stages of the customer journey. The study also states that SM serves as a valuable platform for starting conversations with both potential and existing customers. Furthermore, in the realm of hospitality, the findings show that SM provides several benefits, such as increasing brand awareness and brand consideration and fostering deeper consumer engagement. Additionally, the study emphasises the importance of SM as a trigger for customers to share their experiences from their perspectives. Indeed, with the presence of SM, it might be easier for customers to share their experiences at any time, and such experiences might be spread to a considerable number of users within minutes. Since the importance of customer experiences being shared in the SM was proved in Hu and Olivieri's (2021) study in a marketing context, it might also be applicable in the CR context. Sharing experiences by customers might be beneficial for the firms if the customer has a good experience, while firms might suffer reputational damage according to a customer's negative experience.

However, firms tend to be overwhelmed with the task of understanding the impact of the substantial number of opinions continually expressed by their stakeholders on SM regarding intangible elements such as experiences, emotions, and attitudes (Casado-Molina *et al.*, 2020). Therefore, Casado-Molina *et al.*, (2020) study introduces an inventive management model based

on big data and intelligent techniques for evaluating and analysing intangible aspects of reputation within digital ecosystems and examining how they influence tangible assets. The model considers the interrelationships among stakeholders' experiences, attitudes and emotions, and their impact on corporate business. The study sample is the banking industry, and a total of 402,383 data inputs were received from the digital ecosystems. The findings show a significant impact of intangible assets on tangible assets. In addition, the findings reveal complex connections between tangible and intangible assets. For example, a negative comment about one aspect of the firm may lead to another negative comment about different aspects, and these comments may impact share prices and sales.

This highlights the importance of considering customers' opinions and feedback posted via SM platforms. Moreover, it underscores the importance of gaining a deeper understanding of the connection between intangible assets derived from online user opinions and tangible ones. Therefore, reputation damage as an intangible asset might greatly impact other tangible ones. In addition, Casado-Molina *et al.*, (2020) findings raise the importance of conducting this study, which focuses on reputational damage based on customers' comments on SM **(chapter 2)**, how firms properly manage them **(chapter 3)** and examining the antecedents and consequences of CR by considering the modern technology (ChatBots) **(chapter 4).**

1.2 Research problem

Despite the widespread use of SM, empirical studies focused on SM risk management (Arnaboldi, Azzone and Sidorova, 2017; Demek *et al.*, 2018; Lenk *et al.*, 2019) and reputational risk management in the context of SM (Szwajca, 2017; Casado-Molina *et al.*, 2020) are scarce. While SM platforms continue to play a significant role in CR (Aula, 2010), there remains a noteworthy gap in research dedicated to understanding and mitigating the associated risks. This shortage of empirical investigations underscores the need for a more comprehensive investigation of the challenges and strategies related to SM risk management in today's digital landscape. Consequently, this thesis aims to contribute to the literature by conducting three comprehensive empirical studies on reputational risk management in the age of SM from customers' and firms' perspectives as follows.

While the literature is rich on the impact of communication strategies on CR (Rindova and Fombrun, 1999; Bunting and Lipski, 2001), studies investigating SM communication strategies and how these strategies impact CR have been less common (Castriotta *et al.*, 2013; Floreddu, Cabiddu and Evaristo, 2014; Floreddu and Cabiddu, 2016; Vogler, 2020). Concerning the insurance industry, to the best of the author's knowledge and from a thorough search in peer-reviewed databases, few studies have investigated the subject matter (Castriotta *et al.*, 2013;

Floreddu and Cabiddu, 2016). Floreddu & Cabiddu's (2016) investigated the impact of customers' comments on Facebook on Italian insurers' reputations. They also explore the link between firms' level of reputation and the communication strategies they employ in SM. The study shows that customers' comments on Facebook have a great impact on firms' reputations. Also, it finds that there is a link between firms' reputation ranking and the communication strategies they employ.

Since the study by Floreddu & Cabiddu's (2016) targetted one SM platform (Facebook), and one market (the insurance industry in Italy), in a specific timeframe (2011-2013), the findings may not generalise beyond this context. Hence, it is not clear whether these findings indicate how SM communications might influence the reputation of insurers in Saudi Arabia. Therefore, **Chapter Two** contributes to the literature by expanding Floreddu & Cabiddu's (2016) study in several ways. The study investigates the impact of customer comments on Twitter on firms' reputations. It also explores the SM communication strategies employed by firms to respond to customers' complaints and enquiries. Additionally, a thematic analysis is conducted for the negative comments posted by customers to identify the most common issues they complain about. Identifying such issues could be critical for firms' sustainability and growth. Firms might investigate the root causes of the issues and, therefore, be better placed to prevent those issues from happening in the future. In addition, they might learn from customers' complaints in several ways (e.g., develop new products) or transfer them into opportunities if possible. By doing so, firms' reputations may be enhanced. The study is conducted in an emerging economy, the insurance market in Saudi Arabia.

Even though SM risk management may prove vital for a firm's survival and continuity, research that examined SM risk management is scarce (Arnaboldi, Azzone and Sidorova, 2017; Demek *et al.*, 2018; Lenk *et al.*, 2019). Therefore, in **Chapter 3** expanded the research conducted by Demek et al., (2018). In their study, Demek et al. (2018) developed an SM risk management model that consists of four elements namely, SM use, perceived risk of use, policy implementation and training and technical controls. This model was used in their study to examine whether firms manage SM risks according to a formalised risk management framework or not. Demek et al. (2018) revealed that firms follow a reactive approach to managing SM risks rather than a proactive one (formalised risk management). The study also found that the increased use of SM tends to increase the perceived risks by firms. In addition, firms with more perceived risks are likely to implement policies and guidelines to manage them accordingly. What is more, firms that have SM policies and guidelines are likely to provide training to their employees and set technical controls. These controls may include procedures that are designed to identify and detect threats related to the brand or information technology security.

However, Demek et al.'s (2018) study did not investigate in detail how firms manage SM risk (e.g., were they treated as opportunities or threats). Moreover, it does not capture how SM risk management practices evolved based on the feedback firms receive. Therefore, I conduct qualitative research based on semi-structured interviews with CEOs and risk committee members to gain deeper insights into several policies, strategies, and procedures firms implement to manage SM risk. The study is based on the Grounded theory, and both types of risks are considered (threats and opportunities). In addition, the present study also builds on the findings from the first study by exploring the mechanisms employed by firms to manage the digital complaints that they receive from customers. This helps to make a significant contribution to the existing body of knowledge. Specifically, two conceptual models are developed: one for SM risk management and one for digital complaints management. Furthermore, the SM radar concept is also developed. This radar refers to the mechanism that firms employ by using digital tools and strategies to detect threats in their early stages before they escalate into crises that are out of control and seize opportunities.

As reputational risk is explored in the era of SM from the perspective of firms and customers, examining some factors that might help manage firms' reputations is essential. Existing literature is rich in terms of reputation management using several factors, such as word of mouth (WOM), customer loyalty (CL), CS and trust (Walsh *et al.*, 2009; Osakwe *et al.*, 2020). However, since customers increasingly engage with digital environments nowadays, firms have shifted their focus toward digital services. Recent technological innovations enable virtual service agents to enrich customer experiences and meet their expectations through immediate, real-time interactions. Although the literature is rich on the role of virtual agents like chatbots in addressing customer complaints and inquiries (Cui *et al.*, 2017; Xu *et al.*, 2017; Nuruzzaman and Hussain, 2018; Chung *et al.*, 2020; Adam, Wessel and Benlian, 2021; Eren, 2021; Magno and Dossena, 2023). To date, few empirical studies have been published about the impact of a chatbot on CS (Eren, 2021; Magno and Dossena, 2023), let alone its role in impacting CR. Therefore, the study presents the contribution to the existing literature in **chapter four** by exploring e-service agents, specifically chatbot agents, as an innovative and engaging tool to fulfil customers' needs and satisfy them, consequently enhancing firms' reputations. Chatbot is defined as "*a conversational software system that is designed to emulate the communication capabilities of a human being that interacts automatically with a user. It represents a new, modern form of customer assistance powered by artificial intelligence via a chat interface"* (Nuruzzaman and Hussain, 2018, p. 55). Chatbots would take the role of traditional offline agents (e.g., customer service), but in a more advanced and efficient manner. For example, chatbots would save time and effort by providing 24/7 customer service. Therefore, identifying this relationship between chatbot effectiveness,

CS, CR and then PD is crucial in this digital era since customers may or may not prefer their complaints and questions to be handled by artificial intelligence (AI).

1.3 Research aims

The thesis aims to investigate the reputational risk from customers' and firms' perspectives in the service industry in the context of SM. In addition, it is intended that this research would lead to recommendations for the development of strategies and tools that can help firms manage reputational risks more effectively.

The aim of each chapter is as follows:

Chapter two explores how customers' comments on Twitter impact service firms' reputations. This chapter sheds light on the connection between firms' level of SMR and the SM communications strategies employed. Additionally, it reveals the connection between the firm's level of SMR and the type and percentage of complaints they receive from customers. This helps to understand reputational risk based on the customer's comments and how firms respond.

Chapter three investigates how service firms manage risks, and in particular reputational risks, that emerge from SM. The chapter sheds light on several digital tools and strategies that firms use to detect threats in the early stages before they escalate into a crisis. Moreover, it illuminates the strategies that firms might use to seize opportunities and transfer threats (e.g., customer complaints) into opportunities for growth. The chapter provides a better understanding of SM risks and how firms can enhance and manage their reputation via SM.

Chapter four examines the antecedents of CR and the consequences for reputational damage/enhancement, with a primary focus on the role of technology (i.e., chatbots). The chapter presents an investigation of the purchase and after-sales processes that customers experience when they buy motor insurance. This chapter illuminates the factors that influence firm reputation and explains how firms can use these insights to manage their reputation more effectively.

1.4 Research questions and objectives

The thesis addresses three research questions through three empirical studies, as follows.

The first research paper (Chapter Two) explores how customer comments on Twitter impact the SMR of service firms. To address this, the study sets three main objectives, which are outlined below.

- To classify the firms' levels of SMR (Low, Medium, High) according to customers' comments on Twitter,
- To investigate how these firms respond to customer comments on Twitter,
- To investigate the common issues that customers complain about.

In addition to these objectives, the study has two secondary objectives.

- To explore whether there is a connection between a firm's level of SMR and its SM communication strategies,
- To explore whether there is a connection between a firm's SMR level and the types and percentage of customer complaints.

The second research paper investigates **how service firms manage social media risk** (Chapter Three). To address the research question, two research objectives have been set as follows:

- To investigate the procedures and policies that firms must follow to manage SM risk (Twitter in particular).
- To investigate how firms address the online complaints received from customers.

Lastly, the third research paper concerns **what are the key antecedents and consequences of CR** (Chapter Four). The research objectives set for the study are as follows:

- To assess the relationship between chatbot and CS.
- To find the CR antecedents, focusing on CS and trust.
- To identify the CR consequences, focusing on PD.
- To ascertain the moderating role of CL and WOM in the relationship between CR and PD.

1.5 Research philosophy and underlying assumptions

It is very important to understand the research philosophy to determine the meanings of ontology, epistemology, axiology, and methodology in research. Equally important is recognising the interdependence of these concepts, where ontology influences epistemology, which, in turn, shapes methodology, ultimately guiding the selection of methods.

1.5.1 Ontological considerations

Social ontology questions revolve around understanding the essence of social entities. The focus is on determining whether these entities can be regarded as objective entities existing independently of social actors (Objectivism) or if they should be viewed as social constructs shaped by the perceptions and actions of these actors (constructivism) (Bryman, 2016). In

objectivist ontology, the world is viewed as fixed and stable, where truth remains constant, and reality exists autonomously. According to this view, reality is detached from specific contexts and can be generalisable. Subjectivist ontology, on the other hand, posits that truth is, to some degree, context-dependent (Adlan, 2012). Additionally, it is argued that researcher influence on research is inevitable, making bias an inherent part of the process. The philosophical stance associated with objective reality is positivism, and the philosophical stance associated with subjective reality is interpretivism.

Positivism involves an understanding of the universe as a structured realm comprising distinct and observable events, existing in an orderly fashion. This arrangement can be captured through universal propositions or consistent connections. Anything deemed real and deserving of scientific consideration is limited to what can be directly observed and sensed. Human actions are interpreted as observable behaviours occurring in material circumstances. In this perspective, social reality is perceived as an intricate network of cause-and-effect relationships among events, forming a dynamic interplay of connections between variables (Blaikie, 2007). In contrast, interpretivism involves a perspective on reality where social reality is seen as the outcome of negotiated processes among social actors who define the meaning of actions and situations. It constitutes a web of meanings constructed within the social context. Human experience is described as an interpretive process rather than a direct, sensory perception of the external physical world, and human behaviour is influenced by how individuals interpret the conditions they encounter (Blaikie, 2007).

Since I focus my attention on the complexity of human sense-making in chapters two and three studies, I cannot isolate myself from the social phenomena, so I hold a subjectivist ontology position. In contrast, in chapter four, I predefine variables to be generalisable based on two theories; therefore, I hold an objectivist ontology position.

1.5.2 Epistemological considerations

An epistemological matter involves determining what should be considered acceptable knowledge within a particular field. Within the social sciences, a key question arises: should the social world be investigated using the same principles, methods, and ethos as those applied in the natural sciences?

Positivism is an epistemological stance that supports applying natural science approaches in examining social reality and beyond. Interpretivism, in contrast, is based on the idea that a different strategy is needed, one that recognises the distinctions between individuals and other subjects studied in the natural sciences, prompting social scientists to delve into the subjective meanings of social actions(Blaikie, 2007; Bryman, 2016).

For this thesis, I cannot apply the natural science methods to study the subject matter for chapters two and three studies as there is a fundamental difference between them. Customers' (chapter two) and risk committee members' (chapter three) perceptions and interpretations are meaningful to my research questions and objectives. Hence, I follow the interpretivism epistemological position, so the findings are based on constructivism. Regarding the chapter four study, since I generate hypotheses based on the two theories, the findings would either be supported according to the predefined hypotheses or rejected. Therefore, I follow the positivist epistemological position.

1.5.3 Axiological considerations

Values are excluded in positivism, remaining "value-free" due to its underlying epistemological standpoint. In contrast, values have an important role in constructivism and are considered inevitable in influencing research results. Furthermore, the idea of excluding values is not acceptable since this might be inimical to the vulnerable participants, whose perspectives deserve the same attention as those of powerful participants and researchers themselves (Guba and Lincoln, 1994).

Concerning the three research papers articulating this thesis, since the first and second papers are constructivist, they are considered value-bound research. Therefore, I am part of the research resulting in a subjective stance. My values and beliefs are important during the research process as well as my interpretation of data. My interpretations are key to the research contribution. However, since I have my values, which may differ from those of the participants, and I do not want them to overlap (as they are equally important), certain ethical practices are being considered and will be illustrated in the ethical considerations section. Regarding the third research paper, since it is based on positivism, it is value-free. I am detached and independent from the research, maintaining an objective stance (Guba and Lincoln, 1994).

1.5.4 The Philosophical Stance

For this thesis, I have two philosophies: interpretivism in studies presented in chapters two and three and positivism in chapter four. According to Myers (2020), in interpretive research, the context defines the meanings of such a situation. Understanding the context is important to understanding the right meanings for a piece of data. In chapter two, for example, I investigate the CR based on customers' comments on Twitter, and I am willing to deeply understand customers' thoughts and feedback to gain rich insights. Additionally, since the research question and objectives mainly focus on perceptions, expectations and strategies, interpretive research is most suitable. Concerning Chapter Three, Since the study aims to gain an in-depth understanding

of SM risk management by looking at the subject matter from different perspectives, the Interpretivism philosophy is also suitable. However, while chapters two and three studies focus on meanings, in chapter four, I aim to reveal the relationships among several variables. In addition to that, I am willing to examine these relationships for a larger sample size, which would allow me to make predictions and draw conclusions that apply to a larger group. Therefore, the positivism philosophy is adopted. I aim to uncover relationships within the data, which would ultimately support more objective decision-making and help the entire industry in terms of forecasting and planning.

Researchers tend to prefer positivist research (Pratt, 2007) since it seems objective, reliable, and more generalisable (Amis and Silk, 2007). The findings would be more accurate and unbiased as positivist research is conducted based on standardised procedures. However, it is not suitable to be followed in the first two research papers as it is not appropriate to study complex phenomena like human beings. In contrast, interpretive research emphasises that there is a difference between studying human and physical phenomena. Although interpretive research is less generalisable than positivist, it allows one to study different customers and firms with different backgrounds and expertise and to study their behaviour, thus helping to create different meanings by studying the phenomena from different perspectives. Interpretive research is rather critical as it allows us to gain rich insights from human beings, while these insights are lost by conducting positivist research as the latter tries to discover laws that should be applied to everything.

1.5.5 Research Approaches

Creswell and Plano Clark (2017) explained that inductive researchers work from the bottom up, using participants' perspectives to develop broader themes and construct an interconnected theory. In contrast, deductive researchers start with a theory, formulate hypotheses, and then collect data to support or challenge the theory. Therefore, they work from the top down. In research, the main analysis methods are quantitative (deductive) and qualitative (inductive).

In this thesis, the inductive approach is appropriate for the first two studies (Chapters Two and Three) since the analysis involves multiple readings and interpretations of raw data (Tweets and Interviews). Although the findings emerge directly from the analysis of the data rather than being driven by preconceived expectations or models. Therefore, the main approach in the analysis involves developing the data into a model. The model encompasses essential themes and categories identified and constructed during the coding phase. Blaikie (2007, p. 133) emphasised that "Personal opinions are excluded from this process to arrive at what is believed to be objective

knowledge". Regarding study three (Chapter Four), a deductive approach is followed since the study starts with two theories and formulates hypotheses to be tested after gathering the data.

1.5.6 The methodological choice

I have employed the appropriate methods according to the philosophical stance for each study in the thesis. The first two studies are qualitative, while the third one is quantitative. For qualitative papers, multiple case study is employed to perfectly answer the research questions and achieve their objectives. In the first study, data is harvested from Twitter using the Web Data Research Assistant software (The Web Science Institute of the University of Southampton, 2020). Regarding the second study, semi-structured interviews are conducted to collect data. Lastly, a questionnaire is used for collecting data in the third study. The following chapters clearly explain all the data collection and analysis methods for each research paper.

1.6 Research context

The thesis consists of three empirical research papers concerning reputational risk management in the age of social media (SM)[2]. According to ISO 31000, Risk is defined as the "*effect of uncertainty on objectives. An effect may be positive, negative or a deviation from the expected. Also, the risk is often described by an event, a change in circumstances or a consequence"* (Hopkin, 2018). Based on the definition, risk may have either favourable or unfavourable outcomes or might introduce uncertainty. Therefore, risk may be seen as an opportunity, a threat or a form of uncertainty to firms. In this thesis, the term "opportunity" is used to refer to the positive outcomes of risk, while "threat" is used to refer to the negative ones. Risk, reputational risk, and SM risk are also used to refer to both types of outcomes in general.

The service industry has been chosen to investigate reputational risk extensively. The study utilized the term 'service industry' as introduced by Gershuny and Miles (1983:8): "*Service industry covers all those firms and employers whose major final output is some intangible or*

[2] The first study presented in this thesis was conducted using data from the social media platform Twitter. However, it is also important to mention that on July 2023, the platform Twitter was renamed 'X' (The New York Times, 2023). This change occurred after the first study was completed and, therefore, does not have any effect on the results of the study. In the following chapters, the term Twitter is used instead of X since the platform is still commonly known as Twitter. The term 'Tweet' is also used here, rather than the term 'Post' which is now used on X.

ephemeral commodity or, alternatively, that residual set of productive institutions in the formal economy whose final output is not material good" (Karaomerioglu and Bo Carlaaon, 1999). The reason for choosing the service industry rather than goods is that reputation might influence customer choice more for services than for products. Customers cannot evaluate the quality of services before purchasing (Wang, Lo and Hui, 2003). They would probably rely on the firm's reputation to buy their services. The insurance industry represents such a case where there is no physical evidence that allows customers to evaluate insurance products. This claim is clearly illustrated in more detail in the following section.

In addition, I choose to conduct the study in the Saudi Arabian market for several reasons. First, one of the key pillars of Vision 2030 in the Kingdom of Saudi Arabia is to create an atmosphere that fosters business growth, broadens and varies the economy, and provides jobs for Saudis. Second, it aspires to elevate the private sector's GDP contribution from 40% to 65%. Third, Vision 2030 prioritises advancing the digital economy in Saudi Arabia, leading to substantial financial investments in this domain (*Vision 2023, Kingdom of Saudi Arabia*, 2016). For instance, the Kingdom has successfully attracted the most significant technology investments in the Middle East and North Africa, with agreements exceeding $1.7 billion(*Vision 2030 Achievements*, 2021). Regarding the financial sector in Saudi Arabia, the Financial Academy was established in April 2020, offering a range of developmental options to empower individuals working in the financial industry, whether beginners or professionals, by providing them with essential knowledge and skills (*Vision 2030 Achievements*, 2021).

Academic research is likely to serve as a foundational pillar for understanding, guiding, and advancing the service sector in Saudi Arabia towards its 2030 vision for growth. For example, conducting research and providing recommendations/practical implications, would help managers/policymakers to make more informed decisions, and highlight important insights and trends. Given these reasons, I choose the insurance industry in Saudi Arabia[3] to conduct the

[3] It is important to mention that in August 2023, prior to the completion of all studies presented in this thesis, the Saudi Arabian Cabinet made a significant determination to create a specialised Insurance Authority (IA) responsible for supervising and regulating the insurance sector in Saudi Arabia. The IA will directly report to the Prime Minister and will possess legal autonomy, as well as financial and administrative independence. The IA will assume the current insurance responsibilities currently held by the Saudi Central Bank (SAMA) and the Council of Health Insurance (CHI) through a transition scheme. This decision is intended to streamline the regulation of the insurance sector in the Kingdom, fostering sector growth, enhancing public awareness about insurance, safeguarding policyholders' and beneficiaries' rights,

study. In the current digital era, Saudi Arabia has made great efforts and investments in the transformation of the digital economy. Hence, I choose to conduct my research on SM and the reputational risk that emerges in this context. Moreover, the insurance industry is still growing in Saudi Arabia, so empirical research can provide rich insights into the industry and enhance practices in the service sector as it grows and develops. This body of research would advance human knowledge in reputation and SM management in the digital era. Such research and recommendations would contribute to helping the Kingdom of Saudi Arabia achieve its Vision 2030.

1.7 Ethical consideration

Ethics plays a fundamental role in the constructivist paradigm because it incorporates participants' values into the research process. This begins with the respondents' constructions, moving to the revelation of sophisticated information, working on it and building the researchers' constructions. It is stated that concealing the researcher's intentions hinders the goal of uncovering and refining constructions. Moreover, the hermeneutical/dialectical methodology helps to safeguard against deception. However, the close interactions between participants and researchers may give rise to challenges related to confidentiality, anonymity, and other interpersonal issues. Ethics is also a vital concern in the positivism paradigm, and researchers place great importance on it. However, it is extrinsic to the research process. Therefore, ethical conduct is monitored through external means, such as professional ethical codes and ethics committees. (Guba and Lincoln, 1994).

Concerning the thesis, all three studies received ethical approvals from the Faculty Ethics Committee at the University of Southampton. In addition, it is worth mentioning that since the

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ensuring the sector's stability and financial security, and promoting the development of the insurance industry. It also seeks to strengthen the foundations and core elements of insurance contractual relationships(The Saudi Central Bank, 2023).

In accordance with the Cabinet decision, the Authority is scheduled to begin its operations within 90 days from the date of the decision. A transition phase will be in effect during which all insurance-related responsibilities will be shifted to the IA. SAMA and CHI will retain their roles as regulators of the insurance sector as outlined in the transition plan until all responsibilities are completely transferred. This plan is designed to maintain the sector's ongoing operations without interruption (The Saudi Central Bank, 2023). It is important to mention that all the studies for this thesis have been completed before the decision was made.

three papers focus on the insurance industry in Saudi Arabia from customers' as well as risk committees' perspectives, I started with not much background about the subject matter. I am not a customer of any of these firms, so there were no interactions that contributed to drawing any assumptions about the firms. However, I have gained some insights about such firms and customers during the research process. Therefore, I have continuously questioned and challenged my assumptions about the research topic and participants, and how my perspective may differ from the participants (Silverman, 2014).

1.8 A schematic representation of the thesis

The remaining chapters in this thesis are structured as follows:

Chapter Two focuses on the customers' comments on Twitter posted to/about insurance firms in Saudi Arabia and how firms respond to them. Sentiment analysis is employed to classify a firm's level of reputation (Low, medium, and high). In addition, the study investigates the SM communication strategies that firms use to respond to their customers (Interactive, Proactive, Unresponsive, Transparent, Secretive, Informative). Lastly, thematic analysis is conducted for the negative tweets only to explore the most common complaints received from customers.

Chapter Three sheds light on procedures and policies that firms employ to manage SM risk with an emphasis on reputation. Semi-structured interviews are conducted in phases with CEOs and risk committee members to address the study question and objectives. The grounded theory is used in the data analysis stage. Detailed mechanisms for managing SM risk and digital complaints are provided.

Chapter Four elucidates the CR antecedents and consequences. Data is collected from individuals who have experienced purchasing motor insurance from insurance firms in Saudi Arabia. Two theories are used to place the research context: Expectation confirmation theory (ECT) and Signalling theory (ST). Partial Least Square (PLS) and Structure Equation Modelling (SEM) are used to test the hypotheses.

Chapter Five provides a comprehensive conclusion and summarises the key findings and insights. It also sheds light on several contributions from conducting three empirical studies and states practical implications and recommendations for the service industry in general and insurance firms and regulators in Saudi Arabia, particularly. Lastly, this chapter lists some limitations encountered while conducting the research papers with suggestions for future research drawn from the thesis.

In the diagram below, I explain how my research papers are connected. I show how what I learned in one study influenced me in the next one.

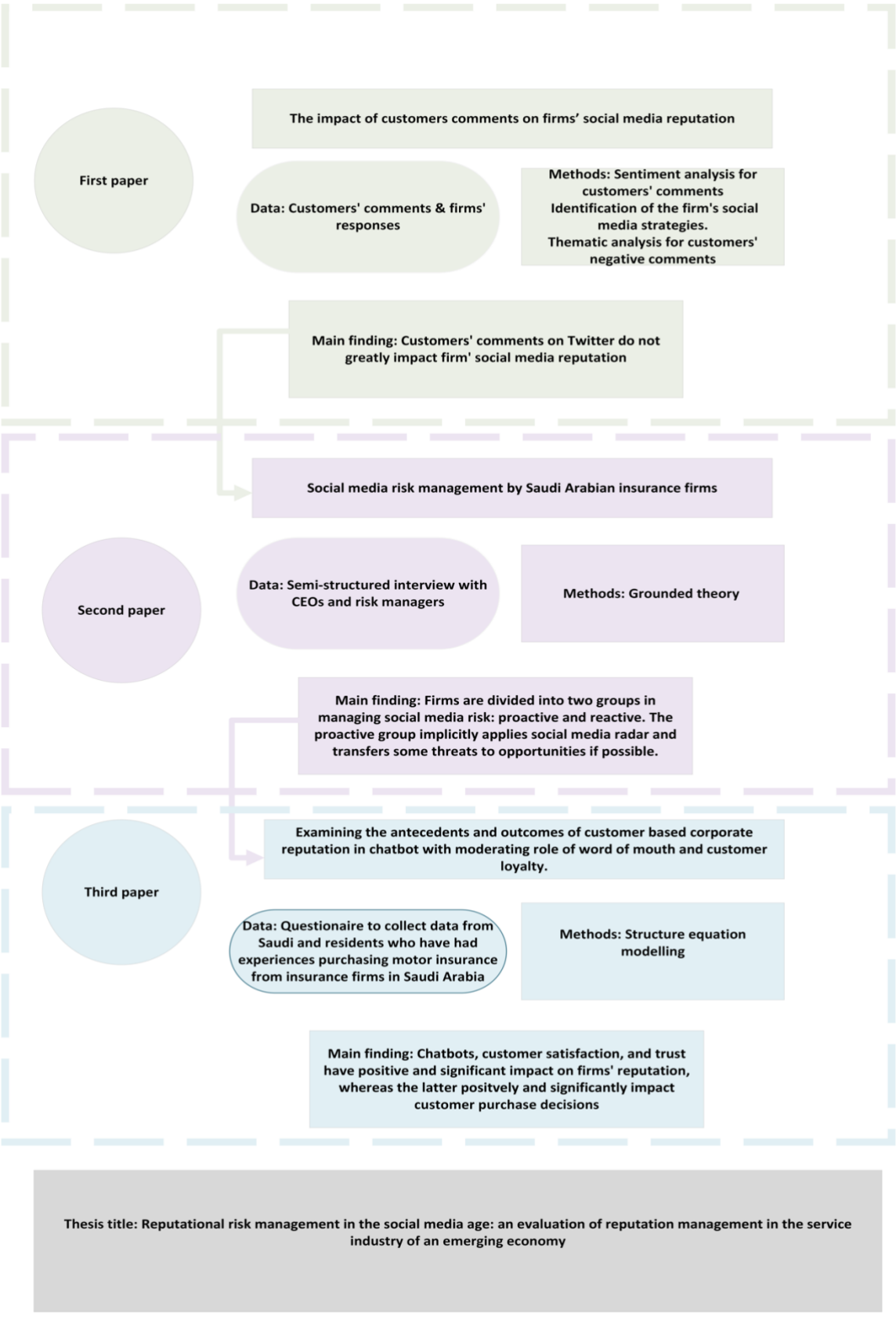

Figure 1-1 The thesis overview

Chapter 2 Paper 1: The impact of customer comments on firms' social media reputation

Abstract

The study uses a multiple case study method to explore the impact of customer comments on Twitter on service firms' social media reputation (SMR). In addition, the study investigates the communication strategies that firms use in their responses to customers. Moreover, it conducts a thematic analysis of the negative tweets posted by customers. Finally, it explores the links between SMR ranking and communication strategies employed or between the ranking and types and percentages of complaints received from customers. The sample is from six insurance firms in Saudi Arabia.

The findings show that three firms in the sample have been classified as having low SMR since they received more than 40% negative codes. In addition, the other three firms have been classified as medium SMR as their negative tweets ranged between 20-40%. Regarding social media (SM) communication strategies, a firm's level of SMR is linked to the communication strategies used to respond to customers. Low SMR firms are more secretive and unresponsive, while medium SMR firms are more informative and use transparent strategies. Finally, there is no difference between low and medium-SMR firms concerning the type and percentage of negative complaints they receive. Most of the complaints are related to customer service responses, core services, and services provided in general.

2.1 Introduction

In 2008, singer and songwriter Dave Carroll flew with United Airlines from Halifax to Chicago. Upon arriving at his destination, it became clear that his $3,500 guitar was seriously damaged. As his attempt to claim compensation from the airline failed, he decided to write a song that captured his ordeal. He later uploaded his song to YouTube in 2009. Dave's story was not only watched by millions of viewers on social media (SM) but received extensive radio and TV coverage across the globe. Rather than compensating Dave for the damage to his guitar, the airline has reportedly suffered a loss of about $200 million in reputation (The Huffington Post, 2017).

As the example above illustrates, a corporate reputation (CR) can be easily damaged, especially when the news travels quickly and widely via SM. Ma and Osiyevskyy (2017) claim that since we live in the era of digital media, users tend to generate content and easily post it on the internet, which threatens CR and makes it challenging to manage. Therefore, even small unintentional mistakes may put firms in difficult situations and spread rapidly on SM, such as Twitter and Facebook. According to Benjamin Franklin, 'It takes many good deeds to build a good reputation, and only one bad one to lose it' (Eccles, Newquist and Schatz, 2007, p. 106). There is little doubt that a firm's reputation is of key importance to its success. How firms maintain and foster their reputations is an interesting and important question. Indeed, firms and customers alike have come to rely on SM sites (e.g., Twitter, Facebook) to advance or tarnish a firm's reputation.

Literature, both in popular and academic realms, argues that the significance of reputation varies across different types of businesses. Specifically, it is suggested that reputation holds greater importance for service industries compared to manufacturing industries or producers of tangible products (Yoon, Guffey and Kijewski, 1993; Csiszar and Heidrich, 2006). 'Service industry' is defined by Gershuny and Miles (1983:8) as: "*Service industry covers all those firms and employers whose major final output is some intangible or ephemeral commodity or, alternatively, that residual set of productive institutions in the formal economy whose final output is not material good*" (Karaomerioglu and Bo Carlaaon, 1999). It could be argued that reputation tends to be more important in services firms where there is no physical evidence for customers to evaluate the services they are going to buy. Wang et al., (2003) argued that reputation plays an essential role in the services market since it is very difficult for customers to evaluate the quality of services before purchasing. For this reason, service firms tend to be more vulnerable to reputation losses than other firms. According to Nelson, (1970), reputation may be especially important for firms that focus on providing services rather than selling products. The insurance industry might represent such a case, as its reputation is key to gaining and maintaining customers (Schanz, 2006). For example, a study by Shapiro (1983) suggested that CR seems more

important in conditions of lack of information. In other words, when there is insufficient information about a firm's performance, customers' evaluations of the firm's quality and commitment are derived from the firm's reputation. This could be applied to the insurance industry, as customers often cannot assess whether the first will abide by its promises and commitments. Thus, this research paper is specifically designed to investigate the reputational risk in service firms, in the insurance industry. According to a report by Deloitte (2014), reputational risk in financial institutions, including insurance firms, constitutes the highest risk compared with other strategic risks.

According to the Insurance Authority (IA), reputation risk is defined as "*the risk associated with negative public opinion about the company. This affects the institution's ability to establish new relationships or services or continue servicing existing relationships thus exposing the company to financial loss or a decline in its customer base which impacts earnings and capital. When dealing with reputation risk, the company should exercise caution in dealing with its customers and the community"* (The insurance authority, 2008, p. 13) . Therefore, it is deduced from the definition above that customers are considered a significant source of reputational damage. This might be due to several issues customers face, including timely and cashless payments, claims approval etc. So, focusing on the customers to study SMR is vitally important.

CR management tends to be challenging since reputational risk has been termed the "risk of risks" (Floreddu and Cabiddu, 2016; Heidinger and Gatzert, 2018). The introduction and development of SM have made this even more complex and difficult, where information can be shared instantly (Floreddu and Cabiddu, 2016; Heidinger and Gatzert, 2018) Furthermore, with the growing use of SM, CR could be affected by the firms' actions and activities, as well as by the stakeholder's perceptions and understanding of their actions. Managing CR thus requires a delicate balance and management in a way that incorporates the various factors that impact CR.

Schürmann's (2006) work might be particularly important, as it discusses several factors that may negatively impact an insurer's reputation. These factors include exaggerated promises to customers, accounting errors, lack of communication with stakeholders, and corruption. Schürmann's study also highlights the dynamic nature of CR. Therefore, to protect CR, effective and interactive communication with stakeholders is continuously needed at all levels. Zboron (2006) identified several sources of reputational risk in the insurance sector, including social responsibility, financial performance, employees and corporate culture, customer services, regulatory compliance, communication management, and corporate governance transparency. Thus, firms must take responsibility for enhancing their communication strategies since online CR tends to be fragile, which means that it is easy to be enhanced as well as easy to be damaged.

Enhancing the online reputation requires collaboration between firms and their customers, as the growing use of SM makes managing a reputation very complicated (Floreddu, Cabiddu and Evaristo, 2014).

The primary focus of most reputation studies has been on its definitions, dimensions, and measurement techniques (Rindova *et al.*, 2005; Barnett, Jermier and Lafferty, 2006; Walker, 2010; Clardy, 2012)and their impacts on firms' financial performance (Roberts and Dowling, 2002; Gatzert, 2015; Eckert and Gatzert, 2017; Barakat *et al.*, 2019). In addition, there is a growing body of literature that recognises the importance of reputational risk management (Perry and de Fontnouvelle, 2005; Schanz, 2006; Stewart, 2006; Eccles, Newquist and Schatz, 2007; Xifra and Ordeix, 2009; Sturm, 2013; Heidinger and Gatzert, 2018). However, most of the papers on reputation management follow a reactive approach to managing it, which is known as crisis management (Perry and de Fontnouvelle, 2005; Xifra and Ordeix, 2009; Sturm, 2013) . In contrast, empirical studies following a proactive approach to managing reputation are scarce (Dowling, 2006; Eccles et al., 2007; Heidinger & Gatzert, 2018).

Moreover, a firm's communication strategy is vital in influencing stakeholders' perceptions and expectations regarding its reputation. Therefore, in this digital era, firms can enhance their reputations by leveraging their communications to build trustworthy relationships with stakeholders. (Rindova and Fombrun, 1999). Moreover, Bunting and Lipski (2001) suggested that the impact of corporate communications can be long-lasting. Consequently, firms should thoughtfully select their messages on SM, enabling stakeholders to value their actions and ultimately fostering a favourable assessment of CR. In this domain, previous research has focused mainly on corporate communication and its impact on reputation (Fombrun and V. Rindova, 1996; Bunting and Lipski, 2001). Additionally, research has also examined communication through SM and how this impacts the firms' reputation is scarce (Floreddu and Cabiddu, 2016).

While most existing literature has studied stakeholders in general, the current study specifically targets customers, who constitute a subset of stakeholders. It is stated that different stakeholder groups may have different perceptions toward the same firm; these perceptions are constituted according to their expectations, backgrounds, and needs (Fombrun and Rindova, 1996). Therefore, the same firm may have multiple reputations according to its stakeholders' perceptions (Wartick, 2002). Conducting research that targets one group of stakeholders is vital. Customers were studied as they are associated with increased reputational risk (Deloitte, 2014). The study argues that, although other stakeholders play a role in such risks, customers are the key to reputational risk. Especially in SM, firms should work to effectively manage customers'

perceptions and expectations. In addition, growing awareness of the importance of customer feedback and opinions shared on SM is prompting insurers to utilize these platforms more effectively (Cole and McCullough, 2012).

Many studies suggest that individuals place trust in opinions from those outside their social networks, such as online reviews. (Duan, Gu and Whinston, 2008). Moreover, SM tends to shift the power of building and protecting reputations from firms to their external stakeholders. (Bunting and Lipski, 2001). As a result, firms appear to be less dominant in the current online environment, with their reputations increasingly shaped by the opinions of external stakeholders rather than by the firms' actions and posts. (Bunting and Lipski, 2001; Rokka, Karlsson and Tienari, 2014). Also, Garcia et al., (2017) differentiated between popularity and having a good reputation on a Twitter platform. While a firm's popularity can be quantified by the number of its followers, no matter their reasons for following or their attitudes, reputation tends to be much more complicated, as the followers' attitudes and reputation matter. This makes researching SMR even more important.

Reputation is a major area of importance within service firms like the insurance industry, and to the best of my knowledge, there is limited empirical research that has studied insurance firms' communication through SM (Floreddu and Cabiddu, 2016). However, Floreddu and Cabiddu (2016) study focused on one SM platform, namely Facebook and Italian insurers, from 2011 to 2013, so the findings cannot be generalised to other SM platforms. Therefore, this paper aims to contribute to the marketing and organisational behaviour literature by studying how customers' comments on Twitter impact service firms' reputation (Insurance industry) in the context of an emerging economy like the Saudi Arabian market.

Providing high-quality service is a key factor contributing to success in retail and service businesses. Service quality seems more important in the service industry, where customers tend to be subjective in evaluating the service. Therefore, in the absence of objective measures, customers' perceptions are an appropriate approach for assessing the quality of a firm's service (Parasuraman, Zeithaml and Berry, 1988). Hence, measuring the sentiment of customers' tweets (perceptions) about the services provided by insurance firms is vital to classify firms' social media reputation where reputation is all about perceptions.

Twitter was chosen since it is considered a platform that enables users to post and quickly share short messages (Walker *et al.*, 2017). In addition, Twitter tends to be different from Facebook in many aspects. While Twitter helps to facilitate conversations in real-time, Facebook has mainly been used to broadcast (Parmar, 2015), which makes Twitter more appropriate in terms of customer service (Ibrahim, Wang and Bourne, 2017). Twitter is considered a tool to discuss what

happens in the meantime and show trends, which can easily be shared with almost anyone (Valos *et al.*, 2017). Moreover, Twitter is mainly used by firms and customers to seek and share information. Customers can use this platform to make complaints, and firms can use Twitter to handle complaints and answer any enquiries (customer service) (Harmeling *et al.*, 2017; Ibrahim, Wang and Bourne, 2017). Indeed, many firms have established dedicated accounts, such as @AmazonHelp, @BupaArabiaCare, and @NikeSupport, explicitly tailored to address customer service issues.

