Narrative Disclosure Tone in the UK: Determinants and Consequences from Upper Echelons Theory

The thesis is submitted in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy in Accounting and Financial Management at the University of Portsmouth.

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Abstract

This study investigates the key factors that drive narrative tone in the UK context where managers have more flexibility to frame narratives with stakeholders. While prior studies examined firm-specific characteristics as determinants of Narrative Disclosure Tone (NDT), and the short-term effect on stock markets as consequences of NDT, the current study employs the upper echelons theory and focusses on top managers' characteristics as key factors that drive NDT. Moreover, it examines not only narrative tone predictive power but also who has this power inside companies to help with predicting future performance. Using computerised textual analysis, the findings suggest that both observed and unobserved CEO characteristics drive positive tone in the UK context and this relationship is moderated by corporate governance attributes. Specifically, older, female and financial expert CEOs display less positive tone. Considering psychological features, the current study shows that narcissistic CEOs are more likely to display positive tone compared with non-narcissistic CEOs, however, this relationship declines in firms that have a higher independent board. Moreover, audit committee and board independence are negatively associated with positive tone. Additionally, the results show more females on board increases the negative relationship between female CEOs and positive tone. Considering tone predictive power, the current study found that corporate narrative tone is associated with future performance. However, answering the question about who has this power, the results show that an executive's tone has the power to help with predicting a company's future performance but not governance's tone. Moreover, the current study shows that Financial Reporting Council guidance increases corporate narrative tone power in general and executive tone in particular in predicting future performance. Finally, the current research shows that negativity does matter in the UK context as it is significantly associated with future performance. These results have significant implications for top management, policy makers, regulators and the external users of financial reporting.

Declaration

‘Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.’

Hesham Bassyouny

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Conferences and publication

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List of Abbreviations*:*

AC	Audit Committee
BOW	Bag Of Words
CA	Companies Act
CAR	Cumulative Abnormal Returns
CDP	Carbon Disclosure Project
CDS	Credit Default Swap
CEO	Chief Executive Officer
CFIE	Corporate Financial Information environment
CFO	Chief Financial Officer
CG	Corporate Governance
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
DTR	Disclosure and transparency Rules
e.g.	exempli gratia (for example)
EPS	Earnings Per Share
EU	European Union
FCA	Financial Conduct Authority
FLS	Forward Looking Statements
FRC	Financial Reporting Council

FSA	Financial Service Authority
FTSE	Financial Times Stock Exchange
ICB	Industry Classification Benchmark
ICDs	Intellectual Capital Disclosures
IMSs	Interim Management Statements
IPO	Initial Public Offering
LM	Loughran and McDonalds
MBA	Masters of Business Administration
MD&A	Management Discussion and Analysis
NDT	Narrative Disclosure Tone
NPI	Narcissistic Personality Inventory
OLS	Ordinary Least Squares
PDF	Portable Document Format
R&D	Research and Development
ROA	Return On Assets
ROE	Return On Equity
SEC	Security and Exchange Commission
UK	United Kingdom
US	United states of America
VIF	Variance Inflation Factor

Chapter one: Introduction

1.1 General Overview:

There is a growing interest in accounting and financial reporting literature to focus on qualitative information published by firms as a type of communication between managers and external users known as Narrative Disclosure (Lee and Park, 2019; Huang, Teoh and Zhang, 2014; Allee, Matthew and Deangelis, 2015). In particular, the researchers aim to investigate firms' communication strategies through narrative disclosure and its impact on investors and financial outcomes (Blankespoor, 2018). Narratives play an important role in conveying information from managers to external users about firm performance and financial position as it provides credible information alongside financial statements (Loughran and McDonald, 2016; Merkley, 2014; Henry and Leone, 2016). In recent years, there has been an ongoing debate by researchers and professional bodies about the importance of narrative reporting.

Prior researches argue that financial statements alone do not provide investors and external users with the whole picture as these cannot explain firms' strategies and future plans. This argument supports the importance of narrative disclosure (Arslan-Ayaydin, Boudt and Thewissen, 2016; Baginski, Demers, Kausar and Yu, 2018). Moreover, narrative disclosure can solve the problem of a lack of financial education for some investors as it explains financial statements in a simple way that can help investors and external users in decision-making (Dyer, Lang and Stice-Lawrence, 2017; Johed, 2007). In addition, Li (2010A) argues that over 70% of annual reports and firms' communication channels are now narrative disclosures, which means researchers should give more attention to these textual disclosures; even more than examining hard information such as financial statements and earnings.

Moreover, narrative disclosures have received more attention not only from academic researchers but also from professional bodies. Recently, in the UK context, the Financial Reporting Council (FRC) has aimed to issue some guidance in order to improve narrative disclosures. The 2014 and 2015 FRC strategic reports and narrative reporting guidance recommend firms the best way to disclose their information in annual report narratives. This guidance aims to help companies to provide shareholders and external users with information about how managers worked on the company's success during the last fiscal year and how they are planning to improve future performance (FRC, 2015). Therefore, narrative disclosures will help external users in decision-making in a way to achieve their aims of developing the investment progress (FRC, 2014).

Consequently, it is noticeable that narrative disclosures are important and convey material information from managers to external users. While previous studies have investigated the information content of narrative disclosures, it is important to examine the framing of such information and how it is being presented to external users. Therefore, the current study focusses on Narrative Disclosure Tone (NDT) and how information is linguistically presented to external users. In particular, it aims to investigate what are the key factors that drive NDT in the UK context? and how NDT is associated with future performance?

The rest of this introduction chapter is organised as follows: section 1.2 introduces the research motivation and the main research gaps in NDT literature while section 1.3 discusses research objectives and hypotheses. Section 1.4 provides information about research methodology, variables and the data collection process. The main research findings, theoretical and practical implications are discussed in section 1.5. Section 1.6 explains research contributions of the current study. Finally, section 1.7 shows the structure of the current research.

1.2 Research Motivation and Gaps:

Prior studies in accounting and financial reporting literature have investigated narrative disclosures in different ways, such as risk disclosure (e.g., Linsley and Shrives, 2006; Elshandidy, Fraser and Hussainey, 2015; Ibrahim and Hussainey, 2019), Corporate Social Responsibility (CSR) disclosure (e.g., Gray, Kouhy and Lavers, 1995; Dhaliwal, Li, Tsang and Yang, 2011), and Forward-Looking disclosure (e.g., Hussainey, Schleicher and Walker, 2003; Athanasakou and Hussainey, 2014). However, it is important to investigate not only what the information in such a context is, but also how it is being presented to external users (Pennebaker, Mehl and Niederhoffer, 2003; Blankespoor, 2018). Moreover, previous psychology studies argue that the outcomes of any process will be affected based on how the information is framed to users (Kahneman, 2002; Henry and Leone, 2016). This motivates the researcher to focus on narrative disclosure tone and how managers use language to present information to external users. Tone refers to the optimistic (pessimistic) language used by managers in their narrative reporting to convey material information about the company (Henry, 2008; Loughran and McDonald, 2016).

There is conflict between researchers about the concept of narrative disclosure tone and good vs bad news. Consequently, it is worth mentioning that this research does not define narrative tone as good vs bad news disclosures. Narrative tone is the use of language in financial reporting and business communication channels between managers and external users, and whether they use more optimistic vs pessimistic words (Henry, 2008; Loughran and McDonald, 2011; Henry and Leone, 2016). As Schleicher (2012) proved, not all positive sentences in corporate financial reporting reflect good news. Managers might use language to mislead the perception of external users by biasing their tone upwards. However, the actual good news and bad news are based on real news events that happened during the fiscal year, such as earnings increases, sales growth and dividends.

After reviewing previous research in narrative disclosure tone, some areas were identified as gaps in accounting and financial reporting literature as follows: first, most NDT studies focus on tone consequences, however, NDT determinants studies are limited (Loughran and McDonald, 2016; Davis et al., 2015). Therefore, Marquez-Illescas, Zebedee and Zhou (2019) asked for more research to investigate NDT determinants. Although there are a few studies which have investigated tone determinants, they just focus on firm financial characteristics or firms' accounting strategies (e.g. earning management) as the key driving factors that affect tone (e.g., Li, 2010; Iatridis, 2016; Schleicher and Walker, 2010). However, future research might move from firm-specific characteristics to top manager-specific characteristics while examining NDT determinants (Plöckinger et al., 2016). The current study adopted this approach by applying the upper echelons theory to NDT settings as this theory states that strategic choices and firms' outcomes are predicted by their top managers' characteristics (Hambrick and Mason, 1984). Therefore, the current research considers CEOs characteristics as determinants of NDT in order to investigate whether tone is firm driven, corporate governance (CG) driven or CEO driven.

Second, the majority of studies which have examined the consequences of NDT, focussed on short-term market reaction conducting short-window event studies. However, tone predictive power studies investigating if tone is associated with future performance in the long-term are limited (Wisniewski and Yekini, 2015). Moreover, prior studies argue that narratives contain material information that discusses not only the previous fiscal year but also future strategies to improve future performance (e.g., Davis et al., 2015; Rahman, 2019). Therefore, the current research aims to investigate tone predictive power and its association with firms' future performance.

Third, the majority of NDT studies have investigated different channels of communication, such as press releases and conference calls as a proxy of narrative reporting, between managers and external users. However, studies that examined annual reports in investigating NDT are limited (Loughran and McDonald, 2016). Although there are a few studies that have investigated annual reports, they selected specific sections to be examined, such as chairman's statement, Management Discussion & Analysis (MD&A) and letters to shareholders. However, the current research investigates the entire annual report as it provides the largest sample of narratives that can represent a company's narrative reporting style (Yekini et al., 2016).

Fourth, the majority of narrative tone studies have examined the US context, so more evidence from outside the US is still needed (Plöckinger et al., 2016: Yekini et al., 2016; Marquez-Illescas et al., 2019). Therefore, the current research provides evidence from the UK context that operates under the principles-based approach, which gives managers more flexibility to frame narratives with stakeholders compared with the US where the rules-based approach is applied with more restrictive narrative reporting style (Yekini et al., 2016).

Fifth, in the UK context, prior studies found that companies disclose more positive information than negative, as they argue it has more power in the stock market and managers will not disclose negative information voluntarily (Yekini et al., 2016; Smith and Taffler, 2010; Schlcheicher and Walker, 2010). However, it is important to consider negative information as prior studies found that negativity might predict earning shocks and decrease earnings manipulation (Filzen, 2015; Huang et al., 2014A; Iatridis, 2016). Therefore, the current research aims to investigate if negativity matters in the UK context.

1.3 Research Objectives:

This study aims to investigate the determinants of NDT and how it is associated with future performance in the UK context. Therefore, the current research seeks to achieve this aim by addressing five main objectives. First, it aims to investigate the key factors that drive NDT in the UK context. In particular, this study examines CEOs' psychological and personal characteristics, CG mechanisms and firm characteristics as determinants of NDT in the UK context. Therefore, this research can report whether NDT is firm driven, CG driven or CEO driven. Second, it aims to examine the CG moderation effect on the relationship between CEO characteristics and NDT in the UK context. In other words, it investigates if strong CG mechanisms moderate the relationship between CEO characteristics and NDT.

Third, it aims to investigate tone predictive power and if NDT is associated with future performance. However, there are two main teams providing narrative disclosures in the company, executives and governance. These two teams have different narrative reporting features with different reporting responsibilities, which is reflected in their tone in narrative disclosures. Therefore, the fourth objective is to investigate who has this power inside the company (executive vs governance). In other words, it aims to examine which tone of both teams has the power to help external users in predicting a company's future performance. Fifth, motivated by the argument that UK companies disclose more positive information than negatives, the current research aims to examine if negativity matters in the UK context. This can be revealed by investigating whether negative tone is associated with future performance.

1.4 Research Methods:

Bloomberg is used to collect a list of FTSE-Allshare companies in the UK context. Excluding all financial companies, companies with missing data, and PDF annual reports that were not transferable to text, these criteria get a final list of 224 UK listed companies. Therefore, the final sample presents 2,437 firm year observations from 2010 to 2018. The sample of this research starts at 2010 to avoid the effect of the financial crisis in 2008. Moreover, by selecting this period the current study is able to cover annual report narratives before and after the 2014 narrative reporting guidance issued by FRC. Therefore, it can report the effect of FRC guidance in the UK context. It is worth mentioning that annual report narratives are used as a unit of analysis as they provide the largest sample of narratives that can represent a company's narrative reporting style (Yekini et al., 2016).

Following a growing body of accounting and financial reporting literature, computerised textual analysis using bag of words approach is used to capture NDT in UK annual report narratives (e.g., Henry, 2008; Li, 2010; Loughran and McDonald, 2011; Davis and Tama-Sweet, 2012; Davis et al., 2015; Henry and Leone, 2016; Marquez-Illescas et al., 2019; Lee and Park, 2019). CFIE software is used as a tool of textual analysis as it is created especially for the UK PDF structure annual reports (Haj, Alves, Rayson, Walker and Young, 2020). It converts the PDF files to text, and therefore, they are then ready for textual analysis using the chosen wordlist.

According to tone literature, there are four main wordlists that have been widely used to capture the word frequency of positive (negative) tone named as Harvard GI, Diction, Henry (2008) and Loughran and McDonald (2011) wordlists (Loughran and McDonald, 2016). The current study uses Loughran and McDonald (2011) wordlist to measure positive tone for two reasons. First, it is created based on a financial document, named 10-K filings, and therefore, it is more applicable to financial reporting and business communication research than other general dictionaries such as Harvard or Diction (Loughran and McDonald, 2016). Second, it is more comprehensive than other wordlists that were created based on financial documents.

Annual reports were collected from Bloomberg database and companies' websites. Moreover, firm financial characteristics, CG mechanisms, CEO personal characteristics and future performance measures were collected from Bloomberg for the period of 2010 to 2018. More details about data collection, empirical models, variables definition and statistical tests are presented in the methodology chapter.

1.5 Empirical Results and Research Implications:

1.5.1 Determinants of NDT:

Investigating the key factors that drive NDT in the UK context, the current research found that positive tone in annual report narratives is driven by different factors, named as CEOs' personalities, CG mechanisms and firm characteristics. The empirical analyses show that older CEOs and female CEOs are negatively and significantly associated with positive tone in UK annual report narratives. These results are consistent with psychological and business ethics research as they argue that older individuals have more conscientiousness; therefore, they might provide a fair description for a firm's performance (Ashton and Lee, 2016). Moreover, females have a more ethical attitude than males and are less engaged in impression management strategies (García-Sánchez et al., 2019).

In addition, the current research found that financial expert CEOs are negatively and significantly associated with positive tone. This result is in line with prior literature showing that financial expert CEOs follow more conservative strategies (Gounopoulos and Pham, 2018). Considering the psychological features of CEOs, the current study found that CEO narcissism is positively and significantly associated with positive tone. This result is consistent with previous literature, which reports that narcissistic CEOs prefer bold actions, which attract attention, compared with non-narcissistic CEOs, whether it results in big gains or big losses (Chatterjee and Hambrick, 2007; Marquez-Illescas et al., 2019). Overall, these previous results support upper echelons theory, which assumes that firms' strategies and outcomes are predicted by their top managers' characteristics.

Investigating CG mechanisms and firm characteristics as determinants of NDT, the current research found that smaller companies, lower leverage ratio companies, higher sales growth and profitability companies display more positive tone in annual report narratives. Moreover, companies with strong corporate governance mechanisms display less positive tone in narrative reporting.

Considering the moderation effect of CG on the relationship between CEO personalities and positive tone, the current research found that strong CG mechanism can control the positive tone of narcissistic CEOs as a higher independence level of the board reduces the positive association between CEO narcissism and positive tone. Moreover, the results show that more females on board increases the negative association between female CEOs and positive tone. These results are consistent with business ethics research suggesting that a higher percentage of females on board is associated with appointing a female leader in supporting their decisions as it reduces the gender gap effect (Wang and Kelen, 2013).

1.5.2 Consequences of NDT:

Investigating tone predictive power and its association with future performance, the current research found that corporate net optimistic tone in the UK annual report narratives is positively and significantly associated with future performance. These results are in line with prior studies which found that narratives have the ability to predict future returns (e.g., Wisniewski and Yekini, 2015). Moreover, this result supports signalling theory, which assumes that companies send signals to external users to help them to distinguish companies with an improving performance from companies with a declining performance (Smith and Taffler, 2000).

However, the current study aims to report on not only narrative tone predictive power but also who has this power to help external users in predicting a company's future performance, executives or governance. The results show that only executives' net optimistic tone in annual report narratives is positively and significantly associated with future performance. Therefore, the current study concludes that the tone of executives, not governance, has the power to help external users in predicting a company's future performance.

Moreover, the empirical results show that executives have more optimistic tone in annual report narratives compared with governance team. These results can be explained by the nature of narrative reporting for both of them as they have different responsibilities. Executives provide a fair view about firm performance, operational and financial review, future developments and strategies, which is more related to firm performance. However, governance team is responsible for monitoring the financial reporting process and reporting about the effectiveness of internal quality control and risk management system.

Considering the moderation effect of FRC narrative guidance issued in 2014, the current study examines how it affects tone predictive power in the UK context. The empirical results show that the FRC narratives guidance improves the power of corporate tone in general and executives' tone in particular in predicting a company's future performance. Finally, the current research found that negativity does matter in the UK context as it is associated with future performance. All of these previous results are robust by robustness checks, additional analyses and alternative regression analyses.

1.5.3 Research Implications:

The current study has theoretical and practical implications. The theoretical implications are: first, the current study provides supporting evidence for upper echelons theory, which states that strategic choices and firms' outcomes are predicted by their top managers' characteristics (Hambrick and Mason, 1984). Second, this evidence is provided from the UK context where the principles-based approach is operated with less restriction and more tone management opportunities in narrative reporting compared with the US context where the rule-based approach is followed. Third, this study distinguishes between the tone of executives and governance team in order to show that there is different tone consistency inside the whole annual reports among different sections.

The practical implications are: first, the current research informs analysts, investors and external users about the characteristics of CEOs who are using more positive tone in their communication with external users through annual reports. Second, it shows policy makers the importance of having strong CG in moderating financial reporting features and monitoring the attitude of CEOs. Third, these results show analysts and external users which part of annual report narratives can be used to predict a company's future performance. Fourth, it provides evidence about the importance of narrative guidance issued by regulators and how it improves a company's communications with external users.

1.6 Research Contributions:

The current research contributes to accounting and financial reporting literature in general and narrative disclosure tone in particular as follows:

First, it adds to the debate on key factors that drive NDT by highlighting CEOs' personalities, financial experience, psychological features and CG mechanisms as new dimensions of NDT determinants. Consistent with the upper echelons theory, it shows how CEO age, gender, financial expertise and narcissism affect a company's narrative disclosure tone. While prior studies focus on firm specific characteristics and accounting strategies as determinants of NDT (e.g., Li, 2010B; Iatridis, 2016), the current research moves to top-managers' specific characteristics. This is a theoretical contribution by applying the upper echelons theory perspective and investigating CEOs' characteristics as key factors that drive NDT.

Second, it sheds light on the important role of strong CG attributes in moderating the positive tone of CEOs and controlling tone management strategies. In particular, it shows the role of independent boards in moderating the positive tone of narcissistic CEOs and reducing their positive tone compared with companies with a less independent board. Moreover, it shows how more females on a board affect the tone of female CEOs. These findings contribute to financial reporting literature by linking it to different disciplines such as psychology and business ethics.

Third, to the best of the researcher's knowledge, the current study is the first in the UK context to provide supporting evidence from upper echelons theory that CEOs' personal and psychological characteristics affect NDT, where the principles-based approach is operated. The UK principle-based approach is different than the rules-based approach in the US context where the great majority of tone studies have been conducted. The principle-based approach provides more flexibility and freedom for managers to frame narratives with external users, and consequently, more opportunities for tone management compared with the US rule-based approach with more restriction on narrative reporting style.

Fourth, while most tone studies focus on short-term consequences, the current study sheds light on the long-term effect of NDT and its association with future performance. Moreover, it contributes to the debate of who has the power that can help external users in predicting future performance (executive vs governance) by showing that executives' tone has the power to predict a company's future performance. In addition, it found tone inconsistency inside the annual report among different sections showing that executives have more optimistic tone than governance in their narrative reporting.

Fifth, prior narrative disclosure studies in the UK context argue that negativity does not have an effect and companies disclose more positive information than negative as managers will not disclose negative information voluntarily when it is not required (e.g., Yekini et al., 2016; Schleicher and Walker, 2010). However, the current study contributes to financial reporting literature in general and narrative reporting literature in the UK context in particular by showing that negative tone does matter. The empirical results show that negativity is associated with future performance, therefore, it can be used in expecting future bad performance in the UK context.

1.7 Structure of the Thesis:

This section presents the structure of the thesis, which contains eight chapters. Chapter two discusses the importance of narrative reporting and the definition of the tone of narratives. In addition, this chapter reviews prior studies that have investigated NDT in accounting and financial reporting literature. Consequently, at the end it addresses the research gaps that the current study aims to fill and investigate. Moreover, this chapter presents the role power of CEOs and why the current study aims to examine CEOs' characteristics as determinants of NDT.

Chapter three discusses the policies and regulations, which guide corporate annual report narrative disclosures in the UK context where this research is conducted. In addition, it presents the main mechanisms of the corporate governance code in the UK. Finally, it describes the unique characteristics of the UK context.

Chapter four discusses the main theories in narrative disclosure and financial reporting in general and narrative tone in particular. Then, it describes how previous NDT studies used such relevant theories in their theoretical framework and links disclosure theories to tone settings. After that, it critically discusses the prior theories that have been used in narrative tone literature together in order to build the theoretical framework that matches the objectives of the current study. Finally, in the second part of this chapter, the researcher develops the research hypotheses based on relevant theories and previous studies.

Chapter five presents the research philosophy, research approach, research design, empirical models and the main methods and variables used in the examination process. Moreover, it describes data collection, sample selection, variable definitions and textual analysis mechanisms. In addition, it discusses different measurements of the main variable of the current research, NDT, and justifies the choice of tone measurement.

Chapter six presents the empirical findings and discussions of the key factors that drive NDT tone in the UK context. This includes CEOs' personal and psychological features, CG mechanisms, and firm-specific characteristics as determinants of NDT. Moreover, it provides robustness tests and additional analyses in order to confirm the main results.