Saudi Arabia was selected to conduct the study for several reasons. Firstly, Saudi Vision 2030 aims to create an atmosphere for business growth and increase the GDP. Also, many investments have been made concerning the digital economy transformation (*Vision 2023, Kingdom of Saudi Arabia*, 2016). Conducting such research would provide knowledge that might help regulators, policymakers, and insurance firms advance businesses and ultimately contribute to achieving Vision 2030. In addition, Twitter is a very popular platform in Saudi Arabia, and many individuals use it for different purposes. The number of Twitter users for the period covered by this study was 12.62 million (Statista, 2024). In addition, the regulator (The Central Bank) mandates that insurance firms launch Twitter accounts. Therefore, dissatisfied customers mainly use Twitter to resolve issues with insurance firms. This underscores the importance of this study on how insurance firms in Saudi Arabia use several communication strategies to connect with their customers through Twitter, and how their reputation may be influenced accordingly.

Given these features of Twitter, It can be argued that Twitter is a very suitable platform to classify insurers' SMR in terms of customer comments and to explore the communication strategies that firms employ with their customers compared with other SM platforms. Thus, based on the literature, there is a need for further empirical research directed at Twitter in particular and how insurance firms' SMR may be affected.

The study adds to the body of knowledge by expanding Floreddu and Cabiddu (2016) study by conducting a thematic analysis of the negative tweets posted by customers to explore the most common complaints. Firms can learn from customers' complaints and improve their services accordingly. Conducting a thematic analysis of negative comments would help to further understand customers' needs and expectations and how this links to their behaviour of posting negative comments and ultimately impacts the firm's reputation. In addition, firms that listen to their dissatisfied customers and manage online conflicts are likely to attain a competitive advantage and enhance their reputation. additionally, further explanation is provided about the connection between the level of reputation/communication strategies and the type and percentage of complaints received from customers. This study brings a fresh perspective to the

reputation and marketing field. The approach applied in this research distinguishes it from previous work and holds the promise of uncovering new insights that can significantly contribute to advancing the understanding of CR from the customer perspective and firms' communication strategies in SM.

Thus, the research question is "How do customers' comments on Twitter impact service firms' SMR" and the study objectives are:

1. To classify the firms' levels of SMR based on customers' comments,

2. To explore how these firms respond to customer comments on Twitter and,

4. To explore the common issues that customers complain about.

Then, the study aims to address two secondary objectives as follows:

1. To investigate whether there is a connection between a firm's level of SMR and its SM communication strategies,

2. To investigate whether there is a connection between a firm's SMR level and types and percentage of customer complaints.

To address this concern, I have focused on insurance firms, as reputation plays an important role in this industry. Saudi insurance firms were chosen to be examined through the Twitter platform, as it is the main formal channel for communication in Saudi Arabia. Tweets were qualitatively analysed in two steps. First, customers' comments were coded into negative, neutral, and positive, and then the firms' SMR levels were classified accordingly. Secondly, the communication strategies that firms use while responding to their customers were explored. Finally, a thematic analysis of negative tweets posted by customers was performed.

The results show that three firms have been classified as having low SMR while the others have been classified as having medium SMR. Further, regarding the firms' communication strategies, firms tend to follow a common pattern regarding SM communication strategies, and this pattern is linked to their level of SMR. Medium SMR firms are more informative and use a transparent strategy, while low SMR firms are more secretive and unresponsive. However, there are no differences between low and medium-SMR firms regarding the complaints received. Most complaints focus mainly on customer service responses, core services, and services provided in general.

The remainder of this paper is structured as follows. The first section presents a thorough review of the previous related literature followed by the research methodology section which describes

the study design and a clear explanation of how tweets are collected and analysed. Next, the data analysis section presents the study's findings and how customer comments on Twitter impact the SMR. The analysis is followed by a discussion and comparison of the findings with previous studies related to the topic. Finally, the conclusion section offers suggestions for further research and presents study limitations.

2.2 Literature review

2.2.1 Corporate reputation and reputational risk

The costs of CR losses could be very severe for firms. Floreddu, Cabiddu and Evaristo, 2014) reported that reputation is linked to increased spending, reducing a firm's credibility, and stock price. According to Perlroth (2013) reputation loss can have a significantly negative impact on firms. For example, in 2013, Adobe faced a severe reputation loss when hackers stole over 38 million customers' private records. This led Adobe to acknowledge that such a loss may put the firm in a very difficult situation as it was more likely to result in litigation and paying great fines to customers as compensation. Moreover, the Enron scandal about the trial of two of its CEOs negatively affected its reputation. Enron was one of the biggest bankruptcies that has occurred in U.S. history (Csiszar and Heidrich, 2006). These examples spawn a great concern about reputational risk and the losses that may be encountered.

By contrast, Cretu and Brodie (2009) argue that a good reputation could allow firms to charge a premium for products and services they offer and be more competitive. Reputation is a very important intangible asset that has been formed through the firm previous actions. It impacts the stakeholder's expectations and may increase the firm's value, as good CR adds a sustained competitive advantage to a firm. A good CR is an asset that tends to positively affect consumers' expectations of what a firm offers and provides (Shapiro, 1983). Robertson and Gatignon (1986) argued that having a good reputation allows firms to capture more market shares. A study by Montgomery (1975) among supermarkets found that a firm's reputation tends to be as important as the quality of its offerings and the effectiveness of advertising.

Due to the importance of CR, insurance firms have started to offer reputation risk insurance. A study by Gatzert, Schmit and Kolb (2016) found that identifying reputation losses as well as measuring them are the two most challenging issues faced by insurers once they offer reputation risk coverage. Two factors could help explain Gatzert, Schmit and Kolb's findings. One, insurance firms might lack the experience to accurately and appropriately evaluate this type of risk, and the other one is related to the complication of the reputation risk events; in other words, how

reputation risk happens. Further, reputational risk is driven by organisational activities that may be subjected to potentially damaging events. The study also provides an explanation of the reputation risk insurance coverage and some challenges as well as risks that insurers may encounter once they provide the coverage.

2.2.2 Corporate reputation and operational risk

There is agreement on the significant impact that operational risk may have on CR (Sturm, 2013; Eckert and Gatzert, 2017; Barakat *et al.*, 2019). Sturm (2013) investigated how advertised operational loss could damage CR in the European banking industry. The study showed that the reputational losses caused by operational losses are more than the latter itself.

A more extensive investigation by Barakat et al., (2019) of 90 financial firms (both banking and insurance industries) from 18 countries all around the world found that media may have a major impact on reputation once there is a lack of certain as well as quantifiable information about the operational risk. As Eckert and Gatzert (2017) work supports the view that operational risk could lead to a severe impact on a firm's reputation, they also find that despite the significant consequences of operational risk, reputational damage has rarely been considered when modelling and assessing the operational risk. Hence, reputational losses have been incorporated into their proposed operational risk models due to their major consequences.

Although a considerable amount of research highlights operational risk as a primary cause of reputational losses, operational risk keeps surfacing, particularly in times of (financial) crisis. According to Eckert and Gatzert (2017), the growing dependency on information technology, automation, and the increasing inherent complexity of insurance products make operational risk management increasingly complicated. For example, although automation helps reduce the likelihood of facing manual errors, in turn, it increases the possibility of facing system failure. However, a report by Ernst and Young, 2015 suggested some solutions to overcome some information technology issues before negatively affecting firms' reputations. For example, internal programmes and compliance functions could improve cybersecurity processes, increase claim transparency, and facilitate communication among stakeholders.

Operational losses have also attracted the attention of the media public, especially when the losses are due to internal events. The widespread operational losses in the media are more likely to cause reputation damage than the operational loss itself (Perry and de Fontnouvelle, 2005). However, a recent study by Barakat et al., (2019) showed that the lack of information and explanations about operational losses is the major reason behind the media coverage interest in such losses, which leads to severe reputational losses afterwards. This study contradicts the

study by Sturm (2013), who concluded that operational losses dramatically and negatively affect stock prices, even when the number of operational losses is clearly stated and shared.

2.2.3 Corporate reputation and media

The media is considered crucial in forming CR (Einwiller, Carroll and Korn, 2010). More clearly, stakeholders, including customers, use media to share their opinions and perceptions about different firms (Jansen *et al.*, 2009). As SM is used extensively, stakeholders can easily post and share their opinions and expectations immediately (Etter, Ravasi and Colleoni, 2019). Therefore, platforms like Twitter tend to be a common environment for seeking information and sharing opinions and feelings (Colleoni *et al.*, 2011). It is reasonable, therefore, to use Twitter to examine firms' reputations.

Eccles and Vollbracht (2006; see also Floreddu and Cabiddu, 2016) argued that the media has a significant impact on a firm's reputation. They conducted a longitudinal study (1998–2006) that focused on changes in media reporting among German insurance firms. Long-term analysis is performed in the study for media coverage in German insurance firms and competitive analysis for several other countries, such as the United Kingdom, France and Italy, whereas Floreddu and Cabiddu (2016) focus on the impact of SM on the Italian insurance industry's reputation. A longitudinal explorative multiple case study is employed and focused on one SM platform (Facebook). However, the findings show that there is common ground between both studies, as they both highlight the importance of following a proactive approach in terms of firms' strategic communication to effectively manage the firm's CR. The media might improve or adversely affect the firm's reputation based on what is written and shared among stakeholders through different platforms.

Firms can take advantage of their communication in a way that adds to their reputations by building trustworthy relationships with stakeholders (Rindova and Fombrun, 1999). Effective communication can allow firms to interact with a huge range of stakeholders, whether existing or potential, by employing several communication strategies that are particularly designed to contribute to firms' reputations. Further, firms can choose the message they want to deliver to their stakeholders through the media. Thus, stakeholders can deeply understand the firms' activities, which affects their perceptions and impressions and leads to a positive evaluation of the firm's reputation. In terms of the insurance industry, through effective communication between firms and customers, the latter can clearly understand the firms' insurance coverage conditions, as well as their prices, which helps in reducing the uncertainty during decision-making to purchase such insurance coverage.

Such a firm's actions, which may highly influence its reputation, could be communicated with the firm's existing and potential stakeholders through different channels, such as traditional newspapers and SM. However, research that has measured the impact of SM on a firm's reputation is scarce. SM tends to be considered an appropriate platform for businesses to communicate with their customers, as it facilitates an environment for building good interactive relationships among them. SM may help firms create an effective dialogue with their stakeholders and even among the latter themselves (Castriotta *et al.*, 2013). Furthermore, it allows customers to freely express their thoughts and perceptions about such a firm, which is more likely to enhance the customer engagement concept ultimately. Customer engagement may add value to firms and help to contribute to their reputation in the long term by posting and sharing information about such a firm that affects its reputation (van Doorn *et al.*, 2010).

Argenti and Barnes (2009) explained that in forums and blogs, users can write and freely express their opinions, as the language there tends not to be subjectivised. Simply, users can write whatever they want and disappear immediately. They can easily escape from the consequences of what they wrote. This can also be applied to popular SM sites, as exiting from different platforms is a click away. This behaviour may facilitate the environment for users to post harsh comments about such a firm, which might not necessarily be true. However, many SM platforms tend to facilitate communication among users, such as Twitter (Kaplan and Haenlein, 2011), firms should take advantage of SM to create conversations and effective dialogues with their customers (Islam and Rahman, 2017; Pansari and Kumar, 2017). Thus, SM could add value to firms once they use it appropriately.

2.2.3.1 Communication strategies and corporate reputation

A firm's communication can play a crucial role in shaping the stakeholder's perceptions and expectations about such a firm's reputation. In recent years, there has been growing interest in the online relationship between firms and customers, and how communication in SM should be changed from traditional ones (Argenti and Barnes, 2009). SM as a means of communication has been receiving attention (Bunting and Lipski, 2001; Jones, Temperley and Lima, 2010; Carroll, 2013), as its incorporation is increasingly emphasized in overall communication.

According to Bunting and Lipski (2001), the effects of corporate communications could remain for the long term. Therefore, firms should carefully choose their messages through SM, allowing stakeholders to appreciate their activities, ultimately leading to a positive evaluation of the CR. With the intensive use of interactive SM, stakeholders can easily share their perceptions and opinions about such a firm, which threatens its reputation accordingly. Existing customers and potential ones can start building online relationships with firms that have a good reputation,

which allows them to obtain and understand the information they need before deciding to purchase. Interactive communication between firms and customers can increase trustworthiness among them and decrease the perceived risks about a firm's products and services. Kotha, Rajgopal and Rindova, (2001) stated that a firm's reputation helps build fiduciary links between firms and customers, and this can be regarded as a substitute for information that ultimately reduces uncertainty in the online environment.

2.2.3.2 Customer comments and corporate reputation

There is increasing awareness about the importance of customer feedback and opinions posted through SM, which leads insurers to use SM in accordance (Cole and McCullough, 2012). Golia (2011) presented a relevant example, PEMCO is a firm that uses Google alerts to track customers' feedback as well as opinions about their business. This supports the view of the importance of building a good reputation through customers' online comments. Insurers may take the opportunity to use SM to enhance their position on search results, which ultimately adds value to their reputation. Insurance firms may also use SM in terms of the underwriting process. For example, it could be used to update risk profiles for both firms and individuals as they change frequently (Cole and McCullough, 2012). To date, to the best of the author's knowledge and through searches in peer-reviewed databases, there has not been a comprehensive study on the impact of SM (Twitter) on insurers' reputations.

There is an effective tool of marketing called "Word of mouth" or "WOM", which refers to the type of marketing that takes place when information is transferred from one person to another. Despite its simplicity, WOM plays an essential role in customers' purchasing decisions (PD) (Richins and Root-Shaffer, 1988). WOM may involve customers' opinions about products or services, and attitudes towards businesses. What we have learned in this SM era is that customers are no longer shy about making their voices heard online, whether by the comments they post on different SM platforms or by posting product/service reviews. This is what is called electronic word-of-mouth (eWOM). Several studies indicate that individuals also trust others' opinions who fall outside of their social network, such as online reviews "eWOM" (Duan, Gu and Whinston, 2008). Since managing content flow on Twitter tends to be very hard or even out of control, eWOM has been shown to impact customers' perceptions and opinions about firms. eWOM may be more influential than WOM, as eWOM can reach a far larger and more diverse audience (Gelb and Sundaram, 2002). Furthermore, in an online environment, users may be free to express real opinions and share posts about business or even post fake information by using fake or anonymous names.

Twitter seems to have a high impact on eWOM, which ultimately shapes firms' reputations, indicating that it allows people to share their thoughts as well as opinions about firms in any place, anytime, and to anyone (Jansen *et al.*, 2009). Although Twitter limits the amount of information that can be conveyed, this feature might turn out to be the strength rather than the weakness of the platform, as they are easy to produce and share (Chamlertwat *et al.*, 2012). A study by Anderson (1998) claimed that customers tend to share their experiences with others about such a firm when they receive very good or very bad services.

A considerable number of researchers have shown that WOM can affect customers' decisions about products and services (Engel, Blackwell and Kegerreis, 1969). In the Twitter platform, even though there is no face-to-face communication, eWOM tends to be more powerful since the content is immediately reachable by almost anyone. Chamlertwat et al., (2012) stated that micro-blogs, including Twitter, help fulfil customers' behaviour towards different products and services. They help in obtaining others' opinions about such a product or service instantly. This is more likely to affect customers' perceptions of several businesses, which ultimately affects their PDs. SM tends to shift power in building and protecting reputations from firms themselves to their external stakeholders (Bunting and Lipski, 2001). Therefore, firms seem to be less dominant in the current online environment, and their reputations are shaped more by others' opinions (external stakeholders) than by firms' actions and posts (Bunting and Lipski, 2001; Rokka, Karlsson and Tienari, 2014).

Customer reviews and feedback may impact potential consumers' willingness to buy products from the firm. In some businesses, such as eBay and Amazon, customers' reviews play an essential role in shaping businesses' reputations, as potential customers tend to rely mainly on product reviews and make their buying decisions in accordance (Dellarocas, 2010). This could be applied in the insurance industry, as their businesses rely heavily on customers' trust; therefore, customer comments seem to be very crucial and may have an enormous impact on shaping firms' reputations. In addition, the impact of online reviews on customer decision-making in the hotel industry (services) can be both negative and positive reviews affect customer choice, and this effect tends to be stronger on less-known hotels (Vermeulen and Seegers, 2009). Another study also conducted in the service industry by Utz, Kerkhof and Van Den Bos, (2012) found that online reviews play an important role in customer decision-making. In addition, Tracker's (2011) study found that four out of five people change their decisions about purchasing once they read negative online reviews. Some customers rate products using (1-5 stars), but many potential customers prefer text as it is more informative. However, a study by Sorensen and Rasmussen (2004) examining the impact of New York Times book reviews on book sales finds that positive reviews have a positive impact on book sales, which is logical. Surprisingly, the negative reviews

also have a positive impact on book sales. A report by Reevoo stated that around 68% of customers tend to trust product/service reviews more when they are mixed between positive and negative ones (Jones, 2015).

Twitter has been mainly used by customers and firms for information seeking and sharing; it is also used by firms in terms of customer service, including dealing with complaints received from their customers (Ibrahim, Wang and Bourne, 2017). Customer service through Twitter could be more important than traditional one since the customer is more likely to assess the customer service not only the one provided to them but also to other customers (Read *et al.*, 2019). Customers may trust firms that respond to their followers in the proper time and manner. Hess, Ganesan and Klein, (2003) indicated that once a firm has properly solved a customer problem, this can cement the relationship between them. An article by Conlon and Murray (1996) stated that over 80% of customers who experience positive interactions with firms through Twitter are more likely to recommend the firm to others. Moreover, effective service recovery can transform complaining customers into loyal ones and often leads to greater satisfaction than if the initial failure had not occurred (Hart, Heskett and Sasser, 1990). However, ineffective service recovery may make customers feel worse about such a firm and encourage them to leave (Bitner, Booms and Tetreault, 1990). According to the prospect theory (PT), customers are more sensitive to losses than gains, so the impact of worse unexpected service is greater than better-unexpected service (Rust et al., 1999). Stevens et al., (2018) claimed that receiving digital complaints is not necessarily bad news for firms as they can benefit from them. Firms have access to the customer's complaints in the early stages, which allows them to quickly identify ongoing issues. Therefore, clever firms value these complaints and use them as an opportunity to improve the business.

Stevens et al., (2018) stated some suggested solutions to deal with digital complaints. If there is business, complaints are inevitable; however, how a firm responds to its digital complaints is key and makes a difference. Therefore, the same study introduces the 3T framework to help leaders and support teams respond to the digital complaints they receive properly. This is more likely to help not only to mitigate the negative impact of the complaints but also to create positive outcomes. The study revealed three essential themes to minimise the damage of digital complaints, which are called three Ts: timeliness, transparency, and trust. Timeliness concerns hiring and training the right people, as well as responding to customers promptly. In addition, transparency involves preserving a public record, encouraging engagement with customers, and enabling brand advocates. Lastly, trust emphasises the humanisation and personalisation of responses, promotes civility, and entails ethical conduct. In the same vein, Davidow's (2003) study found that responding to digital complaints is not enough. The speed at which customer

service resolves complaints is essential in service recovery. Moreover, Conlon and Murray (1996) found that fast interaction with customer complaints has the potential to increase customer satisfaction (CS) as well as repurchase intentions.

Customer service is very important in terms of business continuity, and it has become even more important through Twitter (Huff, 2015; Zhu and Chen, 2015). As customers can easily share information through Twitter, proactive customer service is necessary (Huff, 2015). Furthermore, customers may add value to firms and help advertise through Twitter by retweeting (Harmeling *et al.*, 2017). There is a growing interest in the importance of customer engagement in business success (Venkatesan, 2017), which ultimately reflects on the firm's reputation. It tends to create an effective relationship between both firms and customers (Sashi, 2012), and positively impacts firms' performances (Brodie *et al.*, 2013). The importance of customer engagement raises the importance of the study on SM (Twitter), as it is an appropriate platform that helps firms and customers communicate easily (Sashi, 2012; Dessart, 2017).

Prior studies have argued that interactivity between firms and customers leads to stronger relationships (Cyr, Head and Ivanov, 2009; Labrecque, 2014). Barreda et al., (2015) stated that interactivity is more likely to influence customer perceptions about a firm, which ultimately leads to the posting of positive feedback through SM.

2.2.3.3 Reputation measurement on social media

A well-known model to measure firm reputation was developed by RepTrak, which measures reputation according to seven different dimensions. These dimensions are products and services, innovation, workplace, governance, citizenship, leadership, and performance (Airmic, RepTrak and RIMS, 2020). Similarly, the study by Walsh et al. (2009) identified five dimensions of customer-based CR: customer orientation, being a good employer, being a reliable and financially strong company, product and service quality, and social and environmental responsibility. However, while these models consider several aspects that may impact a firm's reputation, they fail to account for the impact of SM on its reputation, including customers' comments and how firms respond accordingly.

Based on the discussion above, It can be argued that although many factors contribute to shaping reputation, such as the seven dimensions identified by Walsh *et al.* (2009) and the five dimensions mentioned by RepTrak, this study focuses exclusively on customer comments on Twitter in shaping firms' social media reputation. Therefore, the corporate reputation (CR) is framed as social media reputation (SMR) in this study.

Few researchers have measured firms' reputations on SM. A study by Floreddu, Cabiddu and Evaristo, (2014) measured firms' reputations (low, medium, and high) and the impact of firms' communication through Facebook on their online reputation. Moreover, this study examined a sector different from insurance, which is hospitality in Italy, and uses a mixed method to analyse the data. The study identifies six communication strategies that hotels use with their customers. These strategies are primary, secondary, tertiary, informal, reservation, and customer engagement. The results show that the low, medium, and high reputation firms tend to use these strategies in distinct ways, which is why there is a link between the firm level of reputation and the communication strategies used. The study confirms that SM tends to play a crucial role in terms of CR. Although this study has the same objectives as the current study, it was conducted in a different sector (hospitality), on different platforms (Facebook), and in different markets (Italian), so their findings cannot be generalised. However, initial interpretations and insights can be considered. Further, the study did not state the period for the data collected from Facebook, which is considered a limitation. By contrast, the calculations for the level of reputation and communication strategies are fully justified.

A recent study conducted by Floreddu and Cabiddu (2016) classified Italian insurers' reputations on Facebook as low, medium, and high for the period from 2011 to 2013, and analysed the main features and differences among them. The findings broadly supported the work of previous studies in linking the reputation level with the communication strategies used. As this study was conducted in a different sector than the previous one, it identifies seven strategies insurers used to communicate with their customers via Facebook namely; egocentric, conversational, blinker, proactive, transparent, secretive, and supportive.

Egocentric refers to firms that tend to share information via SM pages without actively engaging in conversations with customers and followers. In this communication approach, these firms aim to enhance their visibility on SM rather than building personalised relationships with customers. In addition, a conversational firm strives to foster profound relationships and dialogue with its customers. In adherence to this strategy, firms respond to each customer comment, aiming to initiate and maintain meaningful conversations. The blinker communication strategy focuses on selectively acknowledging positive comments while disregarding any negative feedback. Firms adopting this strategy aim to cultivate relationships primarily with supportive customers, avoiding engagement with conflicting opinions. In line with this strategy, firms respond specifically to positive comments from customers. Furthermore, the secretive strategy is designed to handle conflicts arising on SM by addressing them through a private channel, such as email or private messages on platforms like Facebook. This strategy may also involve the removal of 'unwelcome' posts. Moreover, the proactive communication strategy is directed at proficiently handling

discussions and moderating conflicts within its online platforms. Transparent is the communication strategy focused on enhancing the transparency of interactions between the firm and customers. In alignment with this strategy, posts are not removed, and firms publicly address all comments customers share. Lastly, the supportive communication strategy provides details about promotions and quotes while assisting clients through every stage of the purchasing journey.

Although Floreddu and Cabiddu (2016) also focused on the insurance sector, it was designed to study a specific platform (Facebook) with its features, specific market, and time period. Therefore, the findings again cannot be generalised to other countries and platforms, such as Twitter. While the study clearly illustrates how the reputation level was calculated, with numbers concerning communication strategies, the study did not provide the percentage for each strategy used by such a firm and does not explain its justifications for how these communication strategies were calculated. Are they according to the total responses that the firm used? Or are they, according to the total strategies that the firm used?

A recent investigation of how reputation is constituted in the online environment (Twitter) was conducted by Vogler (2020). However, although it studies the service industry's reputation on Twitter, it has different objectives. It focuses on Swiss universities, not insurance firms, where the researcher claims that three different dimensions may affect universities' reputations, which are media, academics, and society. It also focuses on one semester (four months) in 2018. The study finds that academics tend to care about universities' reputations, which leads them to positively evaluate them on Twitter more than societal stakeholders and media news. In contrast, the media tends to negatively evaluate universities on Twitter. A key issue with this study is that the sample size seems to be low, representing only 1,936 tweets that covered only a short period (four months). Moreover, as it studies a completely different sector (education), it tends to follow different directions than the studies discussed above. It also did not classify universities' levels of reputation.

2.3 Methodology

2.3.1 Methods

Researchers have highlighted the importance of SM platforms in shaping a firm's reputation (Huber *et al.*, 2012; Mosley, 2012). However, this line of investigation has yet to examine the role of SM content, such as Twitter, in services industry like insurance (Floreddu and Cabiddu, 2016). Thus, this study focuses on analysing Twitter platform data for the insurance sector in Saudi

Arabia. There is evidence that the insurance industry frequently uses it to offer their products, as well as to communicate with their existing as well as potential customers. Moreover, Twitter is also frequently used by customers to share their positive/negative experiences about insurance quality and (lack of) satisfaction. According to Statista (2021), Saudi Arabia ranks the eighth most common Twitter user. Another statistic by Statista (2024) shows that the number of Twitter users has increased to around 12.62 million for the period the study covered.

A qualitative study was employed to study the content shared on Twitter by both Saudi insurance industry firms and customers. Qualitative research was preferred since it would provide detailed insights into the content posted by customers and firms (Saunders, Lewis and Thornhill, 2016). To achieve the research objectives, a multiple-case study strategy was utilized, which helps in properly understanding the customers' comments and how the firm responds to them. According to Dubois and Gadde (2002), a case study strategy can provide insights and an in-depth understanding of the phenomena in real life.

The analysis was intended to cover five years (2016-2020) to allow the study to evaluate the possible changes that may take place in firms' SMR in response to Twitter comments. However, while collecting the data, two limitations were encountered. Firstly, there is a restriction from Twitter not to allow me to scroll down through any account for more than 5000 tweets. As some firms are very active on Twitter, this number of tweets may not cover more than two years or even less. However, sometimes customers commented on some old tweets related to the study, such as 2017 and 2018, which allowed these tweets to appear in the data file. These tweets were included in the analysis, although most of the data was from 2019-2020. Secondly, some firms have recently launched their Twitter accounts, which means the period of study is less than five years.

The study focused on the insurance industry in Saudi Arabia, which has 32 firms according to the latest update of (The Saudi Central Bank, 2021). However, the data was from Twitter comments, which were neither representative nor inclusive. Yet, as the aim of the study is to examine the impact of Twitter comments on insurance firms' SMR, the data were from Twitter. According to the search performed on Twitter, two firms have not yet activated their accounts. One of them just created an account without a single tweet, and the other does not even have an account. Therefore, the target population was 30 firms that have a Twitter account. In addition, some firms have two accounts—the original one and one specified for customer care.

Non-probability sampling technique was used in the study. since Twitter content was analysed that may be posted by firms themselves, existing customers, or even potential ones, the sampling method that was selected was purposive heterogeneous. The sample consisted of six insurance

firms. I chose four firms that were appointed, according to Forbes Middle East, as the most valuable listed insurance firms in Saudi Arabia in 2020 (Forbes Middle East, 2020). In addition to these four firms, two small firms were added to make the sample diverse and capture as many insights as possible. After analysing these six firms, a saturation level was attained, meaning no new insights and themes emerged from the data. Therefore, there was no need to add more firms to the sample.

While the data is publicly accessible on Twitter, the firms were referred to as Firms A, B, C, D, E, and F. This approach ensures the anonymity and confidentiality of the firms and negates any related ethical issues in the data reporting. In addition, the researcher did not ask for the firms' permission or consent to analyse their tweets. The study followed Hookway's (2008) recommendation, as stated, online blogs are *"fair game- public domain'. Since the blogs are available online to the public, it is not necessary for the researchers to ask for their consent"*. (104).

2.3.2 Data sources and data analysis

This study used secondary data (Twitter content). As Twitter is a very popular platform in Saudi Arabia for formal communication among firms and customers, tweets can be a good source to rely on in this study. It is more likely to capture customers' perceptions toward firms. Twitter data are useful in building a baseline about the different types of communication strategies that insurance firms use and how this could affect their reputations.

To harvest Twitter data, the study used Web Data Research Assistant software (Web Data RA), which was developed by Prof Leslie Carr at the University of Southampton. This software is meant to help researchers, especially non-programming researchers, obtain web-sourced data. It allows researchers to easily collect data from different platforms, such as Twitter, Facebook, and Google (The Web Science Institute of the University of Southampton, 2020). The data is automatically saved in an HTML file, but I can open it as an Excel sheet.

However, during the analysis, The URL (Uniform Resource Locators) of each tweet was pasted directly on the Twitter website for the following reasons. First, the tweets collected by the software were disjointed. Sometimes, it was unclear whether a response was for a particular comment, especially when the customer did not post their comment directly to the firm account. For example, customers may comment on other customer tweets or on firms' tweets, which made the data that had been collected confusing. Therefore, each tweet's URL was used to determine all the related responses for a tweet. In addition, when the user (customers and firms) attaches any picture to a tweet, or when they contain emojis in the text, the file does not display them. Hence, using a URL was necessary.

Some tweets were omitted due to irrelevance, language, and incompleteness. Irrelevant tweets include for example, when some users asked about jobs and training opportunities while I focused only on customers. Also, firms' general tweets and advertising were considered irrelevant, while I focused on firms' responses, so they were also excluded. Moreover, the study focused on five years (2016–2020), any tweet not tweeted during this time was omitted. Regarding language, I omitted tweets posted in non-Arabic or English (Ex. Japanese). Finally, incompleteness means that there were only firms' responses had been collected for customers' comments that had been deleted, so analysing only firms' responses would lead to incomplete understanding. Otherwise, the study examined all the comments for the sample chosen on Twitter regardless of the type of insurance. Although the irrelevant tweets were omitted, they were in a very small range. Most tweets on the insurance firms' Twitter accounts were posted by customers. Firms' characteristics

The table below provides a general overview of the sample that has been chosen for the study. Some firms launched two accounts on Twitter: one is general for advertising, tweeting about its social responsibility, and raising awareness about some important aspects related to the insurance products provided, whereas the second account is specified for customer care. Other firms engage with the public via Twitter with one account only. They use it for communication with the public, whether advertising or customer care. Moreover, the data provided an initial idea of whether the firm has engaged with the public, including customers, from its number of tweets and followers.

Table 2-1 Insurance firm's characteristics

Firms	Signup date	Tweets	Tweets collected	Tweets analysed	Followers	Typology	Insurance type
Firm A	-The main account 2010 -Customer Care 2011	36K 22K	5000 + 5000 =10000	2989	424.3K 60.4K	Insurance and Reinsurance	Protection and Saving, General and health insurance
Firm B	2020	722	722	200	5709	Insurance	Protection and Saving, General and health insurance
Firm C	-The main account 2016	3209	3209		38K	Insurance and Reinsurance	Protection and Saving, General

	-Customer Care 2018	11.4K	+ 5000 =8209	3859	7477		and health insurance
Firm D	-The main account 2012 -Customer Care 2013	43.4K 27.4K	5000 + 5000 = 10000	5017	320.7K 53.8K	Insurance	Health Insurance
Firm E	2019	2950	2950	1878	5570	Insurance and Reinsurance	General and health insurance
Firm F	2018	875	875	277	6113	Insurance	Protection and Saving, General and health insurance

2.3.3 Twitter and the firm's social media reputation measurements

To measure firms' SMR, the study was built on Floreddu and Cabiddu's(2016) research method among Italian insurance firms. In their study, they collected data from the Facebook platform to determine the firms' reputations. As the current study utilised Twitter (rather than Facebook), some important alterations to the study design are needed. Also, the present study improved its method by conducting a thematic analysis of negative tweets. Identifying the most common issues that customers complain about would benefit firms to advance their services and improve their reputation in accordance.

One important way to gauge a firm's reputation is via consumers' perceptions of the firm. To do so, Twitter data was collected and classified it as positive, neutral, or negative. The content was classified as positive when the customer expressed trust and admiration toward insurance firms. The content was classified under negative codes for comments that contained negative feelings or complaints (Inversini, Cantoni and Buhalis, 2010). Regarding the neutral content, comments that did not contain feelings or judgments towards insurance firms were included. Based on earlier work (Dellarocas, 2010) and sentiment analysis (Seebach, Beck and Denisova, 2013), firms' SMR levels were classified as follows. A firm was classified as having a low SMR when more than 40% of received comments were negative. When the negative codes range between 20% and

40%, a firm was classified as a medium SMR. Lastly, a firm was classified as having a high SMR when it received less than 20% negative codes. Completing this part of the study allowed us to achieve the first objective.

There are several tools for sentiment analysis, although most of them support English tweets. However, sentiment analysis of Arabic tweets tends to be challenging, as Aldayel and Azmi (2016) explain some difficulties in Arabic sentiment analysis in their research. First, many Arabic users prefer to communicate in SM using vernacular/dialectical Arabic more than Modern Standard Arabic, whose vocabulary is different even though both are Arabic. In addition, users tend not to care about sentence structure, grammar and word spelling mistakes. These reasons make conducting Arabic sentiment analysis a difficult task.

It is also important to mention here some difficulties that may be faced while conducting sentiment analysis, no matter which language was used. Firstly, some users expressed their feelings by using emojis, and sometimes they wrote, for example, positive comments when they meant the complete opposite. This could be shown by attaching a picture illustrating the real meaning, or it can be understood indirectly from the context. Given these reasons, sentiment analysis was performed manually to obtain more accurate results.

For the second objective, the present study built on the (Floreddu & Cabiddu, 2016) method of categorising firms according to their communication strategies. Classifying a firm's communication strategies tends to be challenging as firms tend to pursue more than one strategy. Hence, I simplified it in two stages. The communication strategies would be categorised into six strategies divided into two stages as follows. The first stage consisted of three strategies only. **"Interactive firm"** refers to a firm that responds to positive and neutral tweets posted by customers. When the customer posts positive feelings and admiration for a firm or even writes a neutral comment, whether it contains a question or not, a firm responds to them to show them that it cares and is willing to build a relationship with them. **"Proactive firm"** refers to firms that tend to properly manage conversations and conflicts that happen via Twitter. In this strategy, firms focus on negative comments and respond to them to avoid any threat that may occur and damage their reputations. **"Unresponsive firm"** refers to firms that ignore neutral tweets that contain enquiries and questions that need proper responses. In addition, a firm would be classified as Unresponsive when it ignores negative comments and complaints by customers. Therefore, even no responses here would be considered a strategy. The second stage consists of three strategies as follows. Firms may be called **"Transparent firms"** that publicly respond to negative tweets, acknowledge any mistake that happens, and illustrate the reason. However**,** **"Secretive firm"** refers to firms that try to manage conflicts as well as complaints by customers

but in other channels, such as direct messages, phone calls or emails. Lastly, **"Informative firm"** refers to firms that help their existing and potential customers through all purchasing phases by providing them with the information they need and trying to answer any questions they have in public.

It is important here to illustrate some aspects of classifying firm communication strategies that were encountered while conducting this study. First, when a customer asks to communicate via direct message or phone, the firm would not be considered secretive since this is what the customer wants. Moreover, some issues require formal and personal documents to be sorted. So, when a firm asks its customers to send them an email or via direct message, it would not be considered secretive; if the firm shows the willingness to help customers and lists what it needs to solve the issue, then it should be referred to as an informative firm.

2.3.4 Thematic analysis

Thematic analysis is considered an effective and flexible tool that can provide richness, deepness, and detailed insights from data. It is defined as a method that allows researchers to identify, analyse, and report themes within data (Braun and Clarke, 2006). In this study, thematic analysis was used for the negative tweets only to find out the most common issues that customers complain about. Doing so allowed us to address the third main objective of this paper. The study started with initial themes that were identified during the sentiment analysis, such as technical issues and no response and then more themes were categorised. In addition, to improve the quality of analysis quality, in some cases, the thread was reanalysed (series of related tweets) using the URL to get a clear and better understanding of the context and then put the comment under a proper theme.

The number of negative tweets analysed by conducting a thematic analysis is shown in Table 2-2.

Table 2-2 The number of tweets analysed using thematic analysis

The firms	Number of tweets
Firm A	549
Firm B	58
Firm C	604
Firm D	1350
Firm E	516
Firm F	45

2.3.4.1 The explanation of the negative tweets' themes

Table 2-3 Explanation of the negative tweets' themes

Theme		Definition
Customer service responses	No response	A customer tries to call or contact the firm but has not received any response.
	Late response	A customer tries to call or contact the firm but receives a late response.
	Robotic response	Customer complains that the responses they receive are robotic and they are unable to make human contact.
	Not calling the customer back	Customer complains that the firm does not call them back to solve their issues despite promising to do so.
	Not adequate customer service reps	Customer complains that there are not enough customer service reps to help them, and sometimes, there is no one at all.
	Professionalism in customer services reps	Customer complains about the customer service reps themselves (not

		professional, not respectful, not trained, etc).
Core services	Delay	The delay may occur for several reasons and issues. Sometimes customer complains about the delay in the claim's approval or in receiving the compensation that has already been approved by the insurance firm. In addition, the delay may be in connecting with government platforms, such as Absher and, the Council of Health Insurance CHI).
	Insurance products	When a customer complains about issues related to products, such as their price, coverage, or not having enough products.
	No communication channels	The customer complains that the firm does not provide proper channels for communication.
	Complexity in procedures	The firm has not provided easy ways/ steps for its customers to buy, renew policies, or get their issues solved.
	Not providing documents	When a customer asks for important documents, but the firm has not provided them.
	Rejections	The customer complains that the firm rejected their claims without providing reasons or providing reasons but the customer still is not satisfied. When a customer complains about rejection in general, we assume that the firm provides reasons for rejections.

	Policy errors	Some complaints are related to policies, mistakes or incomplete information.
	Partially approved	When a customer had not received a full approval. For example, when a customer needs approval for medical treatment for both eyes but receives approval for one eye only. In this case, it is classified as Partial approval. Also, when customers have not received the full compensation they asked for, it would be classified as Partial compensation.
	Honesty	Customer suspects the firm's honesty which is sometimes related to the contract they both signed or the firm's honesty in general.
Sales channels and communication	Branches closure	Customer complains about temporary or permanent closure of firm's branches. Sometimes customer complains that they visit the branch during opening hours, but it is closed.
	Not enough branches	Customer complains about the lack of availability of branches where they live, which forces them to travel to other cities to get help.
	Professionalism of sales reps	Customer complains about the sales reps themselves (not professional, not respectful, not trained, not helpful etc).
	App ease of use	Some customer negative comments are related to the firm's App. For example, it is not easy to find answers to their

		enquiries, to buy the insurance product, or to apply for claim approval etc.
	Website ease of use	Some customer negative comments are related to the firm's Website. For example, it is not easy to find answers to their enquiries, to buy the insurance product, or to apply for claim approval etc.
Technical issues	Customer complaints about technical issues happen to the firm's channels, such as website, App, system, and phone. Some issues for example occur in their system which makes customer wait for hours in hospitals to get their claims approved.	
Services provided in general	When a customer complains about the firm's services in general whether not helped, poor, or very late.	
Others	Some negative comments are very general and do not fit any of the themes.	

2.3.5 Research credibility

As the study focused on the complex concept of 'Reputation', including customer feedback and perceptions about such a firm on Twitter, the Author's perception may affect the analysis. Clearly, in some situations in sentiment analysis, a tweet might be classified as neutral, and another researcher might classify it as negative. In addition, even in identifying firms' communication strategies, the Author might have different opinions and thoughts. To address this issue, the data was analysed in four stages with a time gap to allow to distance the Author from the data. For example, the first stage was mainly concerned with analysing the sentiment of tweets. In the second stage, the sentiment analysis was revised and then identified the firms' SM communication strategies. After that, in the third stage, both tasks were revised that were performed in previous stages and identified the most common issues that customers complain about. Lastly, the fourth stage was directed to revise the customers' complaints identified in the third stage.

In addition to, the failure to decide on the proper code or theme for the chunk of data, the matter was discussed with a Saudi PhD researcher in business and management studies to arrive at a

unanimous code/theme. Since the sample was insurance firms in Saudi Arabia, the researcher would better understand the customers' tweets since they are from the same region and hold the same culture. Moreover, another Arabic researcher took a sample from the data (10%) and conducted the analysis (see Appendix A). Then, Cohen's kappa (κ) was utilised for Inter-rater Reliability. Cohen's kappa (κ) can range from -1 to +1. The inter-rater reliability between the Author's coding and the other researcher's coding for sentiment analysis, communication strategies, and thematic analysis was close to 1. Based on the guidelines by Landis and Koch (1977) and Altman (1990), a value close to 1 represents strong agreement. Therefore, the kappa (κ) represents a strong strength of agreement. This property helped to determine the reliability of the research. In addition, the analysis process is explained with examples for each code and communication strategy with detailed justifications.

2.4 Findings

2.4.1 Frequency of appearance of each code

Table 2-4 Frequency of appearance of each code

	Case	Positive	Neutral	Negative
1	Firm A	1%	65%	34%
2	Firm B	2.2%	53.4%	44.2%
3	Firm C	1.7%	68.6%	29.5%
4	Firm D	8%	43.8%	48%
5	Firm E	2.3%	45.6%	52%
6	Firm F	4.8%	67.6%	27.4%

This table shows that most customers' comments on Twitter were neutral and negative ones, whereas positive tweets were in a small range.

2.4.2 Firms' level of social media reputation

Table 2-5 Firms' level of social media reputation

	Case	Positive	Neutral	Negative	Level of social media reputation
1	Firm A	1%	65%	34%	Medium
2	Firm B	2.2%	53.4%	44.2%	Low
3	Firm C	1.7%	68.6%	29.5%	Medium
4	Firm D	8%	43.8%	48%	Low
5	Firm E	2.3%	45.6%	52%	Low
6	Firm F	4.8%	67.6%	27.4%	Medium

The results of the firms' SMR levels are shown in Table 2-5. According to the methodology, the firm should be classified as having a low SMR if it receives more than 40% negative codes. Therefore, since firms B, D and E received more than 40% negative codes, they are low-SMR firms. In addition, when the negative codes range between 20% and 40%, firms should be classified as medium SMR. As a result, firms A, C and F are medium SMR. Lastly, since none of the firms received less than 20% negative codes, no firm was classified as having a high SMR.

Some firms are classified as having low SMR based on customers' comments analysis on Twitter, although the Saudi insurance sector has performed well according to a recent report about the Saudi Insurance market (The Saudi Central Bank, 2021). However, the report highlights Saudi insurance sector performance in general, without naming any specific firm. According to the report, there was a growth in written premiums by 2.3%. The gross written premium that had been made available online reached 2.3 billion SR, compared with 1.3 billion SR in 2019. There was a slight decrease in the loss ratio from 81.9% in 2019 to 77.5% in 2020, which was related to the improvements that had been made to the loss ratio in motor as well as health insurance. There was a dramatic increase in net profit in the insurance sector by 61.6% compared with 2019, which led, in turn, to improve the return on assets and the return on equity rations. As the report highlights some important points about the Saudi insurance sector in general, the financial statements were downloaded from the Tadawul website for the six firms. Interestingly, the

numbers show that, for example, firms D and E have performed well in the last six years, with an increase in their net profit (Saudi Exchange, 2021), although they are classified as low-SMR firms based on customer comments on Twitter. Also, it is surprising that firm F is classified as a medium SMR while it has not performed well, with losses in the past six years (Saudi Exchange, 2021).

Moreover, in March 2020, Forbes Middle East ranked the most valuable listed insurance firms in Saudi Arabia after calculating their market value based on the region's stock exchanges; surprisingly, firm D was ranked as the most valuable one. It is followed by firms A, E and C, respectively (Forbes Middle East, 2020). In addition, it has been noticed while analysing the data that very large businesses in Saudi Arabia have contracted with firm D to provide health insurance to their employees. Such known and large businesses have contracted with firm D may indicate its high reputation, although according to the comments it is classified as having a low SMR. The same firm announced in December 2020 the prizes it won for the year related to its health insurance and customer service provided. Moreover, firm E is the primary sports business partner for an internationally successful Club. Together, these results provide important insights that customer comments on Twitter do not have a high impact on firms' reputations. In addition, if the firm is active on Twitter and has many customers, it is likely to receive more complaints.

2.4.3 Firms' social media communication strategies

2.4.3.1 Firms' Social Media Communication strategies according to the firm's total Responses

Table 2-6 Firms' social media communication strategies according to the firm's total responses

Case	Level of social media reputation	Interactive	Proactive	Unresponsive	Transparent	Secretive	Informative
Firm A	Medium	68.7%	31.2%	6.6%	.5%	25%	56.2%
Firm B	Low	66.6%	33.3%	60.8%	0%	40.5%	40.5%

Firm C	Medium	72.7%	27%	9.4%	2%	13%	63%
Firm D	Low	57.8%	42%	12.3%	0%	77.5%	8.5%
Firm E	Low	50%	50%	5.7%	.1%	43.7%	33.8%
Firm F	Medium	77%	23%	26.5%	0%	55.7%	28.3%

What stands out from Table 2-5 is the general pattern of firms' communication strategies according to their level of SMR. Medium SMR firms tend to be informative and use a transparent strategy, although the use was in a small range, such as firms A and C. In contrast, low-SMR firms tend to be secretive, such as D and E and more unresponsive than medium-SMR firms. This pattern has not been identified, for example, in firms B and F. A possible explanation for this might be that these firms joined Twitter just recently, and they seem to not be active like other firms in the sample (See Insurance firm's characteristics, Table 2-1(.

2.4.3.2 Firms' social media strategies according to the firm's total strategies used

Table 2-7 Firms' social media communication strategies according to the firm's total strategies used

Case	Level of social media reputation	Interactive	Proactive	Unresponsive	Transparent	Secretive	Informative
Firm A	Medium	36.4%	16.5%	3.5%	.3%	13.2%	29.8%
Firm B	Low	27.5%	13.7%	25%	0%	16.7%	16.7%
Firm C	Medium	38.7%	14.4%	5%	1%	7%	33.6%
Firm D	Low	29%	21.2%	6.2%	0%	39%	4.2%
Firm E	Low	27.2%	27.2%	3%	.06%	23.8%	18.4%
Firm F	Medium	36.5%	11%	12.6%	0%	26.4%	13.4%

As firms sometimes tend to use more than one strategy in one reply, the percentage was calculated for each strategy to the total strategies a firm uses. The results are quite like those of the previous analysis.

Diagram 2-1 illustrates how SMR ranking is linked to the SM communication strategies employed by firms.

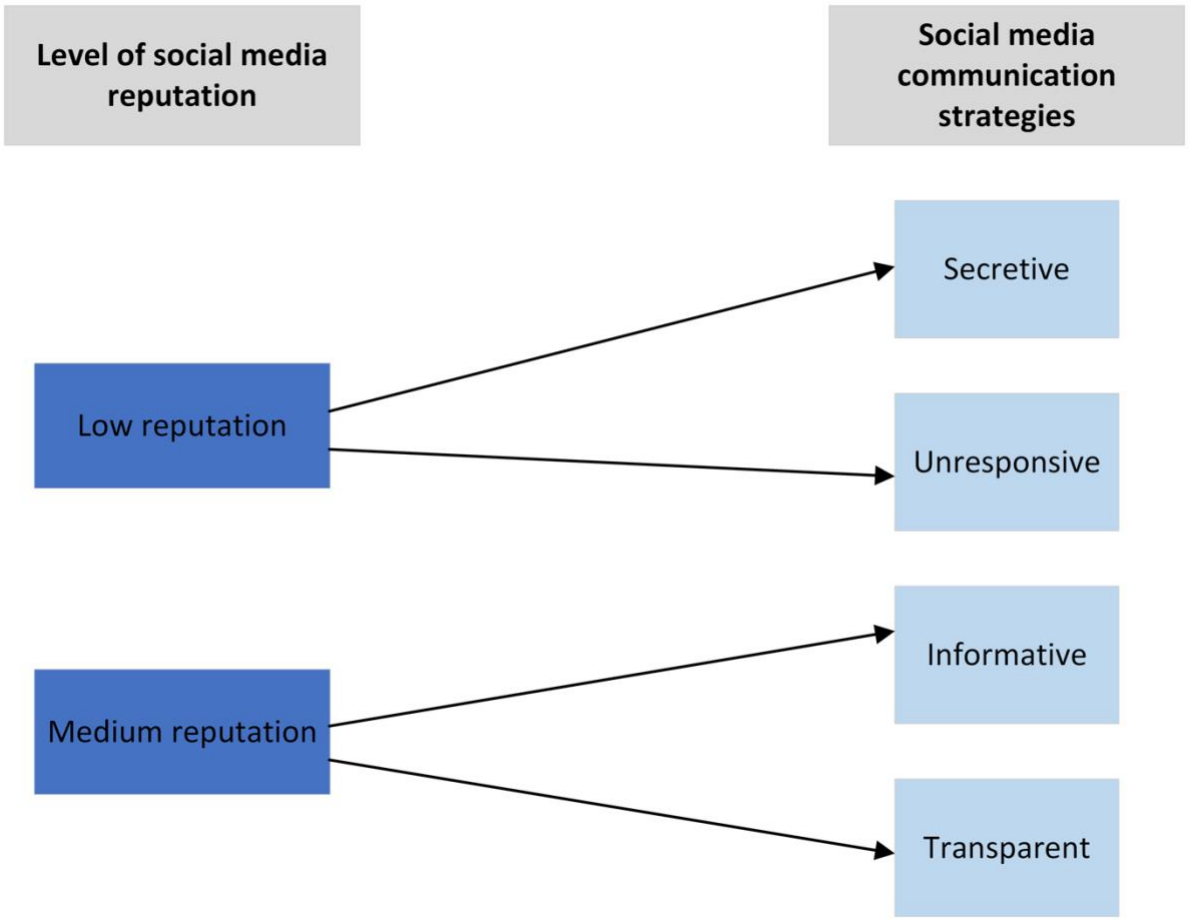

Figure 2-1 The link between the level of social media reputation and communication strategies employed by firms.

2.4.4 Sample quotes by the level of social media reputation and the code type

Table 2-8 Sample quotes by the level of social media reputation and the code type

	Level of social media reputation	Positive	Neutral	Negative
1	Low	I love you xxx *Red heart*	How can I change my mobile number? Please advise	One of the worst services, we've been calling since last week to renew our insurance and no reply, Shame!
2	Medium	Your service *first place medal*. Thank you	I would like to renew my insurance and get a no-claims discount. Please contact me.	We are so disgusted with your health insurance. How dare you stop my child from having a blood test when the doctor requests it due to his sickness? We are removing all our company from using your company. That's 25,000 SAR going to someone else

2.4.5 Sample quotes by type of communication strategy

Table 2-9 Sample quotes by type of communication strategy

	Level of social media reputation	Interactive	Proactive	Transparent	Secretive	Informative
1	Low	Hello xxx, kindly provide xxx with your membership number and phone number so they can assist you immediately.	Hello xxx, We're sorry to hear you had a bad experience, kindly provide xxx with your membership number and phone number so they can assist you immediately.	Hello xxx, sorry we have technical issues at this moment. Kindly provide us with your name and mobile number via private messages so we can assist you.	Dear, Kindly provide us with your membership number and phone number in a private message to assist you. Thank you	Hello xxx Thanks for getting in touch. We want to assist you as quickly as possible. Kindly follow the link to renew your policy. xxx If you have any further questions or concerns, please let us know. We are here to help.

						XXX Customer Care Team
2	Medium	Dear your request is under processing, and you will be contacted as soon as possible	Dear, your request has been submitted to the concerned department, and you will be contacted We are happy to serve you	Hello xxx, we are sorry that there is updating in our system at this moment. Happy to service you	Hello dear, please provide us with the ID number and contact number by private messages	Dear Customer, we sent your mobile number to the provider list for your network.

Table 2-8 illustrates the communication strategies that firms employ to respond to customers' inquiries and complaints. For example, as mentioned in the methods section, in interactive strategy, firms responded to customer inquiries and asked them for some information needed to update them with their claim requests. In addition, in a proactive strategy, firms responded to customers' complaints to manage any threat that might occur to their reputation. Therefore, firms apologised and assured them that they had worked on their issues to be solved. In a transparent strategy, firms acknowledged the mistakes that caused inconvenience for customers, such as technical issues and system updates. Moreover, in the secretive strategy, firms preferred to communicate through private channels rather than in public. Lastly, regarding the informative strategy, firms provided information in public, such as links for policy renewal.

2.4.6 Thematic analysis

The thematic analysis conducted for the negative comments posted by customers revealed three levels of themes: Level 1 themes are presented in grey, showing six main themes that emerge from customers' comments. In addition, level 1 themes are divided into sub-themes that represent level 2 themes (blue). These level 2 themes are also divided into level 3 themes (green). The diagram below illustrates all three levels.

2.4.6.1 Themes levels diagram

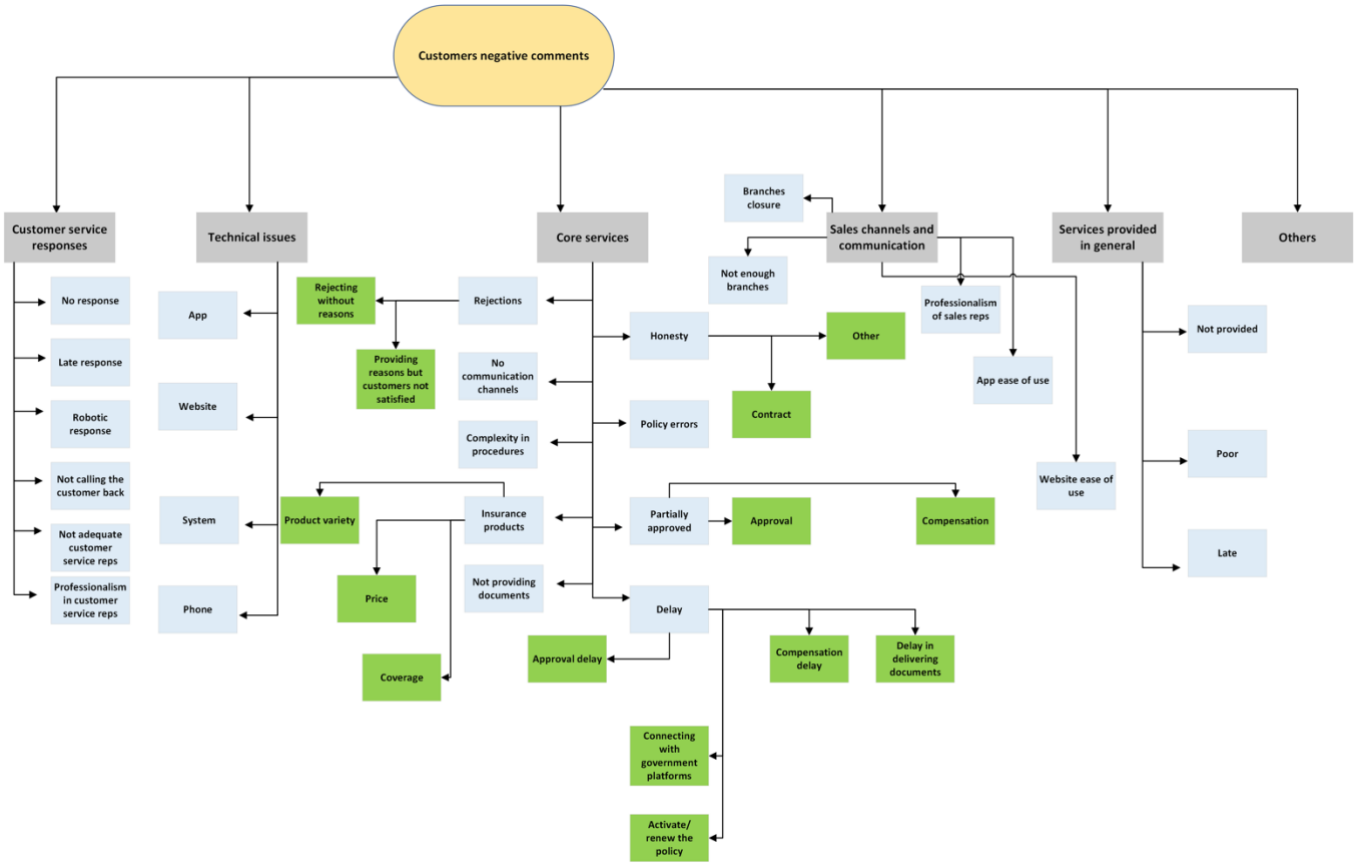

Figure 2-2 Themes levels diagram

2.4.6.2 The results of the main themes emerged from customer negative tweets(Level 1)

Table 2-10 The results of the main themes emerged from customer negative tweets (level 1)

	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
Level of social media reputation	Medium	Low	Medium	Low	Low	Medium
Customer service responses	34%	35%	20%	27%	42%	36%
Core services	35%	45%	38%	42%	35%	36%
Sales channels and communication	2%	0	3%	1%	2%	7%
Technical issues	5%	0	17%	6%	5%	9%
Services provided in general	21%	13%	16%	18%	11%	5%
Others	3%	7%	6%	6%	5%	7%

What is striking about the figures in Table 2-10 is that there is no difference between medium and low SMR firms regarding the complaints they receive. However, this table is quite revealing in several ways. It highlights some important aspects of the whole industry as directions to consider for future improvements. First, the sample does not seem to have severe issues related to the sales channels and communication, whereas most of the complaints are related to customer service responses, core services, and services provided in general. This leads to the deduction that these firms have put great efforts initially to acquire customers while their after-sales services are weak. In addition, some zeros in the results do not imply that this firm is perfect; rather, it may be because it is not active on Twitter or it recently launched its account, such as firm B.

2.4.6.3 Customer service response's theme with its related sub-themes (level 2)

Table 2-11 Customer service responses theme with its related sub-themes (level 2)

	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
No response	57%	88%	65%	56%	63%	85%
Late response	3%	4%	0.5%	2%	3%	0
Robotic response	1%	4%	0.5%	3%	2%	0
Not calling the customer back	13%	4%	6%	16%	10%	0
Not adequate customer service reps	2%	0	0	2%	1%	0
Professionalism in customer services reps	24%	0	28%	21%	21%	15%

It is apparent from Table 2-11 that most customers were complaining about not having received responses from the firms. In addition, the complaints related to late responses are low. A comparison of the two results revealed that firms tend not to respond to their customer's calls or messages at all, so that is why they do not complain a lot about late responses. And again, zeros in firms B and F do not mean that they are perfect.

2.4.6.4 Core services theme with its related sub-themes (level 2)

Table 2-12 Core services theme with its related sub-themes (level 2)

	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
Delay	44%	34%	55%	26%	67%	65%
Approval delay	29%	9%	66%	69%	68%	31%
Connecting with government platforms	17%	9%	15%	7%	12%	7%

Activate/renew the policy	7%	0	4%	9%	2%	0
Compensation delay	44%	27%	10%	8%	13%	31%
Delay in delivering documents	3%	55%	5%	7%	5%	31%
Insurance products	5%	12%	7%	4%	0.5%	15%
Price	73%	75%	77%	37%	100%	67%
Coverage	27%	25%	18%	50%	0	0
Product Variety	0	0	5%	13%	0	33%
No communication channels	1%	3%	0	0.5%	0.5%	5%
Complexity in procedures	11%	6%	11%	8%	10%	5%
Not providing documents	0	9%	0	0.5%	1%	0
Rejections	19%	9%	11%	45%	4%	0
Rejecting without reasons	13%	33%	9%	15%	27%	0
Providing reasons but customer not satisfied	87%	67%	91%	85%	73%	0
Policy errors	2%	0	0	0	0	0
Partially approved	3%	3%	3%	3%	1%	0
Partial approval	62%	100%	40%	73%	50%	0
Partial compensation	38%	0	60%	27%	50%	0
Honesty	15%	24%	13%	13%	16%	10%
Contract	19%	12%	21%	11%	12%	50%
Other	81%	88%	79%	89%	88%	50%

An inspection of the results in Table 2-12 revealed that most customers were complaining about the service delay and approval delay. In addition, the results show that insurance products are

expensive. Moreover, from the rejections and honesty themes, it may be deduced that some customers tend not to understand their policies as they were not satisfied, although firms provided them reasons for rejecting their claims. And that is why most of the customer complaints in the honesty theme were not connected with their contracts. However, the results, as shown in Table 2-12, indicate that firms are doing well regarding providing documents to customers, sitting communication channels, policy errors, and partial approval.

2.4.6.5 Sales channels and communication theme with its related sub-themes (level 2)

Table 2-13 Sales channels and communication theme with its related sub-themes (level 2)

	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
Branches closure	35%	0	48%	0	7%	0
Not enough branches	0	0	4%	0	53%	0
Professionalism of sales reps	40%	0	4%	12%	13%	50%
App ease of use	10%	0	18%	75%	0	0
Website ease of use	15%	0	26%	13%	7%	50%

2.4.6.6 Technical issues theme with its related sub-themes (level 2)

Table 2-14 Technical issues theme with its related sub-themes (level 2)

	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
App	20%	0	9%	22%	0	0
Website	62%	0	45%	23%	66%	100%
System	10%	0	37%	39%	8%	0
Phone	8%	0	9%	16%	26%	0

2.4.6.7 Services provided in general theme with its related sub-themes (level 2)

Table 2-15 Services provided in general theme with its related sub-themes (level 2)

	Firm A	Firm B	Firm C	Firm D	Firm E	Firm F
Not Provided	28%	20%	27%	28%	44%	67%
Poor	38%	70%	62%	60%	49%	0
Late	34%	10%	11%	12%	7%	33%

2.5 Discussion

The present study was designed to achieve three main objectives. Firstly, it aimed to classify the firms' reputation level based on customers' comments. Next, to investigate how these firms respond to customers' comments on Twitter. Finally, to explore the common issues that customers complain about. In addition, there are two secondary objectives were also achieved as follows. Firstly, to investigate whether there is a link between firms' SMR and the SM communication strategies employed. Then, to investigate the link between firms' SMR and the types and percentages of complaints received from customers.

The main finding shows that three firms have been classified as having low SMR including B, D and F, whereas the others have been classified as having medium SMR, namely as A, C and F. However, some firms that are classified as having low SMR have been ranked as the most valuable listed insurance firms in Saudi Arabia (Forbes Middle East, 2020). Other firms, however, who are classified as medium have reported losses in their financial statements. Thus, it does not seem that customers' comments on Twitter impact a firm's reputation. This finding is somewhat surprising, as previous work reported that Twitter comments impact customer perceptions and PDs (Dellarocas, 2010). A possible explanation for the results might be what Anderson's (1998) study stated that customers tend to share their service experiences with others about such a firm, especially when they have received very good or very bad service. Therefore, it might reflect the fact that most customers are satisfied, but they do not post their experience on Twitter.

In addition, this result may also be explained by the prospect theory, which would suggest that customers are more sensitive to losses than gains, so the impact of receiving poor but unexpected service is greater than the impact of good but unexpected service (Rust *et al.*, 1999). The analysis of the comments provides some evidence for this idea, where most are negative. Moreover, firms launch their Twitter accounts mainly for customer care (Harmeling *et al.*, 2017;

Ibrahim, Wang and Bourne, 2017), which customers mainly use to voice negative opinions and experiences.

Another possible explanation for this may refer to the service recovery (well-managed complaints), which sometimes turns customers who receive an excellent service recovery into loyal ones (Hart, Heskett and Sasser, 1990).

Moreover, it has been mentioned in the literature that the effect of online feedback tends to be more pronounced for firms that are not well-known (Vermeulen and Seegers, 2009). As most of the sample is based on well-known firms, the effect of Twitter comments may not be as noticeable. Also, it is not easy to follow the feedback on Twitter, reducing the possible impact comments might have on PDs. What is also important to emphasise is that some insurance products are mandatory by the government, such as motor insurance, leaving individuals with little choice about whether to purchase them or not, regardless of the firm's reputation. Customers' PDs, thus, may be driven by other factors, such as price, rather than Twitter comments. Also, as firms are required by law to offer health insurance to their employees, it is not the individuals (employees) who make the decision but the employers. Therefore, even if individuals are unsatisfied, there is little they can do aside from posting comments on Twitter.

Another possible explanation is that firms that are classified as having low SMR based on customers' comments and ranked as the most valuable firms according to the Forbes Middle East may have employed effective SM risk management tools. These tools might be able to detect negative tweets or complaints in the early stages before they escalate into reputation crises. It has been stated by Golia (2011) that PEMCO is a firm that sets Google alerts to be aware of customers' feedback, track them appropriately, and take proper actions. Indeed, since these tools detect complaints quickly, customer complaints would be resolved promptly. According to Stevens et al., (2018), timeliness is key in terms of responding to customers and addressing their complaints. In addition, Conlon and Murray (1996) suggested that fast interactions with customer complaints are likely to increase CS and repurchase intentions.

Finally, customers represent only one group of stakeholders, while there are other groups (Freeman and David, 1983), and they may hold different perceptions of these firms (Fombrun and Rindova, 1996). In other words, firms may possess multiple, and at times contradicting, reputations (Wartick, 2002). Thus, the financial success of a firm is driven and impacted by a host of factors and not only customers' opinions or Twitter comments. Therefore, a firm may be classified as having a low SMR based on customers' comments on Twitter, while it may have a high reputation according to other stakeholders' groups, such as investors and government agencies, which reflect on its revenues and financial statements.

Another key finding of the study is that firms' SMR is linked to their communication strategies towards Twitter comments. For example, medium SMR firms tend to be informative and use a transparent strategy, while low SMR firms are secretive and more unresponsive. This finding is consistent with Floreddu, Cabiddu and Evaristo (2014) and Floreddu and Cabiddu (2016), who reported that different firm reputations are associated with different SM communication strategies. In other words, the SM communication strategies that firms use tend to shape the online reputation (Bunting and Lipski, 2001; Floreddu, Cabiddu and Evaristo, 2014; Floreddu and Cabiddu, 2016). In addition, firms can use their communication strategies to try and enhance their reputation (Rindova and Fombrun, 1999), which can also be applied to the SM realm. Stevens *et al.* (2018) claimed that SM platforms could be seen as good channels that allow firms to interact with their customers and respond quickly to product/service failure. The nature of SM makes the well-managed service recovery a positive impact on existing and potential customers. Therefore, although customers can post their opinions on SM, firms can mitigate, respond to, and manage these comments and utilise them to their advantage.

The following can be inferred from the link between a firm's SMR ranking and its SM communication strategies. Customers might not be satisfied with the unresponsive (no response at all) and secretive (response in a private channel) strategies that some firms use and have the impression of ignorance by firms to their issues and complaints raised. Hence, these firms received a low SMR rank based on customers' comments. In contrast, customers may have a sense of appreciation from firms that use transparent (acknowledgement of the issues) and informative (providing such information and answers in public) strategies. This may result in positive comments from customers afterwards. Therefore, firms that use these strategies were ranked as having a medium SMR. Furthermore, firms' SM communication strategies may influence potential customers when they read the previous dialogue between firms and their customers.

Finally, it seems that there is no difference between low and medium-SMR firms regarding the number and type of complaints received. Most customer complaints are related to customer service responses, core services, and services provided in general, whereas there are no big issues in sales channels and communication. Why is this the case? First, this may reveal that the insurance industry is still growing in Saudi Arabia. Secondly, it might be that some customers have difficulties understanding the insurance firms' policies and thus complain about the core services. Finally, some issues (themes) are linked to one another. For example, if one customer needs claim approval and contacted the firm but has not received any response, the customer may have posted a complaint about the customer service responses and core services (as the claim had been delayed) in one tweet.

In conclusion, the analysis has led to a rethink of the factors that may affect the SMR and has raised important questions for further investigation. Are customer comments the only factor affecting a firm's SMR, or are there other factors? How about the time that firms respond to their customer? Does it matter? What about the social responsibility? How about the firms' communication strategies? How about the customer who comments about such a firm, whether positive or negative? Do people trust them? Do they write their real name? Are they celebrities or known people, such as influencers or doctors? Are they active on Twitter? Are they businesses? How about the number of retweets and likes? Does it matter? How many factors affect a firm's SMR? One? Two? More? Combined or separated?

In addition, comments on Twitter might not only threaten and damage SMR but can also add to a firm's reputation positively. Firms can benefit from Twitter by extracting the unfiltered information that has been shared and customers' opinions quickly and cheaply. Firms can take the opportunity from Twitter by establishing a good relationship with their customers and understanding their interests and expectations to develop their business accordingly.

2.6 Limitations and Future Research

While this study contributes valuable insights to the literature, it is essential to acknowledge its limitations and provide avenues for future research. Firstly, as this research targets insurance firms and the specific geographical markets as a case for the service industry, further research is needed to examine this topic in other service industries, such as banking and other countries. In addition, since this research focuses on one platform (Twitter), there is an opportunity to conduct further research on different platforms. Furthermore, as the sample consists of six firms, it may be better to expand the sample that include more than six firms to obtain more accurate results. Moreover, to have more insightful research, a comparative study is also needed between developed and developing countries, different platforms or different industries.

Lastly, the study only considered negative tweets to identify firms' level of SMR, further research may take neutral or positive tweets into account. The identified avenues for further research offer exciting prospects for advancing the understanding of the impact of customers' comments on SM on firms' SMR.

2.7 Theoretical and practical contributions

Through a comprehensive analysis of customer comments on Twitter, this study sheds light on the two important contributions to marketing and organisational behaviour literature as follows. The study contributes to the existing knowledge by concluding that customers' comments on

Twitter do not significantly impact service firms' SMR. This contradicts previous research, which suggested that Twitter comments influence customers' perceptions of firms (Dellarocas, 2010). This insight enhances our understanding of the relationship between SM interactions and SMR, the nuances in customer behaviour, and the effectiveness of SM communication strategies.

Furthermore, this study corroborates previous research (Floreddu, Cabiddu and Evaristo, 2014; Floreddu and Cabiddu, 2016) where there is a connection between the sentiment of customers' comments on SM and the communication strategies firms use to respond to them.

In terms of practical contribution, firms need to take responsibility for improving their communication strategies because SMR is fragile and susceptible to enhancement and damage. Strengthening the SMR necessitates collaboration between firms and their customers, as the increasing use of SM complicates reputation management.

2.8 Conclusion

Reputational risk management tends to be challenging, and it has been termed as the risk of risks (Eccles, Newquist and Schatz, 2007; Heidinger and Gatzert, 2018). The introduction of SM has made managing such risk even more challenging (Floreddu and Cabiddu, 2016; Heidinger and Gatzert, 2018). There is a growing body of literature that recognises the importance of CR (Shapiro, 1983; Wang, Lo and Hui, 2003; Eccles, Newquist and Schatz, 2007) and SM concerning purchase decisions (Dellarocas, 2010; Utz et al., 2012). However, a literature search has revealed few studies which examine firms' reputations based on customers' comments on SM (Floreddu, Cabiddu and Evaristo, 2014; Floreddu and Cabiddu, 2016). Therefore, this paper aims to critically investigate the impact of customers' comments on Twitter on service (insurance) firms' SMR. To address the research question, six insurance firms were sampled, and a multiple case study method was employed. Firstly, the comments were coded that were written by customers as positive, neutral and negative and then I classified the firms' level of SMR accordingly. Then, the SM communication strategies that firms use to respond to their customers were investigated. This was followed by two stages. The first stage consists of three communication strategies: interactive, proactive and unresponsive. So, even no response was considered a strategy. In the second stage, there are three strategies: transparent, secretive and informative. Thus, one response may have more than one strategy. Finally, the thematic analysis of the customers' negative tweets to explore the most common issues that customers complain about was conducted.

The results show that among the sample, three firms are classified as having low SMR, whereas the other three are classified as having medium SMR. Surprisingly, some firms that are classified

as having low SMR are ranked as the most valuable insurance firms in 2020 (Forbes Middle East, 2020), and another firm that is classified as having medium SMR has kept disclosing losses in its financial statements (Saudi Exchange, 2021). This leads to the conclusion that customers' comments on Twitter tend not to have a strong impact on firms' reputations. Moreover, another finding shows that there is a common pattern that firms follow regarding the communication strategies they use; this pattern is based on their level of SMR. Low SMR firms tend to be more secretive and unresponsive, while medium SMR firms are more informative and use transparent strategies. However, it seems that there is no difference between low and medium-SMR firms regarding the type and percentage of the complaints they receive. Most of the complaints in the whole sample are related to the customer service responses, core services, and services provided in general. Also, there are no big issues regarding the sales channels and communication.

The findings are surprising and have urged further exploration. Hence, the second study (chapter three) was designed to study SM risk management in insurance firms in Saudi Arabia (the same context) with two primary objectives: to explore the procedures and policies that firms apply to manage SM risk and to investigate how firms tackle digital complaints that have been received by customers.

Chapter 3 Paper 2: Social media risk management by Saudi Arabian insurance firms

Abstract

Even though there has been an increase in the extent to which social media (SM) can create reputational risks for organisations, there are only a few studies on SM risk management. To address this issue, the study's objectives are to investigate (i) the procedures and policies that firms put in place to manage SM risks and (ii) how firms address the digital complaints received from customers. To achieve these objectives, interviews are conducted with risk committee members and chief executive officers (CEOs) in ten insurance firms in Saudi Arabia to obtain a deeper exploration of their SM risk management practices. Grounded theory is employed in the study for the data analysis.

Results show that firms are divided in terms of managing SM risks into two groups: proactive and reactive. Proactive firms set a comprehensive SM governance, implement SM strategies, and invest in technology, such as chatbots empowered by artificial intelligence (AI). In contrast, reactive firms tend to manage risks that have already emerged and only follow the regulations set by the central bank. This result facilitates the development of the SM radar concept that characterises how proactive firms tend to employ in their SM platforms.

Other results from the study show that proactive firms have a precise mechanism for addressing the digital complaints received from customers, including the utilisation of technology to save time, cost, and effort and increase customer satisfaction (CS). Having such a mechanism allows proactive firms to sometimes transfer the complaint into an opportunity when possible. For example, some firms get ideas from customers' complaints and that helps them to develop a new insurance product or an extension of an existing one. However, reactive firms lack such mechanisms, causing them to lose customers, market share, and other opportunities.

3.1 Introduction

Social media (SM) has become one of the most important venues for communication and information exchange, with billions of users turning to them daily. Although firms' use of SM can be beneficial and add value to their business, it can also pose several risks. These risks could result from unedited and unfiltered content that has been shared. Also, increased interactivity and spontaneity between firms and stakeholders may create such risks (Scott and Jacka, 2011). In addition, other risks can emerge from using SM, such as risks related to information technology security and information leakage, employees' behaviour, and reputation (Brivot, Gendron and Guénin, 2017). Whereas each type of risk has its potential cost, the financial risk that could stem from the misuse of SM is the top concern of the company's top management (Deloitte, 2012). However, since reputational risk has been termed as the risk of risks (Heidinger and Gatzert, 2018), all SM risks mentioned above may contribute to creating reputational damage. Thus, reputational risk management was chosen in SM for this paper.

There is growing evidence that SM risk management is fundamental to the survival and prosperity of firms. The literature is rich on social media studies in several management contexts, such as project management (Ram and Titarenko, 2022), customer knowledge management (Chen et al., 2022), process management (Prodanova and Van Looy, 2019), and crisis management (Eismann, Posegga and Fischbach, 2021). However, to the best of the author's knowledge and through search in peer-reviewed databases, only a few studies have examined SM risk management (Arnaboldi, Azzone and Sidorova, 2017; Demek *et al.*, 2018; Lenk *et al.*, 2019). Moreover, Aula (2009) argues that SM tends to increase the possibility that firms may face reputational risk. Users can easily generate content and share unfiltered information with others, which might lead to reputational damage. Also, they may express their feeling and opinions about the firms, which may differ from what firms want the public to know or to share over social network sites. Furthermore, Aula (2010) maintains that SM is likely to fuel new expectations or perceptions concerning firms, which the latter need to respond accordingly. The reputational risk may also result from firms' communication strategies in SM, including how firms react when they receive digital complaints. Despite the significant impact of social media platforms on firms' reputations, there is a notable gap in research focused on understanding and mitigating the associated risks. This lack of empirical studies highlights the need for a more thorough examination of the challenges and strategies involved in social media risk management in today's digital landscape.

Although the insurance industry in Saudi Arabia is highly regulated, there is no specific regulation addressing SM risk management. The risk management regulation published by the Insurance Authority (IA) includes two brief sections on reputation and information technology risks (The Insurance Authority, 2008). It could be argued that these risks may stem from SM, along with other

types of risks that firms face, ultimately contributing to reputational damage. Therefore, this lack of specific awareness highlights the need for research that deeply investigates SM risks and how insurance firms manage them.

Thus, this research will address the question: How do service firms manage SM risks? The paper has two main objectives. Firstly, to investigate the procedures and policies firms apply to manage SM risk (Twitter in particular). Secondly, to investigate how firms tackle digital complaints that have been received from customers.

In addition to the scarcity of empirical research on SM risk management, the study is focused on investigating SM risk management procedures employed by firms and how they tackle digital complaints posted by customers for several reasons, as follows. First, the association between corporate reputation (CR) and customers' purchasing decisions (PD) is indisputable. For example, in 2015, the Reputation Institute conducted a survey which revealed that firms with positive reputations experience more significant support from their key stakeholders. According to the survey's results, a vital link exists between a firm's reputation and a customer's propensity to buy from it and recommend it to others. Indeed, the report indicated that 83% of customers agree that if a firm has a strong reputation, they will undoubtedly purchase products from it. This starkly contrasts with the 9% of customers considering doing the same thing from a firm with a weak reputation (Airmic and Reputation Institute, 2015).

In addition, word of mouth (WOM) is one of the most critical factors in driving sales and providing a competitive advantage (Richins and Root-Shaffer, 1988). Therefore, investing in a firm's reputational risk management can positively affect its bottom line since it promotes recommendations and helps boost WOM. Firms that can increase their reputation from weak to strong could improve the percentage of customers who will undoubtedly say something good about it from 8% to 50% (Airmic and Reputation Institute, 2015). It is important to note that a strong reputation will have a favourable impact on the discussions on SM, which is where many firms are currently fighting for revenue growth. Therefore, understanding the complexity of SM risk management in terms of reputational risk and digital complaints is vitally important.

Work by Eccles, Newquist and Schatz (2007), focusing on reputation and its associated risks argues that three factors can contribute to reputational risk. Firstly, the reputational risk might be increased when the stakeholders change their expectations about such a firm. Also, it may be increased if firms are internally unable to respond to and follow the change that may happen in the environment. The authors argue that an ''important source of reputational risk is poor coordination of the decisions made by different business units and functions'' (Eccles, Newquist and Schatz, 2007, p. 109). Finally, when there is a growing gap between a firm reputation and its reality, there is a corresponding increase in reputational risk.

SM tends to have a significant impact on firms' strategic objectives. Regarding communication, SM is best described by the simplicity in searching, freely expressing opinions and feelings, open dialogue, networking with others and the rapid spread of content (potentially worldwide). This dynamic liaison between firms and stakeholders tends to reduce a firm's ability to control what is expressed on SM platforms and facilitate communication among different groups of stakeholders. In addition, regarding strategic reputation management, firms cannot control the content shared in advance as they might be able to do over more traditional communication channels (Aula, 2010). This implies that firms might find it challenging to exert control over what information is being spread and discussed in SM. This becomes an even more significant challenge when firms face possible damage to their reputation (Xifra and Ordeix, 2009).

The power and influence of SM has been growing, yet a report by KPMG (2021) indicates that many firms still need to take these risks seriously. This may be due to two reasons. First, firms may not be aware of the different risks and the magnitude of SM risks. Second, they may be aware of these risks but have not developed the necessary mechanism to tackle or address these risks. For example, a leading electronic car company had to pay a $40 million fine following a tweet by one of its employees. Following this incident, the company introduced essential changes to its board of directors and established a new committee for better governance and monitoring of SM platforms (KPMG, 2021). Therefore, research in SM risk management needs considerable critical attention, and this urges to conduct the study targeting the board of directors to explore how firms manage SM risks.