Chapter seven presents the empirical findings and discussions of NDT predictive power and its association with future performance. Moreover, it provides empirical evidence about who has a tone that is able to help external users in predicting a company's future performance (executive vs governance). In addition, it shows the effect of negative tone on future performance in the UK context.

Chapter eight provides a summary of the current research, conclusion, limitations and suggestions for future research.

Chapter Two: The UK Context

2.1 Introduction:

Narratives in corporate annual reports are ab opportunity for the board of directors to present firms' material operations, performance and financial position for the last fiscal year or for the future (Yekini et al., 2016). In addition, Li (2010A) argues, these sections represent over 70% of the entire annual report. Moreover, current and potential investors use narratives to evaluate firms and for decision-making process (Davis et al., 2015). Because of that, it is very important to have some regulations and guidance cover annual reports publication process including narratives. In the UK context, the Financial Conduct Authority (FCA) is responsible for issuing the disclosure requirements and guidance. Moreover, the Financial Reporting Council (FRC) provides more guidance about financial reporting quality and sets the corporate governance code in the UK context. In this chapter, the researcher will discuss the policies and regulations, which guide corporate annual report narratives disclosures in the UK context where this research will be conducted. In addition, it will discuss the main mechanisms of the corporate governance code in the UK. Finally, it will describe the unique characteristics of the UK context.

2.2 The Financial Conduct Authority (FCA):

The FCA is an independent financial regulatory which sets the financial services regulation and disclosure rules for all listed firms in London Stock Exchange. The FCA was formed at April 2013, before that it was part of Financial Service Authority (FSA) from 2001 till 2013. FCA aims to protect investors and to keep the stock market stable by conducting the main disclosure requirements and standards that all listed companies in the UK must follow to provide stakeholders and other external users with such a useful information which helps them in decision making (FCA Feb, 2018). In the next section, the researcher will describe and discuss the Disclosure and Transparency Rules Chapter four (DTR.4) regulated by FCA which guide the information content of annual reports, include narratives, for UK listed companies.

2.2.1 Disclosure and Transparency Rules Chapter Four (DTR.4):

The DTR.4 discusses the disclosures in annual financial report that should be considered by listed companies in the UK stock exchange. FCA reports that, a firm must publish it annual report to public at the latest four months after the end of each fiscal year. In addition, a company must ensure that its annual report still available to the public for at least ten years (FCA Feb, 2018). The FCA reports that the annual reports must include:

(1) The audited financial statements;

(2) A management report; and

(3) Responsibility statements.

According to these contents, the narrative parts of annual financial reports are the management report, responsibility statements and the notes to financial statements. These notes are part of the audited financial statements, which give more explanation about the figures in financial statements. Whereas, the objective of the responsibility statements is to confirm that, management is responsible for all disclosed information in the annual report (FCA Feb, 2018). According to DTR 4.1.12 R, the responsibility statements must ensure that, the financial statements are prepared based on relevant accounting standards in the UK. In addition, it aims to confirm that the annual report is prepared based on the UK corporate governance code. Moreover, the management must report in the responsibility statements section that, they include in their reporting a fair review about firm's performance, developments, position and the principal risks, which they face.

The management report mentioned above which must be included in the financial annual report is the largest narrative part in annual report; it usually represents over 50% of narratives (Efretuei, 2013). The management report aims to provide investors with all information they need for their investment in a firm (FCA Feb, 2018). According to DTR 4.1.8 R, these reports must include:

(1) *A fair review of the issuer's business; and*

(2) A description of the principal risks and uncertainties facing the issuer.

This fair review mentioned above must discuss and analyse the performance of the company's business during the last fiscal year and the position of firm at the end of the year. Moreover, it must analyse the key performance indicators, which help investors to evaluate firms and to make the best decisions. In addition, the FCA requires from all listed companies in the UK to provide indications of any material events that happened after the end of the fiscal year till the date of annual report publication in their management reports. Moreover, these reports must include an indicator about future developments as what is their plan to improve firm performance and position. Finally, the management report must provide investors with the research and development activities including employee matters, branches of a company, financial instruments and financial risk policies such as liquidity risk and cash flow risk (FCA Feb 2018).

It is worth mentioning that, the information content of management reports provided by FCA is consistent with the requirements reported by the Companies Act (CA 2006) chapter five for directors' report. As CA (2006) suggested firms to focus on significant and material information related to the company. Furthermore, directors' reports must include business review to discuss and analyse firm operations and performance for the last fiscal year that allows shareholders to assess directors' performance and provide them with more relevant information support their decision making progress (CA, 2006).

2.3 Narrative Reporting Guidance in the UK Context:

In the last section, the researcher discussed and described the disclosure requirements set by the FCA, and which narrative sections should include in corporate annual report. In this section, the researcher will discuss some guidance provided by the Financial Reporting Council (FRC) about how to improve narrative reporting in the UK context.

In other words, this non-mandatory guidance recommends firms the best way to disclose their information in annual report narratives. The FRC is an independent regulator that responsible for providing high quality reporting and CG for foster investment in the UK. The FRC argues that encouraging companies to prepare a high quality reports, which provide stakeholders with useful information, help them in decision making is the way to achieve their aims of developing the investment progress (FRC, 2014). In 2014 and 2015, the FRC issued two guidance, which the researcher will discuss in the next section, to improve the quality of annual report narratives in the UK context.

2.3.1 Guidance on the Strategic Report:

In 2013, the UK government set new regulations to develop the annual financial reports for UK listed companies. They require firms, which are not small, to prepare a strategic report to be a part the firm's annual financial report at the end of the fiscal year. As a result, the department of Business, Innovation and Skills asked the FRC to prepare a guidance for annual reports narratives after these new requirements for the strategic report. Therefore, the FRC presented a non-mandatory guidance in 2014 to suggest what should be consider in the strategic report and how to improve the quality of whole annual report in the UK.

The aim of the strategic report is to provide shareholders with information about how managers worked on the company's success during the last fiscal year and how well they performed to improve firms' performance. In other words, strategic report should reflect company's manager point of view (FRC, 2014). As a result, investors can assess their performance based on this presented information. The FRC believes that the strategic report should include information in detail about factors, which affect company's position such as principal risks, performance development and how managers plan for these issues using key performance indicators. Moreover, the strategic report as a part of annual report narratives should provide information about the main strategies that managers follow to achieve the firm goals and analysing past performance, also to inform investors about firm's business model and the value of long-term investment (FRC, 2014).

In addition, strategic reports should include information about firm's relationship with other externals such as customers and suppliers, also to discuss the effect of company's operations on environment (FRC, 2014). It is important to mention that, the FRC believes the strategic report should discuss the positive and negative aspects of position developments and future prospects honestly without any bias (FRC, 2014). The researcher believes that, this point matches and reflects the objective of this research. As the current study investigates the informative of positive and negative tone in annual reports narratives, also it examines tone predictive power and if managers discuss future prospects fairly without any misleading about future performance.

Furthermore, the FRC in this guidance argues that, the strategic report should provide information about the gender of persons who worked as directors of the company during the last fiscal year. This point of view is consistent with the current study objective to investigate the director (CEO) gender as a determinant of narratives tone. It is worth mentioning that, the FRC mentioned about the importance of disclose just material relevant information in annual report narratives, because if there are any immaterial information it might affect the key messages which managers aim to deliver to stakeholders (FRC, 2014). Therefore, FRC suggested to exclude any immaterial information to avoid any noises or misunderstanding from investors and just disclose a specific information related to company's operations, which will help external users in decision making. Finally, FRC confirmed that, this guidance is consistent with DTR provided by FCA, also with (CA, 2006) requirements of annual report narratives.

It is worth mentioning that, the current study aims to investigate not only tone predictive power, but also if the FRC narrative guidance affects the ability of NDT to predict future performance. Therefore, the researcher will investigate, as part of tone consequences, the moderation effect of FRC narrative guidance in the relationship between NDT and future performance. In other words, this study aims to report whether these guidance improves narrative reporting's power in predicting future performance or not.

2.3.2 Developments in Narrative Reporting:

After the FRC (2014) guidance many firms started to provide more information about their expectations for the next 12 months or even longer period, also they considered the main points provided in 2014 guidance, which should be covered in annual report narratives. Therefore, the FRC believes the quality of financial reporting has improved, but there are still more chances for improvements (FRC, 2015). As a result of that, the FRC published a guidance in December 2015 to improve the quality of principle based narrative reporting in the UK in order to make better communication between firms and external users. This guidance aims to guarantee that annual reports provide relevant understandable information for stakeholders and to provide the best practise in narrative reporting.

It is worth mentioning that, the FRC (2015) guidance for narrative reporting is based on investor's feedback. As FRC reported, investors used narrative information in annual reports to evaluate firm's performance and position. The researcher argues that this point is consistent with the current study objective, as this research examines how tone in annual reports narratives can predict future performance, which is one of the main channel of communication between firms, and investors as FRC (2015) confirmed. Based on investors and companies' feedback, the FRC (2015) suggested firms to discuss more alternative performance measurements, so it provides investors with wider picture about firm's position.

In addition, investors asked for more information about principal risks that face firms. This point supports the idea of the current research about the importance of Negativeness and managers should disclose negative information. As Huang et al., (2014) confirm this point of view when they conclude that investors find narrative reporting useful once it contains negative information. Finally, the FRC suggested firms to start the annual reporting process earlier, so they can have more time, ideas and innovations about the structure to discuss. In addition, they reported about the importance of combining the different parts of annual report narratives in an organised structure so it can be one story at the end of the process (FRC, 2015).

According to the previous discussion, it is obvious that narratives in corporate annual reports are important and add value. As it conveys credible information to external users about firm performance and position in the stock market. That is why narratives received more attention recently from policy makers worldwide and in the UK in particular. Even if annual reports have some limitation, as it does not provide timeliness information, it is important to be investigated for several reasons. First, annual reports are considered the main source of information for investors, analysts and external users to evaluate company's performance and position (Schleicher and Walker, 2010; Elshandidy et al., 2013; Yekini et al., 2016). Secondly, annual reports are official documents published by the companies based on the requirements of FCA and FRC in the UK; therefore, it is credible valid document to get information, which describe firm's position and strategies. Finally, corporate annual reports display the largest sample of narratives published by the firm to be investigated, so it can represent the company's narrative reporting style (Wisniewski and Yekini, 2015) According to the previous reasons, the current study aims to investigate annual reports narratives in the UK context.

2.4 The UK Corporate Governance Code:

"*Corporate governance is the system by which companies are directed and controlled"* (FRC, 2016). The corporate governance (CG) code aims to provide companies with the key components, which leads to have an efficient board. The FRC argues that these provided factors will allow the board to set firm's strategy and develop firm's performance, which lead to a long-term success of the company.

3.4.1 The History of Corporate Governance Code in the UK:

The first version of CG code in the UK context was presented by the Cadbury Committee (1992) when they recommended UK listed companies to separate the role of CEO and Chairman to achieve better performance and avoid agency problems. In addition, they required all firms to have at least three independent directors at the board. Whereas, The Greenbury Report (1995) required listed companies in the UK to disclose information about director remunerations, they suggested firms to link directors' remuneration with their performance. In addition, they mention about the importance of having a remuneration committee that evaluate manager's remunerations (Pasaribu, 2015).

On the other hand, The Hampel Report (1998) discussed the voluntary disclosures aspects in the UK and how important it is to provide investors with extra information, in order to help them in decision-making. While The Turnbull Report (1999) recommended firms not only to focus on past performance, but also to consider future operations and provide investors with the potential risks. Moreover, it encouraged companies to appoint good experience managers who have skills to cope with the changing environment (Pasaribu, 2015). The researcher argues, this point of view is consistent with the current study objectives, as this research will consider CEO financial expertise and background as a determinant of narratives tone in the UK context. The Davies Report (2012) focused on gender diversity as they require FTSE 100 firms to have 25% of females on the board by 2015. That is one reason why the current study will investigate board gender diversity as determinant of NDT in the UK context. Whereas, the FRC published the Code (2014) which focused more about requiring firms to disclose information about risks and how to set their CG mechanism in order to improve the long-term investments.

2.4.2 The 2016 UK Corporate Governance Code:

In this section, the researcher will discuss the last UK CG code that had been published in June 2016. In July 2018 the FRC issued a new CG code, however the researcher will not discuss it in details as the main objective of this code is not applicable for the current study as the code (2016).

The FRC issued a new CG code applies to all listed companies in the UK from 17 June 2016. The code is based on principles of good governance accountability, transparency, probity and focus on the company long-term success. The new code (2016) is agree with The Davies Report (2012) about the importance of diversity. However, the new code believes that diversity is not just about gender, it is about having different approaches, arguments and experiences which should combine together in order to achieve a good setting of firm's strategy (FRC, 2016). The leadership section of the Code (2016) suggested firms to head by an efficient board and the chairman is responsible for leadership in the firm to ensure that all directors conduct their own roles efficiently. In addition, the company should disclose in annual reports what are the decision has been taken by the board and what is the strategy of decision making.

The board and all committees should have a good balance of experiences, independence and skills to achieve a strong governance. In addition, the annual report should include the number of meetings by board and member's attendance (FRC, 2016). It is important to mention that, FRC believes the role of CEO and chairman should not be owned by the same person in order to have stronger performance. Also, the board should present a sufficient size that allows firms to run their own business, but also not to be too large to avoid complexity problems. In addition, half the board at least, excluding chairman, should be independent non-executive directors, however for small companies that should be at least two independent directors (FRC, 2016) and all companies should disclose about the number of independent non-executive directors in their annual reports.

The Code (2016) reported about the importance of having a nomination committee, which recommends to the board any new directors appointments and the majority of this committee should be independent directors. The nomination committee should describe in a separate section in the annual report about the policy of board's diversity including gender. The FRC mentioned that the firm should have an audit committee, this committee should have at least three members and two independent directors for small companies (FRC, 2016). Moreover, the audit committee should have at least one member with a recent financial experience. In addition, firm's annual report should include a separate section describe the work of audit committee and its role in monitoring the financial reporting process and suggesting the external auditor.

The code (2016) is consistent with The Greenbury Report (1995) about directors' remuneration as the FRC mentioned that remunerations should be organised based on directors' performance and to achieve the long-term success. However, FRC believes that firms should have a balance between fixed and performance-related remunerations to achieve the managers' satisfaction. It is important to mention, the Code (2016) have the same objectives of DTR provided by FCA as both are agreed about the responsibility statements where managers and different committees should mention in annual report narratives that they are responsible for all information in the annual financial report. Also to confirm that, they provide investors with a fair review about position and principal risks. Finally, according to DTR 7.2 FCA required listed companies in the UK to disclose in their narratives which governance factors they obey and which aspects of the CG code they did not obey (FCA Feb, 2018). The FCA argues that this information will help investors to evaluate the governance level of their firms.

Recently in 2018, the FRC issued a new CG code, the code (2018). The focus of this code is the application of principles. As the FRC reported that, the high quality reports will include description about how these principles have been applied. In conclusion, the code (2018) support that the application of this principles should support the company's value and its long-term sustainable success (The code, 2018). However, the researcher will not go in details of this new code, as it provides the same mechanisms of the code of (2016). As the code (2016) discuss the main structure of the board and other mechanisms that might affect corporate reporting. These mechanisms will be examined in the empirical part of this research as determinants of NDT. The new point that the code (2018) aims to add is about showing investors and external users how the CG principles are applied. It aims to improve investor's evaluation of companies CG practices and discuss any recommended practices.

2.5 The Uniqueness of the UK Context:

In the last sections, the researcher discussed the main disclosure requirements and narrative reporting guidance in the UK context. Whereas, this section will describe the key factors that motive the current study to investigate the UK context. This study will focus on the UK context for several reasons. Most of textual analysis studies in general and disclosure tone research in Particular examined the US data. Therefore, they argue that, more evidences from outside the US are still needed (Marquez-Illescas et al., 2019; Hajek, 2018; Loughran and McDonald, 2016).

As a result of that, the researcher chose to examine annual reports narratives Published by the non-financial companies listed in London Stock Exchange as the UK context has some unique characteristics. **Firstly**, the UK regulatory setting is different from the US context. The US follows rule-based approach, which makes some restrictions in narrative reporting style. However, the UK follows principle-based approach, which gives managers more opportunities for tone management and allow them to choose their own narrative reporting style as it has less restrictions. This study argues, that creates more research opportunities to examine such a context where there is more freedom and flexibility in financial reporting style.

Secondly, most of prior studies in the UK context argue that, managers disclose positive information more than negatives and use more optimistic language in narratives (Schleicher and Walker, 2010; Ressas and Hussainey, 2014; Yekini et al., 2016). However, other researchers reported that, investors find narrative disclosure useful when it contains bad news and negative information as it provides them with the whole picture of the company (Huang et al., 2014). Moreover, firms with high percentage of negative disclosures has stronger corporate governance and less earning management (Iatridis, 2016). That motivates the researcher to investigate if negativity does matter in the UK context. **Thirdly**, as discussed above, the UK received more attention about narrative reporting recently from FRC by issuing the strategic reporting guidance and narrative reporting guidance in 2014 and 2015 respectively. That motivates the research to investigate the UK context before and after this guidance and report about the difference between both periods in narrative reporting. **Finally**, London Stock Exchange is one of the oldest stock markets worldwide (since 1571) and the largest market in Europe. As a result, the UK context might represent other European countries, which follow principle-based approach.

2.6 Conclusion:

It is important to discuss and review the main characteristics and regulation requirements in such a context before investigating. Because of that, this chapter described the main disclosure requirements of annual reports narratives in the UK context. In addition, it discussed the main information that should be disclosed in corporate annual reporting narratives according to DTR provided by FCA. After that, the researcher reviewed the narrative reporting guidance issued by the FRC in order to improve the quality of narrative disclosures in the UK context. Moreover, it described the required narratives of strategic reporting that issued by FRC in 2014. In addition, the researcher described in this chapter how these disclosure requirements and narrative reporting guidance match with the objectives of the current study. Then, this chapter discussed the main factors and requirements of the UK CG code, the Code (2016, 2018), with a brief discerption about the history of CG in the UK. Finally, the researcher discussed the uniqueness of the UK context and the motivations that drive the researcher to choose the UK context to investigate in this research.

Chapter Three: The Literature Review

3.1 Introduction:

Narratives play an important role to convey information from managers to external users, which allow them to follow firm performance and financial position (Loughran and McDonald, 2016; Merkley, 2014). While prior studies in financial reporting literature investigated narratives in different ways, such as risk disclosure, forward-looking disclosures and corporate social responsibility. However, the researcher argues it is important to know, not only what the information in such a context are, but also how it is being presented to external users (Pennebaker et al., 2003; Blankespoor, 2018). Consequently, investigating tone as an important characteristic of narratives is worth to be examined.

The current chapter will review prior studies that discussed narrative disclosure tone as follow. First, the next section will describe the importance of narratives in financial reporting and tone definition according to previous literature. Then, the researcher will review and analyse prior research, which investigated the determinants of tone. After that, the researcher will describe the role power of CEOs, also why researchers might consider their characteristics in investigating financial reporting strategies. Then, the researcher will review and analyse previous studies that examined narratives' tone consequences based on different channels of disclosures. After that, prior studies about narratives' tone in the UK context will be reviewed in the following section. Finally, the researcher will describe the gaps in the literature of narrative disclosure tone, also how this research will fill the current gaps.

3.2 The Importance of Narratives:

In the last decade, accounting and financial reporting textual analysis began to receive more attention in accounting and financial reporting literature (Loughran and McDonald, 2016; Ataullah et al., 2018). In particular, the researchers nowadays aim to investigate firms' communication strategies and its impact on investors and financial outcomes (Blankespoor, 2018). Huang, Teoh and Zhang (2014) and Allee, Matthew and Deangelis (2015) confirm that, there is a growing interest in accounting literature to focus on qualitative information published by firms as a type of communication between managers and shareholders (users) known as (Narrative Disclosure). Annual reports' narratives provide credible information alongside financial statements (Merkley, 2014).

Qualitative information plays an important role to convey information from managers to investors which allow them to know and be aware about firm performance and position, also in the UK context, current and future trading information is presented in qualitative not quantitative (Schleicher and Walker, 2010). In the same way, Fernandez, Callen and Gadea (2011) believe, the value of financial statements and other accounting figures might be better in the case of combination with narrative disclosures which explain figures in a simple way. In addition, narrative sections in financial reporting provide valuable information to external users (Li, 2010A, Davis and Tama-Sweet, 2012; Rich, Roberts and Zhang 2016). Moreover, Li (2010A) added, over 70% of annual reports now is narrative disclosures which means researchers should give more attention to these textual disclosures more than examining the hard information such as financial statements and earnings.

Johed (2007) reported that, narrative reporting is important as it can solve the problem of the lack of education in financial accounting to some investors, qualitative can explain the material events, firm performance and position. Similarly, Arslan-Ayaydin, Boudt and Thewissen (2016) found that, quantitative information does not provide investors with the whole picture and this point creates the importance of narrative disclosure. In addition, Baginski, Demers, Kausar and Yu (2018) reported about the importance of this soft information (narratives), and how it is more informative compared to hard information such as financial statements and earnings news. In addition to that, Weetman (2018) noticed an increasing in narrative reporting regulations in the last few years in Europe such as the last update in 2013, which required from listed companies in Europe to report about their payments to government, but they just adjust the framework of narrative reporting and left the details for national regulators. Moreover, Dyer, Lang and Stice-Lawrence (2017) confirmed that, the majority of accounting studies focused on quantitative data, but textual disclosures got less attention in the literature.

While prior studies in accounting literature investigated soft information and narrative disclosures in different ways, such as risk disclosure (e.g., Linsley and Shrives, 2006; Elshandidy, Fraser and Hussainey, 2015), Corporate Social Responsibility (CSR) disclosure (e.g., Gray, Kouhy and Lavers, 1995; Dhaliwal, Li, Tsang and Yang, 2011), Forward-Looking disclosure (e.g., Hussainey, Schleicher and Walker, 2003; Athanasakou and Hussainey, 2014). However, previous studies believe it is important to know, not only what the information in such a context are, but also how it is being presented to external users (Pennebaker et al., 2003; Blankespoor, 2018). As a result, focussing on narratives' tone is worth to be investigated.