Arnaboldi et al., (2017) examined how accounting firms seize the opportunities that SM creates and manage its relative information. The results show that SM information is powerful and can benefit managers in performance management through SM. Such information can help build indicators for several types of assessments and enhance the decision-making process. However, although opportunities are considered part of risks, this study tends to focus on accounting and performance management instead of risk management. Therefore, although the study targets SM opportunities, its objectives are different.

Another study among accounting firms (Lenk et al., 2019) was designed to identify how such firms conduct social technology and risk management. The study found that managers in accounting firms are aware of risks that emerge from SM and seek to manage them. However, it highlights that the sample (three large firms) is insufficient, so the findings cannot be generalised. Also, accounting firms tend to be more conservative than other industries. Therefore, the study suggests examining SM risk management in different sizes of accounting firms and different industries.

A SM risk management model was developed based on the Committee of Sponsoring Organizations (COSO) framework (Demek *et al.*, 2018). The model was used to determine if firms dealing with risks posed by SM are compatible with a formalised risk management process. The study finds that firms' increased use of SM increases perceived risks accordingly. Also, firms with more perceived risks are more likely to implement policies to manage SM risks than others, and firms with more SM policies provide more training to employees and have increased technical controls. The study indicates that firms tend to adopt a reactive risk management approach through SM instead of following a proactive one (formalised risk management process).

However, the study has several limitations as it needed to capture how SM risk management evolved based on the feedback firms receive, whether internally or externally. It is also unable to distinguish whether the policies implemented to manage SM risks reflect such a firm's choice regarding risk management (accept, share, reduce). Additionally, the study does not examine in detail how firms manage SM risks. The authors indicate that a quantitative study conducted for 98 participants as a sample is not enough to examine risk management in SM and suggest further research that is conducted qualitatively.

To address that, Demek et al., (2018) study is expanded in this paper and contributes to the management and governance literature. This study is focused on reputational risk as a case of SM risks and the insurance industry as a case of service firms. A qualitative study is conducted based on semi-structured interviews with risk committees of ten insurance firms in Saudi Arabia. The study is designed to provide me with much deeper and more precise information as to how SM risk management practices (both SM opportunities and threats) take place within the insurance industry in Saudi Arabia.

The findings show that firms are divided into two groups in terms of SM risk management: proactive and reactive. Proactive firms have comprehensive SM governance in place and employ several SM strategies. In addition, they invest in technology like AI to manage these risks properly. Reactive firms, on the other hand, tend to only manage risks that have already surfaced, and the regulations set by the regulator. Based on this finding, the SM radar concept was developed that proactive firms implicitly apply on their SM platforms for risk management. Another key finding reveals that proactive firms have a clear mechanism to address the digital complaints received from customers, which allows them sometimes to transfer complaints to opportunities. However, reactive firms lack such a mechanism, which makes them miss several opportunities, market share and customers.

The remainder of this paper is structured as follows. The first section is a review of the related literature. The following section is concerned with the methodology employed for this study. Next, it follows with analyses of the results of interviews. Then, the results are discussed in the existing

literature. The final section is divided into the limitations encountered while conducting the research, the conclusion, and suggestions for further research.

3.2 Literature review

3.2.1 Board of Directors

CR risk involves shifts in the perceptions of key stakeholders, such as employees, directors, customers, third-party vendors, and regulators. This study focuses on the board of directors, as they bear primary responsibility for overseeing risk and evolving procedures and policies within firms (COSO, 2017). This focus aligns with the study's objectives.

The role of the board of directors is of key importance in the financial sector. Since there is a high information asymmetry and intense regulation in the sector, boards become essential in monitoring managers' behaviour, overseeing risk management processes, and designing and implementing business strategies (Andres and Vallelado, 2008). Therefore, SM risk management in the insurance industry, which is a part of the financial sector focused on the board of directors and risk committees would enrich the study with details and essential insights.

While COSO (2017) assured that the board of directors have the responsibility for oversight of risk management, boards tend to delegate some of their responsibilities to dedicated committees (Branson, 2010; Liao and Hsu, 2013) to enhance performance (Wild, 1996).

Sobel and Reding (2004) argued that while boards set the policies for risk management, the responsibility does not rest with them, nor with internal or external auditors, but with management. Boards provide directions, guidelines, and general oversight within firms, whereas internal and external auditors assure the effectiveness of financial risk management based on an accounting standards standpoint. They suggest that "Melding Enterprise Risk Management (ERM) with governance means directors, senior management, internal and external auditors, and risk owners must work interdependently" (Sobel and Reding, 2004, p. 29).

Many published studies (Adams, 1994; Lambert, 2001; Subramaniam, 2006) argued that boards are responsible for internal monitoring while external auditors are responsible for the external one. In addition, according to the Financial Reporting Council (2014), boards have the ultimate responsibility for risk management, although many of them have delegated this role to a committee. However, the board of directors monitors such a committee to ensure the risk management function matches the firm's strategy and decisions. The primary purpose of this committee is to apply the ERM program, oversee the business risks that firms may face, and receive reports from the management. The committee regularly communicates with the entire

board about the firm's risk profile and provides them with proper recommendations (Walker, 2009; Financial Reporting Council, 2014).

Subramaniam et al. (2009) argued that the board of directors plays a crucial role in overseeing management behaviour, ultimately leading to effective accountability and disclosure. This can be deduced from the percentage of non-executive directors within the board and to what extent that board of independent of management. Pincus, Rusbarsky and Wong (1989) stressed that the existence of non-executive directors on the board "should increase the quality of monitoring because they are not affiliated with the company as officers or employees, and thus are independent representatives of the shareholders' interests" (p. 246). In addition, it has been argued that non-executive directors are more concerned about their reputation, leading them to look for high-quality corporate governance than executive directors. Previous research has argued that the more non-executive directors that firm has, the better governance will be, such as minimising fraud (Uzun, Szewczyk and Varma, 2019), as well as earnings management (Klein, 1998) and increasing the quality of financial disclosure (Chen and Jaggi, 2000).

Hillman and Dalziel (2003) claimed that the board of directors should have specific skills and expertise to monitor managers effectively. Also, prior literature has argued that the level and type of education that directors attain greatly influence their knowledge and skills and highly affect their decisions (Johnson, Hoskisson and Hitt, 1993). Moreover, the more diverse backgrounds that directors have, the more diverse information, compelling interpretations, and informed decisions they make (Hambrick and Mason, 1984; Wiersema and Bantel, 2017). Therefore, once directors have diverse educational backgrounds, several risks will be identified, and the ERM program will effectively be applied within firms.

Eggleston and Ware (2009) argued that risk management commands several parties' attention, such as boards, executives, and regulators. All sizes of firms tend to focus only on the systematic risks that threaten their long-term health and continuity. What is essential for firms is to address the question, what role should the board have in oversight risk management? Should they assign a dedicated risk committee to manage risks, including those that emerge from SM, or should they do it themselves? According to Eggleston and Ware (2009), firms should consider three factors before deciding whether to establish a separate risk committee; these factors are related to industry, history, and structure. Firstly, specific industries are more exposed to risks than others, such as banking and insurance. The latter tends to take risks as a part of their core business plan, so they must manage their risks to generate more revenue and profits effectively. If the inherent risks of the firm's risk profile are high, the firm's board should consider establishing a separate risk committee to oversee such risks effectively. In addition to firms that operate within high-risk environments, other firms find establishing a risk committee is essential. These firms historically

have not been able to manage the risks they have encountered effectively. This does not relate to their industries; they tend to have significant compliance issues and inaccurate risk predictions. Therefore, having a dedicated risk committee may help focus on and properly manage risks. Finally, some cases are structural matters, so establishing a risk committee might be an appropriate solution. For example, some issues might prevent the board of directors from exercising a comprehensive oversight of risk management fully and effectively. Also, the audit committee may be overwhelmed with its responsibilities and could not give the risk management the attention it deserves.

As financial institutions are likely to establish risk committees based on the discussion above, it is assumed that insurance firms would have assigned risk management to a risk committee. Thus, it is further assumed that risk management would be performed more efficiently, quickly and effectively when a dedicated risk committee exists. It is expected that directors dedicated to overseeing risks will likely build valuable expertise over time and effectively contribute to the ERM program.

Many board of directors are frustrated with finding practical tools that help them build resilience and protect their reputations (see Airmic and CIMA report, 2015). McKinsey report reveals that directors struggle to find time to closely examine the spectrum of business risks that their firms may encounter. Respondents indicated that board directors probably take business strategy more seriously than risk management, which is still considered weak. Less than 30% of directors reported having sufficient knowledge and understanding of the possible risks. In contrast, others indicated that they have limited knowledge or no understanding of future risks their firms may encounter (see McKinsey report by Bhagat et al., 2013).

3.2.2 Board-level of committees

Another factor that could help mitigate risk is the board level of committees. One essential purpose of the board-level committees is to assist the board of directors to perform more effectively. With the increasing number of board roles nowadays, establishing committees is essential. Committees are extensions of the board of directors since members usually need more time to carry out all their duties (Lipton and Lorsch, 1992). Therefore, regular committee meetings will likely help them identify potential problems and prepare appropriate responses and actions.

Harrison (1987) suggested that establishing committees is likely to help directors devote their attention to some crucial responsibilities and improve their participation in the board committees' meetings. Other studies suggested that having separate committees could have a positive impact on firms' performance (Klein, 1998), enhance firms' strategy (Vance, 1983), and reduce agency issues (Davidson, Pilger and Szakmary, 1998). Therefore, establishing committees tends to be

beneficial if the agency costs are high, such as having a high-risk profile, organisational complexity, and being a large firm.

Harrison (1987) identified that there are two types of committees. One performs a strategic role in advising management and the board in making better and more informed decisions. The other focuses on overseeing, such as audit, remuneration, and risk committees. These committees are crucial in enhancing board accountability since they oversee several boards' activities. Also, previous literature has examined the role of the risk management function to the audit committee (Harrison, 1987; Korosec and Horvat, 2005), whereas recently, there has been an essential growth in the existence of risk management committees (Subramaniam, Mcmanus and Zhang, 2009).

Since the early 2000s, we have been witnessing an increasing awareness by capital market regulators of the importance of risk management (Brown, Steen and Foreman, 2009). For example, The New York Stock Exchange has required all listed firms to establish an audit function to provide the management with an assessment of risk management and internal controls (Pforsich, Kramer and Just, 2006). Like the NYSE, the Toronto Stock Exchange has required companies to adhere to similar requirements (Kleffner, Lee and McGannon, 2003). In the United Kingdom, a survey conducted in 2004 for the audit committee chairmen reveals a vital shift: from traditional reporting to one focusing on risk management and internal controls (Windram and Song, 2004).

Branson (2010) argued that to apply an ERM system effectively, the audit committee should allocate sufficient time and effort to monitor it. Previous research has shown that influential committees tend to meet regularly (Menon and Deahl Williams, 1994) and that there is a positive correlation between the number of meetings and the quality of financial reporting (Abbott, Parker and Peters, 2004; Beasley, Clune and Hermanson, 2005) and the quality of the auditing process (Zaman, Hudaib and Haniffa, 2011). Furthermore, audit committees with more frequent meetings have more efficient internal control (Bronson, Carcello and Raghunandan, 2006).

Although Bradbury (1990) argues that the presence of an audit committee could help reduce information asymmetry among internal and external parties, Reeb and Upadhyay (2010) stated that separating directors into specialised committees can contribute to creating information asymmetries among directors. This could be like the costs of organisational decentralisation, as these committees will focus only on their responsibilities instead of corporate overall goals, which may ultimately lead to suboptimal decisions. So, the costs of establishing specialised committees may be communication and coordination issues. Furthermore, some firms collapsed because of their ineffective risk management practices, which raises doubts about the effectiveness of audit committee oversight (Bates and Leclerc, 2009; Brown, Steen and Foreman, 2009). A survey by the Conference Boards of Directors report (2007) revealed that around 66% of

firms assign risk oversight to audit committees. However, a considerable number of firms, between 23% to 28%, have indicated that their audit committee is already overwhelmed with responsibilities. Therefore, they have asked other committees, such as the governance committee, to share risk management with the audit committee or transfer it to a dedicated risk committee (see Tonello, 2007).

Hence, it can be deduced that although these committees need to work interdependently, risk management is beyond the scope and capabilities of the audit committee alone. Also, the role of risk management is the audit committee's responsibility in some firms, while other firms have established risk committees in this regard. As the focus of the study is on the insurance industry (which is one type of financial institution), it was assumed that they already have a risk committee.

3.2.3 Risk management

There is evidence in the literature (Subramaniam, Mcmanus and Zhang, 2009; Malik, Zaman and Buckby, 2020) that after the Global Financial Crisis of 2008, several governance efforts have been introduced to enhance corporate governance, with a focus on the importance of risk management. A study in corporate governance and risk management committee by Subramaniam et al., (2009) found that applying risk management programs effectively can help firms achieve their objectives, enhance their financial reports, and protect their reputation. Also, it is considered good practice; therefore, many firms have applied it as an ongoing and informal procedure, believing that it will pay off in the short and long terms.

Tonello (2007) offered a detailed examination of how risk management practices have evolved. According to the report, initially, firms have implemented some basic risk management procedures to preserve their assets and ensure their activities against uncertainty. A limited budget was allocated to risk management programs; consequently, directors put their efforts into protecting firms from only significant and insurable risks. Nowadays, risk management has been developed for some disciplines, such as environment, finance, health, and safety. However, firms also encounter several other risks, including operational, cyber, regulatory and reputation (Burlando, 1990; KPMG, 2001). This implies that such risks need greater attention by scholars and practitioners.

The level of risks that firms may be exposed to is influenced by the type of industry (Beasley, Carcello and Hermanson, 1999). According to Wallace and Kreutzfeldt (1991), financial institutions are riskier than others. Therefore, they are more likely to have an internal control function. Goodwin-Stewart and Kent (2006) and Carcello et al., (2005) found a positive correlation between establishing an internal control function and financial institutions. Both studies argued that some industries are more likely to face more risks than others as they must have regulatory

requirements. For example, the financial industry is highly regulated and has more compliance risks than other industries. In addition to the industry type, organisational complexity tends to increase the level of risks that firms may encounter. Organisational complexity might be increased when firms have many business segments (Carcello, Hermanson and Raghunandan, 2005). Firms with many business segments have more production lines, several departments and marketing strategies. Consequently, this complexity can significantly increase risks that firms might face at different types and levels, including operational and technological ones, which leads to a need to monitor such risks (Subramaniam, Mcmanus and Zhang, 2009). Moreover, firms with many assets in the form of accounts receivable and inventory have higher risks than others since there is a high level of uncertainty related to accounting data (Korosec and Horvat, 2005). The large number of accounts receivable is more likely to increase the risk of bad and doubtful debts. Similarly, the larger the inventory balances, the higher risks that firms may face related to the valuation of inventory obsolescence. In addition, firms with many long-term liabilities are more likely to have higher financial risk (Goodwin-Stewart and Kent, 2006).

The Walker report (2009) and the Financial Reporting Council (2014) have proposed that it is essential for listed firms to apply advanced risk management practices, including creating a comprehensive risk management framework, and they need greater involvement from boards in risk governance. In addition, the guidelines have proposed that listed firms should apply a multifaceted approach to better identify and assess risks they may encounter and try their best to consider all key risks. Many UK-listed firms have committed to these suggestions and have established an ERM program and risk committee to help boards oversee risks more effectively.

An effective risk management infrastructure within firms can help promote a strong risk culture, improve risk strategy, approve risk appetite, and monitor risk mitigation plans (Malik, Zaman and Buckby, 2020). Therefore, the Financial Reporting Council (2014) has encouraged listed firms to adopt a robust risk management program to protect them from significant risks that may face and negatively impact their performance, prospects, and reputation.

Despite the significant improvement in risk management practices over the last ten years, an integrated approach is needed to draw a comprehensive picture of such a firm's risks and help manage key and emerging risks. This is of critical importance in financial institutions. A research report published by The Conference Board of Directors (2007) argued that business risks that have a high impact on a firm's reputation capital should be handled as a part of a risk management integrated program, comprehensive, at the strategic level, and oversight by board senior executives (Tonello, 2007). Therefore, based on the arguments above, it is believed that studying how boards of directors of the insurance industry manage reputational risk in SM would be a significant contribution to the governance literature.

3.2.4 Agency Theory

One of the pillars of the agency theory (AT) is the idea that the board of directors are crucial to corporate governance. There is a premise that the board of directors' characteristics can determine their ability to supervise and control managers, providing them with the appropriate information they need and counselling them, monitoring the corporation's compliance with laws and related regulations, and connecting firms with the external environment (Carter *et al.*, 2010). Therefore, previous research has focused on the board of directors' characteristics.

Establishing committees are vital for firms with high agency costs, such as high levels of risk, organisational complexity, leverage, and large size. In addition, according to AT, some characteristics are essential in determining the committee's effectiveness, such as its independence and an independent chairman (Bradbury, 1990; Carson, 2002). Jensen and Meckling (1976) argued that due to shareholders' incapacity to oversee managerial practices directly, firms are incentivised to implement corporate governance mechanisms, such as board committees. Several studies have been published on governance mechanisms, including board committees' formation and structure, showing that AT is the prevalent paradigm applied in prior studies (Subramaniam, Mcmanus and Zhang, 2009). While AT has been increasingly used, others have argued that applying a multi-theoretic approach provides a more insightful approach to understanding boards' composition, roles and responsibilities, and performance (Ruigrok *et al.*, 2006).

According to Subramaniam, (2006), AT can provide a rich theoretical premise which helps better understand processes and designs within firms from a principal-agent standpoint. The agency relationship could be defined as "a contract under which one party (the principal) engages another party (the agent) to perform some service on their behalf" (Subramaniam, Mcmanus and Zhang, 2009, p. 320). The agents are likely to act according to their interests (Jensen and Meckling, 1976; Lambert, 2001), and principals have two main ways to mitigate such costs. Firstly, to monitor agents' behaviour, principals adopt auditing and governance controls that help align interests between both parties. Secondly, to encourage agents to act in principals' interests, the latter provides incentives and rewards (Subramaniam, Mcmanus and Zhang, 2009).

Bradbury (1990) argued that effectively overseeing the board committees helps lower managers' opportunistic behaviour and increase oversight quality. Therefore, it is predictable that firms with high agency costs, such as high risk and complexity, have established board committees. This insight seems to be directly applicable to the present study, as the insurance industry is riddled with risks. Research in this area has shown that because of the complexity of several risks, financial institutions have established risk committees to monitor and manage risks more

effectively (Aebi, Sabato and Schmid, 2012; Hines *et al.*, 2015). Thus, it would be reasonable to expect insurance firms' boards to establish risk committees to increase risk management quality.

Eisenhardt (1989) mentioned that AT provides a useful framework linking firms' risk governance and performance. Based on the AT framework, the relationship between a principal and its agent should reflect in efficiently utilising the information, minimising asymmetry, and the cost of risk-bearing. According to Ben Naceur and Kandil (2009), principals use governance mechanisms to effectively monitor their agents. Consequently, risk governance mechanisms tend to help monitor, enhance, and eject not professional management teams in a way that assures that managers act to pursue shareholders' best interests.

In addition to the complicated and variety of risks that firms may face in SM, insurance firms tend to have more risks than other industries. Therefore, boards in such an industry probably assign risk management to a dedicated committee. This committee will likely help monitor firms' activities and identify various risks that insurers may encounter.

Applying AT to the present study seems warranted based on the arguments above. However, the theory informed one aspect of the research which is related to how the board of directors monitor the risk committee. Therefore, some interview questions are inspired by this theory, considering that knowing the mechanisms of how the board of directors' oversight risk committee would provide greater insights into the effectiveness of risk management practices in general and SM risk management, particularly in such a firm.

3.2.5 Reputational risk management

A reputational risk arises due to unfavourable publicity generated by specific events, whether correct or not. This publicity may threaten the reputation capital and cause losses to the firm's value (Tonello, 2007). In addition, since risks related to intangible assets, including CR, can occasionally be "hidden" or "emerging", previous experience demonstrates that firms would be most resilient once leadership closely collaborates with risk specialists. This collaboration will likely help firms identify the best means for generating and safeguarding value for tangible and intangible assets (Airmic, RepTrak and RIMS, 2020).

However, Dowling's study (2006) argued that although reputation management starts with the board of directors, many directors for large and complicated firms have put their firms' reputations at risk. The study suggested some recommendations to be followed by boards to better manage and protect corporate and personal reputations as follows. Firstly, boards should be briefed about how firms can build a better reputation. Also, the board should develop an effective strategy to enhance the CR perceived by different stakeholder groups. In addition, CR

should be embedded in the formal board agenda, included in at least two meetings a year, and as a CEO's key performance indicator. The board should audit the key drivers of CR regularly and monitor the efficiency of the reputation strategy that has been put in place. To achieve that, the board should regularly measure the expectations of the key stakeholders once a year if they already have a good reputation and more if not. Finally, the board should prepare papers that prove they fulfilled their three primary responsibilities, such as **fiduciary** for people who have invested in the firm, **principle** which shows that the firm is sustainable in the long term and **welfare** for social value creation.

Tonello (2007) emphasised the role of the board of directors in reputational risk management. Tonello (2007) argued that since CR is all about perceptions and impressions by different stakeholders about such a firm, board directors should consider putting an organisational program in place. This program should have the ability to monitor events that may impact the stakeholders' relations and firms' ability to meet their expectations and achieve its long-term objectives as follows.

Firstly, the board of directors should reach a common understanding of CR and link that to a comprehensive analysis of the firm's stakeholders. In addition, an understanding of the nature of reputational risk should also be reached by the board of directors as it is a result of operational incidents, not a separate category of uncertainty. Therefore, the board of directors should consider establishing a dedicated reputation management platform and embedding it into an ERM program. Failure to embed reputational risk into the ERM program may lead to insufficient, ineffective and disparities in responses toward different events that firms may face and negatively impact the CR. Furthermore, it may also lessen the firm's ability to build a desired risk culture and raise awareness about risks.

They should also oversee the whole process of the strategic, top-down, and holistic risk management program, from design to implementation. In doing so, all the potential events that may impact the reputation capital should be identified and measured. Then, appropriate actions about such risk should be taken according to risk tolerance and appetite levels. ERM helps firms raise reputation issues to the board level and analyse them accordingly. This will draw the board's attention to the potential effects on stakeholders' long-term value. Moreover, the board of directors should also oversee the approach that the senior executives have adopted regarding identifying, categorising, and prioritising risks concerning their reputational impacts. In addition, they should ensure that this process is based on effective criteria, tools, and reputation metrics.

In addition, all risk events compiled into the portfolio should be illustrated by the likelihood of occurrence and impact on the firm's reputation capital. The board of directors should oversee the determination of proper responses to risks that impact a firm's CR. Also, they should assess

the response strategy based on resource cost-benefit analysis rather than communication tactics. They should consider the underlying operational incidents that resulted in reputational risk and address them. Then, communications tactics are followed to ensure that stakeholders are satisfied.

Also, since the board of directors apply the ERM program through a governance perspective lens, they should consider that some business risks represent such personal opportunities for some dishonest and ill-intentioned managers. In these cases, managers may have an interest in avoiding these potential events rather than bringing them to the table and addressing them effectively, although they may cause catastrophic consequences once they occur. Lastly, the board of directors should also bear in mind that sometimes reputation failure may be due to interrelated business events.

Reputational risk is very complicated, and the board of directors are responsible for managing such risk. However, the introduction and development of SM may make tracking events and then managing reputation even harder. Therefore, the following section discusses SM risk management in detail.

3.2.6 Social media risk management

SM is complicated and can affect several areas within firms. Also, the content there tends to be unedited compared with other types of communications, which ultimately can create several risks (Bennett, 2008). There is evidence in the literature showing that improper use of SM by firms can lead to several risks, such as decreasing customer trust and market share and negatively affecting reputation (Ernst and Young, 2014; Brivot, Gendron and Guénin, 2017). SM risks can be generated by how firms use this platform, how their employees use it, external sources, or a combination of these sources (Demek *et al.*, 2018).

However, it has been argued that SM can reinforce the relations between firms and their stakeholders and increase the efficiency of their internal operations. SM is a valuable channel that helps firms engage and communicate with their key stakeholders, such as customers, investors, shareholders, and media. Given that SM is two-way communication, the control has been shifted from firms to the users who have the power, which can ultimately affect firms' reputation and image. Managers know that effective use of SM can add to firms' value by increasing sales, decreasing marketing costs, enhancing customer service, and increasing productivity (Schaupp and Bélanger, 2014). KPMG report (2021) highlights that although SM fills with risks, the biggest risk is not exploiting SM's opportunities. It is risky to be absent from SM as most stakeholders tend to make important decisions there. Therefore, there is converging

evidence (Scott and Jacka, 2011; Haimes, 2012) that firms should consider both opportunities and threats that SM creates while developing their SM policies and strategies.

SM risks should be managed as a part of firms' risk management and internal control programmes (Scott and Jacka, 2011; Brivot, Gendron and Guénin, 2017). Scott and Jacka (2011) argued that policies related to SM should be put in place by firms to manage risks that emerge from using such platforms. If firms are more aware of SM risks, they are more likely to set up policies to manage SM use and mitigate its associated risks. However, the roles and policies that firms have set up rely mainly on how these firms perceive SM risks.

Some firms tend to use a reactive approach to manage SM risks, which means that they react to risks that have already surfaced. In this approach, firms use basic SM tools without involving them in the formal risk management processes as they believe that SM does not require a significant investment (ISACA, 2010). Moreover, SM does not require much technical expertise, which makes firms not include its risks in risk management procedures as other information technology applications (Scott and Jacka, 2011). For example, some marketing managers might implement SM strategies for sales-increasing purposes without considering the risk implications to other firm segments (Ernst and Young, 2014). This approach has been criticised by Larcker et al., (2012) as firms might implement SM strategies and not consider how this may impact strategy development and risk management programs.

Employees' behaviour regarding using SM should be guided by establishing new policies or even using existing ones to manage SM risks effectively (Haimes, 2012). The policies may include guidelines concerning what employees should say and should not say about firms' information and activities. Some firms provide general guidelines to employees, allowing them to freely comment and post their opinions on SM (Ernst and Young, 2012). Even if there are policies that have been put into place for SM risk management, training regarding such policies is important, as employees may not know that these policies exist. According to a survey conducted by Deloitte (2009) about ethics and the Workplace, 58% of respondents mentioned that their firms do not have an SM policy, or they may not know if there is an existing one. Furthermore, 49% of respondents indicated that even if their firms have an SM policy, this will not change their behaviour. Scott and Jacka (2011) argue that training staff regarding SM use would likely help them know about the existing policies and consider the associated risks with SM use. In addition, training should be regular and focus on both threats and opportunities that SM use may create (ISACA, 2010).

The literature is rich in SM studies in different contexts, including project management (Ram and Titarenko, 2022), customer knowledge management (Chen et al., 2022), process management (Prodanova and Van Looy, 2019) and crisis management (Eismann, Posegga and Fischbach,

2021). However, to the best of my knowledge, only a few empirical studies have been conducted regarding SM risk management (Arnaboldi, Azzone and Sidorova, 2017; Demek *et al.*, 2018; Lenk *et al.*, 2019) and reputational risk management (Szwajca, 2017; Casado-Molina *et al.*, 2020).

In Demek et al., (2018) study, an SM risk management model was developed based on the COSO framework to examine whether firms follow formalised risk management practices to manage SM risks. The model consists of four key aspects, including the use of SM, the perceived risk of using SM, the implementation of policy, and training and technical controls. The study is quantitative, using a survey for a sample of 98 professionals from auditing, finance, and risk management departments. They find that the perceived risks are increased by the extent of the use of SM. Moreover, companies that perceive higher risks are more likely to adopt SM policies. They also result that firms with comprehensive SM policies have good training and technical controls. However, firms use a reactive approach in managing SM risks instead of a (proactive) formalised one. Although the results seem interesting, this study does not thoroughly examine SM risk management. It does not capture how SM risk management has developed based on the feedback firms receive. Also, it does not illustrate why such a firm chose to implement such an SM policy and how it manages its related risks. This urges a need for a qualitative study to provide more insights and detailed information about how firms deal with SM and manage their risks by interviewing risk managers.

A qualitative study by Arnaboldi et al., (2017), explored how accounting firms seize SM opportunities and manage relevant information. The study data was drawn from semi-structured interviews with several parties, such as SM managers, analysts, and department managers. Secondary sources, such as reports, conduct codes, and SM analysis, have also been used. However, this study tends to focus on information and performance management rather than risk management. Therefore, even though the study analyses data qualitatively and focuses on opportunity seizing, which seems to be one part of risk management, it had different objectives.

Another qualitative study by Lenk et al., (2019) explored how accountant firms perform social technology and risk management. The study conducts interviews with three technology directors in auditing and accounting firms. An integrated social technology strategy and risk management framework was developed to investigate social technology and its related risks. They find that managers in accounting and auditing firms are aware of the significance of social technology risks and willing to manage them. However, the study mentions that the sample is not big enough, which tends to limit the significance of the findings. Also, as the study focuses on accounting firms, the authors highlight that they may be more conservative than other industries. Therefore, studies investigating SM risk management for more and different accounting sizes and industries are needed.

To the best of the author's knowledge and based on the search in peer-reviewed databases, not enough attention has been paid to SM risk management. Therefore, the study contributes to the governance and management literature by conducting a qualitative study that targets the board of directors to deeply investigate how they manage SM risks, particularly reputational risks. Also, this study focuses on the insurance industry in Saudi Arabia. While Saudi Arabia has spent a great budget on digital transformation and business growth (*Vision 2023, Kingdom of Saudi Arabia*, 2016; *Vision 2030 Achievements*, 2021), the insurance industry in Saudi Arabia is still considered a growing industry. Conducting such research concerning SM risk management and investigating the procedures/mechanisms and strategies would add to the knowledge of the use of social media in the insurance industry. In addition, such research would provide insights and good practices that ultimately enhance businesses and advance their growth.

3.3 Methodology

3.3.1 Methods

The study is qualitative, interpretive, and exploratory. It was designed to explore firms' policies regarding SM and their protocol for managing risks that emerge from SM usage. Conducting qualitative research, employing grounded theory, and interviewing the risk committee members facilitated a rich understanding of the target phenomena.

Multiple case study was employed to perfectly answer the research paper question and achieve its objectives. The case study strategy tends to help researchers generate rich insights and descriptions from deeply studying such phenomena in real-life situations (Dubois and Gadde, 2002). In addition to this, Dubois and Gadde (2002, p. 554) argued that "the interaction between a phenomenon and its context is best understood through in-depth case studies". Indeed, we live in very untidy situations with complicated business phenomena, so using a case study strategy to explore reputational risk and how a growing industry like insurance manages SM risks is very appropriate.

In contrast, Myers (2020) highlighted four challenges of using a case study strategy. Firstly, the researcher might find it difficult to have access to study such a firm or group of firms. Secondly, researchers cannot control the situation while studying such a firm. For example, another firm may take over the firm the researcher is studying, or the interviewee may resign before the researcher finishes the interview. In addition, using a case study in research might be difficult, especially for inexperienced researchers. Finally, a case study is time-consuming, even for those with the experience.

To overcome these disadvantages of employing a multiple case study strategy in the current study, the following steps were undertaken. All the insurance firms in Saudi Arabia were contacted by email, there are 28 firms in total and the research objectives, the contribution, the methodology protocol and how the research was going to use their data were explained. It was assured that all data would remain confidential. Acceptance was received from ten different firms. Also, repeated emails were sent to increase the acceptance of those who have not responded. The author tried to improve the acceptance rate to make sure that enough samples were available for the study just in case some firms who had initially accepted to be interviewed declined, which might affect the data quality.

3.3.2 Data collection and sampling

Semi-structured interviews, encompassing pre-formulated interview questions, were chosen for data collection. This type of interview allows researchers to ask new questions while conducting the interview (Myers, 2020). There is no strict commitment to the questions prepared before, as some new and vital questions might emerge. Semi-structured interviews allow interviewees to add more insights and perspectives that may arise during the conversation, and the prepared questions would help to remain focused on the subject matter. Collis and Hussey (2009) argued that there is flexibility in the order of questions prepared for the semi-structured interviews. Moreover, sometimes there would be no need to ask all the questions by an interviewer as some interviewees may provide the answer and relevant information while answering another question.

Furthermore, there is no specific number for qualitative interviews. Myers and Newman (2007) argue that it does not matter the number of interviews the researcher has managed to conduct once he/she has interviewed people who “represent various voices”. In addition, researchers would realise that the saturation point has been reached, and no more interview is needed when no new insights emerge from interviews. In this study, I received acceptance from ten different insurance firms in Saudi Arabia, and after analysing the data, I did not ask other firms to be interviewed since I reached the saturation point.

The study focused on the risk committee members in insurance firms to be interviewed. They are the employees most involved in this issue and best placed to provide insights about firms’ SM risk management. Most insurance firms were allowed to interview the risk executive officer, while others provided access to other committee members. Therefore, the number of interviewees ranged between 1 to 3 employees from each firm, and each interview course lasted around one hour. All interviews were conducted online via Microsoft Teams, and interviewees were asked for their permission to record them.

Ten insurance firms (response rate of 33%) agreed to participate in the research. My sample was diverse regarding the level of reputation, market share, activity on SM platforms, and business relationships (Business to business [B to B] and business to customers [B to C]).

The data collection process was as follows. respondents were first asked a set of questions prepared ahead of time. The questions were designed based on three themes, drawn from the perspective that was shaped after reading the related literature (Ernst and Young, 2012; Demek *et al.*, 2018), AT and COSO framework (2017). Firstly, since the literature has provided some perspectives about SM risks, it urged additional investigation of the subject matter. Thus, the semi-structured interview was chosen to interview with risk committees to investigate SM risk management. In addition to that, AT was applied in this study; therefore, boards in the insurance firms would be the principals while the risk committees are the agents. Identifying the mechanisms the board employs to monitor the risk committee would give me a better understanding of the insurers' SM risk management. Finally, the interview questions were framed based on COSO framework (2017) themes, including event identification, risk assessment, risk response and control activities. The study drew on these specific themes since they are directly relevant to SM settings. I followed Patton's (2014) guidance in framing and developing my questions. Table 3-1 presents the questions used in five interviews.

Table 3-1 The first phase of interview questions that had been used to conduct five interviews

Themes	Questions
Board and risk committee	What are the governance mechanisms, if any, that the board employ to monitor the risk committee?
SM risks (Threats and opportunity assessment)	**Threats assessment:** 1. How does the firm identify the threats in its SM presence that can be exploited? 2. What is the firm's reaction to criticisms, if any, it receives in SM? 3. How does the firm keep track of the unfavourable information, if any, that is being spread through SM platforms? 4. Does the firm have a dedicated team who handles SM risk and responses?

	Opportunity assessment: 1. In your opinion, what are the benefits from using SM? 2. Can you give me an example of how the firm achieves these benefits from using SM? Please comment on the relationship between SM and firm's reputation? If yes (there is a relationship), there would be the following question. How do you describe this relationship?
Policy implementation	What are the firm's policies for SM risk management?
Training and controls	What are the firm's plans in terms of staff training to ensure that they responsibly use SM?

Further, interview was conducted with a reinsurance firm (B to B) to gain insights into whether business relationships matter while managing SM risk.

After that, the author became aware of the importance of technology and AI in addressing existing and potential customers' inquiries, claims, complaints and purchasing processes. Moreover, the importance of AI in managing SM risk (reputation in particular) was realised. Therefore, more questions were added to the previous ones, and eight more interviews were conducted. The questions added are listed below:

1. What are the digital risk management tools that the firm employs? How do they work?
2. Are traditional communication channels, such as phone calls, replaced with SM platforms? Or does the firm have both types of communication? Please explain.
3. Does the firm respond to customers 24/7 or only during working hours?
4. Does the firm measure its reputation? How?
5. How does the firm know its level of reputation?
6. How does the firm measure CS?

7. How does the firm categorise the complaints received from its customers?

8. What is the firm's competitive advantage?

The following table 3-2 presents an overview of the participants for the current study.

Table 3-2 An overview of the study's participants

Firm	Number of participants	Job title	Interview date	Language	Duration
A	1	Risk management supervisor	25/5/2013	English	33:36
B	1	Assistant Manager – Corporate Communications	30/01/2023	Arabic	1:05:08
C	1	Risk manager	7/02/2023	Arabic	59:1
D	1	Chief Governance, Risk and Control Officer	24/01/2023	Arabic	33:47
E	1	Risk manager	Two interviews 1- 18/01/2023 2- 19/01/2023	English	 39:27 18:17
F	2	Risk manager Assistant manager in the marketing department	3/01/2023 15/02/2023	English English	27:34 21:52
G	1	Chief Sales & Marketing	Written interview 14/02/2023	English	

H	1	Chief risk officer	1- Written interview. 20/02/2023 2-Teams interview. 20/2/2023	English Arabic	1:38:55
I	3	Customer care manager Risk manager Marketing Manager	25/1/2023 31/1/2023 25/1/2023	Arabic English English	37:37 33:42 39:10
J	1	CEO	14/1/2023	Arabic	1:04:44

To understand the cases in more depth, the risk committee in each firm was asked to provide any written policies they publish (internally or externally) that are related to SM and any other relevant written documents about SM and risk management. Only one firm accepted that and sent me their governance mechanism and SM policy.

3.3.3 Data Analysis Approach

Given the absence of empirical studies on the subject matter, grounded theory was considered suitable for this study. It is defined as "*a systematic, qualitative procedure used to generate a theory that explains, at a broad conceptual level, a process, an action, or an interaction about a substantive topic*" (Creswell, 2012). Therefore, since the study sample was diverse in terms of size, market share, activity on SM and type (B to B/B to C), grounded theory allows us to explore the data in depth and then provide a rich explanation by taking into consideration the firm's situation and its setting (Creswell, 2012). Therefore, this research used grounded theory in the analysis only and offered a comprehensive explanation of SM risk management.

Interviews were conducted based on participants' preferences, encompassing factors such as timing, language, and platform. As a result, the interviews were a mix of both Arabic (38.5%) and English (61.5%). It is worth noting that, given the researcher's proficiency in both languages, no translations from Arabic to English were necessary. This approach was adopted to ensure that no important meanings or essential aspects were overlooked. Additionally, the analysis was conducted in English, even for the Arabic interviews.

The data was analysed using Corbin and Strauss's (2015) three coding strategies: open, axial, and selective coding. After gaining familiarity with the data by reading the transcripts, all the data was transferred to MAXQDA software for coding and analysis. MAXQDA is a qualitative research software that can help researchers analyse several types of data, such as interviews, focus groups, images and even tweets (MAXQDA, 2022).

During the first phase of coding, known as open coding, most of the data was analysed line by line to identify relevant and appropriate codes. However, coding was performed by the paragraph and in some situations when the whole paragraph was coded it covered the same idea. Following the approach proposed by Corbin and Strauss (2015), conceptual codes were assigned to a set of incidents. In open coding, when sufficient codes supported a particular category, those codes were grouped to represent such a category. Once a significant number of categories and sub-categories had been identified, open coding was delimited. At this point, axial coding was initiated to identify and organise the relationships between categories. This process aimed to construct a comprehensive network of relationships centred around the core category, creating a rich and interconnected understanding. As the categories started to take shape and provide context, a potential overarching theoretical theme or core category emerged. The axial coding process was delimited at this point, and selective coding started. Selective coding involves integrating all categories around a central core category (Corbin & Strauss, 2015).

3.3.4 Research quality

To increase the research's credibility and trustworthiness, several procedures were followed. Firstly, the information sheet was sent to the participants before the interview course to make sure that they understood the research objectives. Also, before the start of the interview course, the participants were informed again about the research objectives. In addition, efforts were made to commit to impartiality and avoid bias during the research process. To mitigate any potential bias and underlying assumptions, a journal was maintained from the start of the research through to the completion of the research paper (Corbin and Strauss, 2015). This practice encompassed every phase of the research process, from selecting the topic through data collection and analysis to finalising the research project. The journal recorded how the

author responded to the data and the meanings that were given to the data. In addition, the author was aware that feeling overwhelmed might affect the response to the data. Therefore, the author started with the data analysis task at the beginning of the day, and once felt tired, the author left it for the next day.

Besides self-awareness and reflexivity (Finlay, 2002), the grounded theory used in the analysis stage incorporates clear mechanisms that help researchers maintain checks and balances and control bias (Corbin and Strauss, 2015). For example, the constant comparisons made during the analysis for similarities and differences helped in checking how meanings were assigned to the data. In addition, the questions asked for possible meanings of the data during the open coding phase helped me to control or at least reduce bias. The Author also used other strategies identified by Corbin and Strauss (2015), such as waving flags and asking what-if questions.

Also, grounded theory was utilized for the analysis, it is systematic, with several stages (open, axial, selective). The study followed the guidelines outlined by Corbin and Strauss (2015). The methodological process was explicitly elaborated within the study.

In addition, since the study used semi-structured interviews and some questions may emerge during the interview course, the Author has kept a record of why the questions were added. Moreover, the Author engaged with colleagues to discuss themes and categories and seek feedback. They are sometimes provided with valuable insights. Moreover, sufficient quotations from participants were provided in the results section to serve as supporting evidence for any readers who may be sceptical. Also, every transcript was sent to the respective participant via email, with the intent of verifying its accuracy, assessing the researcher's interpretation, and encouraging the participants to provide their insights, feedback, comments, and corrections (Carlson, 2010).

3.4 Data analysis

In the following section, the findings of the study are explained and discussed. Firstly, the identified categories and their related conceptual categories are discussed. Subsequently, each category was substantiated with representative comments or quotes obtained from the participants, which were presented and interpreted to reinforce the arguments. Then, the conceptual explanation was presented.

3.4.1 Open coding

Table 3-3 presents the main categories identified in the analysis process and their corresponding conceptual categories.

Table 3-3 Conceptual categories definition

Categories	Conceptual categories	Definition
SM governance	The formation of board-level committees	Since the board of directors is not proficient in every topic or knowledgeable about everything in each subject matter, and has much work to do, they form some committees to perform their roles effectively, including risk management.
	Establishing several policies	These policies help firms better manage risks emerging from SM. Examples of these policies include SM risk management, cyber security, and non-disclosure agreement policies.
	Subject matter expertise and coordination	SM risk management should be a joint responsibility among several departments, such as cyber security, information technology, customer care and marketing.
SM risk	The firm's presence in SM	Firms' presence on SM platforms may create several risks.
	Reputational risk	The reputational risk may happen when someone posts negative comments about the firm, defames it, or complains about it.
	Social engineering	When someone impersonates the firm using a fake account under the same name, logo, and trademark.
Implementation of SM strategies	Risk assessment	Firms assess risk related to SM using several tools or/and strategies. This includes monitoring SM, frequently identifying associated risks, categorising

		and then assessing them (possibility and severity). In addition, some firms tend to rank all the SM platforms based on usage and considering the geographical segments.
	Responding to customers' mechanism	The mechanism that firms set or follow to respond to their customers on SM platforms. This includes frequently asked questions mechanism, responding timeframe and identifying the cases that should be responded to in public and those privately.
	Dealing with criticisms mechanism	This category focuses on how firms react to criticisms received and how they solve them.
	Dealing with claims mechanism	The mechanism that firms apply to deal with different claims they receive, including response timeframe for different insurance products, how they deal with urgent claims and the third-party providers.
	Dealing with complaints mechanism	This category is related to the mechanism firms employ to deal with customers' complaints. It includes categorising complaints, the timeframe to solve them, problem root solving and the complaints escalation. In this category, I also include anything related to complaints' key performance indicators (KPIs), whether by the regulator or firms themselves. In addition, the power of complaints and how firms transfer them to opportunities are also included.

	Reputational risk measurement	This includes the different tools firms use to measure the risk associated with CR.
	Early warning tools	Tools that firms employ to spot the issues in the early stages before they escalate to a crisis that is out of control. For example, applying digital risk management tools, chatbots, brand protection solutions, firms' KPIs, scenario planning, and evaluating the market to come up with the firm's risk trigger.
	Staff awareness and training	Awareness programs and training to the employees, especially those responsible for SM platforms. This includes how they use SM properly and deal with different SM risks and the appropriate way to share information. Moreover, there is on-the-job training, which employees obtain expertise during the times by the cases they face.
Technology investment	Investing in information systems	It illustrates how investing in technology and AI helps accelerate processes, increase service quality, cut costs and manage risk.
	Investing in a digital infrastructure (Websites/Electronic mediators)	This helps ease the purchase decision processes for customers. It allows customers to compare different insurers and make the PDs within minutes.
SM management benefits	Customers expectation management	This category explains how SM platforms help firms understand customers' needs and expectations and manage them properly.

	Building opportunities	SM is packed with opportunities. This includes using comments posted there for quality improvements or inspiring to launch new products, building relationships with customers and increasing their loyalty, targeting new customers and many more.
	Enhancing CR and brand	The professional way that firms deal with different issues that emerge on SM and the constructive reactions to customers help to enhance the brand and reputation.
	Engaging with the community	The category illustrates how SM help firms to engage with a wide range of people without the time, cost, and place limits.
	Marketing opportunities	This category explains how SM help to conduct market research and help to reach many people within minutes. Also, it describes how it helps target new customers, marketing for free and many more.
Industry-specific and expertise	Type of business relationship	Whether Business to Business (B to B), such as reinsurance firms or Business to Customers (B to C), like insurance firms.
	Nature of industry	This category presents how the nature of the industry may influence the types of risk faced by firms and how it affects the effectiveness of managing them.
	Education	Since the risk management and insurance major is new in university studies in Saudi Arabia and the educational outcomes vary, employees' educational levels and expertise should be considered.

3.4.2 Axial coding

Next, the SM governance category was selected as the core of the study and connected with possible relationships with other categories. The study followed the Creswell (2012) axial coding paradigm as follows.

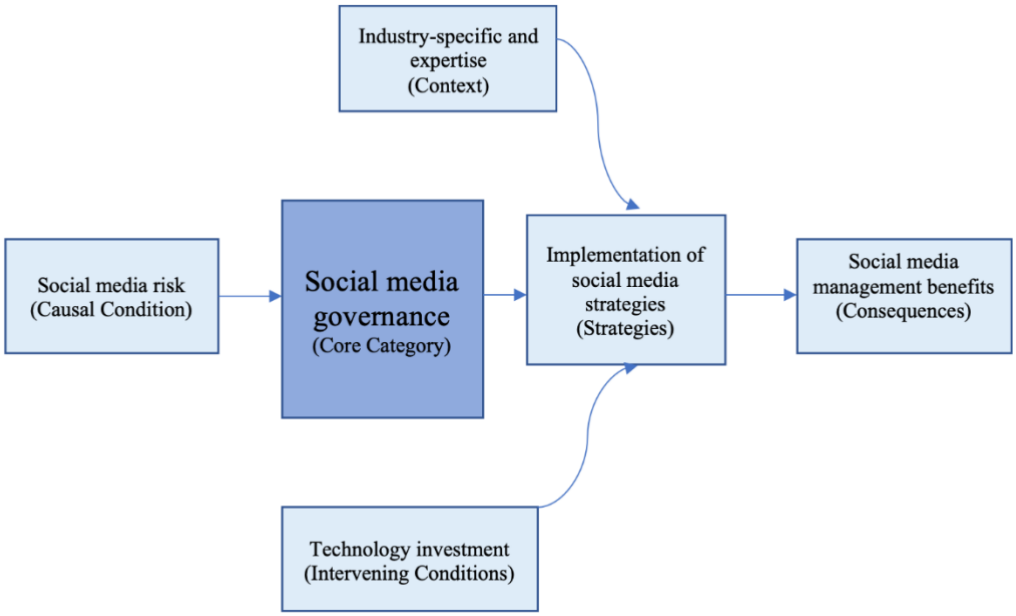

Figure 3-1 Axial coding paradigm

Each category identified based on the interviews is discussed in detail in the following part with relevant quotes by interviewees.

3.4.2.1 Social media governance (the core)

SM governance was considered to be the core category in the study. It is related to how firms govern SM platforms. Three main conceptual categories were identified while analysing the data, including the formation of board-level committees, the formation of policies for SM platforms and their associated risks and the coordination with the subject matter expertise. They are discussed in more detail in the following part.

3.4.2.1.1 The formation of board-level committees

The board of directors have extensive powers as part of the governance mechanism. However, due to their workload and their technical capabilities in terms of understanding several issues, they delegate some of the powers to some committees. **"***They form some committees, okay, who are technical experts in this committee. They are bringing some subject matter experts who are technical, capable of evaluating the matter in terms of technical modalities"* (Risk Manager, Firm

E). This is supported by the AT, as the board here acts as the principal while committees are the agents.

Also, it has been stated that since financial institutions, including the insurance industry, are more exposed to risks, a risk committee is required from the regulator. Therefore, every power the board of directors has regarding risk management is automatically transferred to this committee under a particular scheme or a document called the Board Risk Committee Charter, which is very comprehensive and detailed. In this charter, the scope of the committee's activities is highlighted, including to whom they will report, how the committee is formed, committee members, their qualifications, their actual roles and responsibilities, the escalation metrics, committee rights, the eligibility criteria of the committee, and the tenure of this committee.*" The Board approves the Risk Management Committee Charter, which includes the roles and responsibilities of the risk management committee, its members, and its secretary"* (Chief Sales & Marketing, Firm G).

Moreover, the risk manager in firm E argued that by evolving dynamics in the business landscape, regulatory requirements, and market conditions, it is imperative to ensure that the board risk committee charter remains up to date. By regularly updating the charter, the board can align the committee's mandate with the changing needs and firms' strategic objectives.

The risk committee meet every quarter as mandated by the central bank requirements. These scheduled frequency meetings ensure that the committee regularly addresses risk-related matters and fulfils its responsibilities in monitoring, assessing, and mitigating risks within firms. *"The risk committee meeting is done every four months, four times a year, at least at the minimum"* (Risk Manager, Firm F). It is important to note that the frequency of committee meetings is not limited to the minimum requirement; rather, it can extend beyond that as deemed necessary. Furthermore, it has been explained by some interviewees that following the meeting, the risk committee undertakes the task of preparing the minutes of the meeting document, which serves as a comprehensive record of the proceedings. This document tends to capture the key topics and discussions during the meeting, including the deliberations, decisions, and any agreed-upon actions, along with the corresponding completion dates.

In addition to the minutes of meetings, most interviewees confirmed that there are two types of periodic reports conducted by the risk committee; one type is submitted to the regulator, whereas the other is for the board. These reports help identify the potential risks that firms may encounter, allowing them to make informed decisions to safeguard the interests of stakeholders and the market in general. For the regulator reports, the committee explains the firm situation in risk

management. The committee explains risk in detail in the board reports by colours based on the firm's risk profile and appetite.

3.4.2.1.2 Establishing several policies

A written governance mechanism is in place to address the regulations underlined by the central bank, meet customers' expectations and achieve the firms' objectives. This mechanism is periodically reviewed, typically annually or biennially, or whenever necessary. A comprehensive revision of all governance mechanisms becomes imperative whenever updates or changes occur. Concerning SM, many interviewees mentioned that there is no separate policy for SM management; instead, it is embedded under other policies. *"It is not a full policy on SM. It is part of our communication policies where they are looking at the different requirements before any post that comes out"* (Risk Manager, Firm F).

Interviewees confirmed whether there is a separate policy or not; the importance of SM and its risks should be covered. The SM policy or guidelines explain how to be successful on SM, including the SM team and their qualifications, the powers that are given to the team, SM content, the response mechanism, the escalation mechanism for complaints and inquiries, SM budgets and team's proper training to be aware of the emerging risk.

There is another essential policy that is also related to firms' SM accounts called cybersecurity. It focuses on three main areas, namely user authorisation, non-secure passwords, and phishing. *"Cybersecurity event logs should be activated for all notifications and cybersecurity alerts for Firm H SM accounts. Firm H SM accounts should be followed and monitored to avoid any unauthorised login or content posting. SM networks should be monitored to ensure firm H SM accounts are not being impersonated. Automated monitoring should be performed for any change in the accounts pattern, indicators of compromise, or the publication of any unauthorised content or impersonation of firm H SM accounts"* (Chief Risk Officer, Firm H).

3.4.2.1.3 Subject matter expertise and coordination

It has been mentioned that SM risk management is a joint responsibility of several departments (cyber security, information technology, customer care and marketing). In addition, the SM team should have an excellent knowledge of the subject matter. Although the team may not know about insurance products and claims for every department, they should know the claims process. This will allow them to manage the threat of complaints for late claim approval once they know the process and transfer them as soon as possible to the concerned department.

3.4.2.2 Social media risk (the causal conditions)

This category represents all the risks related to SM presence or absence. Risks include both threats and opportunities that firms may face, which makes SM seen as a double-edged sword. Therefore, preparation is needed before launching any SM account. Examples of risks associated with SM are reputational risk and social engineering.

3.4.2.2.1 The firm's presence on social media

Concerns were expressed about firms' absence or inadequate presence on SM platforms, as it can be exploited, creating various risks and detrimental outcomes. Customers can share unfavourable opinions and experiences, potentially damaging the firm's reputation through negative eWOM. This has further effects and threats, including decreasing CL, reducing customer acquisition, allowing customers to seek alternative insurance products from competitors and ultimately diminishing market share. Therefore, although SM may create such risks, the absence or inadequate presence may be riskier.

3.4.2.2.2 Reputational risk

Most interviewees confirmed that there is a relationship between SM and a firm's reputation. This relationship can be positive or negative; it can destroy a firm's reputation or promote it very positively. In addition, SM platforms are controversial, where people can post and comment anytime and anywhere. These comments can spread and get out of firms' control quickly because many people comment simultaneously, ultimately impacting firms' reputations. Also, the news spreads fast on SM, and bad news spreads even faster. *"If there is anything wrong on SM about you, it will take seconds to spread to millions of people immediately. So, this threat I put on mentioning is hidden"* (Risk Manager, Firm E). Therefore, firms must be aware of the reputational risk and its severe consequences, including the effect on the stock price or the firm's image in the market and SM.

3.4.2.2.3 Social engineering

In the SM era, firms are susceptible to different social engineering attacks. It has been stated that attackers tend to employ manipulative tactics to exploit the trust and vulnerabilities of individuals associated with the firm, including employees, customers, and other stakeholders. Moreover, social engineering techniques on SM may involve impersonating legitimate company accounts, creating fake profiles, or engaging in deceptive interactions to extract sensitive information or gain unauthorised access to company systems. Additionally, malicious actors may attempt to manipulate public perception by spreading misleading information about the firm, its products, or its services, leading to reputational damage**. "***We could face issues like an impersonation of*

the company by using a fake account under the same name and logo and trademarks, or for example, account takeover either through hacking or illegal access to the account. That is also another risk we deal with". (Assistant manager in the marketing department, Firm F).

3.4.2.3 Industry-specific and expertise (the context)

This category discusses the factors related to insurance in Saudi Arabia and its influence on the industry. This includes the business relationship: insurance and reinsurance firms, the nature of the industry, and education.

3.4.2.3.1 Type of business relationship

While customers' comments and negative posts about firms on SM may cause several risks that ultimately damage firms' reputations, this is not the case in B-to-B relationships. It has been stated that their SM accounts are informative only; for example, they close the comments on Twitter to prevent interaction. Also, they deal with customers (businesses) via emails and phone calls, not on SM. Therefore, SM risks are limited compared to B to C.

Regarding reputation measurement, one B to B firm confirmed that they depend only on comments from customers and shareholders in different channels. The firm takes these comments as an indicator of their level of reputation.

3.4.2.3.2 Nature of Industry

The insurance industry in Saudi Arabia is highly regulated, yet it is still considered a growing sector in the country. This presents challenges in managing the risks that insurers face. One interviewee indicated that the insurance industry is one of the worst industries (financially) in the country (listed companies), and there are only three or four firms have positive outcomes based on their financial statements. The interviewee explained the mechanism of waving flags in Tadawul (Saudi Exchange). The listed companies must wave a flag next to their name on the Saudi Exchange website as follows. Firms must wave a red flag when their accumulated losses are 50% or more of their capital. They must wave the orange flag if the accumulated losses range between 35% to 50% of their capital. Finally, firms must wave the yellow flag when their accumulated losses are 20% to 35% of their capital. The interviewee indicated that most insurance firms are waving flags, which is a negative indication. Therefore, the interviewee continued that the central bank's priority is helping the firms maintain their capital, and reputation management is not among the five top priorities.

It has been stated that around five firms possess 80% of the market share, and 99.9% of the health insurance is purchased by firms as a requirement for their employees (this supports the

claim in the previous paper that employees do not have more to do, just complaining in SM while firms take the decisions).

3.4.2.3.3 Education

It has been stated that the problem within the insurance industry begins with education. Risk management and insurance is a new study major in Saudi Arabia. Also, the education outcomes tend to be weak, impacting the overall proficiency within the industry. Furthermore, many individuals working in the insurance industry do not possess degrees in this specific major, leading to a potential knowledge gap.

3.4.2.4 Implementation of social media strategies (the strategies)

This category explains the eight strategies that firms implement to manage SM risk more effectively. These strategies include risk assessment, dealing with criticisms mechanism, dealing with complaints mechanism, dealing with claims mechanism, responding to customers' mechanism, reputational risk measurement, early warning tools and staff awareness and training. All these strategies are discussed as follows.

3.4.2.4.1 Risk assessment

Some interviewees stated that the risk committee is responsible for assessing future risks and, in the event of negative forecasts, promptly notify the board to develop appropriate response strategies. The committee follows well-defined written procedures, thoroughly considering the risk framework, risk triggers, market conditions, and benchmarks before conducting risk forecasting. This approach ensures proactive risk management and prepares firms for potential challenges and uncertainties.

Risk assessment is performed every quarter and coordinated between several departments; every department provides the information they have with the proper reactions from their perspective. So, the risks would be managed for the entire entity. For example, a customer care manager in one firm reported that there is coordination between them and the risk department. The latter sends the risk assessment from their perspective to customer care and highlights concerns about the risk they might be exposed to. As a result, the customer care department assesses these risks according to their levels (small, medium, high). This assessment process must be done together because if only customer care does it, it would be at an operation level. In addition, the two departments suggest proper reactions to manage such risks together.

Some interviewees stressed that risk assessment is crucial, and there is a risk assessment process that includes all types of risk that firms may be exposed to. Risks are categorised into

different levels; they can be a threat to the brand, a threat to the services or products, a threat to the information system or the data, and a threat to the regulator or the regulations. It has been argued that it is essential to assess all risks and then put mitigation factors (how to mitigate them) as possible as firms can. Also, all these risks would be tracked, and firms would ensure that all risk controls are still effective. Concerning SM, firms conduct two types of tests: penetration tests and vulnerability tests. The primary objective is to continuously ensure that there are no protocol breaches and potential threats that could negatively impact reputation.

In addition, since each risk has its factors, the risk committee monitors them periodically and flags them to the board through reports. There are KPIs; based on that, the risk committee categorises risks using colours. Red means they do not fulfil the target. Yellow means that the firm is close to breaching such risk. Green means that the firm is good at managing such risk. One interviewee explained an excellent example as follows. There is a timeframe to reply/ approve/ compensate customers, so customers will only go to SM and complain if there is a precise violation time. The risk committee tracks that and tries to analyse the root cause of the problem and establish a correct measure. It monitors that measure so customers will not escalate the issue in SM again. This process is applied for each risk, so there is forecasting of what will happen and where is the red flag and based on that, they report to the board.

Firms differ in terms of how and who identifies SM risk. Some do it manually, some contract with other companies to do this on their behalf, and others apply several tools. Some firms leave this task for cyber security, some with marketing, and others with the customer care department. *"The Company identifies SM threats through (SM Threat Management) which is part of the Cyber Security Dept's manual (Dept's Policy & Procedures). They use high-end technology to trace odd and suspicious activities on SM and design a proper response and protection against them in coordination with IT Dept"* (Chief Sales & Marketing, Firm G).

In addition, some firms have KPIs and monitor them very closely to ensure that the team in SM is responding properly to customers (in terms of quality, timeframe, and satisfaction). Regarding reputation assessment, an interviewee explained, *"For reputational risk, what we do is monitor for any mention of us on SM; we also sometimes monitor the networks to find any fake accounts or someone trying to sell our products. Sometimes it could be, for example, an employee trying to sell products. Our employee. It is not necessarily malicious intent. We usually instruct them that no, it should be only one account (our account) because we are representing the company"* (Assistant manager in the marketing department, Firm F).

There was also a sense of employee-related risk among some firms. For example, one interviewee referred to a policy named "non-disclosure agreement policy". This policy targets employees with some risks, such as cyber security, confidentiality, and integrity.

3.4.2.4.2 Responding to customers' mechanism

Most interviewees mentioned using the frequently asked questions mechanism to respond to customers. There are usually frequently asked questions by customers, so firms put that in a document and keep it updated. So, the customer care team would answer customers' inquiries based on that document. However, if a customer raises a question not mentioned in that document, the team must ask the head of the department before responding to customers. Some firms apply chatbots for frequently asked questions to save time and seem smoother for customers.

Most interviewees stated that firms tend to respond to customers only during working hours. In addition, they follow the exact mechanism in responding to customers on SM, especially Twitter. If customers have general inquiries, firms will respond in public, whereas for private inquiries that need personal information, firms will respond in direct messages.

Firm J has a written mechanism to respond to customers via SM as follows. Customers will be transferred to the website if there is an inquiry about purchasing or renewing a policy. If their inquiries are related to their claims, they would also be transferred to the online claims portal. If the firm receives positive comments, it will reply in public. If the firm receives negative comments, it will reply in direct messages and mute the tweets.

3.4.2.4.3 Dealing with Criticisms Mechanism

Interviewees explained that two main categories of criticisms may arise. The first one related to critiques directed at the firm's services. If a customer does not receive the service as agreed or expected, a specific procedure is in place to address this issue. Initially, the customer is directed to the customer care unit, where their complaint or issue is thoroughly investigated. If the matter cannot be resolved within a specific timeframe, the customer may be referred to the regulator, which, in this case, is the Central Bank. The Central Bank has established channels to receive customer complaints and subsequently communicates with the firm to find a resolution. The second type of criticism involves general negative comments or customer feedback based on their experiences. Internally, the customer care and SM departments handle these situations. They proactively reach out to the customers to understand the reasons behind their negative experiences and try to address and rectify the issues. They aim to change the customer's perception from negative to positive, or if necessary, clarify the firm's adherence to rules and regulations and elucidate the processes involved to ensure transparency and understanding for the customer.

In addition, it has been claimed that the impact on CR depends on how firms react to criticisms received and if they solve the issues. In addition, some firms stated that they welcome criticisms and use them to improve their operations and services.

3.4.2.4.4 Dealing with Claims Mechanism

Most interviewees confirmed that customers can easily submit claims online through a dedicated portal that operates around the clock. Once submitted, these claims undergo evaluation, and customers receive timely responses regarding their approval or rejection. In the case of urgent claims, particularly medical ones, a dedicated staff is available 24/7 to promptly review and respond to these claims as soon as possible. *"We do not provide health insurance directly; We go through a third-party provider, and the third-party provider has a 24-hour phone number or a customer care unit, and they have the app to serve their client also on 24/7"* (Marketing Manager, Firm I).

3.4.2.4.5 Dealing with the complaints' mechanism

The insurance industry is regulated by the central bank, and there are KPIs for urgent complaints. For example, in health insurance, firms set a response time; within four hours, they must respond. In addition, they have several communication channels (e.g., website, app, call centre) that customers can use to contact firms. There is also a team who is responsible for responding to customers' complaints and solving them. However, suppose the team does not respond to customers or solve their issues in the timeframe. In that case, another team is responsible for monitoring this team and complaints and then will make escalation and might report to the CEO.

In addition, some interviewees indicated that they have a policy requiring the SM team to immediately respond to all media comments, including complaints, in a limited time frame. Also, firms should be very active on SM and track all comments very closely to show customers that their satisfaction is the firm's goal. Sometimes customers complain because they do not understand their policy. What firms do is explain clearly to customers, send them the policies/ rules/ regulations, and satisfy them. Firms try to solve customers' issues as soon as possible before escalating them on SM and to the higher authority. They tend to manually categorise complaints using Microsoft Excel, which makes many interviewees suggest investing in a good system for this purpose.

It is also important to mention that customers can escalate their complaints to the central bank. The central bank (the regulator) has its platform allowing customers to complain (SAMA CARE/CCHI). The central bank assesses each firm in terms of response time/ service time.

3.4.2.4.6 Reputational risk measurement

There was no agreement among interviewees on effective tools to measure reputation. Firms tend to use different tools to measure their reputation. What I noticed is that they do not use specific tools that can measure all the factors that may impact CR. For example, in terms of CS, they measure it by using the SLA standard. *"The SLA an operation is that you follow certain rules; for example, if a task needs five days to be done, then you have to finish it within the five days. You cannot take more than that. If you take more than that, then you are not following a specific standard"* (Marketing Manager, Firm I).

In addition, some firms use Google's rate to get insights about CS. Surveys sent to customers by email are also a tool for CS measurement called Net Promoter Score (NPS). *"Question survey where we ask customers to Pick from 1 to 10. How much would they refer Firm I to others? So, if they pick 10 that means they really like the company and they are loyal, and if they pick 1, then we know they were not just like the company. So based on that, each industry has, you know, a range. So, if we are within that good range, then we know that our company has a good reputation in the market. If the range is low, then we need to investigate where the issue is"* (Marketing Manager, Firm I).

Some firms conduct sentiment analysis to measure reputation. *"We also measure the sentiment of people; how are they talking about us? Are they talking about us positively or negatively? If they are talking about us negatively, we try to reach out and talk to them"* (Assistant Manager in the marketing department, Firm F).

One interviewee mentioned that they use the number of followers in SM platforms as an indicator of CS *"One of the factors and measurements is the no. of followers, every organisation is keen to increase no. of followers on different SM platforms which reflects, to some extent, satisfaction level of the customers and potential prospects"* (Chief Sales & Marketing, Firm G).

There is another reputation measurement some firms use, but from an investor's perspective, this is called a Credit rating. *"Reputation, to be honest, is all about the credit rating. We can measure it from the credit rating itself"* (Risk Manager, Firm I).

Reputational risk measurement is a debatable subject; there are many tools for that, but they tend to be subjective. Therefore, drivers of reputation depend on the firm's maturity and the outcomes of its self-assessment, and this is changeable over the years. What highly impacts a firm's reputation in the first quarter may not have that impact in the third quarter, and new drivers might emerge.

3.4.2.4.7 Early Warning Tools

Some interviewees stated that firms adopt a proactive risk management approach, which means they identify, assess, and mitigate potential risks before they materialise into actual threats or miss important opportunities. For example, one interviewee explained that they form a risk committee that includes the CEO, risk manager, audit manager and customer experience manager. They meet three or four times a year to discuss risk-using scenarios.

In addition, some interviewees confirmed that they monthly conduct market evaluations to identify firms' risk triggers. Also, some firms are aware of the importance of tweets, so they conduct tweet analysis and how accurate it is. Tweet analysis helps identify issues, find solutions, learn from mistakes, and build opportunities.

Moreover, some firms use several digital risk management tools to spot the issues in the early stages before escalating into crises and out of control. These tools are very important in terms of helping the firms to focus on such trending issues(risk) and enhance their processes in accordance. *"The company watch SM 24/7 through systems and advanced technology to identify and anticipate odd activities on SM and neutralise potential threats"* (Chief Sales & Marketing, Firm G).

One interviewee mentioned that they use layers of security to proactively mitigate potential threats and minimise their occurrence. Also, some firms have contracted with brand protection solutions businesses to safeguard their brand identity, reputation, and intellectual property from unauthorised use, counterfeiting, or infringement. Brand protection solutions scan SM platforms and provide firms with reports highlighting all the issues related to their brands and the proper procedures to amend them.

Some firms use some tools since they have considered the risks associated with the staff usage of SM. *"Currently, we are using Hootsuite and Sprouts. So, each employee is going to have a user on those platforms; the user has certain security levels, or you know, privileges, where one employee can edit and design the post. Another employee can only respond to comments. Another employee can only schedule the post on the calendar"* (Marketing Manager, Firm I).

Regarding customer-related risk, some interviewees have highlighted the importance of chatbots in customer care. Customers can chat and get serviced by machine without human intervention. Chatbots can quickly reply to customer inquiries by identifying keywords and providing specific information. This helps reduce the amount of workforce required to answer repeating inquiries so firms can focus on the complaints or inquiries that need human interference.

3.4.2.4.8 Staff awareness and training

This category has been expressed from two different perspectives. Firstly, from a communication point of view, there is specific training that the staff must go through basic SM ethics and etiquette. *"Not claiming exaggerated claims about goods and services. Do not directly target your competitors. You should only refer to the product or services differentiation rather than pointing out to competitors directly"* (Risk Manager, Firm E). They get trained in how to respond to customers, the tone of voice, and how to use the firm name and brand. They also must follow guidelines when they address customers' complaints and inquiries. They use frequently asked questions as a response bank to respond to customers accordingly. For new cases that have not been mentioned there, they must refer the matter to the subject matter expert in the firm to reply rationally and accurately.

Then, from a technical point of view, there are some security measures that they must follow. For example, the staff (SM team) cannot use their phones to access the firm's SM channels; they must use the firm's monitored assets or hardware. That means they do not have access to SM channels directly; they have access through third-party tools. They also must use the two factors authenticator to prevent any unauthorised access. Therefore, from a technical aspect, they must get specific training to identify phishing, spam, and fraud links and learn how to spot and deal with them. Especially now, with the high amount of cybersecurity risk, the SM team must go through all cybersecurity training to be well-equipped to deal with those risks.

"Cyber Security organise education and awareness sessions for the Marketing Team to ensure they are aware of the updates in cyber security (threats, tricks, tactics, and solutions). They make sure they understand regulations and work according to law" (Chief Sales & Marketing, Firm G).

"We have some upcoming training for our top management in order so they would, you know, protect their accounts first, also what to say and how to comment and how to post" (Assistant manager in the marketing department, Firm F).

In addition to the educational programs, another approach to training mentioned by an interviewee is on-the-job training. This type of training involves employees acquiring practical skills and knowledge directly within the workplace environment rather than solely relying on theoretical instruction. Employees are exposed to various challenges and scenarios through active engagement in real-world tasks, allowing them to develop proficiency and expertise through first-hand experience.

3.4.2.5 Technology investment (intervening conditions)

This category explains the various forms that investing in technology can take. Firstly, firms can invest in an efficient system capable of promptly capturing and classifying all customer complaints, including tools like Chatbots to ensure swift responses. Also, firms may invest in a robust digital sales infrastructure (websites/electronic mediators) to streamline the decision-making process for customers. Additionally, the early warning tools discussed in the previous category can also be considered technology investments, such as allocating resources to digital tools for SM risk management, such as Hootsuite and Sprout Social, which can be a valuable investment.

3.4.2.5.1 Investing in Information Systems

Some interviewees proposed that it would be a big failure for firms if they only use Microsoft Excel for complaints categorisation and analysis and then transmit them to the concerned department. To have an excellent SM team which reacts positively, firms need to invest in information systems. The system should be able to systematically capture all complaints, organising them by date and topic. It should also track the speed of firms' responses to customers, the date of issue escalation, and the average time taken to resolve complaints. Implementing chatbot technology becomes crucial in achieving these objectives, ensuring efficient and timely handling of customer queries and concerns. *"First of all, you should have a good system which is capturing the maximum sort of information that people are facing"* (Risk Manager, Firm E).

A few interviewees explicitly referred to the pricing issue among insurance firms. Given that the pricing of insurance products is predominantly reliant on historical data, firms must allocate resources towards developing and implementing a robust system capable of generating accurate estimations. By doing so, firms can effectively mitigate the dependence on human capital and enhance the precision of pricing models. The term "human capital" refers to the non-technical personnel within firms, including those involved in customer care, data input, and claims approval. With strategic investments in technology, firms can effectively reduce their reliance on non-technical employees and focus primarily on targeting the expertise of technical personnel. By implementing advanced technological solutions, tasks traditionally handled by non-technical staff can be automated or streamlined, allowing for more efficient and accurate processes.

3.4.2.5.2 Investing in digital infrastructure (websites/electronic mediators)

It was suggested that allocating resources towards technology and digital infrastructure is prudent. Online platforms, particularly websites, offer superior advantages over physical outlets regarding product sales. This is due to the pervasive use of mobile devices, which consume a

significant portion of people's time. Moreover, electronic mediators enhance the purchasing experience by enabling individuals to swiftly compare multiple insurance providers' prices and make informed decisions in minutes.

3.4.2.6 Social media management benefits (consequences)

This category discusses the bright side of SM after controls have been implemented. For example, SM may serve as a tool to enhance reputation, and brand awareness, manage customer expectations, marketing, and building opportunities.

3.4.2.6.1 Customers' expectations management

A common view amongst interviewees was that SM platforms allow firms to directly access customers and the market for free. So, firms receive genuine feedback from existing customers and even potential ones, understand their needs and problems and then manage their expectations accordingly. Not only that, but SM platforms are also seen as channels where customers and firms communicate their thoughts, suggestions, ideas, observations, and complaints about such firms, which then help firms to improve their insurance products/services and meet their expectations.

3.4.2.6.2 Building opportunities

Several interviewees argued that SM platforms are invaluable tools for firms to target their preferred customers effectively by using algorithms and data analytics. Furthermore, some suggestions were provided during the interviews that firms should consider complaints as opportunities for growth and improvement. Interviewees mentioned several examples of the power of complaints. The CEO of firm J stated that one customer's complaint helped them to establish a new insurance policy. Also, an extension to an existing policy was made after considering constructive feedback from another customer. In addition, there are issues related to customers' claims compensations (late payments) which made one insurer investigate the roots of this issue and then raise a solution to the central bank. Banks are very strict about customers' spelling names, so insurers may accept to compensate the customers, but when it goes to the bank, it gets rejected sometimes because of spelling mistakes. The insurer suggests that banks should be flexible and depend mainly on the customer's bank IBAN, not the name. This is a perfect solution for the central bank, the insurance industry regulator. The procedures related to customer claims compensation in Saudi Arabia's banks are complicated. Therefore, the insurer's recommendation may enhance the process and reduce the number of complaints related to compensations, likely increasing CS.

Although some interviewees felt that negative feedback or customer complaints cost them a lot, others highlighted the importance of service recovery. How firms deal with the complaint may transfer the customer to a loyal one. This would benefit firms since the cost to maintain customers is less than targeting new ones. Moreover, since some responses are in public, it is seen as advertising somehow, so other potential customers would notice how firms react to customers and solve their issues.

3.4.2.6.3 Enhancing corporate reputation and brand

Both negative and positive comments can reinforce the brand. It has been mentioned that posting feedback from customers and sharing their experiences about firms can enhance firms' reputations. *"This is one of the benefits of the digital or the SM platforms and also as you know provides a public image, it shows transparency. It is like a reference to customers to find their answers from others you know customers can positively put feedback if they enjoy the service, if they enjoy the experience then they can highlight it. So, this gives us a good reputation as well"* (Marketing Manager, Firm I).

In addition, dealing with the feedback that firms receive (complaints, suggestions) professionally helps enhance the brand and reputation. *"They are critical to build and support the brand name, and the image through a constructive reaction to what has been proposed by people"* (Chief Sales & Marketing, Firm G).

3.4.2.6.4 Engaging with the community

Some interviewees claimed that given the extensive reach of SM, firms should stay abreast of the competitive landscape, as most of their competitors are actively present on these platforms. Establishing a strong and engaging SM presence has become imperative for firms to showcase their interactions with employees, customers, and the broader community.

3.4.2.6.5 Marketing opportunities

According to the interviewees, SM proves instrumental in enabling firms to comprehend market dynamics, stay abreast of trends effortlessly, and access real-time updates at no cost and with minimal effort. Additionally, SM is a valuable tool for market research, offering a rich source of information and insights that help make informed decisions. For example, firms can readily gain insights into their competitors, acquiring valuable information about their strategies, customer base, and overall business approach. Therefore, since firms know where they stand from customers' complaints (previous category), they now know what competitors are doing. So, SM provides a whole picture of the market and is a reference to the firm's position in the market, its performance, and its services. Thus, firms are becoming aware of what needs to be improved.

Furthermore, several interviewees indicated that through SM platforms, firms can specify their target segment (who will target and fulfil their needs) by conducting online surveys (e.g., Twitter surveys).

Also, SM platforms serve as a means for product promotion. As one interviewee said, **"***SM platforms help maximise traffic on the webpage and market different portals and solutions developed by the company like sales portal on the webpage and service apps. Not only that but also help communicate sales promotions and the company's offerings to the public"* (Chief Sales & Marketing, Firm G).

3.4.3 Selective coding

In this stage, the author consolidated the analytical work done during open and axial coding, culminating in a well-developed conceptual model that offers a clear and detailed understanding of the research problem. A set of practices related to SM risk management were identified, and conceptualised as 'a SM radar'. Developing the SM radar was based on the findings where the author found that some firms apply it implicitly. SM radar is a mechanism used by firms, using tools (sometimes empowered with AI) to seize opportunities and detect warnings and threats in the early stages before escalating to a crisis that is out of control. Sometimes, firms transfer such threats to opportunities. The diagram below illustrates the SM radar mechanism which aims to manage risks that emerge from SM more properly. SM radar includes setting up SM governance, implementing SM strategies, and investing in technology and AI.

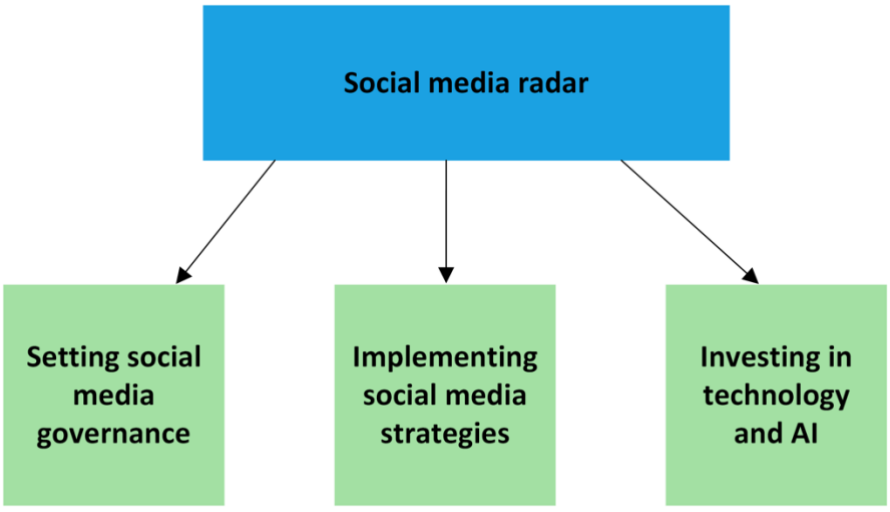

Figure 3-2 Selective coding: Social media radar

3.4.4 A sample coding process in the data analysis

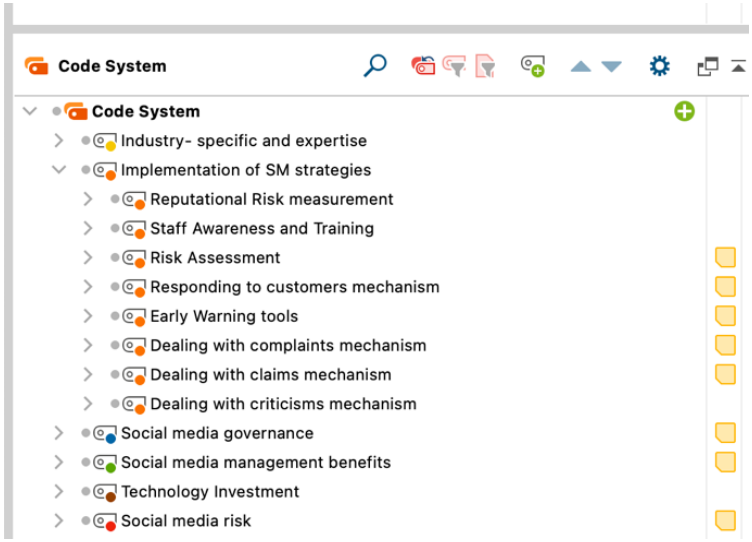

Figure 3 A sample of the coding process in the data analysis

3.5 The results

To achieve my first objective, I rely on three main categories from the analysis, outlined as follows:

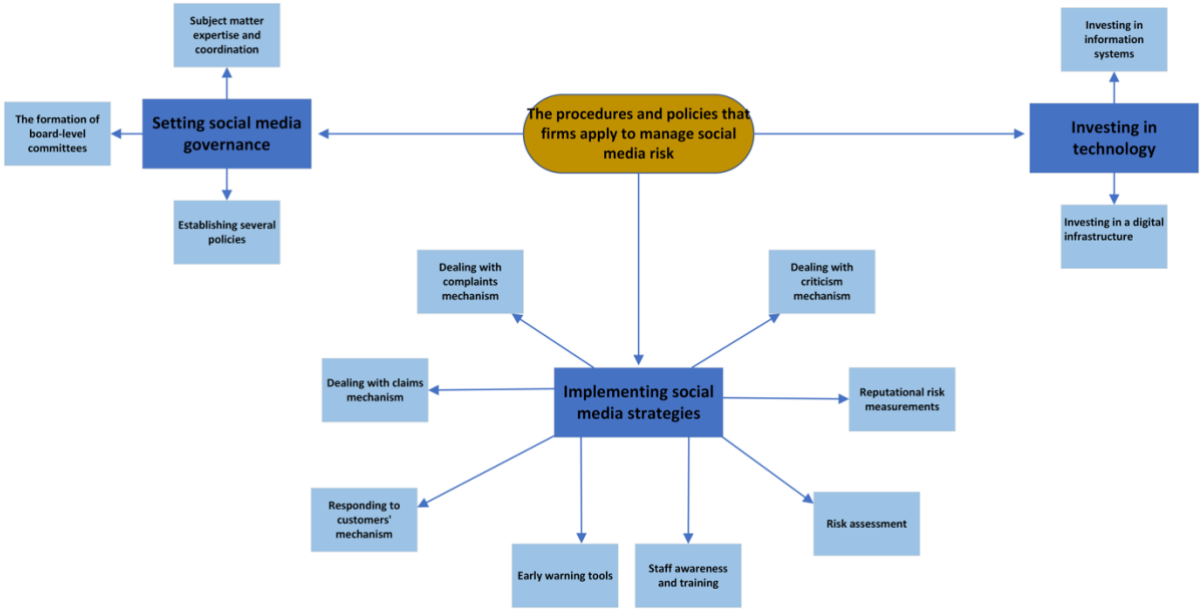

Figure 3-4 The procedures and policies that firms apply to manage social media risk

The firms are divided into two groups in managing risk, including risks that emerge from SM. Some firms follow a proactive approach, as illustrated in the diagram above, while the other group follow a reactive approach. Proactive firms tend to apply several procedures and policies to manage SM risk, which is presented in the dark blue colour, where the light blue explains how firms apply such a procedure. For example, they set SM governance, which includes establishing several policies, forming board-level committees and coordinating with subject matter expertise.