In addition, Blankespoor (2018) suggested a framework argues that, firms' communication strategy process have four main components (Disclosure, Dissemination, investors response and management response). According to this framework, disclosures means not only what are the information but also how firms present and frame it to the investors, also dissemination means the channel that firms choose to release this information. Whereas investor's response is the way that investors react to this information disclosed, however management response means how managements react to investor's reaction such as answering their questions in the annual meeting. Finally, Blankespoor (2018) concluded that, the communication process between firms and investors can be affected through the tone of theses information. Based on the previous discussion, all these reasons motive the researcher to investigate narrative disclosure and tone particularly.

3.3 Narratives Tone Definition:

There is conflict between researchers about the concept of tone and good vs bad news. It is worth mentioning that, this research considers narratives' tone as something different than good vs bad news disclosures. Narratives' tone is the use of language in financial reporting and business communications channels between managers and external users, whither they use more optimistic vs pessimistic words (Henry, 2008;

Loughran and McDonald, 2011; Henry and Leone, 2016). In other words, it is more about the impression management rather than real good news or real bad news. As Schleicher (2012) proved that, not all positive sentences in corporate financial reporting reflect good news. Managers might use language to mislead the perception of external users by biasing their tone upwards. However, the actual good news and bad news are based on real good event that happened during the fiscal year, such as earnings increases, sales growth and dividends.

Consequently, it is important for researchers to distinguish between the concept of good vs bad news and narratives' tone in accounting and financial reporting studies. In this study, the researcher follows the concept of narratives' tone as a use of language and impression management mechanisms in the UK corporate annual reports, not good vs bad news approach.

3.4 The Determinants of Narrative Disclosure Tone:

3.4.1 General Background:

Although the studies that examined the determinants of narrative disclosure tone are limited as most of tone studies focus on consequences and how tone affect stock markets (Loughran and McDonald, 2016; Marquez-Illescas et al., 2019). There are still few studies investigated the factors that drive the tone of narrative reporting. However, these studies investigated even tone's determinants of a specific type of disclosures, such as Li (2010B) when he investigated the tone's determinants of forward-looking disclosures, or considered firm accounting strategies such as earning management and accounting conservatism as determinants of tone (Iatridis, 2016; Ressas and Hussainey, 2014). In addition, Li (2010A) confirmed, most of accounting and financial reporting textual analysis studies focused on the informative of tone disclosure and ignored manager's incentives in textual reporting as determinants of tone.

That motivated the researcher to investigate the determinants of narratives' tone through different perspective based on CEO personal and psychological characteristics, corporate governance mechanisms (board of director characteristics and audit committee characteristics) and firm financial characteristics. In order to know if tone is firm driven, board driven, or CEO driven. In this part of the chapter, this study will review the main studies that examined the determinants of tone. After that, it will describe why it is important to consider other factors as determinants of tone such as corporate governance mechanisms and CEOs personalities.

3.4.2 Prior studies of tone's determinants:

Li (2010B) used Naïve Bayesian machine-learning approach to examine the tone of Forward-Looking Statements (FLS) disclosed at MD&A section in 10-Q and 10-K filings. Using over 140,000 firm observations in the US context, he found firms with small size, old age, better performance; less volatility and lower accruals are more likely to have more optimistic tone in their forward-looking disclosure statements. However, the researcher argues, it might be better to consider all narratives in MD&A section during investigating the determinants of narratives' tone to have have larger sample of narratives that can represent company's narrative reporting style. As a result, this study aims to investigate all narrative sections in the UK corporate annual reports, not just a specific kind of disclosure.

Similarly, Schleicher and Walker (2010) used manual content analysis to examine how managers use the tone in their forward-looking statements (FLS), and if they bias the tone in the outlook section in UK annual reports. They found that, companies with declining performance are more likely to bias the tone upwards. In addition, they reported that, loss companies, risky companies and companies that has analyst earnings expectations display more optimistic tone. Moreover, Schleicher (2012) continue on this research to know if the positive FLD statement can provide real good news or managers bias the tone in financial reporting. He found that positive FLS are real-good news when managers discussed firm's sales and comparisons with last year's performance and position. However, bad news positive statements are more likely to refer to aims, objectives, and firm's strategies, so it is not real-good news.

Whereas, Davis and Tama-Sweet (2012) considered analysts as determinants of narratives' tone. Using 16,923 firm observations, they found firms, which meet or beat analyst's expectation and have higher growth ratio display less pessimistic tone in US press releases. In a different way, Iatridis (2016) aimed to examine accounting strategies and choices as determinants of tone in narrative reporting. He found companies with lower earning manipulations, lower cost of capital, high conservatism, high growth and are audited by a big4 auditor have more pessimistic tone in their annual reports narratives.

Moreover, Davis et al., (2015) used Diction, Henry (2008) and LM (2011) wordlists to investigate narratives' tone in US conference calls. Using 2,098 firm observations, they found that managers who have previous experiences in charity organizations are more likely to use more optimistic tone. However, female managers use less optimistic tone in their financial reporting compared with male CEOs. Similarly, García-Sánchez et al., (2019) aimed to examine the board gender diversity as determinant of tone in US sustainability reporting. They found that greater female percentage in the board of directors leads to less impression management in US sustainability reporting. Moreover, Tama-Sweet (2014) investigated the tone of earnings announcements in the US context; she found a positive relationship between the changes of optimistic tone and CEO next equity sales.

Considering CEOs psychological features, Marquez-Illescas et al., (2019) reported that narcissistic CEOs tend to use more optimistic tone in US earning announcements compared with other managers. However, this study is criticising the using of Olsen et al., (2014) measure of CEO narcissism. As they consider 3 factors as a measurement of narcissism which are CEO photo, CEO cash pay and CEO non-cash pay. However, the CEO cash pay and non-cash pay is representing the effort of CEO, not his/her psychological characteristics. Alternatively, it might be better to use other measurement of narcissism which reflect the CEOs personalities, such as the using of first-person pronounce in financial reporting which had been used in psychology literature to measure narcissism (Li, 2011; Alli, Nicolaides and Craig, 2018).

Recently, Bakarich, Hossain, Hossain and Weintrop (2019) aimed to examine the relationship between firms' life cycle and narratives' characteristics in the 10-K settings. Using 24,268 10-K filings, they found companies' disclosures are more readable and more optimistic when they are moving from the beginning to maturity. While Bakarich (2019) examined the tone among firms' life cycle, the current study aims to investigate the tone consistency between annual reports' different section.

In addition, Lee and Park (2019) believe that audit committee has an important role in monitoring the financial reporting progress, so the existence of financial expertise might affect the tone of financial reporting. They found that audit committees with more financial expertise reduce the abnormal optimistic tone in MD&A section in the US context. Recently, using experiments with experienced managers, Asay, Libby and Rennekamp (2018) found CEOs highlight positive information by making it more readable; in addition, they discuss poor performance in a positive way by focusing on future plans. However, managers use less readable, more passive sentences in the case of negative news with less personal pronouns usage. Moreover, Aly, El-halaby and Hussainey (2018) aimed to investigate narratives' tone in the Egyptian stock market conducting manual content analysis. Using 315 firm observations, they found that high performance companies display more optimistic tone in their narrative reporting.

Recently, DeBoskey, Luo and Zhou (2019) aim to investigate CEOs power as determinants of US earnings announcement narratives' tone. They found a positive association between CEO power and optimistic tone in US earnings announcement. As they reported, longer CEO tenure and having rule duality increase the optimistic tone.

However, CEO tenure has less effect on narratives' tone when the company has efficient corporate governance mechanisms.

3.4.3 The CEO Role Power:

In the last section, the researcher reviewed and analysed previous studies that investigated determinants of narratives' tone in financial reporting. However, this study argue that more studies should move from firm-specific characteristics to top managers-specific characteristics while examining NDT determinants. As there are, few studies linked CEOs characteristics with accounting communication strategies (Plöckinger et al., 2016). That can be conducted by applying upper echelons theory that presented by Hambrich and Mason (1984) in tone settings. In this section, this study will provide academic evidences about the role power of CEO, why researchers should consider their characteristics during examining financial reporting narratives.

Hambrick and Mason (1984) had discussed the characteristics of top managers in different theories. Then they presented the upper echelons theory, which states that, strategic choices, performance level and firm's outcomes are predicted by the characteristics of their top managers. Moreover, Olsen, Sisodiya and Swisher (2016) and Amernic and Craig (2010) argue, there are many factors and relations can affect firm's outcomes such as industry type, market performance and some other external factors. However, managers have a key role in choosing firm's strategy and decision-making, as their objective is to increase the wealth of their investors. Therefore, no one can ignore that, CEO characteristics are significant determinants of firm's outcomes. In addition, Amernic, Craig and Tourish (2010) confirmed that, CEOs have the power to affect the style of narrative reporting and other decisions related to the company. Although CEOs are not involved directly in financial reporting preparation, they determine the tone of the top, which affects the decisions of different managers (Gounopoulos and Pham, 2018).

The current research agrees with this point of view, as if CEOs have an important role in firm's economic outcomes, their Characteristics might explain the behaviour, which they follow during decision-making (Fan, Boateng, King and MacRae, 2019). Moreover, Hambrick (2007) confirm that, if anybody wants to understand why organizations do that or why they follow this attitude, you should consider the characteristics of their most powerful actors, which are CEOs. In addition, Ludin, Mohamed and Mohd-Saleh (2017) argue, the strategic management decision process is very important and is a key factor of firm performance where CEOs have an important role. Zahra and Pearce (1989) confirmed the previous arguments, as they mentioned, CEOs have the ability to control the firm's top decision-making group. That is why this study expects that, the CEOs characteristics might affect the tone which they use in narrative reporting. Recently, Asay, Libby and Rennekamp (2018) reported, CEO characteristics play an important role in communicating between the company and external uses through language choices of their narrative reporting.

It is worth mentioning, Bertrand and Schoar (2003) argue, standard agency models proved that, managers have a large space of freedom in their firms, which they can use to change company's important decisions and objectives. These arguments support the current research for two reasons. Firstly, if CEOs have this key role to change and select decisions or objectives, consequently their characteristics might have a significant effect of their style of disclosures and the tone they use. Secondly, the current study will examine the UK context which follow the principle based not rule based like the US (Wisniewski and Yekini, 2015). Therefore, the CEOs at the UK context have more freedom to choose different strategies in their narrative reporting than US context, which have restricted rules for managers' narrative reporting.

While Peni (2014) confirm that, the majority of studies investigated CEO characteristics just focus on one feature, namely gender, some recent studies began to examine other characteristics. Nguyen, Rahman and Zhao (2018) believe there are three important features of CEO called age, tenure and duality, they examined its impact on firm performance. Olsen et al., (2016) agreed with this argument and added two other characteristics, which are educational level and equity ownership.

It is important to mention that, while some studies examine the effect of CEO characteristics on different accounting choices, such as earning management (e.g., Ge, Matsumoto, & Zhang, 2011; Dejong and Ling, 2013; Gounopoulos and Pham, 2018) and accounting conservatism (e.g., Ho, Li, Tam, & Zhang, 2015; Francis, Hasan, Park, & Wu, 2015). Few studies investigated the effect of CEO features on firm's communication strategies (Plöckinger, Aschauer, Hiebl and Rohatschek, 2016). Therefore, the current research aims to examine the effect of different CEO characteristics on narrative disclosure tone. In the next section, the researcher will discuss and analyse the previous literature, which tried to link CEO characteristics, using different Features, into corporate performance and stock market.

3.4.4 CEO characteristic effects:

Recently, Nguyen et al., (2018) argue, there are three factors can be determined as the most CEO characteristics have been examined in management literature (Age, Tenure and Duality). However, they argue, there are few studies link these characteristics into accounting and financial studies. Therefore, they aimed to investigate the relationship between these three CEO characteristics and firm valuation. Using a large sample of Australian companies cover the period from 2001 to 2011, they found a significant association between CEO characteristics and firm valuation. They reported a negative relationship between two characteristics (age and tenure) and firm valuation. While they noticed, CEO duality in general is positive associated with firm valuation, but with the quantile regression, they found duality is strongly associated with firm performance just in high-growth firms. In contrast, Vintila, Onofrei and Gherghina (2015) investigated the same relationship between CEO characteristics and firm value but in Bucharest Stock Exchange in Romania. They used the same variables to measure CEO characteristics (age, tenure and duality) and added two other measures named, gender and country residence, as dummy variables. They found insignificant association between all CEO characteristics variables with firm value, except CEO tenure, which has significant positive association with Tobin's Q ratio as a measurement of firm value.

It is obvious from the previous two studies the discrepancy in their findings, as firm value is negatively associated with CEO tenure using Australian data and positively associated in Romania's listed companies. These mixed results motive the researcher to examine the CEO characteristics in the UK context to know which characteristics can affect the tone in narrative reporting. In addition, it is important to mention that, Nguyen et al., (2018) noticed the problem, which faced the majority of studies examined CEO characteristics about finding insignificant association between CEO characteristics variables and the dependent variable whatever. They suggest using quantile regression in the statistical analysis during the examination of CEO characteristics to avoid this problem. As quantile regression is more likely to avoid the problem of having outliers and non-normal distribution which researchers can easily find especially in CEO characteristics investigations, as they believe.

Similarly, Peni (2014) reported that, earlier literature focusses on gender as a main feature of CEOs when they link their characteristics into firm performance. However, others found CEOs experience is positively associated with company's performance. Therefore, the author in this research aimed to examine the relationship between more CEO characteristics and firm performance. Using 1,525 firm observation from S&P companies in US from 2006 to 2010, he found CEO experiences and quality are positively associated with firm performance. Peni also reported a positive relationship between the percentage of females as CEO and firm performance, as he believes, females have more expectation of their role and responsibilities. However, he found insignificant association between CEO age and performance. Finally, the author confirm the positive association between CEO duality and ROA as a measurement of firm performance, which means there finding supports Stewardship theory not agency theory.

Consistently, Pham, Oh and Pech (2015) investigated the relationship between CEO characteristics and abnormal returns as a measurement of stock performance, but using evidence from emerging market (Vietnam). However, the different thing in this study is they focus on duality as the only characteristic of CEOs, and use other CEOs features such as, age, gender and education as control variables. They provide an evidence, which supports Stewardship theory, as they found CEO duality is positively associated not only with firm performance, but also with abnormal returns and earnings growth. As when the CEO is always having the role of chairman of the board of directors, it leads to higher growth and abnormal returns.

On the same way, Olsen et al., (2016) believe, CEOs have an important role in decision-making and their role is to increase the wealth of their investors. They also confirm, if their decisions affect the stock market and change firm's strategies, their characteristics may drive them before making a decision. Motived by the pervious arguments, the authors in this study aimed to examine the relationship between CEO characteristics and stock performance, measured by abnormal returns. They defined four variables as the most important measurements in examining CEO characteristics known as, age, education, tenure and equity ownership. Using a large sample in the US context from 1997 to 2007, they found younger CEOs are more likely to have higher abnormal returns and risk taking compared to older executives. In addition, they reported CEOs with graduate degrees achieve higher stock performance than other managers, also there is a positive association between CEO equity ownership and abnormal returns. Although, the authors found insignificant association between CEO tenure and stock performance. Moreover, while Liu and Mauer (2011) argue that firm cash holding is determined by bondholder-shareholder conflicts. Feng and Rao (2018) found that cash holding is affected more by CEOs risk aversion attributes, as they found significant positive association between CEOs risk aversion and firm cash holding.

However, Olsen et al., (2016) noticed a lack in studies examined CEO characteristics outside the US. That means there is a gap in studies tried to link the characteristics of CEO into stock market using non-US data, therefore the current research aims to fill this gap by investigating the relationship between CEO characteristics and positive tone in narrative disclosures, using UK annual reports.

Similarly, McClelland, Barker III and Oh (2012) aimed to examine the effect of CEO age and tenure on the firm future performance. Using 220 firms listed in S&P 500 in US, they found younger CEO in related to lower future financial performance. They also noticed that, there is a negative association between CEO tenure and future firm performance especially in dynamic industries not in other stable industries. While Musteen, Barker III and Baeten (2006) argue, some CEO characteristics may affect firm's strategies and the ability of change these strategies. They aimed to investigate the relationship between CEO tenure, age and gender with the ability of strategy changing. Using a sample of the largest non-profit companies in US, they found negative association between (age and tenure) as a CEO features and the attitude toward change. Interestingly, they noticed female CEOs have more attitude toward change firm's strategy compared with males.

On the same way, after the financial crisis, Palvia, Vahamaa and Vahamaa (2014) aimed to study if the CEOs gender has a direct effect on risk taking and conservatism level in bank industry. The authors argue, men and women have a different behaviour in the same situations and they react differently, so they chose the financial crisis period to report about the effect of gender as a CEO main characteristic. They used a large sample of commercial banks in US (6,729 banks) from 2007 to 2010. They found females, as CEOs of banks, are more likely to have high level of conservatism and hold higher level of capital compared with men. This study is a strong evidence as females are more risk avoiders and have high level of conservatism as it used a large sample of banks with large number of CEOs, so its results can be generalized. It is also a key indicator for the current research as now I can expect, females use negative tone disclosures more than men do.

Consistently, and by focusing on the effect of female as a CEO, Campbell and Minguez-Vera (2010) examined the stock market reaction to female board appointments in Spanish companies. They conducted an event study to analyse the short term and long-term market reaction to female CEOs, the authors found positive market reaction, in a short term, to female appointments as a CEO. They report that, there results are an empirical evidence to confirm that, investors find female CEOs add value to their company and can improve firm performance. However, this study argues that, the positive market reaction which they found in their short term event study is not just related to appointing a female CEO. But also, there are different factors can affect and lead to this positive reaction such as, the narrative tone disclosures, complexity of the text, earnings, dividends and firm performance which the authors did not control in their investigation.

In a different way, Ramón-Llorens, García-Meca and Duréndez (2017) used a survey of 187 Spanish family firms to examine the effect of CEO characteristics on family firms in their decision and activity. They selected the level of education and gender as two main CEO characteristics in their research, measured as dummy variables. After analysing their questionnaires based on five-point Likert Scale, they found CEOs with higher education are more likely to success in family firms by increasing their sales. They also reported insignificant association between gender and family firm's performance.

Based on the Corporate Social Performance (CSP), some studies began to link the CEO characteristics with CSP. As they believe, manager's features should play an important role in increasing (decreasing) social performance. Manner (2010) aimed to examine the relationship between CEO (education level, experience and gender) as three main characteristics and Corporate Social Responsibility (CSR). Using a large sample of US companies, Manner found CEO with bachelor degree in humanities are more likely to have higher social performance based on KLD's ratios. In contrast, he found negative association between CSP and CEO with bachelor degree in economics. Manner also reported positive CSP when the CEOs have more experience in their career and being a female. Similarly, Kang (2017) used large sample in US context to examine the effect of CEO equity ownership and CSP. The author found CEO with higher equity ownership percentage are more likely to have high CSP in their firms. Moreover, Shahab, Ntim, Yugang, Ullah, Li and Ye (2019) found that CEOs with research background and financial expertise increase environmental and sustainable performance, however, that is not the case with young CEOs.

Consistently, Lewis, Walls and Dowell (2014) aimed to examine the relationship between CEO characteristics and the probability to disclose environmental information voluntarily. They selected CEO education and tenure as two main features, which can affect environmental disclosure. In addition, they chose firm's reaction to the Carbon Disclosure Project (CDP) as a proxy of voluntary environmental disclosure. Using a large sample of US companies from 2002 to 2008, new CEOs are more likely to voluntarily disclose environmental information and react to CDP compared with executives with long period. They also noticed the positive association between CEOs who have MBA degree and the respond to CDP as a measurement of voluntarily environmental disclosures. In addition, in the UK context, Liao, Luo and Tang (2015) found female existence at the board of directors leads to more greenhouse gas disclosure. In addition, they found more independent board and environmental committee existence have higher social and environmental disclosures based on the UK non-financial listed companies.

In contrast, Kalkhouran, Nedaei and Rasid (2017) examined different CEO characteristics in Malaysia. They aimed to know the relationship between CEO education levels and experience with accounting strategic management, which is an indicator of firm performance. They found CEO education is positively associated with accounting strategic management application and firm performance. Finally, they reported positive but insignificant relationship between CEO work experiences and firm performance. In addition, Ludin et al., (2017) use also Malaysian data but by conducting a questionnaire. They aimed to examine the effect of two CEO features namely (Locus of control and risk taking) on risk management. By interviewing 55 CEOs in Malaysia, they found a positive significant relationship between only risk taking as a CEO feature and risk management. While Prasad and Junni (2017) argue, firm innovativeness has an important role in the competitions between firms and CEOs as well are responsible of firm's outcomes. Therefore, it is important to examine the personal characteristics of CEOs such as organizational identification and risk-taking and their effect on firm innovativeness. CEO organizational identification as a characteristic means in this article the loyalty of CEOs for their firms; they measure it by different questions in their questionnaire by conducting seven-point Likert Scale. Using a sample of information technology firms in India, they noticed CEO organizational identification and risk taking positively affect firm innovation, especially in small companies.

Recently, Asay et al., (2018A) proved, two characteristics of CEOs affect investor's reaction named as (use of personal pronouns and manager's photo). Using experiments, they found investors believe and trust CEO's opinions more when they use personal pronouns in their narrative disclosure. In addition, investors react strongly and positively for the firm value when CEOs use more personal pronouns and when their photos are included, especially in the case of good news. Moreover, using experiments with experienced managers, Asay, Libby and Rennekamp (2018B) found CEOs highlight positive information by making it more readable, moreover they discuss poor performance in a positive way by focusing on future plans. However, managers use less readable, more passive sentences in the case of negative news with less personal pronouns usage. Moreover, Tama-Sweet (2014) investigated the tone of earnings announcements in the US context; she found a positive relationship between the changes of optimistic tone and CEO next equity sales. In addition, Luo and Zhou (2017) found more powerful management teams display more optimistic tone in earning announcements narratives.

Based on the pervious discussion about the prior literature review, which examined the relationship between different CEO characteristics and financial performance. It is obvious, there are five important features of CEOs might affect firm strategies, objectives, performance and decisions. These characteristics can have named as Age, Tenure, Duality, experience, and Gender. Also, one of the main contributions in this research to link a psychological feature, such as Narcissism, as a determinant of the tone. The current research will link those pervious characteristics into narrative disclosure tone in the UK context, as Olsen et al., (2016) noticed, there is a lack in studies which examine the effects of CEOs features outside the US. In the next section, the researcher will define the effects and outcomes of every characteristic according to prior literature as follow:

3.4.4.1 CEO Age:

Hambrick and Mason (1984) believe that, older CEOs are more likely to have conservatism and cautious strategies in their decision making process. In addition, Huang, Rose-Green and Lee (2012) found positive association between CEO age and financial reporting quality measured by firms meeting or beating analyst forecast.

Similarly, Vroom and Pahl (1971) and Martikainen, Miihkinen and Watson (2016) found positive relationship between CEO age and risk aversion. While Bertrand and Schoar (2003) found younger CEOs use more conservatism strategies, and they rely these results for the experience factor. In contrast, Serfling (2014) reported negative association between CEO age and stock volatility as a measurement of firm valuation. As older CEO have less investment in Research and Development and less risk investments in general. Recently, Nguyen et al., (2018) found the same results, as older CEOs decline firm's valuation in the US. In addition, they were consistent with Serfling (2014) as both noticed the mixed results of the effect of Age as a CEO characteristic.

On the other hand, recent study, Olsen et al., (2016) used abnormal returns and risk taking as a measurement of firm performance. They reported that, younger CEO have higher abnormal returns and are more likely to take some risk in their decisions. They also agreed with Chevalier and Ellison (1999) as they argue, in general younger managers are better than older. Consistently, Musteen et al., (2006) found negative association between CEO age and the attitude toward strategy changeable. As younger CEOs are more acceptable to change firm strategy according to the external environment more than older who do not prefer changing firm's strategy. However, McClelland et al., (2012) reported younger CEOs lead to lower future performance in US. In a different way, Vintila et al., (2015) and Peni (2014) found insignificant association between age as a CEO characteristic with firm value and firm performance.

3.4.4.2 CEO Tenure:

The tenure of CEO is the period which he/she has a position of being the CEO of the company (Miller and Shamsie, 2001). Henderson, Miller and Hambrick (2006) found that, longer tenure for any CEO has a great value just when the environment is stable; however, it is not an advantage in fast changing conditions. According to these results, they suggest, the tenure of CEOs should be different from time to another, as it depends on the industry type and external environment. On the same way, McClelland et al.,

(2012) confirm these findings, as they reported negative association between CEO tenure and future financial performance just in dynamic industries, not stable.

While, Musteen et al., (2006) examined the main characteristics of CEOs in the US, they noticed that, when the tenure of CEOs increases, they become less acceptable to change their strategies. Similarly, Miller and Shamsie (2001) reported, new CEOs are more likely to change and adopt with the external environment and to experiment compared with long tenure CEOs. In addition, consistent with the concept of new CEOs are better, Lewis et al., (2014) linked CEO tenure with their social responsibility disclosure and found new CEOs have more motivations to disclose environmental and social information voluntarily. Consistently, Nguyen et al., (2018) and Selfing (2014) found the same negative association between CEO tenure and firm valuation in the US context.

In contrast, Vintila et al., (2015) investigated the effect of CEO tenure on firm value using Tobin's Q ratio in Romania. They found longer CEO tenure is valuable, as it has positive association with firm value in Bucharest Stock Exchange. While Olsen et al., (2016) found insignificant association between CEO tenure and abnormal return as a measure of stock performance. Recently, Osma, Grande-Herrera and Guillamon-Saorin (2018) investigated the relationship between CEO tenure mixed with career concerns and narrative tone using a large sample of US listed companies. They found managers use very optimistic tone at their beginning of their tenure and their tone begins to be more conservative when their tenure increases. They believe that, CEOs at their early career and at the beginning of their tenure use more optimistic tone to send a signal to the third parties especially who are interested in CEOs assessments. Finally, the current study argues, linking CEO tenure with disclosure tone is very important, as Martikainen et al., (2016) proved that new directors bring their own reporting style. Therefore, that factor will be very important to be investigated as a determinant of tone.

3.4.4.3 CEO Duality:

The CEO duality is the structure where the CEO of the company have the role of Chairman of the Board of Directors (Pham et al., 2015). In other words, the CEO duality is existing when the responsibilities of CEO and the role of Chairman are covered by one person who is the CEO of the company. It is worth mentioning, there are two different perspectives and effects of CEO duality, agency theory versus stewardship theory.

Agency theory assumes that, CEO duality leads to poor CEO performance and lower firm performance, as agency theory argues, having separate CEO and chairman is important for effective monitoring, better protection for investors and it also increase the board independence (Fama and Jensen, 1983). They argue, having separate roles for CEO and Chairman is very important for accounting management and control systems. In contrast, stewardship theory confirms that, having one person who has the roles of CEO and Chairman leads to higher frim performance, best decision making process and strong leadership (Finkelstein and Hambrick, 1996). Goyal and Park (2002) found an evidence support agency theory, as they reported, CEO duality is significantly negative associated with firm performance and CEO understanding of his/her responsibilities. Similarly, Masulis, Wang and Xie (2007) found CEO duality leads to lower stock returns in the US context.

In contrast, other studies support the concept of stewardship theory. Pham et al., (2015) noticed that, CEO duality is related to higher earnings growth and abnormal returns. In addition, Peni (2014) presented positive association between duality and ROA as a measurement of firm performance. Similarly, Nguyen et al., (2018) found CEO duality leads to higher financial performance and firm value. While Vintila et al.,

(2015) reported insignificant association between duality and firm value. According to the pervious discussion, discrepancy exists in the findings of the effect of CEO duality. Some studies support agency theory as they found negative association between duality and performance. While others support stewardship theory when they found positive association between duality and performance. Therefore, the current study examines CEO duality to know its effect in the UK context.

3.4.4.4 CEO Financial Expertise and Educational Background:

Upper echelons theory assumes that, CEOs with MBA degrees develop different styles and have creative perspectives in their work compared with other CEOs (Bamber, Jiang and Wang, 2010). In addition, the majority of studies, which examined CEO characteristics, reported that, CEO educational background is a key factor, which affects their decisions and strategies. Chevalier and Ellison (1999) confirmed that, higher education is positively associated with firm performance. Similarly, Kalkhouran et al., (2017) found higher education leads to better accounting strategic managements and higher performance. In addition, Lin, Lin, Song and Li (2011) examined the effect of CEO education on investment attitude in China, they found CEO with college education are more likely to increase the investments of the company and especially in R&D.

While, Ramón-Llorens et al., (2017) examined the family business performance and its determinants. They found educational background is positively associated with firm performance as it increases their sales and profit. Whereas, Manner (2010) found CEOs who got their high degree in Humanities are more likely to increase their CSR disclosure. In addition, Olsen et al., (2016) found positive relationship between CEO education and firm performance, measured by abnormal return. In contrast, Gottesman and Morey (2010) presented insignificant association between CEO educational background and abnormal return in the US context as a measure of stock performance.

Recently, Lewis et al., (2014) argue that, postgraduate studies is very important for CEOs to save their positions such as Master of Business Administration (MBA). They found CEOs with MBA disclose more environmental information voluntarily compared with other managers. In the same way, Bhagat, Bolton and Subramanian (2010) noticed CEOs with MBA have great performance in a short term compared with non-MBA managers. While, Bertrand and Schoar (2003) found CEOs who have MBA is more aggressive in their strategies, as they are more likely to have high debt ratio and they decrease the firm dividends. In addition, Gounopoulos and Pham (2018) argue that, CEOs financial expertise might play a key role in financial reporting quality, not just the educational background. As they found CEOs with financial experience or working as CFO before are less likely to have earnings management strategies.

However, the financial expertise is one of the most important attributes to monitor firm performance and company's mechanisms (Zalata, Tauringana and Tingbani, 2018). Beekes, Pope, and Young (2004) argued that to be able to understand the financial reporting and financial decision consequences, managers should have financial background. Moreover, Custódio and Metzger (2014) found that CEOs with financial background have better ability in their communication with investors, because they understand what they need. While the majority of previous studies focused on the higher education and CEOs with Master of Business Administration (MBA) (e.g., Lin, Lin, Song and Li, 2011; Bamber, Jiang and Wang, 2010). Gounopoulos and Pham (2018) argue that CEOs financial expertise might play a key role in financial reporting quality, not just having a higher educational background degree. They found CEOs with financial background are less likely to be involved in earning management strategies compared with non-financial experts' CEOs.

Moreover, CEOs with accounting background are more likely to follow conservative strategies in their financial decisions and it has a great effect on tax avoidance (Bamber, John, and Yanyan, 2010; Dyreng, Hanlon, and Maydew, 2010). Similarly, Jiang, Zhu, and Huang (2013) investigated the Chinese stock market, they found CEOs with financial expertise reduce real earning management and they disclose higher quality earning information.

3.4.4.5 CEO Gender:

The gender of CEOs is widely used in literature related to CEO characteristics, also the majority of these studies found a significant effect of CEO gender. According to the literature, there are two main factors determine the different business behaviour between male and female CEO named as ethical stands and risk preferences (Palvia et al., 2015). Prior studies proved that female CEOs are more ethical and have balanced disclosures (Lund, 2008; García-Sánchez et al., 2019). Moreover, Faccio et al., (2016) firms with female CEOs have less volatility and leverage, which suggested that females have more risk avoidance preferences.

Carter et al., (2003) argue that, female participation in the board of directors is very important as it has a significant positive effect of firm performance and corporate governance. Similarly, García-Sánchez et al., (2019) argue greater female percentage at the board decreases impression management, because female directors disclose information with more balance. Also, Campbell and Minguez-Vera (2010) reported the same results is Spain. As they found positive market reaction in the short term event study to the announcement of female appointments.

Similarly, Dunn (2010) examined the effect of CEO gender on firm performance in Canada context. The author noticed females are more likely to predict and realise their responsibilities as a CEO compared to men, also Dunn found positive relationship between being a female CEO and firm performance. In addition, Peni (2014) found the same results in US, as female CEO is positively associated with Tobin's Q ratio as a measure of firm value and with ROA as a measure of firm performance. However, Ramón-Llorens et al., (2017) reported insignificant association between CEO gender and firm performance during their investigation of family firms. While Musteen et al.,

(2006) noticed, CEO female in US have more attitude toward changing and adopting with external effects than males, as they are more ethical responsible. From the social disclosure perspective, Manner (2010) noticed, females are more likely to have higher CSR disclosure compared with men.

Whereas, Schubert (2006) argues, females are more likely to avoid losses and risk decision compared with men. These findings were confirmed by Bonner (2008) who found males are more overconfidence than women in risk taking are. Moreover, Zalata et al., (2018A) argue, female CEOs are more risk avoiders. Consistently Davis et al., (2015) were agree with Schubert, as both noticed that, females are more pessimistic than men are and have more conservatism strategies. Similarly, Palvia et al., (2014) examined the US banks during the financial crisis from 2007 until 2010 to know the effect of CEO gender in this period. In addition, Palvia et al., (2014) found females are more conservatism and have high level of capital compared to men as a CEO. Finally, Habib and Hossain (2013) in their survey reported that, in general, men as CEOs have more motivations to break the rules and take risks than women.

According to the pervious discussion, the majority of literature found females have better performance, as they consider their roles and responsibilities more than men do. Moreover, women are more likely to follow conservatism strategies and less impression management as they disclose balanced information, but males have more probability to take risk compared with females (Ho, Li, Tam and Zhang, 2015). Therefore, it might be expected in the current study that, female CEOs might have less optimistic tone in their narrative reporting.

3.4.4.6 CEO narcissism:

In the last decade, there was a growing interest to study the effect of narcissistic CEO in management, leadership and organisational studies as one of the CEO features

(Wales, Patel and Lumpkin, 2013). Chatterjee and Hambrick (2007) and Olsen, Dworkis and Young (2014) reported that, the psychology literature defined narcissism as the person who fell in love with himself and with his own reflections as a kind of self-admiration and self-sufficiency. Also from the psychology perspective, the narcissistic person always aims to take the attention from other people and likes to be in the picture all times. Chatterjee and Hambrick (2007) also noticed that, narcissistic CEOs choose different type of strategies compared with other CEOs as they found narcissistic CEOs prefer bold actions which attract attention whether it results in big gains or big losses. Therefore, the performance of firms, which led by narcissistic, CEO is not better or worse than other firms, because they just focus on the bold action whether it leads to better performance or not. Motived by the previous discussion, this study argues that, it will be very interesting to link one psychology feature into accounting textual analysis literature. Therefore, this research aims to know how narcissistic CEOs use the tone in their narrative disclosures. In other words, are they use more optimistic or pessimistic language in the UK context?

On the other hand, Amernic and Craig (2010) argue, it is important to link narcissism into accounting and financial reporting settings, as they expect narcissistic CEOs have more positive sense in narrative reporting. Therefore, recently, few studies began to link CEO narcissism into accounting and financial reporting outcomes to know how narcissism affects the financial performance of the company (e.g., Olsen, Dworkis and Young, 2014; Ham, Seybert and Wang, 2018; Buchholz, Jaeschke, Lopatta and Maas, 2018). However, these studies suffered from the problems of measurements, as they mention, measuring personal characteristic is very challenging and difficult especially psychology features such as narcissism. Narcissism in social science, leadership, psychology and organisational management studies were commonly measured by the Narcissistic Personality Inventory (NPI-40) developed by Raskin and Terry (1988). The NPI contain 40 pairs of statements, which the CEO must choose one for every pair, such as, “I can read people like a book or people are sometimes hard to understand”.

Whereas, the previous researchers above reported that, the majority of CEOs in big companies are not interesting to fill out these surveys and because CEOs themselves who do this measurement so they may bias in their choices. As a result, they began to develop and use unobtrusive measures. Such as CEOs signature size (e.g., Ham, Lang, Seybert and Wang, 2017; Ham et al., 2018) and a composite measure based on CEO's photo in annual report, CEO's relative cash pay and CEO's relative non-cash pay (e.g., Chatterjee and Hambrick, 2007; Olsen et al., 2014; Marquez-Illescas, Zebedee and Zhou, 2019).

Ham et al., (2017) aimed to examine the effect of CFO narcissism on financial reporting quality. The researchers in this study suffered from data availability of CFO, so they chose different and new measurement of CFO narcissism, which is the notarized signature size, provided to the SEC. They support their measurement with some psychology literature, which proved the importance of signature as the power representation of the self. Using US data, they found narcissistic CFOs are more likely to use earning management strategies and have lower conservatism. The authors also noticed, firms with narcissistic CFO are more likely to have weak internal control system and more probability to have restatements. Finally, Ham et al., (2017) compare their measurement (signature size) with the most common measure of narcissism (NPI-40) and they found a positive relationship between the signature size quartiles and NPI-40 score.

Similarly, Ham et al., (2018) used the same measurement of narcissism (signature size) to investigate its effect on firm performance and outcomes in the US context. They found narcissism is associated with overinvestment especially in R&D, but they do not prefer to invest in the common usual capital investments. In addition, firms, which have narcissistic CEOs, are more likely to have lower profitability and cash flows. However, all these negative outcomes, narcissistic CEOs have higher compensation compared to other CEOs. It is important to mention that, according to (Ham et al., 2017 and Ham et al., 2018) it is obvious; CEO narcissism has many of negative firm's outcomes.

In contrast, Olsen et al., (2014) found positive financial performance from narcissistic CEOs. They used a composite measure based on CEO's photo in annual report, CEO's relative cash pay and CEO's relative non-cash pay as a measurement of narcissism. Using a large sample of US listed companies, the authors found firms led by narcissistic CEO's are more likely to have higher earnings per share and higher stock price compared to firms with non-narcissistic CEOs. It is worth mentioning that, there are mixed results in studies which examined the effect of CEO narcissism on financial performance, as some of them found positive association (Olsen et al., 2014) and others presented negative relationship (Ham et al., 2018). In addition, it is obvious; all researchers investigated narcissism as a feature of CEOs used US data. Therefore, these two factors motive the research in this study to examine the effects of CEO narcissism in the UK context.

In a different way, Craig and Amernic (2016) aimed to examine if the five master variables of DICTION software expose a special language marker of the tone of hubris. They defined hubris, as it is something worse than narcissism (over self-admired). They chose three main CEOs to examine their written reporting to shareholders as they follow Lord Owen's (2011) who said these three represent the sign of hubris. They found one of the master five master variables of DICTION, which is REALISM words, are the strongest sign of hubris in the letters of Browne, Goodwin, and Murdoch to shareholders. It is worth mentioning that, this study did not focus on positive and negative tone, but it focused on the tone of hubris.

Recently, Marquez-Illescas et al., (2019) examined the impact of CEO narcissism on narrative disclosures using the tone of earnings announcements as a proxy of narrative reporting. Using a large sample of the US listed companies from 1996 to 2014, they found narcissistic CEOs are more likely to use more optimistic tone in their narrative reporting compared to non-narcissistic CEOs, however, this relationship is decreased and become weaker in firms with older CEOs. Similarly, Buchholz et al., (2018) found a significant positive association between CEO narcissism and positive tone disclosures in the US context.

Although Buchholz et al., (2018) used 10-K filings as a proxy of narrative reporting, and different method of narcissism, developed by Rijsenbilt (2011) which based on 15 narcissistic indicators. They found and confirm the same results by Marquez-Illescas et al., (2019) who investigated earnings announcements and used the narcissism measurement developed by Olsen et al., (2014) which based on three factors named as, CEO’s photo in annual report, CEO’s relative cash pay and CEO’s relative non-cash pay. However, this study is criticising the using of Olsen et al., (2014) measure of CEO narcissism. As they consider 3 factors as a measurement of narcissism which are CEO photo, CEO cash pay and CEO non-cash pay. In my opinion, the CEO cash pay and non-cash pay is representing the effort of CEO, not his/her psychological characteristics. Alternatively, it might be better to use other measurement of narcissism which reflect the CEOs personalities, such as the using of first-person pronounce in financial reporting which had been used in psychology literature to measure narcissism (Li, 2011; Alli, Nicolaides and Craig, 2018).

3.4.5 Corporate Governance Mechanism:

In the last section, the researcher described the importance of considering CEOs personal characteristics while investigating narrative reporting, and how it affects firm’s outcomes. However, there are other important factors should be considered as determinants of NDT in the current study, such as corporate governance mechanisms. Wang & Hussainey (2013) and Taylor et al., (2010) reported that, strong and efficient corporate governance (CG) will improve the quality of financial reporting; also it will increase the transparency and decrease the scepticism of investors. In addition, Li (2010A) believes CG should be considered as an important determinant of textual disclosure, because these factors might affect the narrative reporting style. Therefore, the current research will consider and examine CG factors as determinants of tone. Moreover, the current study will investigate the moderation effects of CG mechanisms on the relationship between CEOs characteristics and NDT.

3.4.5.1 Board Independence and composition:

The independence of the board of directors in a very important indicator for a strong corporate governance and it was widely used to examine the efficiency of CG (Iatridis, 2016). Mather and Ramsay (2007) was the first study to link board independence with impression management in financial reporting using Australian companies. They found a strong independent board decreases impression management and do not allow managers to use over optimistic languages in their narrative reporting. Osma and Guillamo´n-Saorı´n (2011) also confirmed the same results as independent board decline the impression management and self-serving disclosure by CEOs. In the same way, Iatridis (2016) found independent boards in the UK context are more likely to use more pessimistic tone compared to other firms. In addition, Liao, Luo and Tang (2015) proved that, boards that are more independent have more tendency to increase the transparency in their disclosure. That might be because higher independent boards have more efficiency in the monitoring process (de Villiers et al., 2011).

The composition of the board is one of the most important determinants of disclosure, as non-executive managers have a key role in reflecting other opinions and perspectives and improving agency problems (Ressas and Hussainey, 2014). These authors also proved a positive association between the number of non-executive managers and good news disclosures by the financial institutions. Iatridis (2016) also reported about how clear should be the existence of non-executive managers in the board of directors (BOD) and it should be obvious criteria on how they be appointed. In addition, Elzahar and Hussainey (2012) shed the light of the efficient monitoring role of non-executive managers inside the (BOD), as they found, higher percentage of non-executives on the board leads to more efficient monitoring. That might be explained as they put some pressure on CEOs or chairmen to improve their financial reporting and increase their reporting quality with their challenging role (Liao et al., 2015).

3.4.5.2 Audit Committee Size and independence:

The audit committee has an important role in monitoring the financial reporting progress (Wang and Hussainey, 2013; Zalata et al., 2018B). Therefore, it is very important to consider the characteristics of audit committee while investigating financial reporting narratives. In addition, Mangena and Pike (2005) found a positive association between some AC characteristics, such as financial expertise, and the level of disclosure in interim reports in the UK context. The authors also mention about Smith Committee (2003) when they consider three non-executive directors as the minimum number of AC size, or 2 non-executive members in case of small firms. As Smith proved, larger AC have more efficient monitoring role. In addition, Felo, Krishnamurthy and Solieri (2003) and Abbott, Parker and Peters (2004) found a positive relationship between AC size and financial reporting quality. Moreover, Al-shaer, Salama and Toms (2015) confirmed these results and concluded that, AC quality according to Smith Committee is to have at least three independent members at the committee and to conduct three or more meetings every year. On the other hand, Iatridis (2016) examine the AC existence as a determinant of pessimistic languages in the UK context and found positive association between the two variables. However, this research argues that it is not an enough method to investigate the AC monitoring role by examining its existence, it might be better if the researchers investigate different characteristics of the AC such as size and independence.

The audit committee should include at least three non-executive independent directors, or just two in the case of small companies (FRC, 2016). Melloni et al., (2016) consider the CG of a firm to be strong when the AC is more independent. In addition, they proved that, more independent AC decrease the over optimistic tone in narrative reporting. It might be explained as this independent AC control the CEO and the board of directors to issue over optimistic tone and let them become more realistic. Recently, Lee and Park (2019) investigate the effect of AC expertise on narrative disclosure through MD&A sections in 10-K filings. They found that, AC financial expertise decreases the abnormal tone in narrative reporting especially when the AC is more independent. In addition, Zalata et al., (2018B) found more financial expertise in the AC decrease earning management. Therefore, these results highlight the role of Ac to monitor the quality of financial reporting.

3.5 Narrative Disclosure Tone consequences:

3.5.1 Tone general overview:

The expression “Narrative disclosure tone” received more attention in accounting and financial reporting literature in the last decade. As the researchers begin to move from what firms disclose to how firms present this information. In other words, researchers started to give more attention to how firms frame the information before sending it to investors and external users. As, it is important to know, not only what the information in such context are, but also how it is being presented to external users (Pennebaker, Mehl and Niederhoffer, 2003; Blankespoor, 2018). According to Henry (2008), tone refers to the language used by managers in their communications with users to convey to them material information about the firm, wither is it optimistic (positive tone) or pessimistic (negative tone). In addition, as Loughran and McDonald (2016) defined, it is the selected words by managers to describe the material events and firm position to present it to shareholders.