In addition, proactive firms tend to implement several SM strategies to manage risk more properly. This includes setting different mechanisms (e.g., responding to customers, dealing with complaints, dealing with claims and dealing with criticism). Other SM strategies include implementing risk assessment and reputational risk measurements, employing early warning tools (e.g., digital risk management tools), and training and awareness programs for the staff. Lastly, they allocate a budget to invest in technology and AI (e.g., investing in information systems and digital infrastructure).

While proactive firms take SM risks seriously and pay great attention to managing them, reactive firms tend not to put a governance mechanism ahead. Instead, they manage risks that already surface and try to follow only the central bank regulations.

Concerning the second objective, the study delved deeper into several conceptual categories, as described below:

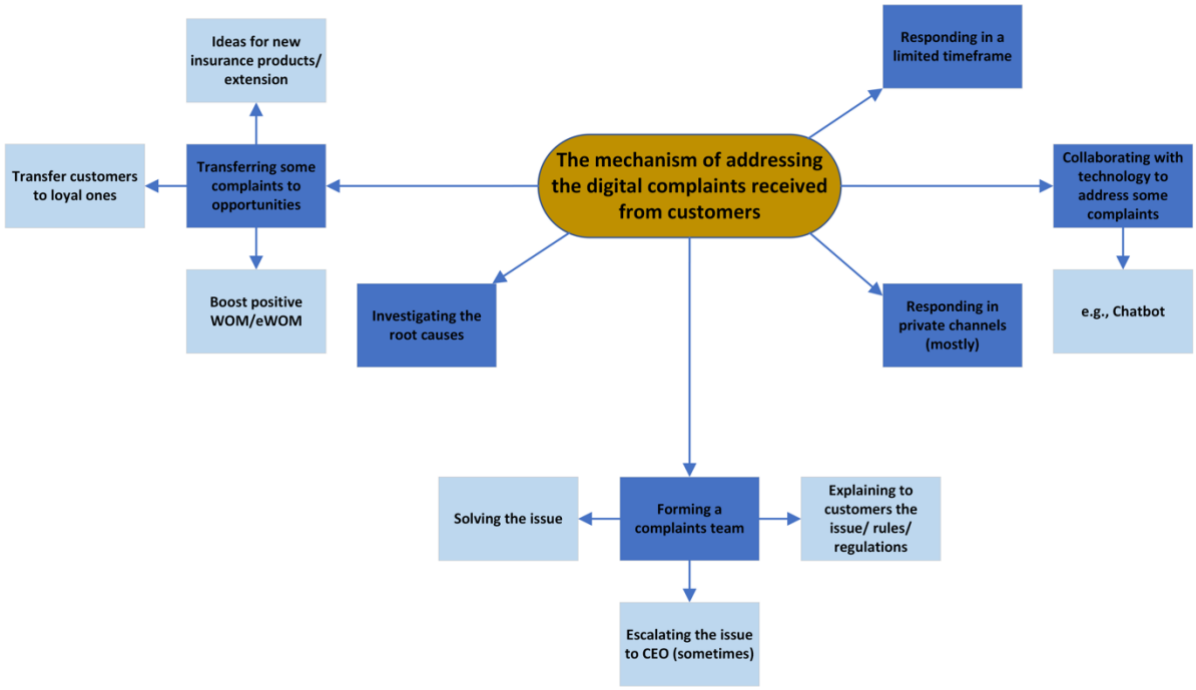

Figure 3-5 The mechanism of addressing digital complaints received from customers

The firms that follow a proactive approach to managing SM risk have set a precise mechanism to tackle digital complaints received from customers. This allows them sometimes to benefit from complaints, as illustrated in the diagram. The mechanism is presented in the dark blue colour, and the light blue explains how this mechanism is achieved. For example, firms form a complaints team and assign them several roles, including solving the issue, explaining the issue, rules and regulations to customers, or escalating the issue to the CEO in some situations. In

addition, they investigate the root causes of customer complaints to prevent them from happening in the future. Moreover, they respond to customers' complaints in a limited timeframe and most of the communications happen through private channels (e.g., direct messages, and phone calls). Furthermore, firms collaborate with technology and AI to address complaints more efficiently (e.g., chatbot). What is interesting is that proactive firms sometimes transform complaints into opportunities where possible. For example, some complaints help firms generate ideas for new insurance products or extensions to existing ones. They sometimes manage to transfer the customers who post complaints to loyal ones by the way they treat them and get their issues solved. Also, this contributes to the spread of positive WOM and post-eWOM by customers afterwards. In contrast, reactive firms lack such a mechanism, so they miss some customers, market share and many more opportunities.

These findings are discussed in detail in the following section in relation to the literature.

3.6 Discussion

This study was designed to achieve two main objectives. Firstly, to examine the procedures that insurance firms apply to manage SM-related risks. Secondly, to investigate how these firms address the digital complaints they receive from customers.

The main finding shows that firms that are aware of SM risk and take it seriously tend to follow a proactive approach to managing these risks. Therefore, they set a comprehensive SM governance mechanism, including forming several committees, establishing policies/guidelines and coordinating with experts and subject matter. The formation of such committees aligns with the AT; the board acts as principal, and these committees are the agents (Subramaniam, Mcmanus and Zhang, 2009). In addition, firms implement several strategies to manage such SM risks. That means firms consider both types of risks, and therefore, they make great efforts to seize opportunities and manage threats that emerge from SM. Finally, they have invested substantive financial resources to acquire and utilise new technology and AI. This includes investing in information systems and digital infrastructure to increase service quality, reduce cost, and manage several risks. However, some other firms might be aware of SM risks but not understand the significance of these risks and their severe impact, hence, they follow a reactive approach. They tend to pay little attention to SM risks, making them not set guidelines /policies or invest in technology and AI. Although some firms already have these policies in place, they still need to put them into practice. These results corroborate the findings of previous work (Scott and Jacka, 2011; Demek et al., 2018). However, Demek et al. (2018) concluded that firms tend to follow a reactive approach in managing risks, while the current study shows that firms are divided into two groups in managing SM risk: reactive and proactive firms.

In addition, while Lenk et al., (2019) the study concluded that managers in accounting and auditing firms are aware of SM risks and willing to manage them, I could not reach the same conclusion in another industry (insurance) with a larger sample size. I think that firms are aware of the risks that emerge from SM, but as mentioned above, not all are willing to manage them properly. This can be deduced from the strategies and tools applied to manage SM risk that proactive firms implement. In contrast, reactive firms tend to follow only the regulations from the central bank (the regulator) without making more effort to compete with other firms in the industry.

These good practices in proactively managing SM risks have been integrated into one model that illustrates the procedures and policies that proactive firms apply to manage SM risks.

The grounded theory analysis allowed to develop SM radar which was discussed in the previous section. It can be concluded that proactive firms tend to implicitly apply the SM radar concept in their SM platforms to detect warnings and seize several opportunities that emerge from SM, while reactive firms do not.

Another key finding of the present work is that firms that follow a proactive approach to managing risk set a precise mechanism to tackle the digital complaints they receive from customers. This includes having a dedicated team with specific roles for managing complaints. In addition, technology and AI in these firms can do some great work related to digital complaints without any human intervention. Firms also tend to investigate the root causes of complaints to prevent them from happening again. Not only that but some complaints are also transferred to opportunities. Finally, firms set a limited timeframe to respond to customers, and most responses occur through private channels. In contrast, reactive firms tend not to have an evident mechanism for addressing digital complaints. As a result, they miss the power of the complaints, and many customers escalate their objections to the central bank, which has negative consequences afterwards. Based on this finding, a digital complaints model is developed.

KPMG report (2021) stated that several risks emerge from SM, but the biggest one is not exploiting SM platforms' opportunities. The results support this claim. Being active in SM and following a proactive approach to managing its risks is essential. The second interesting finding shows how some complaints are even seen as opportunities. Moreover, having a solid SM presence and managing its related risk benefits firms. In contrast, being absent from SM and not taking its risk seriously is likely to create risk and damage reputation ultimately, as Dowling (2006) stated that some boards of directors have put their reputation at risk.

The rich data in the present study allowed to come up with possible explanations about why some firms follow a reactive approach in managing risk, not a proactive one which contributes to the losses that have been reported as follows. First, some insurance firms have incurred losses

because they tend not to implement SM governance, strategies, and digital tools that help them detect threats in the early stages before they escalate to crisis. Also, they miss many SM opportunities due to their absence. Another reason for losses mentioned by the chief risk officer in firm H, could be attributed to their relatively small capital sizes, such as 100,000,000 SR (≅ £20,000,000) or 200,000,000 SR (≅ £40,000,000). These smaller capital amounts result in weaker market shares, leaving only a few dominant firms in the industry. Consequently, losses inevitably occur when these small firms spend substantially while their sales remain modest. In this case, they will likely not spend on digital tools to manage SM risk since they do not have the budget.

Another plausible reason for firms experiencing losses could be related to pricing issues, where prices are below the actual cost. The pricing issues were explained by the chief risk officer in firm H as follows. One possible explanation for these pricing problems could be inaccurate forecasting, leading firms to realise their losses later and then resorting to price increases prices accordingly. The pricing challenges could be more in motor insurance, which can be linked to spare parts, particularly exacerbated by the impact of COVID-19 and the resulting supply chain disruptions. The rising spare parts costs have prompted insurance firms to adjust their pricing accordingly. Furthermore, another contributing reason to these losses is the strategy adopted by some firms to gain a larger market share. To achieve this, they deliberately lower their prices to attract more customers. For instance, when a firm initially priced its product at SR1000, a potential customer might present a competing offer from another firm at SR900. To secure the customer and expand its market share, the firm reduced the price further to SR850, even though they are aware, based on actuarial assessments, that this decision would result in losses. The justification given by these firms is their prioritisation of gaining a larger market share over immediate profitability. That is why the primary focus of the regulator (Central Bank) is on something other than reputation management, SM management, or customer relations. Instead, given the challenges the industry is facing, the regulator's top priority is to safeguard the capital of insurance firms and ensure their financial stability.

In conclusion, proactively managing SM risk, including investing in technology and AI, would make a difference for all the stakeholders, not only customers. Hence, in the next research paper, the focus is on a specific type of technology investment, namely, chatbots and the relationship between CS and firms' reputations. This technology was selected as its primary objective is to enhance the overall customer experience in various aspects, purchase/renew policies, raising claims, inquiries, and complaints. The study focuses on motor insurance as it is the individual's choice.

3.7 Limitations and Future Research

Despite the contribution to the empirical research on SM risk management, the current study has some limitations. Firstly, since the study focuses on only one platform, Twitter, further studies conducted on other platforms may be worth considering. In addition, although the current study considers both types of business relationships (B to B and B to C), a comparative study in SM risk management between these two types would be a good contribution. Such research would provide a holistic understanding of each business model's unique challenges and opportunities and their practices in managing SM risk. The insights can inform strategic decision-making and SM risk management, ultimately contributing to the overall success of businesses operating in both markets.

Moreover, as the study was conducted on one service industry (Insurance), further research needs to be done for other service industries. Extending research to other service industries can enhance the breadth and depth of knowledge in the field. Moreover, it contributes to a deep understanding of service industry dynamics and provides valuable insights that can inform practice, policy, and future research endeavours.

Furthermore, a comparative study in SM risk management between developing and developed countries may also be worth considering. By comparing the risk management practices in developing and developed countries, firms can identify benchmark standards and best practices. Learning from successful strategies can inform the improvement of risk management frameworks in both contexts.

In addition, future research should explore the distinctions between executive and independent directors, focusing on their roles and involvement in risk management committees. Key questions that should be investigated include: who qualifies as a director, how do their roles differ, and what are the implications of their involvement for corporate governance and risk management practices? Additionally, research should examine how the composition of risk management committees, specifically the balance of executive versus independent directors, impacts the effectiveness of risk management and overall firm performance.

Lastly, SM risk management tools, like any software, may have vulnerabilities that could be exploited by malicious actors. In addition, these tools may not cover all SM platforms comprehensively or may struggle to detect emerging risks. So, further studies are needed to study the effectiveness of these tools. Also, although digital transformation is beneficial for firms, it might create such risks. For example, as firms adopt digital technologies, the risk of cybersecurity threats might increase. This includes data breaches and malicious activities that can compromise sensitive information. Another example is operational disruptions caused by

technologies, which can ultimately lead to productivity losses and impact CS. Therefore, further studies should be conducted concerning digital transformation risk.

3.8 The theoretical and practical contributions

Three vital contributions significantly add to the existing knowledge on risk management in general, and SM risk management particularly in terms of following a proactive approach to managing risks as follows.

Developing the SM radar concept is very important to manage the risk that emerge from SM. It is a mechanism that some firms use in the SM context by applying SM strategies, and digital tools and investing in technology to detect threats and seize opportunities where possible. It serves as an early warning tool that enhances the effectiveness of SM risk management.

In addition, the study develops an SM risk management model which illustrates the procedures and policies that proactive firms apply to manage SM risks. Lastly, digital complaints management is also developed in the current study. It is a mechanism that illustrates how proactive firms manage the digital complaints received from customers.

Due to the global shift towards a digital economy, the contributions of this study will be highly significant over the next five years. This transformation affects not only governments and businesses but nearly everyone. While some firms may have survived without closely monitoring social media risks, this will not be the case soon.

In terms of practical implications, the study identifies several implications for service firms as follows.

Firms should consider establishing a comprehensive SM policy to effectively manage risks that might emerge there. This policy includes, for example, the SM team and their responsibilities, how firms react to the different tweets and the timeframe response. In addition, firms should invest in technology and AI to manage SM risks more effectively. Investing in technology will allow firms to apply SM radar, risk management and digital complaints management models.

3.9 Conclusion

Even though SM is very beneficial for firms, it might create several risks that can ultimately contribute to reputational damage. Therefore, SM risk management is key for firms to survive and succeed. Little is known about SM risk management (Arnaboldi, Azzone and Sidorova, 2017; Demek *et al.*, 2018; Lenk *et al.*, 2019), and it is not clear how firms manage risks that emerge from SM platforms. Therefore, the current study aims to study how service firms manage SM risks. The

study has two main objectives to achieve: Firstly, investigating the procedures and the policies firms implemented to manage SM risks. Then, exploring how firms deal with online complaints received from customers.

Interviews were conducted with risk committee members and CEOs in ten insurance firms in Saudi Arabia, and grounded theory was employed in the data analysis. The results reveal that firms are divided into two groups in terms of SM risk management: Proactive and reactive firms. Proactive firms have set SM governance mechanisms, including the formation of board-level committees, the establishment of several policies and guidelines, and the coordination with subject matter and expertise. Forming such committees aligns with the AT since the board of directors have many responsibilities to achieve and might not have expertise in some areas within firms. Therefore, they form these committees, including risk committees, to manage risks properly. The board would be the principal according to the AT, and the risk committee is the agent. In addition, these firms tend to implement several SM strategies and invest in technology to seize opportunities and manage threats. However, reactive firms tend to manage risks that have already surfaced and only follow central bank regulations. Proactive firms implicitly apply the SM radar concept that was developed based on the study findings, whereas reactive firms do not.

Furthermore, the results indicate that proactive firms have a clear mechanism regarding the digital complaints received from customers. For example, these firms tend to investigate the roots of the issue to close the loop and prevent such issues from happening in the future. Moreover, they set a specific timeframe to solve complaints and collaborate with technology (e.g., chatbots) to address customers' complaints properly and quickly. They also turn some complaints into opportunities if possible. While proactive firms make great efforts to manage customers' digital complaints, reactive firms lack such a mechanism which makes them miss some customers, market share and other opportunities.

The next study focuses on one technology that some firms have used to address customers' concerns, inquiries and complaints, namely chatbot. It examines the effectiveness of chatbots in affecting CS and the latter to CR.

Chapter 4 Paper 3: Examining the antecedents and outcomes of customer-based corporate reputation in chatbot with moderating role of word of mouth and customer loyalty.

Abstract:

The present study examines the impact of chatbot effectiveness on customer satisfaction (CS), and further examines the impact of CS and trust on the corporate reputation (CR) as its antecedents. In addition, purchase decision (PDs) is examined as the outcome of CR. Finally, the study examines word of mouth (WOM) and customer loyalty (CL) as factors moderating the relationship between CR and PDs.

The data is collected from customers (Saudi residents) using surveys about their experience with motor insurance products purchased from Saudi Arabian insurance firms. The hypotheses are tested with structural equation modelling (SEM) using SmartPLS4.

Findings for the overall sample revealed a significant and positive relationship between chatbot effectiveness and CS. The results also revealed that CS and trust positively and significantly impact CR. In addition, the relationship between CR and PD is identified as positive and significant. Concerning the moderating effect of WOM and CL on the relationship between CR and PD, they are found significant. While CL positively moderates the relationship, WOM moderates the relationship negatively.

4.1 Introduction

Reputation is key for corporations. Research has shown that a firm's reputation can serve as a competitive advantage that is difficult to replicate and can lead to enhanced profitability (Yoon, Guffey and Kijewski, 1993; Gardberg and Fombrun, 2002). A strong corporate reputation (CR) is also associated with reduced transaction costs and higher financial and non-financial outcomes (Shapiro, 1983; Rose and Thomsen, 2004). Therefore, the current study aims to test the antecedents and consequences of CR. The results may enable insurance firms to gain insights into the factors that drive reputation. Once these drivers are identified, greater attention can be directed towards managing them effectively, leading to the improvement of CR.

Firms have started using Artificial intelligence (AI) to enhance their reputation. Of particular interest is the use of chatbots by insurance firms to address customer inquiries, complaints, and claims, enhancing or maintaining their reputation. Several themes that emerged from the second paper (Chapter 3) could be addressed by implementing chatbots on the firms' SM platforms. These themes relate to customer interactions, including responding to customers and dealing with claims, criticisms, and complaints mechanisms. While chatbots are particularly effective for frequently asked questions, it is important to note that human intervention is still necessary in some situations. Therefore, chatbots can assist in managing customer-related risks by providing timely and efficient responses, thereby enhancing overall customer service.

According to Fokina (2024), 53% of customers find waiting a long time to receive responses from customer service agents very frustrating, and 62% of customers prefer using chatbots rather than talking with human agents. Chatbots may decrease the handling time by 30% compared to conventional customer service (Forrester, 2023), and save 30% on customer support costs (Fokina, 2024). In the financial industry, adopting chatbots can result in time savings of around 4 minutes per customer inquiry, contributing to enhanced customer satisfaction (CS) (Fokina, 2024). However, the Institute of Customer Service report states that many customers find using chatbots empowered by AI dissatisfying. The report highlights that poor testing of chatbot effectiveness can negatively impact customer experiences and firms' operations (Sladden, 2022). According to the report, 42% of customers avoid using chatbots in complex inquiries. Therefore, the impact of chatbots on CS remains unclear since chatbots may also negatively impact CS and trust. Research concerning the effectiveness of chatbots and their impact on CS is needed.

Consequently, in this study, the chatbot is examined as an antecedent to CS and the latter to CR. Given the employment of novel technology, it is envisioned that chatbots might assume a greater role in shaping or influencing the firms' reputation. Although the literature is rich with research on chatbot usage to respond to customer complaints or questions (Cui *et al.*, 2017; Xu *et al.*, 2017;

Nuruzzaman and Hussain, 2018; Chung *et al.*, 2020; Adam, Wessel and Benlian, 2021; Eren, 2021; Magno and Dossena, 2023), there is little empirical research published that examined the impact of a chatbot on CS (Eren, 2021; Magno and Dossena, 2023), let alone its role in impacting CR. One study was conducted within the Turkish banking industry to examine the perceived performance and perceived trust of chatbots and CR on CS (Eren, 2021). The study investigated the relationship between CS, perceived trust in chatbots, banks' reputation, and the use of bank chatbots, by surveying 240 customers who experienced banking transactions using a chatbot. The findings reveal that perceived performance, perceived trust, and CR positively and significantly influence CS with chatbot usage. While Eren's findings are interesting, the study has limited ability to shed light on how CS with the use of chatbots influences CR.

Another study was conducted by Magno and Dossena, (2023) to examine the impact of perceived features of chatbots (hedonic and utilitarian) on CS and, consequently, their connections with brands. The study uses a questionnaire to collect data from Italian consumers. The results indicate that the perceived hedonic and utilitarian aspects of chatbots positively influence CS, contributing to enhanced relationships between customers and brands.

In addition, since many factors contribute to reputational damage, this paper aims to provide a comprehensive framework for reputation management by taking into consideration modern technology. Therefore, other factors besides the chatbots, that are of interest to researchers in relation to CR are trust and CS (Walsh et al., 2009; Maden et al., 2012; Ruiz, García and Revilla, 2016; Kim and Kim, 2017; Osakwe et al., 2020; Ali, 2022). One theme that emerges from the literature is that trust and CS have been identified as antecedents of CR in some studies whereas others determine them as consequences. For this study, based on the view of Walsh et al., (2009), customers would associate a good reputation with a firm that meets or surpasses their expectations has been utilized. Therefore, CS would be an antecedent of CR. The study chose chatbots to be an antecedent of CS, further, the study examined both CS and trust as antecedents of CR.

Furthermore, customer purchase decision (PDs) was examined in the current study as a consequence of CR. Consequently, the study examines whether customers consider a firm's reputation when making PDs or not. While previous studies have explored various antecedents and consequences of CR, to the best of my knowledge, the relationship between CR and its potential impact on PDs has received little attention from academics. Thus, further research is needed to address this gap as the significance of CR largely stems from its supposed effect on stakeholders (e.g., customers') behaviour in response to their perception of CR (Herbig and Milewicz, 1993).

To account for potential moderating effects, customer loyalty (CL) and word of mouth (WOM) are included as moderators, as they may influence customers' decision-making processes. These two variables have been examined in the literature and are found to have relationships with CR whether as antecedents or consequences (Walsh et al., 2009; Maden et al., 2012; Ali et al., 2015; Ruiz, García and Revilla, 2016; Latif, Pérez and Sahibzada, 2020; Osakwe et al., 2020; Özkan et al., 2020; Islam et al., 2021; Barakat Ali ,2022)Barakat Ali ,2022Barakat Ali ,2022. For example, research by Walsh et al., (2009) and Ruiz, García and Revilla, (2016) found that CR has a positive relationship with CL and WOM. In addition, Maden et al., (2012) found that there is a positive and significant relationship between CR and customers' behaviours, including WOM and CL. A recent study by Barakat Ali (2022) examined the relationships between CR and its potential consequences for Egyptian consumers of household appliances. The findings revealed that CR positively and significantly influences CS, and CS, in turn, significantly contributes to CL.

The current study contributes to the CR literature as follows. Although some factors are examined in the literature, such as CS, CL, WOM, and trust, to the best of my knowledge, CL and WOM have not been examined as moderators of the relationship between CR and PDs. These two constructs might be a key of importance as moderators for such a relationship. Firstly, in the digital age, WOM spreads quickly through social media and online reviews, impacting a large audience in a short amount of time (Duan, Gu and Whinston, 2008).. This rapid spread can enhance or damage a CR within minutes, thereby influencing PDs. In addition, regarding CL, the Thakur (2016) states that loyal customers are more likely to make repeat purchases, which strengthens the link between CR and consistent PDs. Loyal customers often become advocates for the brand, defending it against negative comments and promoting it to others. This advocacy can mitigate any potential damage to the corporate reputation and positively influence new PDs. Moreover, even though the relationship between chatbot and CS was examined before, CS with the effectiveness of chatbot has not been examined as an antecedent of CR. Lastly, combining all these constructs into one comprehensive framework is novel.

In sum, the present project examines the antecedents and consequences of CR in insurance firms in Saudi Arabia. The study is focused on the use of AI (Chatbots) to respond to customer complaints and questions. More importantly, how the use of chatbots impacts CR and, thereafter, customers' PDs. Therefore, the study objectives are:

1. To assess the relationship between chatbot and CS.
2. To ascertain the antecedents of CR, with a focus on CS and trust.
3. To identify the extent to which CR impacts customers' PDs.
4. To explore the moderating role of CL and WOM in the relationship between CR and PDs.

To answer the research question and achieve the objectives effectively, the study focuses on customers (Saudi /residents) who have purchased motor insurance from insurance firms in Saudi Arabia as the study sample. Residents refer to any resident of Saudi Arabia who has a different nationality. The total number of completed responses is 334. The study hypotheses are tested using structure equation modelling (SEM).

The results show that there is a positive and significant relationship between the effectiveness of chatbot and CS. In addition, trust and CS are found to have a significant and positive impact on CR. The results reveal that there is a strong positive connection between CR and PDs. Concerning the moderation effect of WOM and CL in the relationship between CR and PDs, the results show that both of them are significant. While WOM negatively moderates the relationship, CL positively moderates it.

The remaining of this study is structured as follows. The first section provides an overview of the theoretical background and hypotheses. Next, the methodology, including the questionnaire design, data collection method, and sample details are presented. Then, the third section presents the data analysis and empirical findings. Then, the results are discussed in relation to the literature. The last section discusses the study's limitations, conclusion, implications, and proposed avenues for future research.

4.2 Conceptual framework

Several theories can help place my research in context, including Expectations Confirmation Theory (ECT; Oliver, 1980) and Signalling Theory (ST; Spence, 1978). ECT was originally developed by Oliver (1980) as a model of customer behaviour that defines and predicts CS. The theory posits that CS is based on behaviour that stems from customer expectations and whether these expectations are confirmed or disconfirmed because of firm service performance (Morgeson, 2013). As posited by Oliver and DeSarbo (1988), ECT encompasses four distinct stages. Firstly, customers hold pre-existing expectations regarding a product or service before making a purchase. Secondly, the purchase itself is influenced by these initial expectations. When a notable disparity emerges between the customer expectation and the reality, the level of perceived performance is altered following these expectations, either increased or decreased. In the third stage, the perceived performance either validates or negates the initial customer expectations. Finally, CS is impacted by both customer expectations and the perceived level of performance, with satisfaction increasing when customer expectations are confirmed. Consequently, ECT provides a comprehensive framework for understanding CS through the lens of customer expectations, perceived performance, and the verification of customer expectations based on firms' actual outcomes.

A study by Eren (2021) employs ECT to examine the factors impacting CS in chatbot use. The study postulates that customer expectations, perceived performance, confirmation of customer expectations, perceived trust, and CR serve as the primary drivers of CS. The findings revealed that customers' perceptions of chatbot performance have a positive impact on their overall satisfaction. Specifically, after experiencing chatbot services, customers derive significant benefits in terms of the chatbot's productivity and efficiency, which significantly contributes to their satisfaction. The study claims that in contrast to Internet banking and mobile banking, personalised services facilitated by chatbots offer considerable convenience and advantages to customers. Furthermore, the study revealed that customers' perceived trust in the bank's chatbot service also positively influences their satisfaction. Initial concerns and insecurities associated with technology-based financial products or services can hinder satisfaction, but when customers trust the chatbot service, it enhances their overall satisfaction. Thus, it seems that ECT offers a suitable framework to understand how CS is influenced by their expectations, perceived performance, and the confirmation of those expectations concerning the utilisation of chatbots in the insurance industry.

The second theory, namely the ST suggests that not all information is accessible and/or available to all parties at the same time. Therefore, people usually tend to find some signals that help them make their decisions due to the limited information they have at a particular time (Spence, 1978). The application of this theory has extended to various contexts. For instance, Spence (1974) posits that employers perceive educational choices as credible indicators of an individual's actual ability when evaluating prospective employees. Kreps and Wilson (1982), and Milgrom and Roberts (1986) expand upon this notion by applying it to the examination of firm-level competition. These scholars propose that predatory pricing strategies can serve as a signal indicating the likelihood of retaliatory actions by competitors in the market. Moreover, Spence (1978) states that a firm's reputation can serve as a significant signal that has the potential to mitigate customers' risks and incentivize them to buy a product.

Walsh et al., (2009) conduct a study utilizing the ST in the energy supply industry to elucidate the association between CR and two specific outcome variables: CL and WOM. The study ascertains that CR serves as a predictive factor for both variables. Therefore, the study used this theory in another type of service firm (Insurance industry) to explain the relationship between CR and customer PDs.

4.2.1 Corporate Reputation

Reputation can be especially important when there is limited knowledge regarding firms' offerings and high uncertainty about their performance (Yoon et al., 1993). Since the study is

focused on the insurance industry, where there are limitations and uncertainties, it is reasonable to assume that an insurance firm's reputation is particularly important in terms of customers' PDs. Since insurers sell promises based on a contract to customers, there is no physical evidence that customers can evaluate the insurance products before making the purchase. This means that there is a high amount of uncertainty exists, about whether insurers will pay what the contract says they will pay. Therefore, it is expected that having a good reputation would help alleviate customers' uncertainty regarding insurance products. For example, a firm with a good reputation might be translated into one that is more likely to pay when required or pay the claims faster compared with others (in a specific timeframe). Hence, it is assumed that customers are likely to rely on a firm's reputation to make their PDs.

A study by Ali (2022) examined the function of CR in fostering strong relationships with customers. To do so, Ali has developed a model which incorporates the interdependencies between CR and its potential outcomes, namely CS, trust, CL and WOM. The study targets the users of household appliances residing in Egypt. The findings revealed that a firm's reputation exerts a significant influence on CS, which in turn has a significant impact on customer trust. Applying these ideas to the financial industry, Osakwe et al., (2020) research examined the factors that influence service quality and the impact of bank reputation on their customers in three prominent African markets, namely, Ghana, Kenya, and South Africa. The results indicate that service quality dimensions, specifically service offering appeal and customer care, significantly influence customers' perceptions of their bank's reputation. The study also confirms the positive role of bank reputation in developing trust and CL.

While both Ali (2022) and Osakwe et al., (2020) studies underscored the significance of CR to customers, Ozdora Aksak et al., (2016), further accentuates this importance by indicating that a firm's reputation is considered an intangible asset that significantly contributes to its success. In a similar vein, Roberts and Dowling (2002) argued that reputation is a mental picture of a firm that gradually grows over time as an effect of good quality, standardized operations and following the approach that focuses on customers' needs and continually updates them. Reputation has multiple benefits for firms, such as gaining CL, allowing firms to charge higher premiums, and increasing CS. A robust reputation is also considered a competitive advantage (Walsh and Wiedmann, 2004), as well as a strategic tool that helps firms to achieve their strategic objectives (Islam *et al.*, 2021). Several variables may impact on firm's reputation—e.g., AI products like chatbot, CS, trust that are discussed below.

4.2.2 Antecedents of Corporate Reputation

4.2.2.1 Artificial intelligence

In the current era, commonly referred to as “the digital age”, the use of robots and AI has become an integral part of human life and work, marking what some have dubbed the "second machine age” (Brynjolfsson and McAfee, 2014, p. 1). AI is also a crucial component in enhancing the customer experience, as it enables businesses to filter, analyse, and interpret large amounts of customer data speedily and efficiently (Eren, 2021).

Nowadays, chatbots can be empowered by AI technology. According to Nuruzzaman and Hussain (2018), two significant developments have fuelled the recent interest in chatbots. The first is the rapid growth of messaging services over the past few years that incorporate features like payments, ordering, and booking, which would otherwise require separate applications or websites. Users can now complete these tasks directly within their favourite messaging apps, such as Facebook Messenger, WhatsApp, WeChat, and Line, without the need to download multiple apps. The second development is the advancement of AI techniques, in conjunction with machine learning and deep learning algorithms, that have made significant progress in improving the quality of understanding and decision-making on low-cost processing power. Chatbots can now handle massive amounts of data and provide results that, at times, surpass human performance.

4.2.2.1.1 Chatbot

The term “Chatbot” can be defined as “*a conversational software system that is designed to emulate the communication capabilities of a human being that interacts automatically with a user. It represents a new, modern form of customer assistance powered by artificial intelligence via a chat interface”*(Nuruzzaman and Hussain, 2018, p. 55).

Based on Chen Hongshen et al. (2017) work, chatbot applications can be categorised into two main groups: task-oriented and non-task-oriented. Task-oriented chatbots are designed to assist customers in completing specific tasks and engaging in brief conversations. Examples include Siri, Google Now, and Alexa, which can provide travel directions, find restaurants, and help with phone calls or texts. Non-task-oriented chatbots, in contrast, are designed to engage in conversations with customers, answering their questions and providing entertainment.

Chatbot applications can also be classified into four distinct categories: service, commercial, entertainment, and advisory chatbots. Service chatbots assist customers, such as a logistics company providing delivery updates or sending dispatch documents via instant messaging instead of email or phone. Commercial chatbots simplify the purchasing process for customers,

such as a pizza company taking delivery orders or notifying customers of promotions via a messaging interface. Entertainment chatbots keep customers engaged with events related to sports, movies, favourite bands, etc., offering the option of placing bets and providing details on upcoming events and ticket deals. Advisory chatbots offer suggestions, recommendations, support, and maintenance or repair tips for goods or services, contacting people when necessary (Barker, 2017). In the insurance industry, for example, chatbots can be employed to answer simple inquiries, resolve claims, sell products, and ensure customers are adequately covered by their insurance (Nuruzzaman and Hussain, 2018). Therefore, three categories--service, commercial and advisory--might be applicable.

According to De Keyser et al. (2019), an increasing number of firms are using chatbots powered by AI to provide frontline customer service. Indeed, there is an increase in Chatbots' use as service providers, distinct from both human customer service and self-service technology. It employs advanced technologies, such as natural language processing, cloud computing, machine learning, and biometrics, to offer customers prompt and consistent service while also lowering operating expenses for firms (Wirtz et al., 2018).

Thus, chatbots that are empowered with AI might be able to interpret emotions and intentions and formulate meaningful responses. This provides customers with an easy and convenient way to obtain answers to their queries, eliminating the need to wait in phone queues or send multiple emails. Chatbots can be beneficial in several ways, such as reducing the number of customer calls, reducing average handling time, and lowering customer care costs. This would benefit both customers as well as firms. Chatbots can further benefit firms by analysing data more effectively than humans, enabling firms to predict each customer's risk accurately, thereby providing customers with the appropriate amount of insurance and protecting firms from high-risk customers. However, achieving these functions requires complex interactions between systems (Nuruzzaman and Hussain, 2018). In addition, Chung et al., (2020) argued that chatbot offers an additional level of assistance to the dimension of service quality by guaranteeing that customised assistance is accessible to address the needs of customers at any time and from any location.

A cross-sectional study has explored several of the above ideas (Ayers *et al.*, 2023). In this study, a team of licensed healthcare professionals analysed around 195 randomly selected patient questions from a public SM forum. They then compared the responses provided by physicians and chatbots to these publicly asked patient questions. Interestingly, the findings reveal that the chatbot responses are preferred over the physician responses, receiving significantly higher ratings in terms of quality and empathy. Further research concerning customer service quality and chatbots is needed to be conducted in different industries.

Prior research (Cenfetelli, Benbasat and Al-Natour, 2008; Piercy, 2014; Maklan, Antonetti and Whitty, 2017) has demonstrated that in traditional service settings, the service quality provided by frontline employees who directly interact with customers has a significant impact on CS, CL, and organisational profitability. Therefore, it seems reasonable to assume that similar results would be found in customer service that is provided by chatbots. I assume that chatbots have a significant impact on CS. Although the importance of AI service quality has been recognised in both practice and academia (Jörling, Böhm and Paluch, 2019; Luo *et al.*, 2019; Thomaz *et al.*, 2020), chatbot service quality and its related evaluation measures remain ambiguous (De Keyser et al., 2019). This lack of clarity has resulted in a deficiency of frameworks to evaluate and enhance the quality of chatbot services.

CS can be defined as "*a post-purchase attitude formed through a mental comparison of the service and product quality that a customer expected to receive from an exchange and the level of service and product quality the customer perceives from the exchange*"(Kim, 2012, p. 220). In addition, Oliver (1980) argued that customer expectation could be used as a standard to assess CS. Based on ECT, there is a significant relationship between customer expectations and their post-experience satisfaction. In addition, according to Brill et al. (2019), a firm's performance could be evaluated by two dimensions: objective and perceived. Objective performance refers to the firm's actual performance (such as revenues) while the perceived one is associated with individual assessment. In a study by Churchill and Surprenant (1982), the authors stated that perceived performance is about how customers evaluate the product or service after purchasing.

Eren's (2021) study investigated CS derived from using bank chatbots, as well as the impact of perceived trust in chatbots and banks' reputation on CS. It was conducted in Turkey involving customers who had engaged in banking transactions using a chatbot. The study indicates that perceived performance significantly impacts CS with chatbot usage. In addition, customer expectations have a positive effect on perceived performance.

However, despite technological advances, chatbot's ability to engage in meaningful dialogue is still somewhat limited. It can only respond to the user if there is a match between the user's query and a set of question-answer pairs stored in its knowledge base. That is, the repertoire of the responses is generated using a fixed set of prepared responses (L'Abbate, Thiel and Kamps, 2005). Traditional chatbots (the ones that are not empowered with AI) lack the intuition and scope of humans to comprehend meaning, relationships, and possibilities beyond the literal sense (Nuruzzaman and Hussain, 2018). It might be assumed that firms apply different versions of chatbots, and as they are considered machine learning tools, the ability of chatbots to properly respond to customers and satisfy them depends on how and what they learn and the quality of learning. Thus, all these factors impact CS eventually.

Based on the discussion above, it is proposed that:

H1: There is a positive and significant relationship between the effectiveness of chatbots and CS.

4.2.2.2 Customer satisfaction

As indicated earlier, CS is the positive reaction expressed by customers (Oliver, Rust and Varki, 1997). A study by Liang and Wang (2004) stated that CS is viewed as an evaluation that is provided after consuming products or services. Therefore, CS happens when customers perceive that firms' offering to meet or surpass their expectations (Santini et al., 2018). It can serve as an indicator of a firm's overall performance (Martínez & Rodríguez del Bosque, 2013).

About reputation, Nguyen and Leblanc (2001) the study examined how CR and image influence customer retention decisions, using data from three service sectors: 222 retail consumers, 171 clients from a major long-distance firm, and 395 business administration students. According to the results, CR can serve as a reliable indicator of a service firm's capability to meet customer expectations.