Moreover, recently, Huang et al., (2014) reported, narrative disclosure tone, positive or negative, have the most power to move the stock market, also investors react to these tones significantly. There are different types of channels which investors can get information about their firms as a communication channels between firms and external users. Prior studies investigated narrative disclosure tone of these channels as following, press releases (Henry, 2008; Davis, Piger and Sedor, 2012; Davis and Tama-Sweet, 2012; Kimbrough and Wang, 2014 and Bodut, Thewissenc and Torsin, 2018), media reportage (Tetlock, 2007 and Sprengers, Sandner, Tumasjan and Welpe, 2014), conference calls (Davis el al., 2015; Price, Doran, Peterson and Bliss, 2012), annual reports (Loughran and McDonald, 2011 and Yekini, Wisniewski and Millo, 2016). According to the literature, there are two main consequences of disclosure tone. First, the immediate stock market reaction (short-term) and narrative tone predictive power (long-term). The next section will discuss and analyse prior studies examined the consequences of narrative disclosure tone in both sides (short and long terms) to get more understanding about the role of tone in narrative reporting.

3.5.2 The immediate stock market reaction (short-term):

It should be noted that, the majority of prior studies, which examine the consequences of narratives' tone, focused on the short-term effects, however studies about tone predictive power are limited (Wisniewski and Yekini, 2015). Also Huang et al., (2014) confirmed, these studies just use a short window as an event study to examine the effect of the tone such as one or two days before and after the publication date of the announcement. Therefore, the next section will discuss the studies of tone short-term effects by distinguishing them based on the channel of disclosure.

3.5.2.1 Narrative disclosure tone in press releases:

Henry (2008) was the first to investigate the stock market reaction to narrative disclosure tone in press releases published by US companies. She argues that, managers are more likely to use optimistic tones than pessimistic to make investors thinking about positive side in the company's performance. In addition, she found a positive relationship between positive tone disclosures and abnormal return using a large sample of 562 US firms from 1998 to 2002. In addition to that, she noticed, longer press releases reduce the impact of unexpected earnings. However, in her limitation she mentioned the majority of studies in accounting literature examined the influence of strategies selected by managers but few studies examined the impact of the tone disclosures which also selected by managers (CEOs). Henry (2008) also contributes to the accounting literature, as it was her main objective in this research, by creating the first wordlist for positive (negative) words designed for financial reporting and business communications studies. This wordlist developed from her investigation in market reaction to tone disclosures using 1366 press releases published by US firms, it contains 105 positive words and 85 negative words.

Similarly, Sadique, In and Veeraraghavana (2008) examined the content of press releases and the financial news which discussed these releases to investigate the effect of stock return and stock volatility. Using 966 firm quarter press releases published by US companies, they conducted their content analysis using Henry (2008) wordlist. They found, positive tone is significantly associated with increased returns and decreased volatility. In contrast, negative tone leads to decreasing in returns and increasing in volatility.

With all respects to Henry (2008) and how she increased our understanding of tone importance and how it affects stock markets. However, this study argues press releases are not a large sample of narratives such as 10-K filings. May be that is the reason why her wordlist contains limited number of positive (negative) words, and that what loughran and McDonald (2011) conducted when they use 10-K filings to create a comprehensive positive (negative) wordlist contains 353 positive words and 2,337 negative words. Although press releases provide investors with important information in a timely manner, but they are not audited. Therefore, investors might not trust all the information in these documents. Motived by these reasons, the current study aims to examine the entire annual report as the largest sample of narratives in financial reporting channels (Wisniewski and Yekini, 2015; Yekini et al., 2016).

Henry continued her work on narrative tone by conducting another study to explore the market reaction to narratives tone in press releases. Henry and Leone (2016) compared the most popular four measurements of tone according to the literature (Henry, 2008; Diction; Harvard GI; LM, 2011). The authors found positive association between short term market reaction and narrative tone. However, the market reaction explanation of wordlists created from financial documents such as Henry (2008) and LM (2011) is better than other general dictionaries such as Diction and GI wordlists. In addition, they proved, word count approach has the same power as Naïve Bayesian machine learning approach. These results are consistent with Loughran and McDonald (2015) when they found specifics dictionaries that are created from financial reporting documents, such as Henry (2008) and LM (2011) wordlists, are more applicable to be used in business communication studies.

Consistently, Kimbrough and Wang (2014) investigated the investor's reaction to manager's self-serving attributes in quarter press releases. Similar to the majority of accounting disclosure tone studies, the authors found managers tend to attribute good news for internal causes and bad news for external factors. In addition, Firms, which provide defence attribute (blame external factors) more likely to do that when other firms in the same industry also release bad news and when other firm's earning shares, are higher. On the other hand, firms do enhancing attribute (internal cases) when firms in the same industry release bad news with lower earning share. The authors also reported that, investors seem to be sophisticated with these attributes. As they began to compare their firm with other firms in the same industry and if this bad news is including all firms they react normally. However, if they found their firm has lower performance, they react negatively. As a result, this study highlighted the importance of industry type during examining the narrative disclosure tone. As a result, the current research will consider the industry type as one determinant of narratives' tone and a control variable in data analysing to classify companies based on the industry.

On the other hand, some studies used different wordlists to examine press releases such as Diction wordlists or Harvard general dictionary, which is widely used in accounting textual analysis studies. Davis et al., (2012) used Diction wordlist to investigate how managers use tone disclosures in quarter press releases, using 23,017 US firm quarter, and the effect of firm performance. They found that, positive tone in quarter press releases are significantly positive associated with the firm performance in the subsequent quarter, also they conclude their results as managers use disclosure tone to send indicators to market participants and other third parties about the future performance as a kind of attraction. Moreover, they found positive market reaction to net optimism tone. The authors in this article argue the point of using Diction wordlist as it contains more words compared with Henry (2008) wordlist which contain just 104 positive and 85 negative words. However, the current research argues that, using a wordlist based on financial reports and business communication such as Henry (2008) word list is more likely to reflect the stock market efficiently and gives much better results compared with other wordlists like Diction which is a general dictionary and not created for financial reporting and business communication research (quality not quantity).

Whereas, Davis and Tama-Sweet (2012) argue that, investors may predict, managers use the same languages in different channels of disclosure (press release, 10-Q and 10-K filings) during their communication with stakeholders and other users, but the answer is of course not. Using LM (2011) wordlist, Henry (2008) wordlist and Diction wordlist, they compared the narrative disclosure tone and the use of language by managers in quarter press releases and Management Discussion and Analysis sections in quarter reporting (10-Q) or annual reports (10-K) published by US companies from 1998 to 2003. The authors also aimed to examine the effect of narrative tone on market reaction (using CAR). They found that, managers use less pessimistic language and more optimistic language in quarter press release compared with MD&A section in 10-Q or 10-K. They also noticed firms, which meet or beat analyst's prediction and companies with high growth are more likely to use a less pessimistic language in their press releases, also they reported lower return on assets when the level of pessimistic language is very high.

The authors in this research believe that, managers in the US context shift or delay negative information (pessimistic tones) from press releases, which published first, to MD&A sections in SEC filings. Even if they use pessimistic languages more in MD&A, managers try to report this negative information incrementally to diminish the negative market reaction of it. However, this study argues that, these results can be explained as the MD&A sections in 10-K filings are more restricted by the SEC and managers cannot use an abnormal positive tone at this part compared with press releases.

Finally, when they compared between LM (2011) wordlist, Henry (2008) index and Diction wordlist, they confirm the findings of Loughran and McDonald (2011). As they proved that Diction words is not suitable for financial reporting and business studies, because they found some misclassification in Diction wordlist and it cannot explain the market reaction in a correct way like LM (2011 and Henry (2008) wordlists. In my opinion, this result is consistent with Loughran and McDonald (2015) when they concluded that, specific dictionaries are more applicable to be used in financial reporting research than other general dictionaries such as Harvard or Diction.

In another way, Huang et al., (2014) aimed to examine the stock market reaction to narrative disclosure tone in US press releases. They contributed to the accounting literature by conducting three different event studies to investigate the immediate effect and the long-term effect of the tone. The first one was 3 days after the announcement; the second one was 60 days after the publication and the third one use 120 days as a long window event. They found that, abnormal positive tone is related to poor future earnings and cash flow for one to three subsequent years and the tones are more likely to be more positive when the firms beat the analyst's expectations. They also predict and found abnormal positive tone may include some bad news (negative tone) into the stock market as managers want to present it to investors in a good way.

The authors conducted additional analyses to examine if investors understand this game or not. They noticed investors react positively to the abnormal positive tone immediately after the press releases were published, but they react negatively in the long term (120 days). These results mean investors noticed that, the abnormal positive tone include some negative events but too late. They also believe, managers use tones in their narrative reporting to mislead investors and other external users. Huang et al., (2014) also noticed a big difference between the percentage of negative words in press releases and annual reports (10-K), as the negativeness in annual reports are higher. In my opinion, this result is expected especially managers want to increase the optimistic language in press release to attract investors, however they cannot do the same in 10-K filings which have straight guideline and restricted regulations from SEC as Lopatta et al., (2017) confirmed.

Similarly, Arslan-Ayaydin et al., (2016) examined the tone of quarter press releases in US (26,000 observations) by conducting content analysis using Henry (2008) and LM (2011) wordlists to know the effect of managers inflate tone on the abnormal return. They expect and hypothesis that, managers tend to maximize the positive tone and minimize negative tone in their narrative press releases. Consistent with their expectation, they found a positive relationship between positive tone disclosures and abnormal return in the short window event, but investors have less reaction in the long term when they used 62 days event study around the published date. In additional analyses, they noticed the tone of press releases are more likely to be positive when the managerial portfolio is closed to the stock price.

3.5.2.2 Narrative disclosure tone in conference calls and earning announcements:

Price et al., (2012) aimed to examine the stock market reaction to narrative disclosure tone using questions and answer section in the quarter conference calls published by US companies. In other words, the authors want to know if quarter conference calls have credible information, which provide investors with new material events that allow them to react. The researchers used Henry (2008) wordlist and Harvard dictionary to examine 2280 conference calls from 2003 to 2007. They argue that, they do not use Loughran and McDonald (2011) wordlist as it was created using 10-K annual reports, but Henry wordlist was created from press release content, so they believe it will be more applicable. However, this study argues that it might be better if the authors used LM (2011) with Henry (2008) as it is more comprehensive.

Price et al., (2012) found positive significant association between positive tone in question and answer section as a part of conference calls and the cumulative abnormal return and abnormal trade volume in a short window event study. They also noticed that, investors of firms which do not pay dividends are more likely to react more during the period of conference calls because of their uncertainty of cash flow.

The researcher argues that, it is one of the strong points in this research to examine the market reaction with CAR and abnormal trade volume for more accuracy, not just CAR as the majority of previous studies conducted. Finally, there is an interesting point in the results of this study which attracts accounting textual analysis researchers, Price et al., (2012) reported, the specific wordlist (Henry, 2008) which created for financial reporting and business communication has more powerful in explaining and affecting the cumulative abnormal return compared with other general wordlists such as (Harvard dictionary). While Davis et al., (2015) was the first study to conduct the three commonly used wordlists in accounting textual analysis in their research, as they examined the market reaction, using abnormal return, to the narrative tone in conference calls published by US firms. They found a positive association between positive (negative) tone disclosures and higher (lower) abnormal return in the dates around the event. These results were confirmed by Allee and Deangelis (2015) where they reported analysts ask more positive questions and investors react positively when the tone is more optimistic. They also concluded, Henry (2008) and LM (2011) wordlists are more likely to reflect the reaction of stock market than Diction wordlist. As they found significant association between these two wordlists and abnormal return, however there was insignificant association between Diction wordlist and stock market reaction.

This result is consistent with Loughran and McDonald (2015) when they concluded that, specific dictionaries are more applicable to be used in financial reporting research and there is some misclassification in Diction wordlist, which is not created for financial usage. So, these findings motive the researcher to use specific dictionaries in his investigation, named as (Henry, 2008 and Loughran and McDonald, 2011).

Consistently, Doran, Peterson and price (2012) reported the same results when they examined the tone of conference calls in the US and its effect on stock return using Henry (2008) and Harvard wordlists. They found a positive significant association between positive tone and abnormal returns using (0, 1) event study. However, the relationship is not significant on the long-term using (2, 10) event study. The authors also noticed, positive tone in the conference calls may diminish the effect of negative news surprises. Also, they found tone measured by Henry (2008) wordlist has stronger results in explaining market reaction than Harvard general dictionary. Whereas, Lou and Zhou (2017) found market react positively to earning announcements optimistic tone when management teams are more powerful.

In a different way, Guillmon-Saorin, Isidro and Marques (2017) examined earning announcements of a large sample of European non-financial companies to investigate market reaction to non-GAAP earning information. They found positive market reaction to non-GAAP disclosures with low impression management level. However, investors ignored non-GAAP information that have high level of impression management. That means investors in stock markets can recognise when managers are trying to bias their impression about firm performance. However, this study argues, it is different from investors to other investors. As a result, future studies might distinguish between the sophistication levels of investors to see how different investors receive the same information.

While Demers and Vega (2010) examined the effect of soft information and hard information into market response using a large sample of US companies (over 200,000) earnings announcements by conducting short window and long term post announcements drifts. Using Diction and Harvard positive (negative) wordlists, they found soft information have much more power to move the stock market compared with hard information, but it takes much more time up to 60 days as they found positive tone in soft information associated with higher returns and lower volatility. They concluded soft information has an explanatory power into stock market which investors should be considered.

In a different way, Borochin et al., (2018) aimed to examine the effect of conference calls' tone, measured by LM (2011) wordlist, on market uncertainty in the US context, using abnormal volatility. Using 52, 658 firm observations, they found a negative relationship between conference calls' tone and market uncertainty, also they reported that uncertainty is more related to analyst's tone than company's tone. Consistently with that, recent studies aimed to examine if tone can predict future price crash risk. Using 11,345 conference calls in the US context, they found a positive relationship between pessimistic tone and future price crash. Therefore, tone can predict the risk of price crash (Fu, Wu and Zhang, 2019; Druz, Petzev, Wanger & Zeckhauser, 2020).

Using the same channel, content of (conference calls), Chen, Matsumoto and Rajgopal (2011) also aimed to investigate the market reaction to firms, which stopped publishing quarter guidance to the public. They also want to examine the determinants of firms that stop publishing quarter earnings guidance to market analysts and the factors which lead them for this stopping, then to conduct this research they divided the stoppers in two groups, first: companies that announce their stop (announcers), second: firms did not announce their stop (quit stoppers). Using a sample of 96 announcers and 158 quite stoppers from the US context, they found firms that stop earning guidance (both groups) have poor prior performance, increases in uncertainty and decreased in informed investors and that consisted with disclosure theory which said managers will stop disclosure if they have bad news (poor performance).

The authors also noticed that, firms with decreased number of long-term investors began to stop quarter guidance to show them that, they will focus on long-term investment in the future. In my opinion, this point is consisted with Kay (2012) final report when he concluded that, more frequency would decrease long-term investment chain. When Chen et al., (2011) compared between the two groups of stoppers, they found announcer stoppers have lower prior performance and uncertainty with higher long term investors compared with quit stoppers. Also, announcers have more negative abnormal return around the announcement of the stopping compared with quit stoppers, but the difference in returns appear over 6 months after announcement when the stock return and volatility of announcers began to be much better compared with quite stoppers. Finally, they found no difference between stoppers firms and other companies in analyst's coverage.

In addition, Segal and Segal (2016) investigate the information content and timing of the non-earning news using a large sample (335,328 observation) of 8-K filings in the US. The key objective in this study is to know if managers release bad news when investor's attention is low. Conducting a content analysis by using LM (2011) wordlist, they found manager report bad news after trading hours when the investors' attention is low especially Friday evening. They also found that, if managers have two pieces of news, they prefer to release them separately to avoid any fluctuation in stock price, but they publish the positive one during trading hours and delay the negatives after trading hours.

Similarly, DeHaan, Shevlin and Thornock (2015) conducted the same idea, but using earning announcements. They distinguished their sample into three categories, first: working hours during weekdays, second: closing hours in weekdays and third: Friday publications. They noticed, market is lower attention after the trading hours and in busy news days (a lot of news in the same day) and higher attention in trading hours. In addition, firms tend to disclose good earning news during high attention of the stock market and delay negative news to be published after the trading hours. In contrast with Segal and Segal (2016), the authors reported Friday has the same performance like all weekdays. Whereas Rogers, Bushirk and Zechman (2011) Used Henry (2008) and LM (2011) wordlists to investigate the relationship between narratives' tone and shareholders' litigation. Using 628 earnings announcements in the US, they found that optimistic tone is associated with higher litigation risk and tone of sued firms is more optimistic during damage periods compared with other times. Moreover, Luo and Zhou examined the market reaction using one day before and after the earning announcement to the tone and management ability in the US context. Using 15,885 firm observations, they found market reacts positively to earning announcements optimistic tone when management teams are more powerful.

Recently, Baginski et al., (2018) investigated the management forecast reports in the US context to examine the relationship between narrative tone and investor's disagreements, measured by abnormal trade volume. Using LM (2011) wordlist, they found more positive tone leads to more disagreement between investors. However, in their additional analysis, they noticed small investors are more likely to be misled by the positive tone compared with sophisticated investors, as they buy some shares, which will have decreases in value at the stock market. Similarly, and considering the sophistication level of investors, Tan, Wang and Zhou (2014) conduct experiments with MBA students to examine the joint effect of tone moderated by readability on earnings per share. They found tone does not affect participants' earnings' judgment when the text is easy to read, however, positive tone affects the earnings judgement of less sophisticated investors once readability is low. Because of that, I believe it is important to control readability during examining tone for more accuracy as they suggested. Recently, Brochet, Miller, Naranjo and Yu (2019) aims to investigate market reaction to disclosure attributes considering managers' cultural background. Using a large sample of US conference calls, they found stock market reacts positively to optimistic tone without considering managers' cultural background. Moreover, they found managers with individualistic culture use more optimistic tone and self-referencing, with less apologise in their narratives.

3.5.2.3 Social media and online disclosure tone:

In the last few years, social media and online news such as company's websites or official accounts on social media applications like Twitter played a key role in the stock market and began to affect the investor's decisions (Blankespoor, 2018). That is why managers and CEOs began to be more interested about online disclosure. Recently, there is a significant increase of the studies aim to link the role of social media with the accounting and financial outcomes as it has a significant effect of capital market (Bartov, Faurel and Mohanram 2018; Imam and Bhardwaj, 2019). This section will discuss the prior articles examined how the managers disclose information online and what is the market reaction for that.

Tetlock (2007) and Tetlock et al., (2008) were the first to link the role of social media into disclosure tone settings and its effect on stock market. As he used Harvard pessimistic wordlist to investigate the role of media, using Wall Street Journal Column, in stock market reaction by using US data from 1984 to 1999, and found lower stock return when the tone of journalists in their daily stock report was very pessimistic. Recently, Imam and Bhardwaj (2019) aimed to examine the tone and readability of media during financial crisis for IPO companies. Using 76 news article related to 10 IPO stocks in the US, they found tone has a fundamental effect, as it is more optimistic in non-crisis time and more pessimistic during the global crisis. However, they did not find a significant association between the readability of news articles and financial crisis. In addition, they reported that optimistic tone in news articles increases the demand of stocks.

Using a different channel, Sprenger et al., (2014) examined the effect of social media on the stock market reaction by analysing 439,960 Tweets cover over 500 US companies. They found negative events on Twitter have more reaction from investors compared with positive events; also, the trade volume for good news is higher after the announcement compared with the period before.

Similarly, Yang and Liu (2017) used the same channel (Twitter) to link it with the stock market after selecting the 57 most popular UK companies on twitter. They noticed that, in general, firms reduce publishing negative earnings news on their account on Twitter and focus more on positive news. In addition, Firms, which Tweet a positive performance, present it in different patterns on their account. Moreover, they reported that positive earnings news posts are the most published tweets by this these firms. However, the researcher argues, these previous articles suffered from the methodology used as they used a general dictionary to examine the tone disclosure not a specific dictionary created for financial and business communication. In addition, these results are consistent with disclosure theory, which suggests, firms will disclose when they have good news and will withhold information when they got bad news.

Recently, Barakat, Ashby, Fenn and Bryce (2019) examine the role of risk announcements' tone at media news using an international sample of financial institutions. They found net negative tone and uncertainty tone have a strong reputational effects on equity and debt base market reaction. However, Shan (2019) found a positive association between the tone of firms' news in social media and the extent of voluntary disclosure in China. However, Liebmann, Orlov and Neumann (2016) aim to investigate stock and Credit Default Swap (CDS) traders' different perception of financial news' tone for S&P500. Using a dynamic wordlist to measure news' tone, they classified news' tone to results focusing news and debt focusing news. They found both kind of traders focus on different content of the same news. While stock traders focus on corporate results news and ignore debt topics, CDS traders focus equally on debt news and results news. Whereas, Choi (2020) found negative relationship between optimistic tone and insider trading suggesting that managers might use negative tone to get an opportunity to buy lower cost shares.

Using signalling theory and Efficient Market Hypotheses theory in a good way, Louhich (2008) examined both the information content of online disclosures and the speed of new news information into stock market using 117 online news announcements intraday data to know the exact effect just before and after the event. The author found investors react positively to good news and negatively to bad news, but prices are closed to the balance point quickly in good news. Louhich also noted that, trade volume increased slightly before good news and significantly after the announcements, but for bad news, trade volume increased dramatically before announcement and has more increase within 25 minutes after negative news announcements. Consistently, Fernandez et al., (2011) investigated the market reaction, using abnormal returns, to non-financial corporate news disclosures issued by European countries (145 listed companies) in the IT industry. They found investors react positively to information about firm’s capacity, position and growth, but their react to news product announcements and upgrades were slightly negative. They believe that, these results suggest investors to focus on non-financial news disclosure, which contain valuable information, which make the market react.

Similarly, Bartov et al., (2018) shed the light about the importance of the social media and its effects on the stock market. They aimed to investigate if the individual tweets can predict the firm earnings surprise and price reaction. They distinguish every individual tweet to positive or negative tweet using LM (2011) wordlist. The authors in this study found a positive relationship between immediate market reaction, measured by stock price, and the opinions on Twitter. In addition, they found the tone of the tweets could predict the earnings surprises. In addition, companies with low-negative media tone have higher future returns (Liu and Han, 2020).

3.5.2.4 Narrative disclosure tone in quarterly financial reporting:

Filzen (2015) highlighted the importance of disclose negative information through quarterly financial reporting. As he examines the effect of risk factors updating on market reaction and if it can predict the future negative news. The author mentioned that, the US SEC began to require listed firms to make updates about risk factors in annual and quarter reporting from December 2005 until present and the findings of this study support these requirements. Using quarter reports as a channel of disclosure, he found negative association between risk factors disclosures and abnormal return. However, he proved that, firms demonstrate risk factors disclosures and negative events have significant lower abnormal return compared with other companies without updates. The author also noticed, firms with risk factors updates have lower unexpected earnings and their ability to expect any negative shocks is higher. According to these results, the author argues the requirements from SEC about risk factors disclosures are successful as it provide investors with bad news in a good timing.

In contrast, Pozen, Nallareddy and Rajgopal (2017) conducted a research in the UK context to examine the reasons of changes in UK regulation by cancelling Interim Management Statements (quarter reports) by conducting interviews with accountants, managers and analysts. They found no effect of quarterly reporting on the long term investment (against Kay, 2012), they also reported an increasing in qualitative percentage of financial reporting in general after the quarter reports became mandatory in 2017 as managers found it an efficient way to communicate with investors. Finally, they noticed that just 10% of UK listed companies began to stop quarter reports after it was cancelled from the beginning of 2014, they relay the reasons of, maybe managers began to adopt with quarter reports and change the internal process inside the company for quarter reporting strategy. These results is consistent with Schleicher and Walker (2015) when they was motived by the cancellation of quarter reports and provide an empirical evidence proved that, quarter reports in the UK context was not redundant. As they found the information content of interim management statements in the third quarter especially have an incremental information which make the investors react.

However, the UK cancelled the quarter reporting by the listed companies aiming for more focus on the long-term. As Kay (2012) report when he said quarter reporting will affect the long-term investment in the UK and will let managers just think how can they improve the stock price and stock returns for the next quarter not for the next three or five years.

It is worth mentioning that, according to Schlcheicher and Walker (2010) most of studies conducted in the UK context confirmed managers disclose good news (Positiveness) more than bad news (Negativeness). However, Filzen (2015) highlights the importance of having bad news and negative tone disclosures, because it will decrease investor's suspicious and give them more understanding about the operations and future view of their company. Motivated by the previous discussion, the researcher argues it will be interesting to examine the Negativeness in such a context like UK where previous researchers just focused on Positiveness in their studies. In order to know does negativity matter in the UK.

Mensah and Werner (2007) conducted a cross-countries study by distinguish their sample in two groups. First groups are US and Canada (quarter reporters) and the second group is UK and Australia (semi-annual reporters). They aimed to examine the stock volatility for each group to know which type of interim reports have less volatility and more efficient. They found investors in countries with quarterly reports have more timeliness and more updates with higher level of volatility, but semi-annual reporter's countries have less price volatility. In other words, if the volatility can be an indicator of market efficiency, financial reporting in UK and Australia will be more value relevance compared to the US and Canada.

3.5.2.5 Narrative disclosure tone in annual reports:

Annual report is the largest sample of narratives in the financial reporting documents and it is a reliable proxy for narrative disclosure for investors (Yekini et al., 2016). There are some studies examined disclosure tone through annual reports. However, most of them investigated a specific section not the entire narrative sections in the annual reports. For instance, letters to shareholders (Abrahamson and Amir, 1996), Chairman's Statement (Schlcheicher and Walker, 2010) and MD&A section (Feldman et al., 2010). This section will analyse prior studies consider annual report as a channel of narrative disclosure to examine the tone.

Abrahamson and Amir (1996) was the first to introduce the idea of positive and negative tone in narrative reporting and link it into firm performance. As they aimed to examine the information content of president letter to shareholders and how investors use it to assess firm's earnings and stock returns in the US context. Using a self-constructed index for negative words (56 words), they found negative words in the narrative reporting is negatively associated with firm performance and stock returns. Finally, the conclude soft information or narrative reporting is very important as they provide an empirical evidence proved that, these kind of information is very useful to investors as they react strongly to this disclosure. They also believe that, there is a limitation of financial statements as it describes events, which have already happened, so it is important to present soft information with financial statements like MD&A as it will help investors in decision-making.

With all respect to Abrahamson and Amir (1996) and how they contribute to the accounting literature and increase our understanding of narrative disclosure tone. However, they did not consider positive words in their examination and just focused on negative tone as they believe it is more important to investors. May be it was difficult during that time to consider both, but the current study will follow Loughran and McDonald (2011) and Loughran (2018) by considering both Positiveness and Negativeness in data analysing.

Loughran and McDonald (2011) follow Henry (2008) and contribute to the accounting and financial reporting literature by creating a new positive (negative) wordlist during their investigation of the stock market response to narrative disclosure tone in the US by using 10-K filings. Loughran and McDonald (2011) noticed that, the majority of accounting textual analysis studies which examined the usage of language in narrative reporting or financial news used a general dictionary, not specific wordlists which created from financial contexts, such as (Diction and Harvard). This point motivated the authors to create a new wordlist, which can be used in business communication studies using a large sample of 10-K filings from 1994 to 2008 (over 50,000 firm-year observations). They compared their wordlist with Harvard general dictionary wordlist and the results were significantly suddenness, as they found almost (75%) of negative words in these general wordlists are not negative in the financial context. Words such as (tax, capital, board, vice) are included in Harvard negative words, but it is obvious in financial context that, these words are not negative tone.

As a result, after using their wordlist they found a significant association between the content of 10-K filings and trade volume, stock return and stock volatility. They found negative tone disclosures are associated with lower abnormal return and higher stock volatility. Loughran and McDonald (2011) acknowledge the contribution of Henry (2008) wordlist that was the first in accounting literature created from financial perspectives, however they believe, its weakness is the limited number of words as it contains 105 positive words and 85 negative words. It worth mentioning that, LM (2011) wordlist is more comprehensive as it includes 353 positive words and 2,337 negative words. That might be because it was created from 10-K filings, which is longer, and more comprehensive than press releases which Henry (2008) used. It is worth mentioning, LM (2011) wordlist cover the words exist in Abrahamson and Amir (1996) and some of words in Henry (2008) index.

Similarly, Feldman, Govindaraj, Livnat and Segal (2010) investigated the narrative tone disclosures used by managers in the US context using a large sample of MD&A sections in 10-Q and 10-K filings (153,988 observations). They found Positive relationship between changes of narratives' tone and short-term abnormal returns after controlling accruals and earnings surprises especially during the first day directly after the announcement. However, using (2, 90) event study, they found tone might affect drift returns when tone predict subsequent earnings surprises. They also confirm that, MD&A narrative section contains material information to investors, which let them react. They used two different wordlists in their investigation LM (2011) and Harvard general dictionary, in contrast with the majority of accounting textual analysis studies; they reported small statistical difference between them. Finally, Feldman et al., (2010) reported that, the majority of prior accounting literature researchers used quantitative data in their investigation, as it is more available and more objective than qualitative data. It is important to say that, the recommendation of the authors in this study motivates the researcher during his investigation in the UK context to focus on the entire narrative section in annual reports not just MD&A or one selected section, as they suggest further researchers to examine different contents.

Moreover, Campbell, Lee, Lu and Steele (2019) investigate whether disclosure tone volatility in the US context is driven by firm's operation risk or manager's disclosure transparency, and how investors react to it. They found, both firm's operation risk and managers' transparency drive tone volatility. As they found disclosure tone volatility is positively associated with firm's operation risk and negatively associated with manager's disclosure transparency. However, investors react only when disclosure tone volatility provide information about operation risks. Moreover, Del Gaudio, Megaravalli, Sampagnaro and Verdoliva (2020) found that higher negative tone in US banks' narrative reporting can predict bankruptcy risks. Whereas, D'Augusta and DeAngelis (2020) aim to investigate tone management and earning performance. They found a positive association when companies fail to beat investors' expectations and negative association when companies exceed expectations. This finding suggests that managers display tone management strategies differently according to investors' expectations.

In contrast, Kothari, Li and Short (2009) conducted their content analysis using Harvard positive and negative wordlist to examine the relationship between the narrative disclosure reports content, issued by managers (10-K and 10-Q) or analysts, and stock volatility and analysts' error dispersion using over 100,000 reports in the US context. They found that, positive tone disclosures by firms and analysts leads to lower stock volatility and forecast dispersion, also pessimistic tone disclosures in financial reports are significantly associated with higher volatility and analyst's dispersion. Kothari et al., (2009) also reported that, consistently with the majority of accounting literature in this issue, managers are more likely to delay or withhold bad news (negative tone) during their voluntary disclosures.

It should be noticeable, based on comparing the firm performance between different firms, the role of narrative disclosure in general and specifically tone disclosure can be appeared in some studies. Leung, Parker and Courtis (2015) compared the firm performance of 517 Hong Cong firms by classifying companies to minimal narrative disclosure (MND) firms and non-MND firms and examined their annual reports, they used narrative disclosure index to classify companies with MND or not (more or less 10%). They found MND firms have poor performance, high-risk level and lower return on assets compared with non-MND firms; also, both groups refer bad news to external factors and good news to internal causes. In my opinion, these results proved the importance of narrative disclosures in financial reporting.

Similarly, Cen and Cai (2014) found the same results during their investigation using Australian firm's annual reports, they focus on chairman statements section to compare between 50 top and 50 bottom Australian companies. In other words, they want to conclude if the chairman statements make a different between profitable and unprofitable companies in Australia. They found a significant difference between top and button firms in their Chairman Statements reporting, top firms have less word count and less pages of their chairman statements with more voluntary disclosure which can help their stakeholders for the best decision.

On the other hand, Hooghiemstra (2010) reported about the difference in narrative disclosure tone between US firms and Japanese companies using a sample of 50 US companies and 50 Japanese and examined 400 CEO letters to shareholders, which exist in annual reports. In both countries, the positive side was highlighted in the year of improving performance, but in the declining performance years, Japanese CEOs disclosure bad news more than US CEOs who were more likely to focus on positiveness. Consistent with the majority of literature in this way, they found both countries (US and Japan) blame the external environment for bad news in their CEOs letters.

Similarly, Patelli and Pedrini (2014) follow Hooghiemstra in examining the narrative tone in CEO letters, using Diction wordlist, but they focus just on US context using a sample of 664 CEO letters. They found that, positive tone is significantly associated with past and future performance. In my opinion, using just CEO letters or Chairman Statements as a part from annual reports has some drawbacks, which Wisniewski and Yekini (2015) noticed; they recommended it is better to examine the entire annual report as a largest sample for corporate narrative reporting which can represent company's narrative reporting style. However, Demartini and Trucco (2019) the majority of Intellectual Capital Disclosures (ICDs) in integrated reporting have optimistic tone. Moreover, this optimistic tone in ICDs is positively associated with higher non-financial performance, measure by ESG.

In different perspectives, Cho, Roberts and Patten (2010) examined the effect of optimism tone in 10-K filling in US on environmental social disclosure using Diction positive word list. They found significant negative association between the environmental firm performance and the optimistic language in their annual reports, but there is a positive association between certainty tone and environmental performance. This research sends to the accounting literature an indicator that managers may play games with investors by using very optimistic language in their narrative disclosures to withhold the effect of bad environmental performance. Consistently, Merkely (2014) reported the same results during examining narrative R&D disclosure by US companies. Using a large sample of US annual reports from

1996 to 2007, the author conducted content analysis by the Perl programming language to find R&D sentences and investigated the effect of earning performance. They found that, earning performance is negatively related with the quantity of R&D disclosures in 10-K filings, the author turned this results as Firms adjust the R&D narrative disclosures depends on the earning performance. While the previous two studies focus on environmental with R&D narrative disclosure, the current research will focus on all narratives in the entire annual reports excluding financial statements.

Recently, Lopatta, Gloger and Jaeschke (2017) used 10-K annual reports for 424 bankrupt cases in the US from 1994 to 2015 to know, if the language tone, which managers tend to use in their narrative annual reports, can predict the bankrupt. Using LM (2011) wordlist, they found a significant association between the tone and the risk of bankruptcy, as banks which have a risk of bankruptcy are more likely to use significant negative words in their annual reports compared to other companies and this association was hold up to three years before the actual bankruptcy event. They reported about the importance of narrative tone as they provide an evidence about how this tone can predict the future negative events. They also recommended further researchers to use annual reports (10-K filings) in their investigations, as it is more comprehensive and based on straight guidelines. They also believe, managers used tone in their narrative reporting to say the truth, not to play games with investors and mislead them as Huang et al., (2014) claimed. The study argues, it depends on the CEO characteristics and corporate governance mechanisms, which the current study aims to examine as a determinants of narrative disclosure tone, because not all managers mislead their investors, however there are a huge number of managers used tone disclosure in self-serving as Huang et al., (2014) and Clatworthy and Jones (2003) reported.

For more understanding of the role of narrative reporting, Tarca, Street and Aerts (2011) aimed to examine the factors which affect the preparation of MD&A section by conducting interviews with CEOs in four countries (US, Canada, Australia and UK).

Interviewees from US found it difficult now to provide information about forward-looking disclosure as a result of restricted requirements. They also suggested to have more freedom from SEC which will help them to provide more information. While interviewees from Canada, Australia and UK believe that, national regulations have a key role in narrative reporting through MD&A. They confirm that, regulations in their countries are more flexible than restricted regulations in US context. This gives them some freedom to disclose about favourable information, firm performance and position in an efficient way.

It is important to say that, the majority of interviewees believe, interim reports are more informatics to investors because of its timeliness, so they can expect the performance for the rest of the year. However, annual reports are the most important indicator to the key operations and material information. As, managers in these reports need to follow the regulation and in this case they cannot mislead investors by giving them wrong information about their firm, but it might be possible in other channels of disclosures. Based on the results Tarca et al., (2011), it will be interesting to investigate the disclosure tone in a context such as the UK which follow the principle base not rules base, as that will give managers more freedom to use different languages and tones in their narrative reporting.

Recently, Amel-Zadeh and Faasse (2016) aimed to compare the informativeness of narrative reporting between two different sections in the 10-K filings named as notes of financial statements and MD&A. Using LM (2011) wordlist on a large sample of 10-K filings (58,203 observations). They found Investors react to the information in MD&A sections stronger than the information disclosed in the notes of financial statements. In addition, both MD&A and notes can predict future returns and firm profitability. However, the researcher argues that there is no comparison between the notes of financial statements and MD&A sections, as notes are just an explanation of the financial statements and contain descriptive information. Therefore, the notes of financial statements do not contain impression management or tone management to be investigated. May be that is why the researcher found investors react strongly to MD&A than notes, because the information content of MD&A is more useful and managers can use their language to describe the past and future performance. Similarly, Aly, El-halaby and Hussainey (2018) found a positive association between disclosure tone and ROA as a measurement of firm performance in the Egyptian context.

Moreover, Mayew et al., (2015) aimed to examine the effect of tone, measured by LM (2011) wordlist, and management's opinion in 10-K MD&A on firm's going concern. Using 45, 265 firm observations, they found Management opinion and MD&A tone can predict firms' bankrupt as a proxy of going concern. Recently, Rich et al., (2016) investigated the effect of MD&A tone on financial reporting delay as a proxy of financial reporting quality in the US context. Using a one-year sample 2011, they found optimistic tone leads to timelier financial reporting. They argue that positive tone presents more confidence in financial reporting as there are no delays in the subsequent years reporting. However, the researchers believe that financial reporting delays are not the only indicators of financial reporting quality. As it is more important to examine the informativeness of financial reporting and how it affects stock markets as a proxy of financial reporting quality.

Recently, Fisher, Staden and Richards (2019) aim to investigate the tone level among different corporate narrative reporting documents. Using Diction wordlist, they found Chairman's statements and CSR reports are the most positive narrative reporting documents in New Zealand and Australia. Moreover, they found tone is an important determinant of readability, consistent with Tan et al., (2014). Finally, they found poor performance companies used less optimism in their narrative reporting. Similarly, Du and Yu (2020) found that CSR reports have value as companies with more optimistic reports have higher CSR future performance.

According to the previous discussion, it is obvious the majority of studies investigated the annual report (10-K filings) did not consider the entire annual report, but just select some sections to be examined. However, it will be better if the researcher examines the entire narrative sections in the annual report to get the largest sample of narratives as Loughran and McDonald (2011) and Wisniewski and Yekini (2015) suggested. Even if annual reports have some limitation, as it does not provide timeliness information, it is important to be investigated for several reasons. First, annual reports are considered the main source of information for investors, analysts and external users to evaluate company's performance and position (Schleicher and Walker, 2010; Elshandidy et al., 2013; Yekini et al., 2016).

Secondly, annual reports are official documents published by the companies based on the requirements of FCA and FRC in the UK; therefore, it is credible valid document to get information, which describe firm's position and strategies. Finally, corporate annual reports display the largest sample of narratives published by the firm to be investigated, so it can be generalised as the narratives of the company (Wisniewski and Yekini, 2015) According to the previous reasons, the current research aims to investigate annual reports narratives in the UK context. In addition, following this way, this study can report about the consistency of tone in the entire annual report and compare between different sections to know which sections are more informative to external users.

3.5.3 Narrative tone predictive power:

In the previous sections, the researcher discussed and reviews narratives' tone studies, which focused on tone short-term effects. However, this part will review narratives' tone studies, which considered long-term effect.

According to the literature, the majority of studies examine the consequences on tone focused on the short-term effects and ignore the long-term consequence

(Wisniewski and Yekini, 2015). Recently, there are few studies began to examine the predictive power of narrative reporting. Since Bryan (1997) argues, narratives contains useful information about the firm's future vision and operations. Financial reporting literature considered the predictive power based on two perspectives, the future abnormal returns and future return on assets as a measurement of future performance. The next section will discuss and analyse prior studies investigated narratives predictive power to get more understanding about the role of narrative reporting in general and disclosure tone especially.

3.5.3.1 The effect of future abnormal returns:

Price et al., (2012) examined the effect of narrative tone on post earnings announcements drift measured by future abnormal returns and unexpected earnings. Using Henry (2008) tone wordlist, the found tone is significantly associated with future returns, as they reported tone has an explanatory power to predict future abnormal returns using long window event study (2,60) trading days than unexpected earnings. On the other hand, Huang et al., (2014) proved that, positive tone is just associated with positive market reaction in the short-term, not long-term. As this abnormal positive tone has a negative market reaction for the subsequent two quarters (60 trading days window). In their opinion, that means investors understand that, this abnormal positive tone contains some bad news, which affect the future returns negatively. However, managers want to present it using a positive tone as a good news to mislead investors and external users.

Similarly, Arslan-Ayaydin et al., (2016) confirm Huang et al., (2014) findings when they found tone is positively associated with short term market reaction, but it was negative relationship with future abnormal returns based on long window event study (2-60 trading days). In contrast, Feldman et al., (2010) found a significant association between tone changes and future abnormal returns based on long window event study (90 trading days) using LM (2011) tone wordlist.

Hajek (2018) aimed to examine the cumulative impact of Bag-Of-Words (BOW) combination in expecting the future abnormal return using a large sample in the US context (1402 firms). The author combines between three popular (BOW) called Diction, LM (2011) and FOG index in one statistical model, he found a greater prediction of abnormal return by this combination, but it is not significant. In other words, every (BOW) is sufficient to be used alone without any combination and it can predict the abnormal return effectively. However, the researcher argues this study is based on one-year observation, so the results cannot be generalised.

It is worth mentioning that, it is interesting for the researcher after reading the table, which Hajek presented in his study to summarize prior researches in accounting textual analysis, as the majority of these studies used the US data and just few studies investigated narrative tone in non-US contexts. This note is consistent with Loughran and McDonald (2016) when they reported a few studies examined the investor's behaviour to soft information and the majority of them used US data. This previous note motivated the researcher to investigate narrative disclosure tone in the UK context and provide the accounting literature with a fresh evidence from other context rather than the US.

Recently, Bartov et al., (2018) examine the effect of tone by individuals on Twitter and its ability to predict future earnings and returns in the US context. Using LM (2011) and Harvard dictionary, they found the aggregate opinion tone from individuals on Twitter can predict the subsequent quarter earnings and abnormal returns. They believe, these results proved the important role of social media and how it might affect investor's decision in stock markets. In addition, they highlighted the important role of tone to predict future performance and returns.

3.5.3.2 The effect of future return on assets:

Bryan (1997) was the first to link narrative reporting with future performance, as he examined seven mandatory disclosures in MD&A sections in the US and the relationship with future accounting-based performance. The author divided MD&A to seven main required disclosures and make a content analysis based on this classification. He found MD&A disclosures, especially the discussion of future operations and planned capital expenditures, are significantly associated with short-term future performance (one quarter) not long term. However, this study argues that, this study had just one-year firm observation, so we cannot generalise these results and other evidences still needed. On the other hand, Davis and Tama-Sweet (2012) and Davis et al., (2012) used Henry (2008) and LM (2011) wordlists to examine the ability of tone to predict the subsequent quarter performance in the US using future ROA. They found more pessimistic tone is associated with lower future ROA in the next quarter.

It is worth mentioning that, Li (2010B) used Naïve Bayesian algorithm approach to examine the relationship between FLS disclosures tone and future performance in the US context. The author reported that, firms with more optimistic tone in their MD&A sections have better future performance in the subsequent quarter, measured by (*ROA t+1*) compared to other companies. In his additional analysis, Li proved that, general dictionaries such as LIWC, Harvard and Diction are not suitable for financial reporting and business communication studies. As Li (2010B) found the tone measured by these general dictionaries cannot predict and not associated with future performance. Similarly, Ji et al., (2018) found optimistic tone in Chinese independent managers' reports is associated with better future performance. In addition, the relationship between negative tone and bad performance is stronger when managers are more independent and have financial experiences.

Recently, Davis et al., (2015) used the three common wordlists in accounting textual analysis wordlist to examine narrative disclosure tone predictive power. They found optimistic tone according to Henry (2008) and LM (2011) wordlists are associated with future ROA for the next quarter. However, this relationship was not significant using Diction wordlist. In my opinion, these results confirm the findings by Loughran and McDonald (2015) when they suggest using dictionaries created from financial reporting documents, not general dictionaries such as Diction. In contrast, Patteli and Pedrini (2014) found a significant positive relationship between optimistic tone and future ROA using Diction wordlist. Which means, positive tone in the current year has the ability to predict the subsequent fiscal year performance.