In the context of retail, Davies et al., (2005) concluded that there is a connection between CS and positive reputation, a finding that was also replicated by Walsh et al., (2006) within utility services. Walsh et al., (2006) the study was conducted to examine whether CR and CS are correlated with customer intentions or not. The study gathered data from 462 customers through a questionnaire. However, despite that these two studies (Davies *et al.*, 2005; Walsh, Dinnie and Wiedmann, 2006) concluded that there is a strong connection between CS and reputation, no analysis was performed to find out how satisfied customers can impact customer-based CR. The following study was conducted by Walsh et al., (2009) in the energy supply context to examine the antecedents and consequences of CR with a focus on customers. The findings indicate that there is a strong relationship between CS and CR.

In the financial institutions, Ruiz et al., (2016) the study examined the key factors influencing bank reputation and their potential variations across different countries. It focused on bank customers in the United Kingdom and Spain, which are known for having a significant presence in the financial system in their respective economies compared to other European countries. The study emphasised the importance of CS as a key emotional driver of reputation.

The current study extends this line of research within the context of the insurance industry and ascertains how chatbots may affect CS and their perceptions toward insurance firms. Hence, it is proposed that

H2**:** CS with chatbots has a positive and significant impact on customer-based CR.

4.2.2.3 Customer trust

Trust is considered as belief and expectation toward firms based on their reliability and intentionality (Walsh *et al.*, 2009). Therefore, once customers trust a firm, they believe that this firm is offering a fair and reliable service and/or products. Thus, if customers trust firms, this is likely to impact their perceptions and evaluations of firms which ultimately may contribute to enhancing their reputation. A study by Walsh and Beatty (2007) shows that trust is associated with customer-based CR. In addition, a study by Walsh et al., (2009) supports the view after examining trust as an antecedent of customer-based CR in energy supply firms based on survey data from 511 customers and finds that there is a significant positive relationship between them.

The relationship between trust and CR has been highlighted in the marketing literature. A considerable number of studies have found that trust as well as feeling confident about a firm's future actions is associated with its reputation (Dowling, 2001; Roberts and Dowling, 2002; Rose and Thomsen, 2004). Trust might be particularly important in the insurance industry because of the intangibility of firms' offerings. Insurance products, such as motor insurance cannot usually be evaluated even after the purchasing process; therefore, such products should be accepted on trust. I therefore hypothesise that:

H3**:** Customer trust has a positive impact on customer-based CR.

4.2.3 Consequences of Corporate Reputation

4.2.3.1 Purchasing decisions

Schmalensee (1978) and Shapiro (1983) argued that a good reputation helps in enhancing customers' expectations about firms' services. In addition, it helps mitigate uncertainties about firms' performance. Thus, customers rely on reputation to make their purchasing decisions, especially when they are about to purchase services like insurance products. Yoon et al., (1993) investigate the impact of a firm's reputation and its services on customers' expectations, as well as the impact of customers' expectations, the firm's reputation, and information on purchasing intentions. The study finds that customers' reactions to services reflect how they feel about the firm's reputation.

Many studies highlight the positive relationship between maintaining a good reputation and increasing market share. For example, Shapiro (1982) claimed that a good reputation helps in increasing a firm's sales and market share. Raj (1985) supports this view and states that a firm with a good reputation is likely to obtain a stronger market share than others. A study by Richard and Zhang (2012) found that firms with good reputations would be shown as good firms in the

market. Thus, based on ST, customers tend to use reputation to formulate their perceptions about such a firm. Customers show a preference for firms that have a good reputation once the purchasing process entails costly staff or a high level of uncertainty (Hetze, 2016).

In this study, customers' PD is determined by their perceptions of the firm's reputation. Hence, it is proposed that:

H4: The firm's reputation has a positive and significant impact on the customer's PDs.

4.2.4 The moderating variables

4.2.4.1 Word of Mouth

WOM is a way of communication that customers use to share opinions and comments regarding products or services (Richins and Root-Shaffer, 1988). With the existence of social media (SM) platforms nowadays, WOM has evolved into a completely different mode of communication using technology that is called electronic word of mouth (eWOM). The significant growth of social networking tends to increase the possibility of the impact of eWOM on customers' PDs(Duan, Gu and Whinston, 2008). Both WOM and eWOM are included in the current study. Customers' comments on SM platforms, especially Twitter, are considered as eWOM.

According to Nelson (1970), CR is less important in purchasing goods industry since customers can more easily assess the quality of goods. In contrast, in the service industry like insurance, customers are likely to depend on the firm's reputation to evaluate the services, as their products are more amorphic. A study by Shapiro (1983) found that CR tends to be more important in the case of imperfect information. As it has been mentioned earlier, customers in the insurance industry are buying promises based on a contract, so they are unable to assess the insurance products until a claim is made. Thus, they must rely on a firm's reputation and reviews before making PDs.

There are two sources of a firm's reputation: experience and information (Yoon, Guffey and Kijewski, 1993). Firstly, customers' experience with such a firm may influence their decisions to buy again from the firm or not. Otherwise, they would use WOM and eWOM as a source of information. WoM may help to provide such information for potential customers about a firm's reputation and quality of services. In addition, some researchers have claimed that positive WOM is far more effective than traditional marketing (Silverman *et al.*, 2001)

Based on the literature reviewed above, firms that offer poor service quality may get punished by customers since the latter would spread negative WOM. In turn, it may be expected that customers who perceive that a firm has a good reputation and good service quality are going to

spread positive WOM. Therefore, firms with good reputations would generate positive WOM while firms with bad reputations would generate negative WOM.

Since I have focussed on insurance firms in which the decisions are taken by customers, customers might find the comments on SM about such insurance products posted by other customers as a credible source of information. It is expected that potential customers will read through the comments about the product they intend to buy before taking up the decisions. So, I expect that customers will use WOM and eWOM as a source of information which ultimately affects their PDs. Hence, it is proposed that:

H5: WOM/eWOM positively moderates the effect between CR and PD.

4.2.4.2 Customer loyalty

CL has received extensive attention from marketing experts and researchers (Nyadzayo and Khajehzadeh, 2016). Jacoby and Kyner (1973) suggested that CL can be viewed from two perspectives: attitude and behaviour. From an attitudinal perspective, CL is considered an emotional and psychological inclination to repurchase from their preferred firm. From a behavioural perspective, in turn, loyalty is viewed as the customer's desire to consistently seek services from such a firm or to recommend it to other potential customers (Jiang *et al.*, 2015; Tabrani, Amin and Nizam, 2018). Behavioural loyalty has been defined by Lenka et al. (2009) to refer to customers' strong commitment to purchasing from their preferred firm despite all the alternatives in the market. Both types of CL are included in this study.

In addition, Thakur (2016) further argued that loyalty is demonstrated through repeated purchases by customers, and it is influenced by psychological factors that result from a sense of commitment. Having loyal customers can be beneficial for firms in several ways. One significant benefit is that loyal customers are less likely to switch to a different firm, which helps in saving cost that goes to target potential customers (Mascarenhas et al., 2006). Hence, it is proposed that:

H6: CL positively moderates the effect between CR and PDs.

The model of antecedents and consequences of CR:

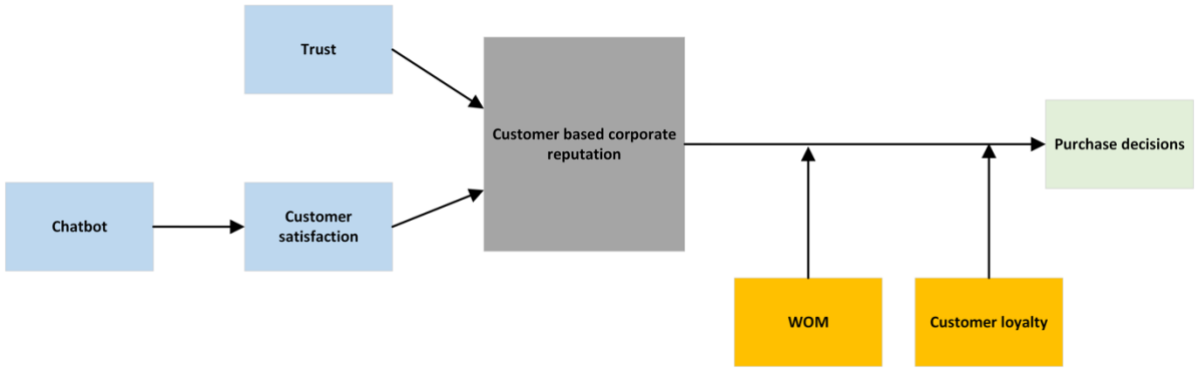

Figure 4-1 The model of antecedents and consequences of corporate reputation:

Based on the literature discussed, this model in Figure 4-1 examines several relationships to the CR that is presented in the grey square. The light blue rectangles are the antecedents of CR. Firstly, the effectiveness of chatbot on CS is examined. Then, CS and trust are examined as antecedents of CR. In addition, PD illustrated on light green rectangular is the CR consequence. Hence, the impact of CR on PD is also examined. Lastly, the orange rectangles are considered the moderating variables for the relationship between CR and PD.

4.3 Methodology

4.3.1 Sample and data collection

The research adopts a customer-centric approach, with a specific emphasis on motor insurance. The study chose to focus particularly on this insurance product since it is mandatory by the government, and individuals have the choice to select from various insurance firms available in the market. To investigate the proposed research hypotheses, a questionnaire was designed.

Quantitative research is suitable since the study's objectives are hypothesis testing, measuring the relationships among different variables, and revealing the significance and direction of these relationships (Saunders, Lewis and Thornhill, 2016). Therefore, the selection of a questionnaire as the research instrument aligns with the study's objectives of exploring relationships among variables like trust, CS, CL, and WOM from customers. In addition, according to Bryman (2016), the questionnaire is quick in terms of data collection, and the researcher's effects are absent during the data collection process. In terms of this research paper, is suitable since many responses were gathered from individuals across Saudi Arabia. However, Bryman (2016) highlighted some limitations of the questionnaire. For example, there is no chance to help respondents if they find difficulties understanding some questions. In addition, questions can be read before answering the first question. So, the questions would not be answered in the correct

order. Also, it would not be able to identify who answers the questions, resulting sometimes in a not-targeted sample. Finally, there is a great risk of missing data and a low response rate.

Several steps were taken to overcome these limitations. The study utilized an online questionnaire that allowed to set restrictions for the participants. For example, people cannot move to the next question until they answer the current one. In doing so, it was made sure that they answered the questions in the right order. Also, explanations were provided for some terms that were difficult to understand (pictures attached). The questionnaire was presented in two languages, English and Arabic. In addition, some people may fill out the questionnaire who are not the targeted ones, who don't have motor insurance or who might answer without reading the questions. On the first page, it was clearly explained who the target sample was. Also, while distributing the questionnaire, I clearly stated who the targeted sample was.

The total number of responses was 652. However, a careful review of the responses led to the exclusion of certain responses for specific reasons. Some respondents admitted at the end of the questionnaire (in the open question) that they currently do not hold motor insurance; these responses may lead to inaccurate results. Consequently, these responses were omitted from the analysis. Additionally, a considerable number of responses were left incomplete and hence the entire response was omitted. Keeping those incomplete responses might result in variations in sample sizes for the study's variables. The incomplete responses may be attributed to two reasons. Firstly, some respondents, particularly women in Saudi Arabia who have recently begun driving, might have initially felt confident in filling out the questionnaires but later encountered difficulties due to their limited experience in motor insurance products. This resulted in them leaving the questionnaire incomplete. Secondly, the length of the questionnaire may have contributed to respondents opting not to complete it. In instances where respondents either acknowledged not holding motor insurance or submitted incomplete responses, the entire responses were excluded from the analysis. This led to the exclusion of 318 responses, ultimately leaving refined responses of 334 for the analysis.

In addition, the questionnaire was distributed in several rounds through several SM platforms to receive as many responses as possible. It was distributed through, for example, X (known as Twitter), Snapchat, Telegram and WhatsApp. It was also sent to my networks, including insurance firms in Saudi Arabia, King Faisal University, and the Saudi community in Southampton. In addition to that, it was circulated to my relatives' networks. As a result, a convenience sampling was used (Bryman, 2016).

4.3.1.1 Sample Size Justifications

The study sample size was 334. This is appropriate since, according to Roscoe (1975), a sample size between 30 and 500 is acceptable for most behavioural studies. Furthermore, Kline (2023) provides recommendations on sample sizes for analysing SEMs, proposing that a sample size of less than 100 is considered small, between 100 and 200 is medium, and over 200 is regarded as large. Hence, based on Kline's classification, the sample size can be considered large. Additionally, G*Power analysis was utilised to calculate the sample size. With the effect size at 0.15 (medium effect), α at 0.05, power at 0.80, and a total of 8 predictors, including the interaction terms, the recommended sample size was 109. This shows that the study sample size based on the G*Power analysis was adequate.

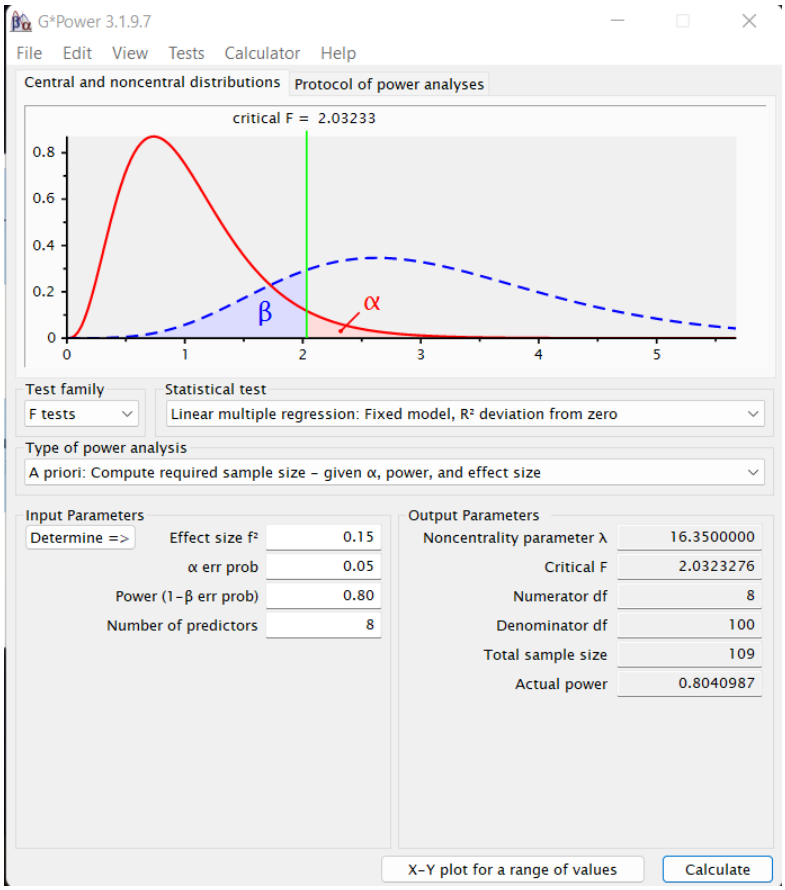

Figure 4-2 The power analysis using G*Power

4.3.2 Measures

4.3.2.1 Demographics

Data were collected on participants' age, gender, education, major, salary, nationality, and region.

4.3.2.2 Constructs

The study utilised established scales and measurements from prior literature to measure a range of constructs. A five-point Likert-type scale, ranging from "Strongly disagree" (1) to "Strongly agree" (5), was employed to assess all items in each construct as follows:

4.3.2.2.1 Chatbot

The chatbot section began with a brief overview of chatbots and an attached picture of a conversation with a chatbot as an example. By doing so, participants knew what I meant by the chatbot. The chatbot scales, namely perceived usefulness and ease of use, were adapted from (Davis, 1989). However, some amendments have been made to the perceived usefulness scale after a discussion with a risk manager from the insurance industry in Saudi Arabia about chatbot capabilities and the assistance that chatbot can provide to customers related to insurance products. Chatbot effectiveness was assessed using the two scales. Firstly, participants were asked 28 questions to assess the perceived usefulness of the chatbot (e.g., The chatbot enables me to address my claim more quickly). Then, they were asked 14 questions to assess the chatbot's ease of use (e.g., I find it easy to get the chatbot to do what I want to do).

4.3.2.2.2 Antecedents of corporate reputation (customer satisfaction and trust)

CS of such an insurance firm was measured by three questions (e.g., The firm always fulfils my expectations). Also, the level of customer trust was measured by asking the participants four questions, (e.g., I tend to trust the firm's goods and services). These measurements were adopted from (Walsh *et al.*, 2009).

4.3.2.2.3 Customer-based Corporate Reputation

The customer-based CR scale was adopted from (Walsh *et al.*, 2009). The scale is divided into five dimensions that measure different aspects of reputation as follows.

- Customer orientation (four questions, e.g., The firm fairly treats its customers),
- Good employer (four questions, e.g., Maintains a high standard in the way it treats people.),
- Reliable and financially strong firm (three questions., Looks like a firm with strong prospects for future growth),
- Product and service quality (two questions, e.g., Offers high-quality products and services) and
- Social and environmental responsibility (two questions e.g., is an environmentally responsible firm).

4.3.2.2.4 Consequences of corporate reputation (purchase decisions)

PD measurement was adopted from Keh and Xie, (2009). Customers were asked two questions to assess their purchase intentions toward a firm (e.g., I will consider this firm the first choice from which to buy motor insurance).

4.3.2.2.5 The moderators (customer loyalty and word of mouth)

Concerning CL, customers were asked three questions that help assess their loyalty to a firm (e.g., I intend to remain the firm's customer) and two questions for WOM (e.g., If I were asked, I would recommend becoming a customer of the firm). All these measurements were adopted from (Walsh *et al.*, 2009).

It is important to mention here that some of the study constructs are in higher order and have multiple dimensions. Hence, they have a higher number of items, such as chatbot and customer-based CR. Further, the scales used to measure the constructs are validated in existing research and have been repeatedly used to measure the constructs in previous research.

4.3.3 Data collection and analysis software

Qualtrics survey software was used for data collection and SPSS was employed for data cleaning and screening. Lastly, SmartPLS software was used to test the study hypotheses.

4.3.4 Statistical method: structure equation modelling

Since the research model is complex, consisting of lower and higher-order constructs, it requires an advanced technique for testing the research hypotheses. Hence, SEM was chosen. According to Babin et al. (2008), SEM's method can assess latent variables' measurement properly and examine relationships between them. There are two approaches to SEM (Hair et al., 2014): Covariance-Based (CB) and Partial Least Square (PLS). This study chose to adopt PLS based on the recommendations of Hair *et al.*, (2014) as follows. First, PLS-SEM is preferred over CB-SEM due to its great emphasis on predicting dependent latent variables. As this study aims to predict the antecedents (drivers) of reputation and its consequences, PLS-SEM was preferred. Moreover, compared with CB-SEM, which uses the maximum likelihood algorithm, PLS-SEM is more flexible in terms of dealing with small sample sizes and non-normal data. Therefore, it was chosen for this study since it highlighted in that in many business studies data is non-normally distributed (Hair et al., 2014).

4.4 Data analysis

4.4.1 Demographic profile of respondents

In this section, the demographic profile of respondents including age, gender, education, major, salary, nationality and region is discussed through the presentation of the frequency table below. It is noticeable from the figures that almost three-quarters of the participants (73.70%) were male. This can be justified by the reason that just recently (2018), females in Saudi Arabia have permission to drive. Therefore, some of them do not have a driving licence yet or do not have the experience to buy motor insurance which makes them ask others to buy it on their behalf.

Table 4-1 The demographic profile of respondents

Characteristics	N	%
Age		
18-29	47	14.10%
30-39	127	38.00%
40-49	108	32.30%
50-59	40	12.00%
60+	12	3.60%
Total	334	100%
Gender		
Male	246	73.70%
Female	88	26.30%
Total	334	100%
Education		
Intermediate school or below	2	0.60%

High School	43	12.90%
Bachelor's Degree	174	52.10%
Master's Degree	75	22.50%
Ph.D. or higher	23	6.90%
Other	17	5.10%
Total	334	100%
Major		
Technology related	115	34.40%
Non-technology related	219	65.60%
Total	334	100%
Salary		
Less than 3000 SR	24	7.20%
3,000 - 7,000 SR	35	10.50%
7001 - 14,000 SR	106	31.70%
14,001 - 30,000 SR	112	33.50%
30,001 - 70,000 SR	26	7.80%
70,001 - 100,000 SR	8	2.40%
More than 100,000 SR	23	6.90%
Total	334	100%
Nationality		

Saudi	326	97.60%
Resident	8	2.40%
Total	334	100%
Region		
Eastern	231	69.20%
Western	32	9.60%
Northern	13	3.90%
Southern	16	4.80%
Central	42	12.60%
Total	334	100%

4.4.2 Data screening and Cleaning

The first step in data analysis is data screening and cleaning. As part of the process, first, the data was assessed for extreme violation of normality. To assess the data distribution, the skewness and kurtosis were assessed. The analysis revealed that the skewness and kurtosis values ranged between +/−2 (Collier, 2020). Further, the outliers were assessed, and the analysis showed that there were no extreme outliers in the data. Finally, the common method bias was assessed using the Harman single-factor test. The analysis results revealed that a single factor accounts for 37.782% of the variance which is less than the threshold of 50%. Hence, there is no issue of common method bias.

4.4.3 Structural Equation Modelling

4.4.3.1 Measurement model

Factor loading was assessed in determining whether specific items adequately represent the construct. It provides insight into how effectively an item is used for measuring the construct. Since the suggested value should be ＞0.600 (Hair et al., 2021), eight items were removed from Chatbot-ease of use, and one item was also removed from CL due to low loading. Since the two

scales adapted from the Davis (1989) study is established for assessing information technology in general, I compared the remaining items with the chatbot definition. I found that although some items were deleted from the scale, the remaining items still match the conceptualisation. Also, although the value for factor loading for CL1 is less than the threshold (0.361), the item was not removed from further analysis since the CL construct has a limited number of items and the AVE and composite reliability were acceptable (Hair *et al.*, 2021). Hence, the item was retained for further analysis. Table 4-4 shows the results after removing the items which are used in the final analysis.

Moreover, Cronbach's alpha and composite reliability (rho_c) were used to assess the constructs' reliability. Construct reliability is established if the alpha and rho_c are over 0.70. The results revealed that all the constructs in the study have alpha and composite reliability over 0.70, except for CL which has low-reliability statistics. This can be attributed to the fewer number of items in the construct (two items after deletion). However, the composite reliability for CL is approaching 0.70; hence CL can be referred to as reliable.

Next, construct validity is assessed through convergent and discriminant validity. The Average Variance Extracted (AVE) is used to evaluate the convergent validity. The results revealed that convergent validity is established since all the constructs in the study were found to have AVE value over 0.50. Therefore, the convergent validity is confirmed.

Table 4-2 Construct validity assessment through convergent

	Mean Statistic	**Loadings**	**Cronbach's alpha**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
ChatBot_PEU			0.818	0.868	0.528
ChB_PEU1	3.25	0.613			
ChB_PEU2	2.95	0.625			
ChB_PEU3	3.34	0.676			
ChB_PEU4	3.28	0.775			
ChB_PEU5	3.35	0.819			
ChB_PEU6	3.58	0.818			
ChatBot_PU			0.969	0.971	0.544

	Mean Statistic	Loadings	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
ChB_PU1	2.98	0.543			
ChB_PU2	2.69	0.535			
ChB_PU3	2.75	0.573			
ChB_PU4	2.69	0.598			
ChB_PU5	3.13	0.718			
ChB_PU6	3.08	0.722			
ChB_PU7	3.1	0.757			
ChB_PU8	3.02	0.762			
ChB_PU9	2.82	0.707			
ChB_PU10	3.1	0.75			
ChB_PU11	3	0.797			
ChB_PU12	2.84	0.776			
ChB_PU13	3.51	0.742			
ChB_PU14	3.44	0.758			
ChB_PU15	3.51	0.736			
ChB_PU16	3.36	0.827			
ChB_PU17	3.1	0.818			
ChB_PU18	2.62	0.717			
ChB_PU19	2.75	0.737			
ChB_PU20	2.69	0.748			
ChB_PU21	2.67	0.72			
ChB_PU22	3.31	0.755			

	Mean Statistic	Loadings	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
ChB_PU23	3.3	0.835			
ChB_PU24	3.37	0.8			
ChB_PU25	3.41	0.788			
ChB_PU26	3.43	0.748			
ChB_PU27	3.4	0.751			
ChB_PU28	3.25	0.82			
CS			0.869	0.92	0.793
CS1	3.43	0.876			
CS2	3.27	0.887			
CS3	3.22	0.908			
Trust			0.76	0.848	0.587
TR1	3.54	0.84			
TR2	3.68	0.822			
TR3	3.44	0.783			
TR4	2.96	0.593			
CR_CO			0.921	0.944	0.808
CR_CO1	3.37	0.868			
CR_CO2	3.43	0.913			
CR_CO3	3.4	0.918			
CR_CO4	3.4	0.897			

	Mean Statistic	Loadings	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
CR_PQ			0.874	0.941	0.888
CR_PQ1	3.44	0.947			
CR_PQ2	3.66	0.938			
CR_RF			0.933	0.946	0.715
CR_RF1	3.49	0.849			
CR_RF2	3.53	0.77			
CR_RF3	3.22	0.794			
CR_RF4	3.45	0.881			
CR_RF5	3.6	0.868			
CR_RF6	3.49	0.866			
CR_RF7	3.4	0.884			
CR_SR			0.826	0.919	0.85
CR_SR1	3.21	0.938			
CR_SR2	3	0.906			
PD			0.89	0.948	0.901
PD1	3.43	0.951			
PD2	3.26	0.947			
WOM			0.939	0.97	0.942
WOM1	3.5	0.972			
WOM2	3.41	0.969			

	Mean Statistic	**Loadings**	**Cronbach's alpha**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
CL			0.36	0.672	0.554
CL1	2.27	0.361			
CL2	3.2	0.989			

Next, as part of the construct validity assessment, the discriminant validity was established through Heterotrait-Monotrait (HTMT) Ratio. Initially, the HTMT Ratio showed that in the customer-based CR scale, two sub-dimensions, namely, a good employer and a reliable and financially strong firm had discriminant validity issues since their HTMT Ratio was over 0.90. Hence, the two sub-dimensions were combined into a single factor because they are conceptually related. The measurement model was rerun to establish the discriminant validity. The results revealed that the HTMT Ratio was less than the value recommended threshold of 0.90. Therefore, discriminant validity was established.

Table 4-3 Construct validity assessment through discriminant validity

	ChatBot_PEU	ChatBot_PU	Reputation_CO	Reputation_PQ	Reputation_RF	Reputation_SR	CL	CS	PD	Trust	WOM
ChatBot_PEU											
ChatBot_PU	0.716										
Reputation_CO	0.569	0.432									
Reputation_PQ	0.534	0.352	0.886								
Reputation_RF	0.581	0.439	0.886	0.899							
Reputation_SR	0.531	0.497	0.694	0.734	0.779						
CL	0.413	0.298	0.61	0.553	0.619	0.619					
CS	0.537	0.428	0.897	0.821	0.804	0.697	0.627				
PD	0.405	0.259	0.726	0.744	0.746	0.636	0.823	0.702			
Trust	0.44	0.36	0.739	0.743	0.712	0.632	0.598	0.785	0.597		
WOM	0.439	0.272	0.758	0.797	0.798	0.631	0.761	0.731	0.867	0.637	

4.4.3.1.1 Validating higher order construct (chatbot and customer-based corporate reputation)

Validity and reliability were also assessed for higher-order constructs. The study has two higher-order constructs, namely chatbot and customer-based CR. The constructs are modelled as higher-order reflective-reflective constructs. Based on the recommendation by Sarstedt et al., (2019), a higher-order reflective-reflective construct shall be examined for both the construct's reliability and validity. The results revealed acceptable factor loadings ($>$0.70) for the lower-order constructs that determined the higher-order constructs in the study. The construct reliability was established with Cronbach's alpha and Composite reliability greater than the threshold of 0.70. Convergent validity was also established with an AVE value over 0.50. Finally, the discriminant validity was established since the HTMT Ratio between the two higher-order constructs was 0.64, which is less than the threshold of 0.90.

Table 4-4 Higher-order construct validity assessment through convergent and discriminant validity

	loadings	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Chatbot		0.796	0.907	0.83
LV scores - ChatBot_PEU	0.924			
LV scores - ChatBot_PU	0.898			
CR		0.915	0.94	0.798
LV scores - CR_CO	0.914			
LV scores - CR_PQ	0.914			
LV scores - CR_RF	0.936			
LV scores - CR_SR	0.805			

4.4.3.2 Structural Model Assessment

4.4.3.2.1 The explanatory power and predictive relevance

The coefficient of determination (R^2) results unveiled the extent to which the independent variable explained the variance in the dependent variable. The R^2 values show that 22.6% change in CS was accounted for by the chatbot, 67.6% change in CR was accounted for by trust and CS and 68.1% change in PD was accounted for by CR, WOM and CL. The R^2 values support the model's predictive power (Hair *et al.*, 2014), surpassing the requisite value of 0.10 (Falk and Miller, 1992).

Furthermore, predictive relevance was assessed using Q^2. The results show that the Q^2 statistics are greater than zero. This showed that the model has predictive relevance. In other words, the predictors are relevant in predicting the outcomes in the model. The explanatory power and predictive relevance results are summarised in Table 4-5.

Table 4-5 Predictive relevance assessment

	R^2	Q^2predict
CR	0.677	0.442
CS	0.226	0.219
PD	0.681	0.637

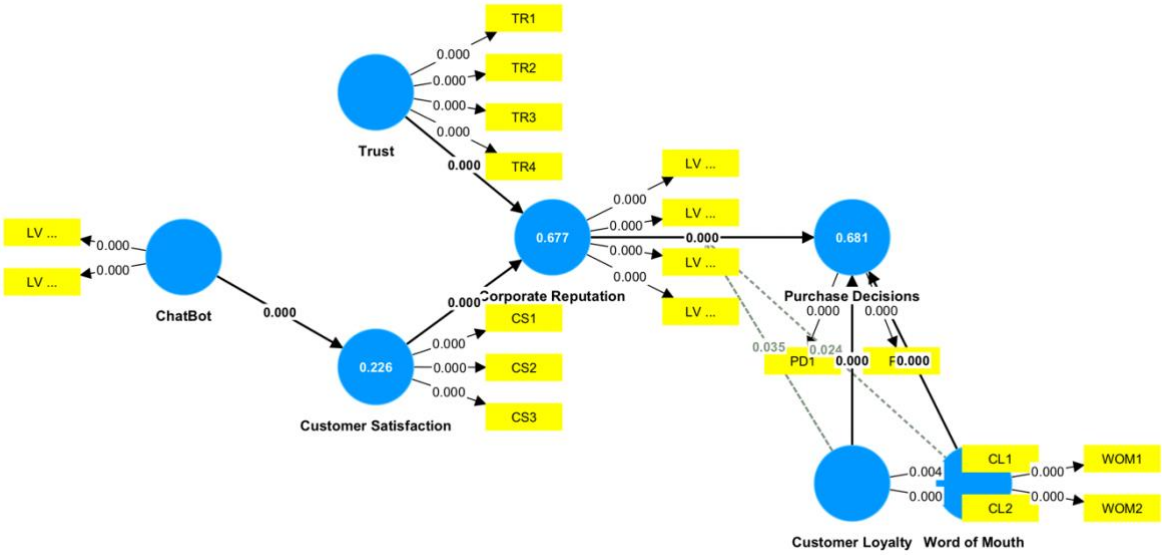

Figure 4-3 A structural model with path coefficients

4.4.3.2.2 Hypothesis testing

H_1 assumes that there is a significant and positive impact of chatbots on CS. The hypothesis 1 was substantiated ($\beta = 0.476$, $t = 9.412$, $p < 0.05$). The second hypothesis H_2 was also substantiated which assumes that CS with chatbots has a positive effect on customer-based CR ($\beta = 0.643$, $t = 11.485$, $p < 0.05$). Likewise, in H_3, the results substantiate the positive influence of customer trust on customer-based CR ($\beta = 0.248$, $t = 4.537$, $p < 0.05$). The outcomes also accept the substantial positive impact of customer-based CR on PD ($\beta = 0.219$, $t = 3.767$, $p < 0.05$). Therefore, H_4 is substantiated.

Table 4-6 Hypothesis testing

Hypotheses	Relationship	Path Coefficients	Standard deviation	T statistics	P values	Decision
H_1	ChatBot -> CS	0.476	0.051	9.412	0	Supported
H_2	CS -> CR	0.643	0.056	11.485	0	Supported
H_3	Trust -> CR	0.248	0.055	4.537	0	Supported
H_4	CR -> PD	0.219	0.058	3.767	0	Supported

4.4.3.2.3 Moderation analysis

Lastly, H_5 and H_6 predict whether WOM and CL positively moderate the relationship between customer-based CR and PDs. The results show that WOM tends to weaken (negatively moderate) the relationship between CR and PD ($\beta = -0.065$, $t = 1.986$, $p < 0.05$). Therefore, the hypothesis was rejected, and further investigation is needed. Regarding CL, the results revealed that CL positively moderates the relationship between CR and PD ($\beta = 0.073$, $t = 1.813$, $p < 0.05$) which supports proposed hypothesis H_6.

Table 4-7 Moderation analysis

Hypotheses	Relationship	Moderating Effect	Standard deviation	T statistics	P values	Decision
H_5	WOM x CR -> PD	-0.065	0.033	1.986	0.024	Rejected
H_6	CL x CR -> PD	0.073	0.04	1.813	0.035	Supported

4.5 Discussion

The study investigates the relationship between chatbots and CS and then examines the latter and trust as antecedents of CR. In addition, the impact of CR on PD is also explored. Finally, CL and WOM are examined as moderators on the relationship between CR and PD.

The findings revealed that the effectiveness of the chatbot, including its perceived usefulness and ease of use significantly and positively impacts CS, supporting previous findings of Eren's (2021) study. This finding aligns with the ECT, which supports the argument that customers hold expectations about services provided by an insurance firm, and then the service performance would confirm or disconfirm these expectations and ultimately impact on CS.

In addition, CS and trust are found to have a positive and significant relationship with CR. Evidence from prior studies has already indicated that these relationships exist (Dowling, 2001;

Ruiz et al., 2016; Walsh et al., 2006, 2009; Walsh & Beatty, 2007). Hence, the findings are consistent with earlier studies in the literature. The findings show that CR has a positive and significant impact on customer PDs, which is also supported by previous research (Shapiro, 1983; Yoon, Guffey and Kijewski, 1993; Hetze, 2016). This aligns with the ST (Spence, 1978). According to the ST, the significance of this effect can be attributed to the fact that CR helps in sending signals to customers about such a firm, helping them make PDs. In the case of the insurance industry, customers may rely mainly on the firms' reputation whether to buy the insurance products or not since there is no physical evidence to evaluate the insurance products before buying.

Furthermore, regarding the moderation effects, the study finds that CL positively moderates the relationship between CR and PD. This finding is somehow consistent with prior studies as they indicated that loyalty is associated with repeated purchases, and customers are less likely to switch to another firm (Mascarenhas et al., 2006; Thakur, 2016). However, WOM is found to negatively moderate the relationship although previous research claimed that it is seen as a source of information about firms' reputation (Yoon, Guffey and Kijewski, 1993; Silverman *et al.*, 2001). Negative publicity for some firms tends to increase their sales as individuals may be curious to try the products themselves. However, this seems less likely for the insurance industry because it provides a contract between the firm and policyholders (individuals).

One of the previous research papers (Alyahya et al., unpublished b), the study found that firms that are classified as having low SMR based on customer comments on Twitter are financially successful, and one of them won a prize for its excellent customer care. In contrast, some firms are classified as having medium SMR although they have reported losses year after year. This allows us to conclude that customers' comments on Twitter tend to not have a big impact on firms' SMR. What is interesting in the current study is that customer-based CR is found to have a significant and positive impact on PD. Therefore, this supports the notion that many other factors may contribute to framing the customers' perceptions toward firms, such as the ones provided in the customer-based CR scale (Walsh *et al.*, 2009).

Further, some firms make great efforts regarding CS and insurance product quality. This makes them proactively manage SM risks, including customer-related risks and transfer their complaints to opportunities if possible. By doing so, CR is likely to be enhanced which then contributes to their financial outcomes (Alyahya et al., unpublished a).

After exploring the reputational risk in SM based on customers' comments on Twitter, and from insurance firms' perspectives (first and second papers) and after investigating the antecedents, consequences and moderators of CR (third paper), there are some recommendations regarding reputational risk management. Firms (especially the service industry) should allocate proper

budget, time and effort to increase customer trust and satisfaction since they are found to have strong and positive relationships with customer-based CR and the latter have a positive and significant impact on PD. Since there is high competition in the insurance industry in Saudi Arabia (Alyahya et al., unpublished a), those who are robust are the ones who grow/maintain market share. Moreover, as we have been transformed into a digital world with the emergence of AI, enhancing the chatbot quality would be key in relation to CS, especially since this paper reveals that there is a positive and strong relationship among them. In this digital era, individuals spend a great time with their phones and may prefer to do most of their tasks with a click, this includes tasks related to insurance products; therefore, insurance firms should consider that.

4.6 Limitations and Future Research

It appears that the length of the questionnaire used in the present study led to a high level of respondent attrition. Further research should be done that overcomes this limitation, perhaps by using fewer questions or by offering the respondents incentives that are commensurate with the participation time. In addition, although the CL construct consisted of three items, one item had to be deleted because of the low loading. Arguably, two items are not enough to represent such a construct. Therefore, I recommend including more items in future research. Moreover, because the result about the influence of WOM did not support the proposed hypothesis, it was not possible to explain the effect of WOM on the relationship between customer-based CR and PD. Further research is needed to measure this relationship in the insurance industry and provide an explanation. In addition, since this study focused on the service industry context, future research should explore the impact of service quality on CR and examine the moderating effect of service quality on the relationship between CR and PDs. Examining these aspects could provide valuable insights into how service quality influences customer perceptions and decision-making processes. Moreover, given the substantial role social media influencers can play in shaping CR, it is worth exploring their impact as a variable in this context. Future research should consider examining how influencers affect CR, as this could provide valuable insights into their influence on customers' perceptions and public trust, which ultimately shapes CR. Lastly, there remains scope to conduct further research examining other factors concerning CR, such as price and after-sales service. These factors may impact how customers perceive the firms which ultimately impact CR.

4.7 The theoretical and practical contributions

To the best of my knowledge, this study provides the first examination of the WOM and CL as moderators of the relationship between CR and PDs. Additionally, it contributes to the knowledge of reputation management by exploring the CS of Chatbot with CR. As chatbots are mainly utilised

for customer care by firms, their effectiveness might influence CS and, subsequently, CR. The findings enable the development of a comprehensive framework for factors influencing CR, considering technologies such as Chatbots.

4.8 Conclusion

Firms have increasingly turned to AI to boost their reputation. In the contemporary landscape, AI can empower chatbots. Given that chatbots are designed to assist customers and enhance their overall experience, it is highly likely to influence their satisfaction. While chatbots and CS are growing fields, research on the relationship between them and their influence on CR remains in its infancy (Nuruzzaman and Hussain, 2018; Chung *et al.*, 2020; Eren, 2021). Hence, this study examined the influence of chatbots on CS. Following that, it investigates CS and trust as antecedents of CR. Moreover, it explores PD as an outcome of CR. Lastly, it examines the moderating effects of WOM and CL on the relationship between CR and PD.

SEM is used to test the study hypotheses. The results reveal a noteworthy, positive relationship between chatbot effectiveness and CS which aligns with the ECT. Furthermore, a significant positive link is found between CS and trust in CR. Additionally, a significant relationship is identified between CR and PD which aligns with the ST. Concerning the moderating influence of WOM and CL, they are found to be significant. While WOM negatively moderates the relationship between CR and PD, CL moderates it positively.

Chapter 5 Conclusions

Managing and nurturing a positive reputation in the digital era is critical to business success (Aula, 2010). A good reputation is an asset for firms (Shapiro, 1983) that can influence the ability to attract customers and it can play a pivotal role in a firm's success and sustainability in the marketplace. Thus, the thesis presents a series of empirical investigations into reputational risk and its management within the context of social media (SM) presence. The thesis deeply explores the reputational risk on Twitter based on customers' comments (**chapter 2**) and SM risk management with an emphasis on reputation from a firm's perspective (**chapter 3**). After the investigation of reputational risk in the SM era, the third research paper is inspired by the insights gained. It is designed to examine the antecedents (e.g., chatbot) and consequences (e.g., purchase decisions PD) of corporate reputation (CR) **(chapter 4)**. By doing so, this body of research contributes to the field of reputational risk management in service firms in general and the insurance industry in particular.