For more understanding about the predictive power of narrative disclosure tone in investor's evaluation of firm performance, Boudt et al., (2018) examined the informativeness of the content of press releases published by the US companies and its effect of future abnormal returns and return on assets (ROA). Using Henry (2008) and LM (2011) wordlists, they found press releases contain material information, which allow investors to predict firm performance for the next quarter based on (ROA) measurement. Also, they found a significant association between the tone and the future abnormal returns as a long window event study around the date of press releases (60 trading days) when the firm is smaller, younger and has high growth ratio, as they positive tone in press releases is associated with higher abnormal return and higher ROA.

In a different way, Arena, Bozzolan and Michelon (2015) aimed to examine the relationship between the tone of disclosure and future environmental performance in the US oil and gas companies by linking the context of the current year with the environmental performance of the subsequent fiscal year. Using Diction software to measure the tone and KLD's rating to know the environmental and social performance, they found optimistic tone in narrative reporting predicts the future environmental performance in the US oil and gas companies. However, the authors in this study just use one industry type in the US, so the results of this research cannot be generalised for other industries. Therefore, the current study will consider other types of industries in the current research to compare the results.

3.6 Prior narrative disclosure tone studies in the UK context:

Smith and Taffler (2000) was the first study to examine narrative disclosure in the UK context as they aimed to examine if the chairman's statements as a channel of narrative reporting can predict financial risk of bankruptcy. Using a self-constructed index based on 168 words, they found the information content of chairman statements is associated with financial risk and might predict firm failure. This study was the first to support the importance of narrative reporting in the UK context and provide an evidence support the idea of unaudited narratives contain a useful information, which investors can use in their decisions.

In the same way, Clatworthy and Jones (2003) were the first study to link narrative disclosures and stock market in the UK context. They compared between the 50 top and 50 bottom companies in London Stock Exchange focusing on Chairman Statements and using manual content analysis. They reported that, firms with improving performance disclose good news more than bad news with more assertive compared with bottom firms; also they noticed declining performance companies did not discuss the reasons of poor performance. Both groups, top and bottom firms, blame the environment for bad news and take the credit themselves for good news, but in general, managers disclose good news more than bad news in UK annual reports. It worth mentioning that, these results were consisted with other researchers in the UK context such as (Ressas and Hussainey, 2014; Schleicher and Walker, 2010).

The same authors continued this trend and conducted another research in 2006 using UK data to examine the effect of firm performance on the textual features. Clatworthy and Jones (2006) used manual content analysis to investigate chairman statements in UK annual reports. They found managers in profitable companies are selective in their textual narrative disclosure to make it associated with the firm performance, also unprofitable companies used few quantitative and financial factors, more passive sentences and focus more in the future compared with the profitable companies. In my opinion, these previous studies suffered from the sample size as they cannot use a large sample because of using manual content analysis. However, this problem was in that time and it is solved now by using computerized content analysis with different software such as Diction which allows the researcher to investigate more observations for better generalisation.

On the other hand, Schleicher and Walker (2010) used manual content analysis to examine the tone in outlook section in UK annual reports, but their focusing was on forward-looking disclosures. Their Key objective is to know when and how managers use the tone in their forward-looking statements and if they bias the tone or not by distinguishing the tone in each sentence to positive or negative. They found that, companies with declining performance are more likely to bias the tone upwards. In addition, they reported that, loss companies, risky companies and companies that has analyst earnings expectations display more optimistic tone. They concluded, the majority of bias is based on changing the amount of negative statements, not positive statements.

However, Schlcheicher (2012) decided to re-examine the positive statements chosen by Schlcheicher and Walker (2010) and compare companies with improving or declining performance. As he believed Schlcheicher and Walker (2010) just examined the tone and ignore the attributes. He wanted to answer a question; if these positive statements are really good news or it may contain some bad news? He believes that, good news is a really good news if they are free of impression management and selectiveness. Schlcheicher found real good news firm's positive statements related more to sales and comparisons with last year's performance, while bad news firm's positive statements are more likely to focus on aims and objectives. He concluded that, in general it seems that, managers are not lying; they just play games by tone management with some selectiveness and vagueness in their narrative reporting. While Schleicher and Walker (2010) focused on the tone just in forward-looking sentences, the current study will examine positive (negative) tone in the entire narrative sections in annual report.

While Ressas and Hussainey (2014) examined the effect of financial crisis on narrative reporting of good and bad news disclosure in UK annual reports using a sample of financial institutions. They chose chairman statements to investigate as it is the most readable part in annual reports in the UK context. They found that, in general UK companies disclose good news more than bad news. However, they found the information content of chairman statements is associated with the crisis. As during and after the crisis they found financial institutions focused on bad news in their Chairman Statements more than good news. They concluded, managers during and after the crisis did not use Chairman Statements to share good news with investors, they might disclose their good news in this period in different channels such as conference calls of press releases.

Recently, Melloni, Stacchezzini and Lai (2016) chose different channel of narrative reporting and examine the content of Business Model as a part of annual report. Business model is as essential part in firm's annual report, which allow investors to explore how firms create value; they aimed to answer a question if managers use impression management in their business model narrative reporting. Using manual content analysis, they found a positive relationship between optimistic tone in business model and poor performance and week corporate governance. They also noticed that, Companies, which expect some decreases in their profit, are more likely to disclose with abnormal positive tone in their business model. Finally, they conclude that, managers use impression management strategies to mislead investors in business model disclosures.

Wisniewski and Yekini (2015) aimed to examine the predictive power of the characteristics of narratives in UK annual reports by using the five master categories of Diction software (Activity, Optimism, Certainty, Realism and Commonality). Using a sample of 209 UK listed companies, they found two variables (Activity and Realism) are significantly positively associated with future stock returns using (250 trading day) event study. This study investigated narratives characteristics in general, however, the current research will specifically examine the tone of narratives to know how optimistic (pessimistic) languages might predict future performance. Wisniewski and Yekini (2015) also noticed that, entire annual reports were rarely examined in prior studies discussed narrative disclosure tone, but it worth to be investigated because they believe it is the largest textual sample to give investors an indicator about their performance during the year. Therefore, this study will follow them to examine the entire annual report in the UK context.

In addition, it is noticeable from their results, there is no significant association between optimism (using Diction) and future returns in UK context. That might be explained through Loughran and McDonald (2015) research, which found the majority of words in Diction wordlist are misclassified and these words were not created for financial reporting and business communication. Driven by these reasons, the current study will use a specific wordlists created for financial reporting and business communication studies named as LM (2011).

Recently, motivated by rarely studies investigated narrative tone in the UK context, Yekini et al., (2016) examined the stock market reaction (using abnormal return) to narrative Positiveness in annual reports published by non-financial companies in UK. Using Henry (2008) positive (negative) wordlist, they found a significant positive association between positive tone and abnormal returns around the date of annual reports announcement. They also tried to compare their results with other studies, which used US data, they record a similar market reaction observed in US companies. However, in their additional analysis, they found insignificant association between Negativeness, using Henry (2008) negative words, and stock market reaction. They explained this result as Positiveness has more power to move stock markets, also investors will not believe this attitude from managers to disclose negative tones voluntarily.

However, these results might be because of the authors used just Henry's wordlist which contain few words of negative tone. It would be better if they used LM (2011) wordlist, which contains over 2,300 negative words created for financial reporting studies. In addition to this, this study argues, it is important to examine the Negativeness (bad news) in textual analysis as Filzen (2015) reported that, firms which provide bad news are more likely to predict any negative earning shocks in the future. Also Huang, Zang and Zheng (2014) proved, investors find reports are useful when it contains bad news and focus on non-financial topics to make them aware about everything inside the company. In addition, Iatridis (2016) found firms, which have more pessimistic tone have less earning management and manipulations, and strong corporate governance. So based on that previous discussion, it is important to examine negative tone in the UK context, as it is not just Positiveness has power in the stock market as Yekini et al., (2016) suggested. The researcher argues that negativeness as well has a key role in stock markets. Therefore, the current research aims to examine if negativity does matter in the UK context.

Whereas, Ataullah et al., (2018) examine the relationship between chairman statements' tone, measured by Henry (2008) and LM (2011) wordlists, and conservative policies in the UK. Using 2,236 firm observations, they found optimistic tone decreases leverage and dividends, also it increases cash holding. As a result, they reported that firms with more optimistic tone use more conservatism strategies. Considering quarterly reporting, Rahman (2019) investigated market reaction and annual earnings to the discretionary tone of UK Interim Management Statements (IMSs). He found market reaction and annual earnings are positive associated with narratives' tone just in the third quarter, but not the first.

Finally, table (2.1) in the appendixes shows a summary of the main studies that investigate narrative disclosure tone in previous literature.

3.7 Conclusion and Gaps Description:

According to the previous discussion, there are some points can be identified as gaps in the literature:

First: most of NDT studies focused on tone consequences; however, NDT determinants studies are limited (Marquez-Illescas et al., 2019; Davis et al., 2015). Although there are few studies investigated tone determinants, they just focus on firm financial characteristics as the key driving factors that affect tone (e.g., Li, 2010;; Iatridis, 2016) or examined a specific disclosures (e.g Schleicher and Walker, 2010). However, future research should move from firm-specific characteristics to top managers-specific characteristics while examining NDT determinants. Consequently, the current research will contribute to the accounting literature by investigating the determinants of NDT. In order to know whether the tone is CEO driven, board driven or firm driven. Moreover, this research argues that the relationship between CEO characteristics and NDT can be moderated by CG mechanisms. Therefore, the current study aims to investigate if CG mechanisms moderate CEOs tone in narrative reporting.

Second: the majority of studies, which discussed CEOs characteristics, linked it into firm performance and financial outcomes, not with accounting choices and financial reporting style such as firm's communication with the stock markets (Plöckinger et al., 2016; Olsen et al., 2016). As a result, the current research will contribute to the financial reporting literature by filling this gap and linking CEO personal and psychological characteristics into tone settings, which is one of the main characteristics of narratives and firm's communication strategies recently in the literature.

Third: the majority of studies, which examined the consequences of NDT, focused on short-term market reaction conducting short window event study. However, tone predictive power studies are limited (Wisniewski and Yekini, 2015). Consequently, this study will contribute to the accounting literature by investigating not only tone predictive power and its association with future performance, but also who has this power inside the company (executives VS governance).

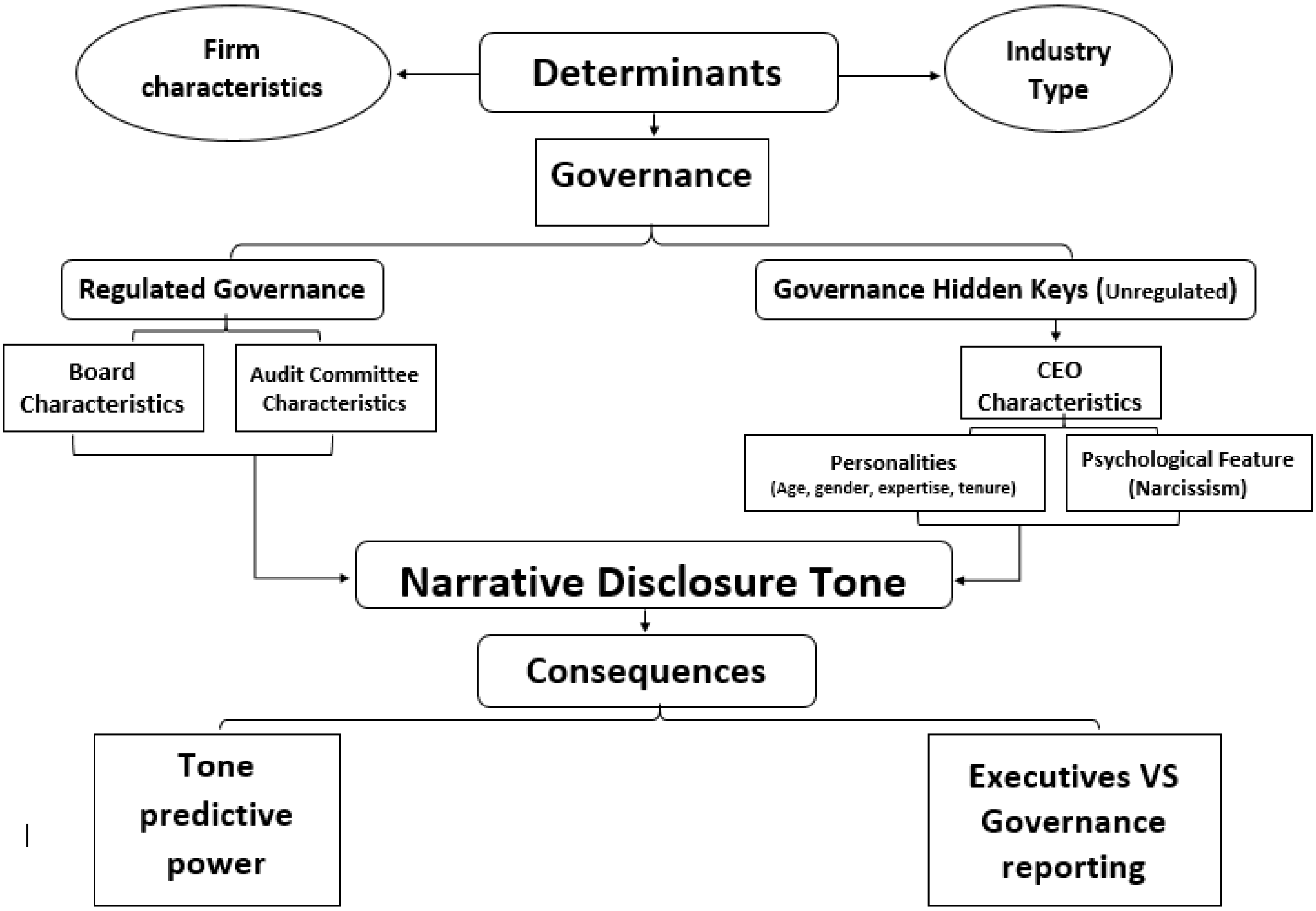
Fourth: prior NDT studies examined the association between tone and accounting performance such as ROA. However, it is also important to consider market performance and firm value during evaluating the company. Therefore, the current researcher will contribute by investigating the relationship between narratives' tone and future market performance.

Fifth: prior NDT studies investigated different channels such as press releases and conference calls as a proxy of narrative reporting. Even the few studies examined the annual reports just selected specific sections to be examined such as chairman's statement, MD&A and letters to shareholders. However, the studies, which investigated all narrative sections in the entire annual report, are limited (Loughran and McDonald, 2016). Motivated by this argument, this study will contribute to financial reporting literature by investigating the entire annual report that can represent company’s narrative reporting style. Moreover, the researcher will divide narratives into executive vs governance sections to report about the consistency of tone through the entire report.

Sixth: Great majority of narratives’ tone studies examined the US context; however, more evidences from outside the US are still needed (Plöckinger et al., 2016: Yekini et al., 2016; Loughran and McDonald, 2016; Hajik, 2018). Consequently, the current research will contribute by providing the accounting literature with a fresh evidence about NDT from the UK context. The UK context follows principle-based approach, which allows managers to have more freedom in their financial reporting choices and have more opportunities for tone management compared with the US context, which follows rule-based approach.

Seventh: In the UK context, NDT studies focused on Positiveness and ignored negativity, as they believe it has more power in the stock market and managers will not disclosure negative information voluntarily (Yekini et al., 2016). Moreover, Schlcheicher and Walker (2010) and Ressas and Hussainey (2014) concluded, UK companies disclose more positive information than negatives. However, the researcher argues it is important to consider also Negativeness in the UK context. As, Filzen (2015) proved; firms, which provide negative information, are more likely to predict any earning shocks in the future. In addition, Iatridis (2016) Found firms with high pessimistic tone have less earning manipulation and earning management. Moreover, Huang et al., (2014A) argue, investors find narrative disclosure more informative when it contains bad news (negative tone). Consequently, the current research will contribute by investigating, does negativity matter in the UK context.

Figure 3.1: The conceptual framework.



Consequently, according to the previous literature analysis and the gaps in tone literature, figure 3.1 presents the conceptual framework that summarises the objectives of the current study. As, this study aims to investigate the key factors that drive NDT in the UK context considering CEOs characteristics and CG mechanism. Moreover, it aims to examine tone predictive power and who has this power to help in predicting future performance (executives VS governance).

Chapter Four: Theoretical Framework and Hypotheses Development

4.1 Introduction:

In this chapter, the researcher will review and discuss the main theories in narrative disclosure and financial reporting in general and narratives' tone in particular. Then, the researcher will describe how previous narratives' tone studies used such relevant theories in their theoretical framework and link disclosure theories into tone settings. After that, it will critically discuss the prior theories that have been used in narratives' tone literature together in order to build the theoretical framework that matches with the objectives of the current study. Finally, in the second part of this chapter, the researcher will develop the research hypotheses based on relevant theories and previous studies in order to investigate the determinants and consequences of narrative tone.

4.2 Narrative disclosure and financial reporting theories:

4.2.1 Agency Theory:

Agency theory was developed by Jensen and Meckling (1976), it is used to explain the relationship between managers (agent) and shareholders (principals) and managers' motivations for voluntary disclosures. Agency theory is widely used in disclosure studies in general (e.g., Wang & Hussainey, 2013; Elzahar and Hussainey, 2012; Elshandidy et al., 2013) and in narrative disclosure tone studies in particular (e.g., Schleicher and Walker, 2010; Arena et al., 2015; Cen and Cai, 2014; Melloni et al., 2016). The agency relationship can be defined as "a contract which one or more (principals) engage another person (the agent) to perform some service on their behalf, which involves delegating some decision making authority to the agent" (Jensen and Meckling, 1976; Abrahamson and Choelsoon, 1994). Consequently, managers have the power by knowing all information about the firm, however shareholders have the power to hire managers and evaluate their performance (Abdelfattah, 2008).

Jensen and Meckling (1976) argue that, the conflict of interest problem of agency is because of the existence of voluntary contracts between agents and principles. Fama (1980) was trying to solve this problem by including the capital market hypotheses and managerial behaviour assumptions. Therefore, in order to decreases agency problem, Riahi-Belkaoui (2004) suggested an agreed-contract between managers and owners to avoid the self-serving approach from both of them.

Moreover, agency theory assumes that there is a conflict of interest between managers and shareholders as managers are driven by making decisions that maximise their interest, not necessarily match with shareholders' benefits (Schleicher and Walker, 2010). Therefore, agency theory suggests managers to make more disclosures in order to enable shareholders to evaluate managers' behaviour and reduce information asymmetry, which is one of the agency costs (Arena et al., 2015). As a result, agency theory is a fundamental theory to explain the relationship between corporate governance and disclosure practices in order to define some mechanisms that enhance corporate disclosures.

Impression management is one of agency problems, as managers are motivated by self-serving approach by using more optimistic languages in order to control investors' impressions (Melloni et al., 2016). As agency theory assumes, managers have a high incentive to assure that they act in the way that increases shareholders' interest (Abdelfattah, 2008). In other words, managers might present information in a positive manner which gives shareholders a good impression about firm image. As a result, agency theory assumes that managers aim to maximise their benefits and interest, so they might disclose positive information more than negatives which leads to improved current and future performance, decreasing agency costs and increasing owners' satisfaction (Schleicher and Walker, 2010; Melloni et al., 2016; Cen and Cai, 2014).

4.2.2 Signalling Theory:

Spence (1973) developed signalling theory, However Morris (1987) used this theory in education purposes, and the author argue that, the education level of job applicant is a signal of his /her efficiency. Signalling theory is widely used in disclosure research (e.g., Smith and Taffler, 2000; Linsley and Shrives, 2000; Elzahar and Hussainey, 2012; Filzen, 2015; Aly et al., 2018). Since, Strong and Walker (1987) argued that information asymmetry between insiders and other investors might lead to stock market break down. Signalling theory argues that, information asymmetry problem can be reduced by disclosing more information and sending signals to external users (Morris, 1987 cited in Abdelfattah, 2008). Signalling theory assumes that, firms might have good news, bad news or there is no news during this period, however, in all cases firms should disclose and published these news in order to keep external users updated with all news related to the company (Skinner, 1994). On one hand, firms with good news disclose this information to send a signal to the stock markets and external users about their performance and achievements. Also in order to distinguish themselves from firms with bad news or no news (Ross, 1977; Smith and Taffler, 2000).

On the other hand, firms with bad news are motivated to disclose this information to avoid any exaggeration from investors about these bad news, also to explain the reasons of bad performance and what are their strategies to avoid it again in the future (Skinner, 1994; Cen and Cai, 2014). Whereas, firms that do not have neither good nor bad news (e.g., same performance) have incentive to share this information with external users in order to distinguish themselves from firms with bad news. Moreover, to provide their investors with their plan to improve the performance in the future. However, Abdelfattah (2008) reported that, signalling theory's assumption that managers conduct self-serving attributes in order to maximise their benefits has been criticized. As Dye (1985) argued that, companies with good news might withhold this information, however, companies with bad news might publish this information and both of them act like that due to competition factors.

According to this discussion, signalling theory argues that firms aim to send a good signal about their performance to improve their image (Oliveira et al, 2006), so they might disclose more positive information than negative ones (Smith and Taffler, 2000; Aly et al., 2018). As a result, Cen and Cai (2014) believe signalling theory might be an extension of agency theory as both have the same assumption that managers aim to maximise their benefits by disclosing more positives and withhold or delay bad news. However, investors find it useful when managers disclose some negative news to make them aware about all operations inside the company and to present the entire picture (Filzen, 2015; Iatridis, 2016). Therefore, signalling theory argues that both positive and negative signal are important to stock markets as both help investors in their decisions. It is worth mentioning that, the researcher aims to investigate the effect of positive and negative tone as part of the signalling theory testing in order to examine if sending these signals affects firms' performance or not.

4.2.3 Impression Management Theory:

The concept of impression management can be identified as an attempt to affect the perception of people, for instance to affect investors' perception of firm performance and financial position (Chen et al., 2011). This theory was first introduced in psychology literature and human behaviour studies, however in the last decade; it has been used in accounting literature and business communications studies (Clatworthy and Jones, 2003).