This thesis aims to gain a comprehensive understanding of reputational risk in the service industry and explore effective strategies for its management in the age of SM. The main insights from this body of research are that customers' comments on Twitter do not have a major impact on the firm's reputation and that firms can gain important competitive advantages if they operate proactively (e.g., investing in technology) to manage their SM profile and to address customer complaints. The thesis produces several other important insights that are outlined/discussed in detail below.

Chapter two investigates how customers' comments on Twitter impact firms' social media reputation (SMR). In addition, it explores the SM communication strategies implemented by firms in response to customer comments. Lastly, it explores the prevalent issues that tend to be the focus of customer complaints. The sample consists of six insurance firms in Saudi Arabia. The results indicate that three firms fall into the category of low SMR, while the remaining three are classified as medium SMR. This result is counterintuitive since low-SMR firms have been highlighted as the most valuable listed firms according to Forbes Middle East (Forbes Middle East, 2020). In contrast, medium SMR firms have reported losses in their financial statements for several years (Saudi Exchange, 2021). There are potential explanations for this counterintuitive finding as follows.

According to Anderson (1998), customers tend to share their service experiences only if they receive a very good or very bad service. Therefore, many customers might be satisfied with the service but do not post their experience on SM. The prospect theory (PT) could also explain the

result, which suggests that customers are more sensitive to losses than gains. So, the impact of receiving poor unexpected service is greater than the impact of receiving excellent unexpected service. The analysis supports that, whereas most customers' comments on Twitter are negative. In addition, the service recovery concept might also be considered as a possible explanation, which sometimes turns the angry customers who complain into loyal ones. This happens when customers receive an excellent service recovery (Hart, Heskett and Sasser, 1990). Furthermore, firms launch their Twitter accounts mainly for customer care (Harmeling *et al.*, 2017; Ibrahim, Wang and Bourne, 2017), which is why most comments have a negative voice. Also, some insurance products are mandatory by the government, such as motor insurance, so individuals do not have more options, and they might rely on factors other than the firm's SMR to make the PDs. Lastly, firms that are classified as having low SMR based on customers' comments on Twitter and performing very well on their financial statements could employ digital risk management tools in their SM platforms. These tools can detect negative comments and complaints in the early stages before they escalate to reputational damage.

In terms of communication strategies, the findings show a clear relationship between a firm's SMR level and its communication strategies. Firms with low SMR based on customers' comments on Twitter tend to be more secretive and unresponsive, while medium SMR firms are more informative and use a transparent strategy. However, the results show that there is no difference between the firm's level of SMR and the type and percentage of complaints they receive from customers posted there. Most customers complain about the customer service responses, core services, and services provided in general.

Chapter three explores how firms manage SM risk. This involves a comprehensive investigation of their policies and procedures related to SM management and an in-depth exploration of how they address and respond to customers' digital complaints (complaints made via SM). The study sample is the risk committee members and CEOs of ten insurance firms in Saudi Arabia. The results reveal that firms are divided into two SM risk management groups: proactive and reactive. Proactive firms set SM governance, including forming committees (aligned with agency theory AT), establishing related policies and guidelines and collaborating with subject matter expertise. In addition to that, they implement several strategies to manage SM risks, seizing opportunities and mitigating threats. Examples of these strategies include risk assessment, reputational risk measurement, staff awareness and training, and setting mechanisms related to responding to customers and dealing with criticisms, complaints and claims. Moreover, these firms tend to invest in technology and artificial intelligence (AI), such as investing in information systems and digital infrastructure. These proactive firms unconsciously apply the SM Risk Radar that I have developed in the selective coding stage. It is a set of procedures implicitly used by firms to detect SM threats in the early stages before they escalate to a crisis and to seize opportunities by

implementing several tools and strategies. In contrast, reactive firms tend only to manage risks that already surface and follow the central bank regulations without making more efforts to add value and enhance reputation.

Other results show that proactive firms have a clear digital complaint management mechanism. For example, they collaborate with technology to tackle these complaints, investigating the root cause of such an issue and transferring some complaints to opportunities if possible. However, reactive firms lack such mechanisms, resulting in missing customers, market share and opportunities.

Since the study uses the same sample for both research papers in **chapters 2 and 3**, I can provide possible explanations and links for some findings as follows. Firms that proactively manage risk tend to be very active on SM platforms. They know that being absent from SM may be riskier than being present. Therefore, they put great efforts into managing SM risks, seizing opportunities, and managing threats. Although they receive significant complaints or negative comments on SM, they know that receiving these is not necessarily seen as a negative indication but means that they exist in the market and have customers. These complaints also help them understand their positions in the market and the competitors' positions. Moreover, some of these complaints generate new ideas for improvement. Finally, they tend to convert customers who post complaints on SM to loyal ones by managing their complaints effectively. This concept is called service recovery (Hart, Heskett and Sasser, 1990). Service recovery refers to the process of responding to and resolving customer complaints or service failures in a way that not only addresses the immediate issue but also restores CS and confidence. Therefore, it might transfer a customer who is dissatisfied, angry and complaining to a loyal one. Therefore, these proactive firms in managing risk may be better placed to acquire greater market share, which would then be reflected in their financial statements. In contrast, firms that follow a reactive approach to managing risk are inactive on SM. That means although they have launched accounts there, they have no SM presence, which means they do not respond quickly to customer complaints on SM or do not respond at all. Therefore, they have missed many opportunities there. Also, they receive few complaints since they are already not active or/and they have few customers. This may also be reflected in their financial statements, as these firms have reported losses for several years. Hence, not receiving complaints may not be a good indication of positive financial performance. So, there may be a correlation between ineffective complaint management and financial losses.

Chapter four examines the relationship between the effectiveness of chatbots (perceived usefulness and ease of use) on customer satisfaction (CS). Then, CS and trust are examined as antecedents of CR. PD is examined because of CR. Regarding moderating effects, word of mouth (WOM) and customer loyalty (CL) are examined as moderators for the relationship between CR

and PD. The study's sample comprises individuals (Saudi /residents) who have had experience purchasing motor insurance from insurance firms in Saudi Arabia. To test the predicted hypotheses, I use structure equation modelling (SEM).

The results identify a positive and significant relationship between the effectiveness of chatbots and CS. This result aligns with the expectation confirmation theory (ECT). In addition, CS and trust are found to impact CR positively and significantly. CR also has a significant and positive relationship with PD. The signalling theory (ST) supports such a result. Customers use a firm's reputation as a signal that helps them to make their PDs accordingly. Concerning the moderation effect, while the results indicate that CL positively moderates the relationship between CR and PD, WOM moderates it negatively. The result of the WOM does not support the predicted direction of my hypothesis, and further research is needed. It has been considered that negative publicity might increase sales as some individuals become curious to buy the product and try it themselves, but this is not the case for insurance products. The latter are contracts, and, logically, negative WOM would not increase sales. Therefore, further investigation can be conducted.

The findings in the third research paper can be linked to the previous ones as follows. In the first paper, I find that firms that are classified as having low SMR based on customer comments on Twitter are financially successful, and one of them won a prize for its excellent customer care. In contrast, some firms are classified as having medium SMR, although they have reported losses year after year. This allows me to conclude that customers' comments on Twitter tend not to have a big impact on firms' reputations. What is interesting in the third study is that customer-based CR is found to have a significant and positive impact on PDs. Therefore, this supports my explanations provided in the first paper that many other factors may contribute to framing the customers' perceptions toward firms, such as good employers and product and service quality (Walsh *et al.*, 2009).

Further, I find in the second paper that some firms make great efforts regarding CS and insurance product quality. This makes them proactively manage SM risks, including customer-related risks, and transfer their complaints to opportunities if possible. By doing so, CR is likely to be enhanced, which then contributes to their financial outcomes. The result that has been reached in the third research paper supports that there is a significant and positive relationship between CR and PD.

5.1 Theoretical contributions

Within the theoretical landscape of reputational risk management in the SM age, the thesis has introduced several theoretical contributions as follows. The first study adds to the knowledge by concluding that customers' Twitter comments do not significantly impact service firms' SMR. This

contributes to the literature since the previous work showed that online reviews impact customers' perceptions toward firms and ultimately affect their PDs. In addition, the study confirms the link between the sentiment of customer comments and the SM communication strategies firms employ, which is illustrated in **(chapter 2)** by providing a conceptual model.

In the second study, I contribute to the literature by developing The SM Radar, a mechanism firms use to manage SM risks. According to this mechanism, firms use several tools to detect threats and seize opportunities that emerge from SM. The SM radar helps warn firms early before the threats escalate into a crisis and out of control. Moreover, the study successfully merges insights from the findings to develop two conceptual models, one for SM risk management and the other one for digital complaints management **(Chapter 3)**.

The third study contributes to the knowledge by providing a comprehensive framework to manage reputational risk, considering technologies that firms employ to manage customers' complaints and enquiries through SM platforms. The framework illustrates the antecedents and consequences of CR while also examining two moderators' effects on the relationship between CR and its consequences.

5.2 Practical implications

The thesis offers valuable and insightful practical implications to service industry regulators and firms. In addition, as there are general recommendations for the service industry, some recommendations are tailored to the insurance industry in Saudi Arabia.

Firstly, the deep investigation conducted through the three empirical studies allows me to highlight that customers' foremost requirements are affordable insurance products and excellent after-sales services. In my view, investments in technology can address these needs. For example, when firms automate their processes, they can enhance convenience and efficiency for customers, employees, and the entire entity. Customers are likely to not wait long to obtain/renew an insurance policy; this task could be accomplished in a few minutes. Although the example provided here is related to insurance products, this recommendation can be applied to the service industry in general. In this digital era, individuals spend a great time with their phones and may prefer to do most of their tasks with a click; therefore, firms should consider that.

In addition, firms must take responsibility for enhancing their communication strategies since online CR tends to be fragile, which means that it is easy to be enhanced as well as easily damaged. Enhancing the online reputation requires collaboration between firms and their customers, as the growing use of SM makes managing a reputation very complicated.

Moreover, firms should consider establishing a specific and comprehensive SM policy. Since social media platforms tend to increase the possibility that firms face reputational damage (Aula, 2009), the second paper's findings suggest establishing clear guidelines for managing social media, including reputational risk. The policy might include, for example, the team that is responsible for the firm accounts on SM platforms, how the firm reacts to negative/ positive posts, the escalation process and the timeframe to respond to customers' complaints and enquiries. As I draw these recommendations based on the analysis, I have done in the second research paper for interviews conducted with risk committee members in the insurance industry, they apply to the entire service industry.

Furthermore, firms should employ the **'SM Radar'** through all SM platforms they have launched. This requires them to sit comprehensive SM governance and invest in technology and digital risk management tools. SM radar is likely to warn firms in the early stages about any threat that might escalate to a crisis and about opportunities to be seized. Also, in this evolving environment, stakeholders, particularly customers, can express and disseminate their opinions about a firm and its products. This dynamic may introduce various potential risks to firms' reputations. Recognising this reality, firms should not only view SM as an additional marketing channel but also embrace it more broadly as a tool to manage their reputations constructively. These recommendations also target the service industry, including insurance firms.

About insurance firms, in particular, the investigation conducted in the second research paper shows that one reason for the increasing prices of insurance products is an error in forecasting. This leads insurers to decide on price increases for profitability purposes, subsequently prompting customer complaints about SM. Therefore, I believe that after investing in technology, such as AI, the pricing mechanism for insurance products would become more accurate and equitable for customers and firms. The pricing mechanism is complicated when it comes to insurance products, as many factors contribute to the final price. So, using technology in the forecasting process would be helpful and result in more accurate figures. Such a transformation would foster a more mature and healthier industry, benefiting all stakeholders.

Furthermore, I recommend to the regulator that the insurance industry in Saudi Arabia should have an independent authority that operates separately from the central bank, leveraging international best practices worldwide and implementing them within the sector[4].

Lastly, since there is high competition in the insurance industry in Saudi Arabia (discussed in **Chapter 3**), those who are strongest are the ones who grow and maintain a market share;

[4] After writing this recommendation, it was announced to launch the Insurance Authority (IA) in Saudi Arabia (15/8/2023).

consolidating some insurance firms in Saudi Arabia through mergers could be a promising solution to revitalise the industry. For instance, if two firms merge, instead of each spending a large amount of money on technology and infrastructure development, the combined entity would share the expenses and save costs (Global Expansion, 2021). This substantial investment would lead to rapid digital infrastructure advancements while reducing the high competition among firms. The merged firms would enjoy a larger market share, enhancing their overall competitiveness. With 28 firms currently and most of them are struggling in the industry, streamlining down to 15 robust firms would be sufficient to bring about positive change.

5.3 Future research directions

The thesis has delved into reputational risk and its management through three empirical studies, with a focus on a specific group of stakeholders, namely customers. As we look to the future, there are several promising directions for further research in this field. Firstly, future research might examine how different stakeholder groups affect a firm's reputation. A more complete insight might be gained by conducting studies focusing on another stakeholder group. For example, future studies may separately look at how employees, investors, suppliers, and the general community influence a firm's reputation. In addition, comparative studies among different stakeholder groups, countries and regions help clarify how different groups of stakeholders hold different perceptions toward firms and how cultural and legal differences may impact reputational risk and its management. This can provide multinational firms with useful insights.

Finally, integrating advanced technologies like AI and machine learning in reputational risk management presents fascinating research opportunities. For example, how these technologies enhance or transform reputational risk management is an important area to explore. Moreover, exploring technology risks also presents a promising avenue for researchers.

Appendix A The first paper validity

KINGDOM OF SAUDI ARABIA
Ministry of Education
KING FAISAL UNIVERSITY
(037)

المملكة العربية السعودية
وزارة التعليم
جامعة الملك فيصل
(٠٣٧)

الموضوع:.....

18/5/2023

To whom it may concern:

I, Shahad Alzmami, hereby certify that I have reviewed the data provided by Maryam Alyahya for her paper titled "How customers comments in Twitter impact on service firms reputation (Insurance industry)". I have reviewed 10% of the analysis based on the applied methodology and have found it to be valid and reliable. I had some comments on the way some of the texts were analyzed, but after discussing it, it became clear that she dealt with some companies differently based on her interpretation of the company's customer service behavior. Therefore, I have no reason to doubt the authenticity of the data provided, and I believe the analysis was done accurately and correctly, making it suitable for use in her research.

Please do not hesitate to contact me if you require further information, by email at: Salzmami@kfu.edu.sa

Yours faithfully

Shahad Alzmami

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المرفقات: التاريخ: الرقم:

www.kfu.edu.sa

Kingdom of Saudi Arabia P.O.Box 400 Al-Hassa - 31982 Tel: 0135800000 Fax: 0135816980 ٠١٣٥٨١٦٩٨٠ فاكس: ٠١٣٥٨٠٠٠٠٠ الهاتف: ٣١٩٨٢ الأحساء - المملكة العربية السعودية ص.ب ٤٠٠

مطابع جامعة الملك فيصل 2459

Appendix B English version of the questionnaire

Combined Participant Information Sheet and Consent Form for Anonymous Online Surveys for Adult Participants

Study Title: Reputational Risk Management: Examining AI, Customer Satisfaction, Trust in Saudi Arabian Insurance Firms' Reputation

Researcher(s): Maryam Alyahya

University email: Mhma1y18@soton.ac.uk

Ethics/ERGO no: 86048

What is the research about?

My name is Maryam Alyahya, and I am a PhD researcher in Risk Analytics department at the University of Southampton in the United Kingdom. I am inviting you to participate in this study in order to identify the antecedents of the CR and to examine its influences on the purchasing decisions. This study was approved by the Faculty Research Ethics Committee (FREC) at the University of Southampton (Ethics/ERGO Number: 86048).

What will happen to me if I take part?

This study involves completing an anonymous questionnaire which should take approximately *10* minutes of your time. If you are happy to complete this survey, you will need to tick (check) the box below to show your consent. As this survey is anonymous, the researcher and research team will not be able to know whether you have participated, or what answers you provided.

Why have I been asked to participate?

You have been invited to participate in this study because you are Saudi or resident of Saudi Arabia and possess motor insurance.

What information will be collected?

The questions in this survey ask for information in relation to your experience with motor insurance products purchased from insurance firms in Saudi Arabia. Some of the survey questions contain textboxes where you will be asked to type in your own answers. Please note that in order for this survey to be anonymous, you should not include in your answers any information from which you, or other people, could be identified. Also, some demographic aspects will be collected.

What are the possible benefits of taking part?

If you decide to take part in this study, you will not receive any direct benefits; however, your participation will contribute to knowledge in this area of research.

Are there any risks involved?

It is expected that taking part in this study will not cause you any psychological discomfort and/or distress, however, should you feel uncomfortable you can leave the survey at any time or contact the following resources for support:

Email: Mhma1y18@soton.ac.uk

What will happen to the information collected?

All information collected for this study will be stored securely on a password protected computer and backed up on a secure server. In addition, all data will be pooled and only compiled into data summaries or summary reports. Only the researcher and their supervisor will have access to this information.

The information collected will be analyzed and written up as part of the researcher's thesis for the degree of PhD in business studies and management.

The University of Southampton conducts research to the highest standards of ethics and research integrity. In accordance with our Research Data Management Policy, data will be held for 10 years after the study has finished when it will be securely destroyed.

What happens if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researcher and her supervisors who will do their best to answer your questions.

The researcher email: mhma1y18@soton.ac.uk

The first supervisor email: K.Katsikopoulos@soton.ac.uk

The second supervisor email: y.hanoch@soton.ac.uk

If you are remain unhappy about any aspect of this study and would like to make a formal complaint, you can contact the Head of Research Integrity and Governance, University of Southampton, on the following contact details: Email: rgoinfo@soton.ac.uk, phone: + 44 2380 595058.

Please quote the Ethics/ERGO number above. Please note that by making a complaint you might be no longer anonymous.

More information on your rights as a study participant is available via this link:

https://www.southampton.ac.uk/about/governance/participant-information.page

Thank you for reading this information sheet and considering taking part in this research.

❑ Please tick (check) this box to indicate that you have read and understood information on this form, are aged 18 or over and agree to take part in this survey.

Reputational Risk Management: Examining AI, Customer Satisfaction, Trust in Saudi Arabian Insurance Firms' Reputation (Cover Letter)

Dear Respondents,

Would you kindly complete this questionnaire, which aims to gather your experience regarding motor insurance in Saudi Arabia? It should take approximately 10 minutes of your time.

Thank you very much for your participation in this study. Your results will be kept confidential, and you still have the right to withdraw your data.

We do not collect personal data as part of this research (such as name, telephone numbers, or medical information). Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained.

We will only retain data for as long as is necessary to achieve the research purpose. The questionnaire data will be anonymized and stored in a safe place (on an encrypted and password-protected computer known only to the researcher). All the data will be anonymized and treated as a single group of data and not per firm nor per person. This information will not be communicated or used in a harmful way to you as nobody can identify the respondents due to the anonymization of the data.

Data will be stored for 10 years, following the regulations. If you have any further questions about the study or any complaints or concerns about this research, please do not hesitate to contact the research team.

Maryam Alyahya (PhD candidate, University of Southampton, ERGO no: 86048): mhma1y18@soton.ac.uk

Konstantinos Katsikopoulos (The first supervisor, University of Southampton): K.Katsikopoulos@soton.ac.uk

Yaniv Hanoch (The second supervisor, University of Southampton):

y.hanoch@soton.ac.uk

Demographic questions:

Characteristic	Classification
Age	18-29
	30-39
	40-49
	50-59
	60+
Gender	Male
	Female
Education	Intermediate school or below
	High School
	Bachelor's Degree
	Master's Degree
	Ph.D. or higher
	Other (Specify:)
Major	Technology related
	Non-technology related
Salary	Less than 3000 SR
	3,000 - 7,000 SR

	7001 - 14,000 SR
	14,001 - 30,000 SR
	30,001 - 70,000 SR
	70,001 - 100,000 SR
	more than 100,000 SR
Nationality	Saudi
	Resident
Region	Eastern
	Western
	Northern
	Southern
	Central

Firm Name:	

Variable	Questions	Strongly disagree	Disagree	undecided	Agree	Strongly agree
		1	2	3	4	5
Trust	1. I tend to trust the firm's goods and services. 2. This is an honourable firm. 3. In general, I trust the firm's employees that sell something to me. 4. I do know the firm's prices are appropriate.					
AI (Chatbot) **Initial Scale Items for Perceived Usefulness**	1.My inquiries would be difficult to get answered without chatbot. 2. My policies would be difficult to be purchased/renewed without chatbot. 3. My claims would be difficult to be handled without chatbot. 4. My complaints would be difficult to be solved without chatbot. 5.Using chatbot gives me greater control over my inquiries.					

	6.Using chatbot gives me greater control over my policies purchasing. 7.Using chatbot gives me greater control over my claims. 8.Using chatbot gives me greater control over my complaints. 9. The chatbot answer my inquiries -related needs. 10.The chatbot addresses my policy purchasing-related needs. 11.The chatbot addresses my claim-related needs. 12.The chatbot solves my complaints-related needs. 13.Using chatbot saves me time. 14. The chatbot enables me to receive answers for my inquiries more quickly. 15.The chatbot enables me to proceed the transaction more quickly. 16.The chatbot enables me to address my claim more quickly.					

	17.The chatbot enables me to get my complaint solved more quickly. 18. The chatbot supports critical aspects related to my inquiries. 19.The chatbot supports critical aspects related to purchasing/renewing policies. 20.The chatbot supports critical aspects related to my claims. 21.The chatbot supports critical aspects related to my complaints. 22. Using chatbot reduces the time I spend on chatting with the insurer's representative. 23. Using chatbot improves the quality of service I get. 24. Using chatbot makes it easier to raise an inquiry. 25.Using chatbot makes it easier to purchase/renew insurance product. 26.Using chatbot makes it easier to raise/track a claim.					

	27.Using chatbot makes it easier to raise a complaint. 28. Overall, I find the chatbot useful to do all what I need.					
Initial Scale Items for Perceived Ease of Use	1.I often become confused when I use the chatbot. 2.I make errors frequently when using the chatbot. 3. Interacting with the chatbot is often frustrating. 4. I need to consult with others often when using chatbot. 5. Interacting with the chatbot requires a lot of my mental effort. 6. I find it easy to recover from errors encountered while using chatbot. 7. The chatbot is rigid and inflexible to interact with. 8. I find it easy to get the chatbot to do what I want to do.					

	9. The chatbot often behaves in unexpected ways. 10. I find it cumbersome to use the chatbot. 11. My interaction with the chatbot is easy for me to understand. 12. It is easy for me to remember how to get what I need by using the chatbot. 13. The chatbot provides helpful guidance get my needs done. 14. Overall, I find the chatbot easy to use.					
CS	1. I am satisfied with the services the firm provides to me. 2. The firm always fulfils my expectations. 3. The firm solves problems quickly and competently.					
Item wording for the customer-based CR scale						

1- Customer orientation:	1. The firm treats its customers in a fair manner 2. The firm's employees are concerned about customer needs. 3. The firm's employees set great store by a courteous customer treatment. 4. The firm takes customer rights seriously.					
2- Good employer	1. Looks like a good firm to work for. 2. Looks like a firm that would have good employees. 3. Maintains a high standard in the way it treats people. 4. Has excellent leadership.					
3- Reliable and financially strong firm:	1. Looks like a firm with strong prospects for future growth. 2. Recognizes and takes advantage of market opportunities					

	3. The firm is aware of its responsibility to society .					
4- Product and service quality:	1. Offers high quality products and services. 2. Is a strong, reliable firm.					
5- Social and environmental responsibility:	1. Supports good causes. 2. Is an environmentally responsible firm.					
CL	1. The prospect of lower prices would make me switch to another firm. 2. If it were possible without a problem, I would choose another firm. 3. I intend to remain the firm's customer.					
WOM	1. If I were asked, I would recommend becoming a customer of the firm. 2. I would recommend this firm to friends and acquaintances.					

Purchasing decisions	1.I will buy my motor insurance from this firm in the future. 2. I will consider this firm the first choice from which to buy motor insurance.					

Do you have comments you want to leave?

Appendix C Arabic version of the questionnaire

ورقة معلومات المشاركين ونموذج الموافقة على الاستبيان

عنوان الدراسة: إدارة مخاطر السمعة: علاقة الذكاء الاصطناعي ورضا العملاء والثقة بسمعة شركات التأمين في المملكة العربية السعودية

الباحثة: مريم اليحيى

البريد الالكتروني:

Mhma1y18@soton.ac.uk

رقم ERGO: 86048

ما هو موضوع البحث؟

اسمي مريم اليحيى، باحثة دكتوراه في قسم إدارة المخاطر بجامعة ساوثهامبتون في المملكة المتحدة. أدعوكم للمشاركة في هذه الدراسة من أجل التعرف على سوابق سمعة الشركة ودراسة تأثيرها على قرارات الشراء.

ماذا سيحدث لي إذا شاركت؟

تتضمن هذه الدراسة إكمال استبيان والذي يستغرق حوالي 10 دقائق من وقتك. إذا كنت سعيدًا بإكمال هذا الاستبيان، فستحتاج إلى تحديد (النقر)على المربع أدناه لإظهار موافقتك. نظرًا لأن هذا الاستبيان مجهول تمامًا و لا يتطلب منك كتابة أي معلومات شخصية، فلن يتمكن الباحث وفريق البحث من معرفة ما إذا كنت قد شاركت، أو ما هي الإجابات التي قدمتها.

لماذا طلب مني المشاركة؟

لقد تمت دعوتك للمشاركة في هذه الدراسة لأنك سعودي/ مقيم في المملكة العربية السعودية ولديك تأمين على السيارات.

ما هي المعلومات التي سيتم جمعها؟

تتطلب الأسئلة في هذا الاستبيان معلومات تتعلق بتجربتك مع منتجات التأمين على السيارات المشتراة من شركات التأمين في المملكة العربية السعودية. تحتوي بعض أسئلة الاستبيان على أسئلة مفتوحة تتطلب من الكتابة للإجابة عنها. يرجى ملاحظة أنه لكي يكون هذا الاستبيان مجهول الهوية، يجب ألا تُدرج في إجاباتك أي معلومات يمكن من خلالها تحديد هويتك أو التعرف على أشخاص آخرين. أيضا، سيتم جمع بعض البيانات الديموغرافية.

ما هي الفوائد الممكنة من المشاركة؟

إذا قررت المشاركة في هذه الدراسة، فلن تحصل على أي مزايا مباشرة؛ ولكن ستساهم مشاركتك في الاضافة للمعرفة في هذا المجال من البحث.

هل هناك أي مخاطر تنطوي عليها المشاركة في هذه الدراسة؟

من المتوقع أن المشاركة في هذه الدراسة لن تسبب لك أي إزعاج و / أو ضيق نفسي، ومع ذلك، إذا شعرت بعدم الارتياح، يمكنك ترك الاستبيان في أي وقت أو التواصل مع الباحثة على الايميل التالي:

Mhma1y18@soton.ac.uk

ماذا سيحدث للمعلومات التي تم جمعها؟

سيتم تخزين جميع المعلومات التي تم جمعها لهذه الدراسة بشكل آمن على جهاز حاسوب محمي بكلمة مرور ونسخها احتياطيًا على خادم آمن. بالإضافة إلى ذلك، سيتم تجميع جميع البيانات وتصنيفها فقط في ملخصات البيانات أو التقارير الموجزة. سيتمكن الباحث والمشرف فقط من الوصول إلى هذه المعلومات.

سيتم تحليل المعلومات التي تم جمعها وكتابتها كجزء من أطروحة الباحث للحصول على درجة الدكتوراه في إدارة المخاطر والتأمين. تعد جامعة ساوثهامبتون أبحاثًا وفقًا لأعلى معايير الأخلاق ونزاهة البحث. ووفقًا لسياسة إدارة بيانات البحث الخاصة بها، سيتم الاحتفاظ بالبيانات لمدة 10 سنوات بعد انتهاء الدراسة.

ماذا يحدث إذا كانت هناك أي مشكلة؟

إذا كان لديك قلق بشأن أي جانب من جوانب هذه الدراسة، فيجب عليك التحدث إلى الباحثة ومشرفيها الذين سيبذلون قصارى جهدهم للإجابة على أسئلتك.

البريد الإلكتروني للباحث:

mhma1y18@soton.ac.uk

البريد الإلكتروني للمشرف الرئيسي:

K.Katsikopoulos@soton.ac.uk

البريد الإلكتروني للمشرف الثاني

y.hanoch@soton.ac.uk

إذا كنت لا تزال غير راضٍ عن أي جانب من جوانب هذه الدراسة وترغب في تقديم شكوى رسمية، يمكنك الاتصال برئيس نزاهة البحوث والحوكمة، جامعة ساوثهامبتون ، على تفاصيل الاتصال التالية:

البريد الالكتروني:

rgoinfo@soton.ac.uk

هاتف:

+ 44 2380 595058

يرجى ذكر رقم Ethics / ERGO أعلاه. يرجى ملاحظة أنه من خلال تقديم شكوى، قد لا تكون مجهول الهوية بعد الآن.

مزيد من المعلومات حول حقوقك كمشارك في الدراسة عبر هذا الرابط:
https://www.southampton.ac.uk/about/governance/participant-information.page

شكرا لك على قراءة المعلومات ورغبتك في المشاركة.

❑ يرجى وضع علامة (تحديد) هذا المربع للإشارة إلى أنك قد قرأت وفهمت المعلومات الواردة في هذا النموذج، وأنك تبلغ من العمر 18 عامًا أو أكثر وتوافق على المشاركة في هذا الاستطلاع.

أعزائي المشاركين:

تفضل بتعبئة هذا الاستبيان الذي يهدف إلى جمع معلومات حول خبرتك في شراء تأمين السيارات في المملكة العربية السعودية. تعبئة الاستبيان لن يستغرق أكثر من 10 دقائق من وقتك.

شكرا جزيلا لمشاركتك في هذه الدراسة. ستبقى نتائجك سرية، وسيظل لك الحق في سحب بياناتك.

نود التأكيد بأننا لن نقوم بجمع بياناتك الشخصية كجزء من هذا البحث (مثل الاسم أو أرقام الهواتف أو المعلومات الطبية). حقوقك في الوصول إلى معلوماتك أو تغييرها أو نقلها محدودة، حيث نحتاج إلى إدارة معلوماتك بطرق محددة حتى يكون البحث موثوقًا ودقيقًا. إذا انسحبت من الدراسة، فسوف نحتفظ بالمعلومات الخاصة بك التي حصلنا عليها بالفعل.

سنحتفظ بالبيانات فقط طالما كان ذلك ضروريًا لتحقيق غرض البحث. سيتم إخفاء هوية بيانات الاستبيان وتخزينها في مكان آمن (على جهاز حاسوب مشفر ومحمي بكلمة مرور يعرفه الباحث فقط). سيتم إخفاء هوية جميع البيانات ومعالجتها كمجموعة واحدة من البيانات وليس لكل شركة أو لكل شخص على حده. لن يتم توصيل هذه المعلومات أو استخدامها بطريقة ضارة لك حيث لا يمكن لأحد تحديد المستجيبين بسبب إخفاء هوية البيانات.

سيتم الاحتفاظ بالبيانات لمدة 10سنوات حسب اللوائح المتبعة. إذا كان لديك أي أسئلة أخرى حول الدراسة أو أي شكاوى أو مخاوف بشأن هذا البحث، فيرجى عدم التردد في الاتصال بفريق البحث:

مريم اليحيى (باحثة دكتوراه في جامعة ساوثهامبتون، رقم ERGO: 86048)

mhma1y18@soton.ac.uk

المشرف الرئيسي: Konstantinos Katsikopoulos

: K.Katsikopoulos@soton.ac.uk

المشرف الثاني: Yaniv Hanoch

y.hanoch@soton.ac.uk

الأسئلة الديموغرافية:

العمر	١٨-٢٩
	٣٠-٣٩
	٤٠-٤٩
	٥٠-٥٩
	+٦٠

الجنس	ذكر
	أنثى

مستوى التعليم	تعليم متوسط أو أقل
	تعليم ثانوي
	حاصل على درجة البكالوريوس
	حاصل على درجة الماجستير
	حاصل على درجة الدكتوراة أو أعلى
	غير ذلك (حدد:)

التخصص	له علاقة بالتكنولوجيا
	ليس له علاقة بالتكنولوجيا

الراتب	أقل من ٣٠٠٠ ريال
	٣٠٠٠-٧٠٠٠ ريال
	٧٠٠١-١٤٠٠٠ ريال
	١٤٠٠١-٣٠٠٠٠ ريال
	٣٠٠٠١-٧٠٠٠٠ ريال

	٧٠٠٠١-١٠٠٠٠٠ ريال
	أكثر من ١٠٠٠٠٠ ريال

الجنسية	سعودي
	مقيم

المنطقة	الشرقية
	الغربية
	الشمالية
	الجنوبية
	الوسطى

اسم الشركة:	

المتغير	الأسئلة	لا أوافق بشدة	لا أوافق	متردد	موافق	موافق بشدة
		١	٢	٣	٤	٥
الثقة	١-أميل إلى الوثوق بمنتجات وخدمات الشركة. ٢-هذه شركة جديرة بالاحترام. ٣-أثق في موظفي الشركة الذين يقدمون خدمات البيع لي بشكل عام. ٤- أسعار الشركة مناسبة.					
الذكاء الاصطناعي (نظام الدردشة الآلي) مقياس الفائدة المتصورة	١-سيكون من الصعب الرد على استفساراتي بدون برنامج الدردشة الآلي. ٢-سيكون من الصعب شراء / تجديد وثيقة التأمين الخاصة بي بدون برنامج الدردشة الآلي.					

	٣-سيكون من الصعب التعامل مع مطالباتي بدون برنامج الدردشة الآلي. ٤-سيكون من الصعب حل الشكاوي الخاصة بي بدون برنامج الدردشة الآلي. ٥-يمنحني استخدام نظام الدردشة الآلي القدرة على السيطرة والتحكم في استفساراتي بشكل أكبر. ٦-يمنحني استخدام نظام الدردشة الآلي القدرة على السيطرة والتحكم في وثائق التأمين الخاصة بي بشكل أكبر. ٧- يمنحني استخدام نظام الدردشة الآلي القدرة على السيطرة والتحكم في مطالباتي بشكل أكبر. ٨- يمنحني استخدام نظام الدردشة الآلي القدرة على السيطرة والتحكم في الشكاوي المقدمة من قِبلي بشكل أكبر. ٩-نظام الدردشة الآلي يُجيب على جميع استفساراتي. ١٠-نظام الدردشة الآلي يلبي احتياجاتي المتعلقة بالشراء. ١١-نظام الدردشة الآلي يلبي احتياجاتي المتعلقة بالمطالبات. ١٢-نظام الدردشة الآلي يلبي احتياجاتي المتعلقة بالشكاوي. ١٣-استخدام نظام الدردشة الآلي يختصر علي الوقت. ١٤- يُمكّنني نظام الدردشة الآلي من تلقي إجابات على استفساراتي بسرعة أكبر. ١٥-يُمكّنني نظام الدردشة الآلي إتمام عمليات الدفع بسرعة أكبر. ١٦- يُمكّنني نظام الدردشة الآلي من التعامل مطالبتي بسرعة أكبر. ١٧- يُمكّنني نظام الدردشة الآلي من حل شكواي بسرعة أكبر. ١٨-يدعم نظام الدردشة الآلي الجوانب المعقدة (صعبة الحل) المتعلقة باستفساراتي. ١٩- يدعم نظام الدردشة الآلي الجوانب المعقدة (صعبة الحل) المتعلقة بعمليات شراء / تجديد الوثائق. ٢٠- يدعم نظام الدردشة الآلي الجوانب المعقدة (صعبة الحل) المتعلقة بمطالباتي. ٢١- يدعم نظام الدردشة الآلي الجوانب المعقدة (صعبة الحل) المتعلقة بشكواي. ٢٢-استخدام نظام الدردشة الآلي يقلل من الوقت الذي أقضيه في الدردشة مع ممثل شركة التأمين. ٢٣- استخدام نظام الدردشة الآلي يُحسّن من جودة الخدمة التي أحصل عليها.					

	٢٤-استخدام نظام الدردشة الآلي يجعل من السهل طرح الاستفسارات. ٢٥- استخدام نظام الدردشة الآلي يجعل من السهل شراء / تجديد منتج التأمين. ٢٦- استخدام نظام الدردشة الآلي يجعل من السهل رفع / تتبع المطالبة. ٢٧- استخدام نظام الدردشة الآلي يجعل من السهل رفع شكوى. ٢٨- بشكل عام، أجد نظام الدردشة الآلي مفيدًا للقيام بكل ما أحتاجه.					
مقياس سهولة الاستخدام المتصورة	١-غالبًا ما أشعر بالارتباك عند استخدام نظام الدردشة الآلي. ٢-أرتكب أخطاء بشكل متكرر عند استخدام نظام الدردشة الآلي. ٣-غالبًا ما يكون التفاعل مع نظام الدردشة الآلي محبطًا. ٤-أحتاج إلى التشاور مع الآخرين كثيرًا عند استخدام نظام الدردشة الآلي. ٥-يتطلب التفاعل مع نظام الدردشة الآلي الكثير من جهدي الذهني. ٦-أجد أنه من السهل تفادي الأخطاء التي واجهتها أثناء استخدام نظام الدردشة الآلي. ٧- نظام الدردشة الآلي غير مرن للتفاعل معه. ٨-أجد أنه من السهل جعل نظام الدردشة الآلي يقوم بما أريد القيام به. ٩-يتصرف نظام الدردشة الآلي غالبًا بطرق غير متوقعة. ١٠-أجد أن استخدام برنامج الدردشة الآلي بطيء وثقيل جدا. ١١-من السهل علي فهم تفاعلي مع نظام الدردشة الآلي. ١٢-من السهل بالنسبة لي أن أتذكر كيفية الحصول على ما أحتاجه باستخدام نظام الدردشة الآلي. ١٣-يوفر نظام الدردشة الآلي إرشادات مفيدة لإنجاز احتياجاتي. ١٤-بشكل عام ، أجد أن نظام الدردشة الآلي سهل الاستخدام.					
رضاء العملاء	١-أنا راضٍ عن الخدمات التي تقدمها لي الشركة. ٢- تلبّي الشركة دائما توقعاتي. ٣-تحل الشركة المشاكل التي تواجه عملائها بسرعة وكفاءة.					
مقياس سمعة الشركة القائمة على العميل. ١-انطباعات العملاء	١-تعامل الشركة عملائها معاملة عادلة. ٢-يهتم موظفو الشركة باحتياجات العملاء. ٣-تتميز الشركة بطريقة عالية المعايير في التعامل مع عملائها.					

	٤-تأخذ الشركة حقوق العملاء على محمل الجد.					
٢- صاحب العمل الجيد	١-تبدو شركة جيدة للعمل بها. ٢-تبدو وكأنها شركة لديها موظفين جيدين. ٣-تتعامل الشركة مع الناس بكفاءة عالية. ٤-لدى الشركة قيادة ممتازة.					
٣- شركة موثوقة وقوية مالياً	١-شركة لديها تطلعات وآفاق قوية للنمو المستقبلي. ٢-تُدرك الشركة وتستفيد من الفرص الموجودة السوق. ٣-تُدرك الشركة مسؤوليتها تجاه المجتمع.					
٤- جودة المنتج والخدمة	١-تقدم الشركة منتجات وخدمات عالية الجودة. ٢-تُعتبر الشركة قوية وموثوقة.					
٥-المسؤولية الاجتماعية والبيئية:	١-تدعم الشركة الاحتياجات المجتمعية المهمة. ٢-الشركة لديها مسؤولية تجاه البيئة.					
ولاء العملاء	١-احتمالية انخفاض أسعار المنافسين سيجعلني أنتقل إلى شركة أخرى. ٢-من الممكن أن أنتقل إلى شركة أخرى إذا لم يكن هناك مانع/ مشكلة. ٣-أنوي أن أبقى عميلاً للشركة.					
التسويق الشفهي	١-في حال تم سؤالي عن هذه الشركة تحديدًا، فإني سوف أُوصي بها. ٣-أوصي بهذه الشركة للأصدقاء والمعارف.					
قرارات الشراء	١-سأشتري تأمين سيارتي من هذه الشركة في المستقبل. ٢-سأعتبر هذه الشركة خياري الأول لشراء التأمين على السيارات.					

هل لديك تعليقات وتود اضافتها؟

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