Merkl-Davies and Brennan (2011) introduce four aspects of impression management in corporate narrative reporting named as, economic aspect, social psychology aspect, sociology aspect and critical aspect. According to the economic aspect, managers take advantage of information asymmetry by manipulating investors' perception of the company to maximise their own benefits. Consequently, they practice impression management by taking the credit of good actions themselves and blame external environment for bad performance.

The Social psychology aspect of impression management assumes that business communication process depends on management's relationship between managers and external users including investors (Merkl-Davies and Brennan, 2011). As corporate reporting gives individuals, managers, the opportunities to describe firm performance and strategies from a personal subjective perspective. Therefore, their personalities and psychological features might affect corporate reporting. The researcher argues that, this argument is consistence with upper echelons theory, which assumes that firm's outcomes and strategies can be predicted by their top managers' characteristics. As a result, the current research will consider managers' personal and psychological characterises as determinants of narratives' tone of corporate annual reporting.

According to sociology aspect of impression management, impression management strategies by firms affect all stakeholders, not just investors. Therefore, companies practice impression management to separate negative events from the company as a whole. For instance, if the company is involved in an environmental disaster or a product fraud, they practice impression management by just changing the structure of management or top managers, rather than conduct an actual change in their strategies (Merkl-Davies and Brennan, 2011).

The critical aspect in impression management discusses that, narrative reporting decisions are assumed not to be self-service driven however, it should reflect the rational process or decision-making. As a result, the use of language in corporate narrative reporting is an important factor in impression management strategies. As, some managers use rationality in narrative reporting to justify their actions and decisions and to send a message to investors about the benefits of this decision, even if it was self-serving action. In my opinion, this aspect is consistence with the current research objectives. As it reflects the importance of investigating narratives' tone and the use of languages in corporate reporting.

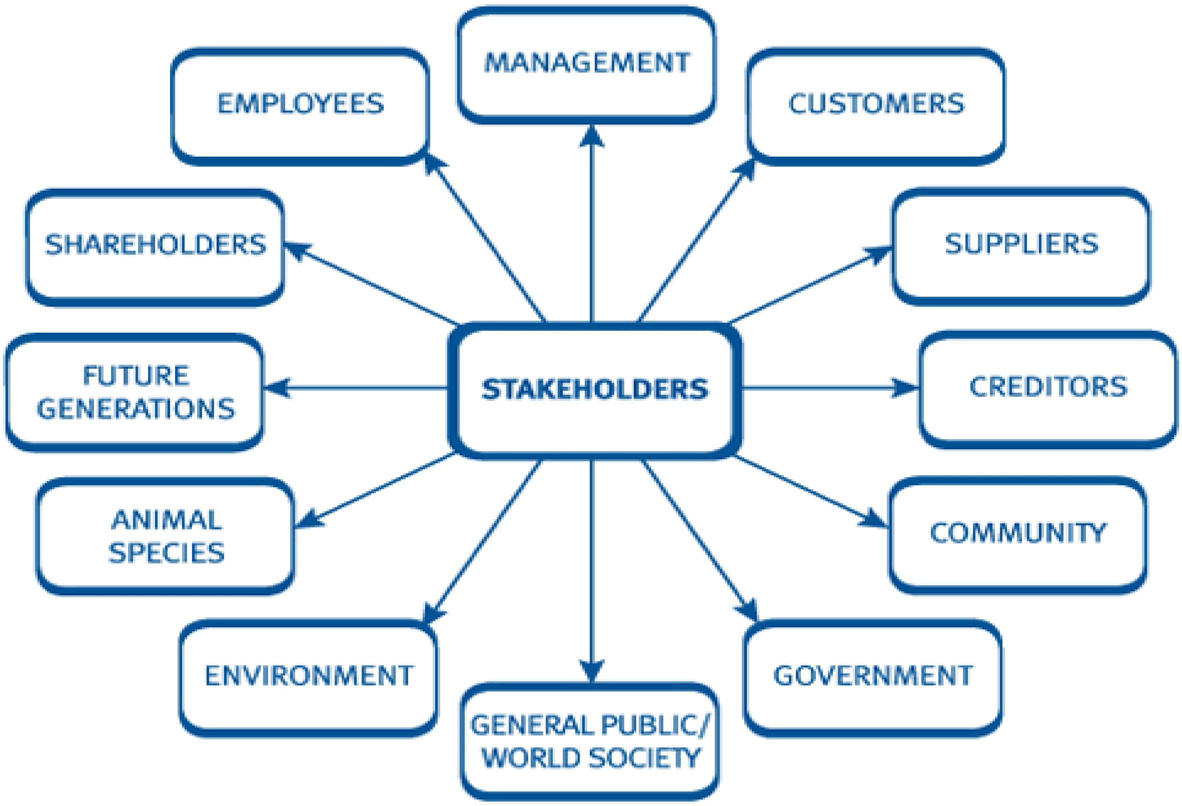
Under the same concept of agency theory, impression management theory argues that managers emphasise more on positive information to maximise their benefits and take the credit themselves in order to give shareholders good impression about their performance. Moreover, they disclose less negative information to avoid poor performance problems and stock price crash (Arena et al., 2015). Even when they disclose negative news they conduct defines strategies by blaming other external environment, not internal factors (Clatworthy and Jones, 2003; Chen et al., 2011; Arena et al., 2015; Yung and Liu, 2017). However, Kimbrough and Wang (2014) argue that stakeholders believe these defensive strategies more when other firms in the same industry had bad performance during the same time.

It worth mentioning that, impression management phenomenon is one of agency problems, as managers are motivated by self-serving approach by using more optimistic languages in order to control investors' impressions (Melloni et al., 2016). Similarly, Yung and Liu (2017) confirm that, it is difficult to have neutral or unbiased disclosed information. As a result, it is suggested to have a balanced corporate narrative reporting in order to reduce impression management strategies from over optimistic reports (Huang et al., 2014A; Arslan-Ayaydin et al., 2016; García-Sánchez et al., 2019).

4.2.4 Stakeholder Theory:

Stakeholder theory can be considered as a modified version of agency theory (Cen and Cai, 2014; Hill and Jones, 1992). The main differences between both theories is who is the principal, while agency theory has a narrow perspective of principals, stakeholder theory has a wider definition (Abdelfattah, 2008). As agency theory consider the relationship between shareholders, as the only principal, and managers. However, stakeholder theory considers the relationship between managers and all stakeholders including shareholders, customers, suppliers, investors, employees, financial institutions and government (Freeman, 2010). Figure 4.1 presents how Freeman (2010) define stakeholders, also Freeman (1999) define the stakeholder theory "any group of individuals who can affect or is affected by the achievement of the organization's objectives". As a result, managers (the agent) are required to provide more information to satisfy all stakeholders who have different interests and need different information (Melloni et al., 2016; Abdelfattah, 2008). As a result, Stakeholder theory is a fundamental theory to explain the relationship between corporate governance and disclosure practices in order to define some mechanisms that enhance corporate disclosures in order to satisfy all Stakeholders.

Figure 4.1: The Stakeholders theory



Source: (freeman, 1999, p 24)

Similar to agency theory, stakeholder theory assumes that managers (the agent) should work in order to maximise the principal's benefits. However, in this case the principals are not only shareholders, but also other stakeholders who affect or are affected by the company (Chen and Roberts, 2010; Freeman, 2010). According to stakeholder theory, there are two different categories of stakeholders. First, primary stakeholders who are a fundamental part of the firm such as shareholders, investors, suppliers and employees. Second, secondary stakeholders who are not a main part of the company but they are affected by company's decisions, for instance, unions and social media (Abdelfattah, 2008).

Stakeholder theory has been widely used in accounting and business communication studies (e.g., Deegan, 2000; Solomon, 2010; Chen and Roberts, 2010). To the best of my knowledge, no study from that aimed to examine narrative disclosure tone test stakeholder theory. However, it is a fundamental theory in such a context of corporate business communication research for two reasons. First, stakeholder theory explains corporate governance practices, which might be examined as determinants of narrative disclosure tone as suggested by Li (2010A). Second, it is important to use more than one theoretical background while investigating narrative disclosure tone. As it is important to examine not only how firms send signs to stock markets which is explained by signalling theory, but also the main factors that drive tone in narrative reporting which might be explained by stakeholder theory.

4.2.5 Prospect Theory:

Prospect theory assumes that, presenting firm performance information in a positive way will encourage investors to think about the results in increasing perspective (Tversky & Kahneman, 1981, 1986). In addition, this theory is known as "framing effects" theory, because it argues that the outcomes of any process will be affected based on how positive versus negative the information is framed and presented to users (Kahneman, 2002; Henry, 2008). This framing effect research focuses more on describing the information and the usage of positive versus negative language in communications rather than the content of this information. Moreover, prospect theory can be called by behaviour finance theory, as it explains the behaviour of investors and how external users react based on the way that they received the information (Allee and Deangelis, 2015). It predicts that external users in general and investors in particular will react positively when they received information presented in more positive way and negatively when they received information framed in a negative way (Henry, 2008).

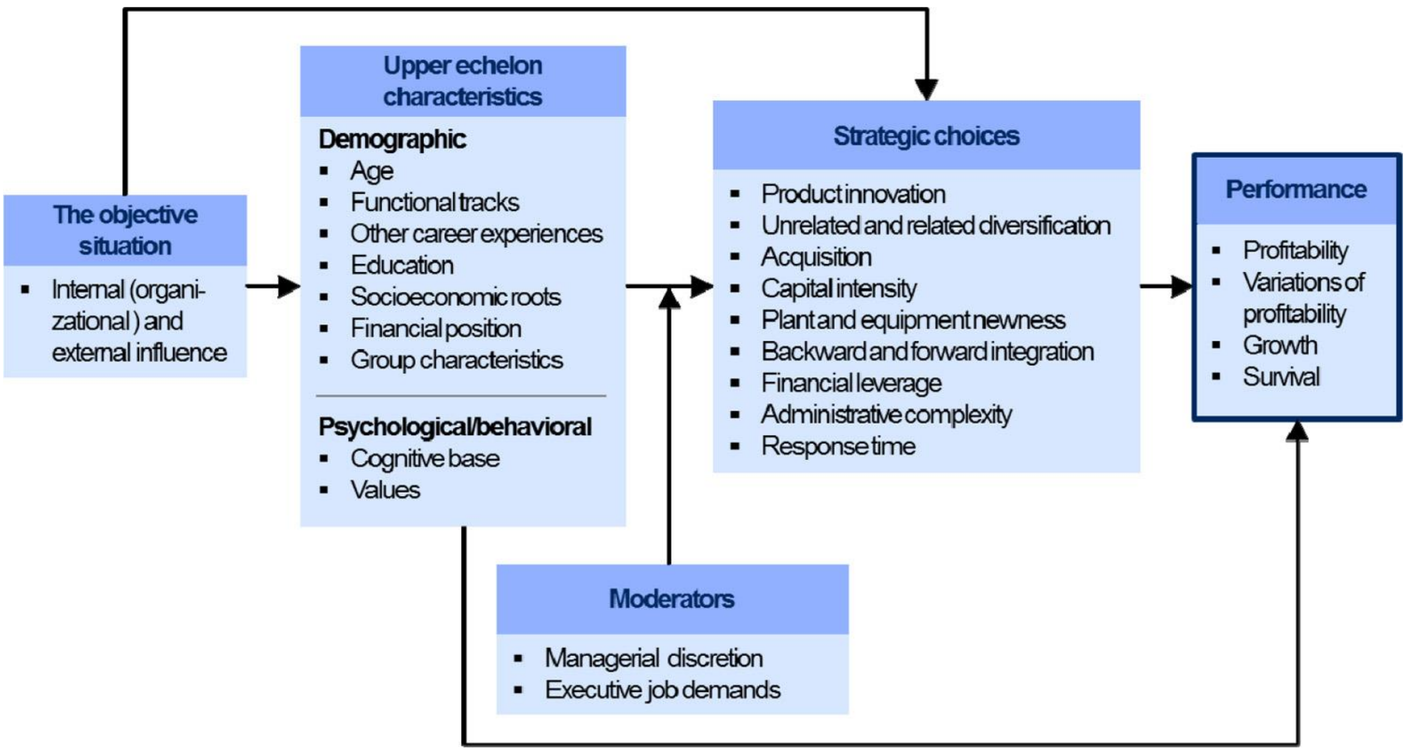
Prospect theory in widely used in psychological and experimental studies, however it was neglected in capital market research (Koonce and Mercer, 2005; Henry, 2008, Tan et al., 2014). Consequently, the researcher believes that, such a theory like prospect theory is fundamental to be texted in capital market and business communication researcher. As, it is important to know, not only what the information in such a context of narrative disclosure are, but also how information is framed and presented to external users (Pennebaker et al., 2003; Blankespoor, 2018).

While, Yekini et al., (2016) and Segal and Segal (2016) used Efficient Market Hypotheses theory when they examine the tone effect of stock market reaction and social media respectively. They argue that if markets are efficient and the positive or negative tone are just impression management as it is not informative, the investors will not react. However, if narrative tone is informative and convey credible material information to external users, investors will react strongly to reflect this information into stock markets. However, the researcher believes using Efficient Market Hypotheses theory is not applicable in tone settings. As this theory discussed the amount of available information to public and how stock prices reflect this available information, but in this context the main focus is on the tone of this information and how information is presented to external users, not the amount of available information. Alternatively, using prospect theory might be better to investigate narrative disclosure tone as it focusses on the framing effect and how the information is presented to the public. As a result, the current research will follow Henry (2008) and Tan et al., (2014) to examine the information framing effect on stock market and financial performance.

4.2.6 Upper Echelons Theory:

Hambrick and Mason (1984) had discussed the characteristics of top managers in different theories. As a result, they presented the upper echelons theory which states that, strategic choices, performance level and firm's outcomes are predicted by their top managers who are CEOs as shown in figure 2. Similarly, other researchers conclude that, there are many factors and relations can affect the firm performance such as industry type, market performance and other external factors. However, managers have a key role in choosing firm's strategy and decision making, as their objective is to increase the stakeholder's wealth (Olsen et al., 2014: Amernic and Craig, 2010; Ham et al., 2018). Moreover, upper echelons theory assumes that, CEOs education, experiences, activities and personality significantly affect their strategic choices and disclosures (Hambrick, 2007; Kalkhouran et al., 2017).

Figure 4.2: the upper echelons theory perspective



Source: (Hambrick and Mason 1984, p 14)

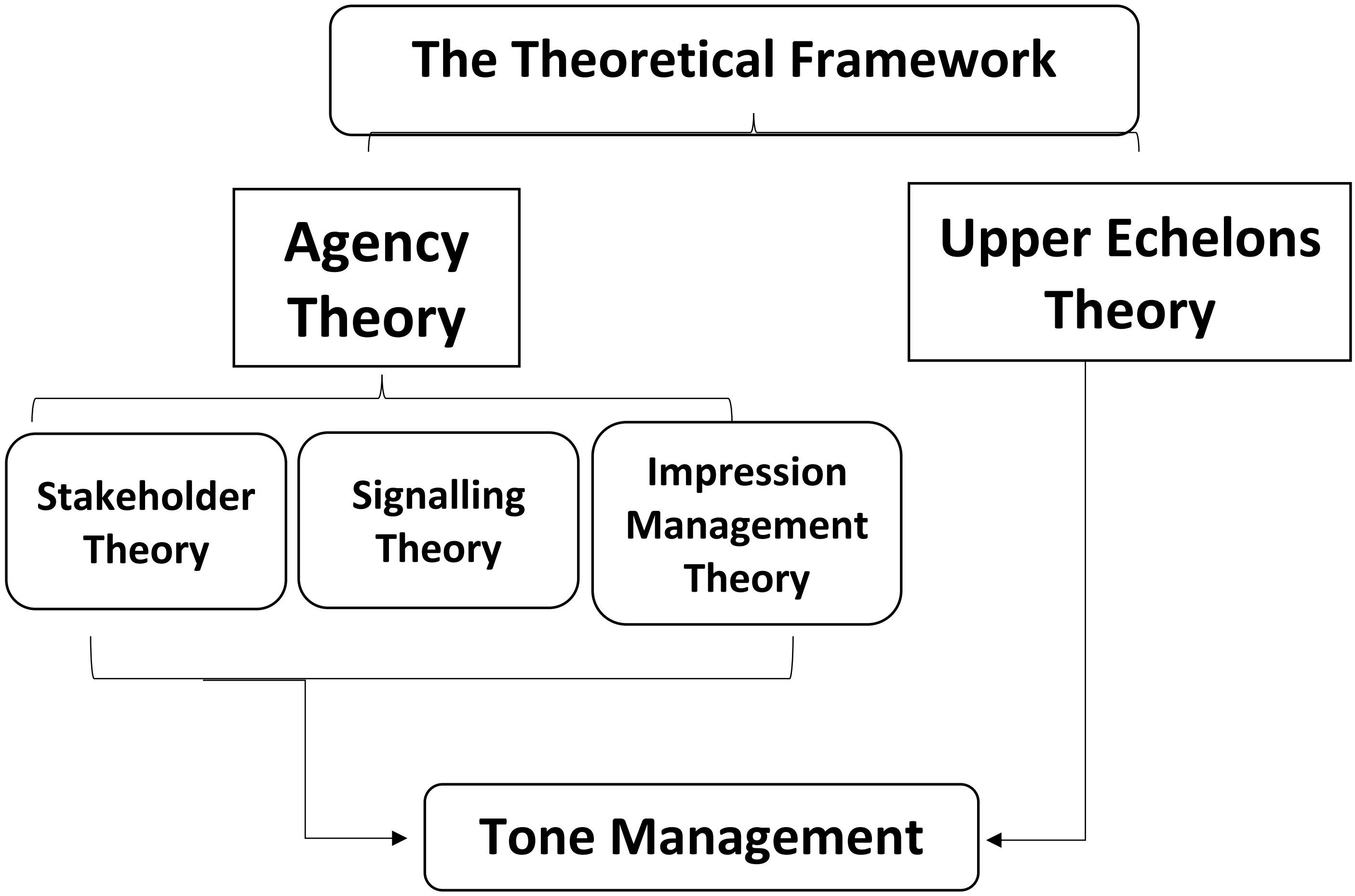
Figure 4.2 explains the concept of upper echelons theory by Hambrick and Mason (1984). They believe that, top manager's personal and psychological characteristics affect their strategic choices such as acquisition and product innovation which consequently affect firm performance that are leaded by them. Moreover, they conclude that, their personalities might affect their disclosure and the information they might share with external users and in their communication with other investors.

Personalities and top manager's characteristics are very challenging to be measured in accounting and business communication studies (Plöckinger et al., 2016). As a result, Hambrick and Mason (1984) suggested using other dimensions in order to measure personalities, such as using ages in order to reflect risk taking. Under the same assumption, the researcher believes, researchers can use the style of writing (language usage) in order to measure some psychological features such as narcissism or overconfidence. Since upper echelons theory was developed, it received more attention in psychological literature. However, recently there are some studies in accounting literature start linking accounting and financial performance with top manager's personalities (Marquez-Illescas et al., 2019; Ham et al., 2017; Buchholz et al., 2018). It is worth mentioning that, even there are some studies in accounting literature start testing upper echelons theory, they focussed in the relationship between managerial personalities and financial performance, not accounting strategies and choices. Accounting strategies and choices can be defined as firm's communication with stock markets via their corporate narrative reports (Plöckinger et al., 2016).

As a result, when researchers are investigating narrative disclosures they should not consider only corporate governance mechanism and firm financial characteristics as determinants, but also CEOs and managerial personal characteristics. Therefore, the researcher argues that, it is fundamental to consider such an important theory discusses the top manager's personal characteristics effects while investigating narratives' tone. It might explain the financial reporting style and language usage by managers in their communication with external users.

According to the pervious discussion, and how these theories are mixed together in tone management settings, figure 4.3 presents the theoretical framework of the current study:

Figure 4.3: The theoretical framework



As discussed above, figure 4.3 explains the theoretical framework of the current study. Upper echelons theory will be used to investigate CEOs characteristics as determinants of NDT to report whether CEO characteristics drive the tone in the UK annual reports narratives or not. This theory argues that, firms outcomes' are predicted by the characteristics of their top managers (Hambrick and Mason, 1984). Whereas, according to the literature, researchers consider Stakeholder theory, signalling theory and impression management theory as extension of agency theory. As all are having the same concept that managers aim to maximise their benefits by focusing on positive information rather than negatives. As a result, the research argues, this concept can be applicable in tone settings. As companies with more positive information are aiming to send this signals to external users by framing their narrative reporting in a positive way in order to reflect not only the current performance but also future plans.

4.3 Hypotheses Development:

In the first part of this chapter, the research discussed and reviewed the main theories in narrative disclosure in general and narrative tone in particular. Moreover, the researcher discussed the way that previous studies of narrative tone examined such theories. In this part, the researcher develops the hypotheses of the current studies based on the previous discussion of theoretical background and previous literature as discussed in detail in chapter two.

4.3.1 Determinants of Narrative Tone:

Previous narrative tone studies have mainly investigated even tone determinants of a specific type of disclosures, such as Li (2010B) when he investigated the tone determinants of forward-looking disclosures, or considered firms' accounting strategies, such as earning management and accounting conservatism and firm characteristics as determinants of tone (Iatridis, 2016; Ressas and Hussainey, 2014). This motivated the researcher to investigate the determinants of narrative tone through different perspectives based on CEOs' personal and psychological characteristics according to upper echelons theory, corporate governance mechanisms (board of director characteristics and audit committee characteristics) and firm characteristics in order to know if tone is firm driven, board driven or CEO driven. In the next section, the researcher develops the hypotheses related to determinants of narrative tone.

4.3.1.1 CEOs' Characteristics:

In the first part of this chapter, the researcher discusses relevant theories about narrative disclosure in general and narrative tone in particular. As reported, it is notable that researchers should move from firm-specific characteristics to include top-managers' characteristics (Plöckinger et al., 2016, Davis et al., 2015) as upper echelons theory assumes that strategic choices, performance level, firms' outcomes and strategies are predicted by their top managers who are CEOs. Although CEOs are not involved directly in preparing financial reports, they determine the tone of the top, which affects the decisions of different managers (Gounopoulos and Pham, 2018). Based on the previous discussion, the current study expects a relationship between CEO characteristics and positive tone.

H1: There is a significant association between CEO characteristics and positive tone in UK corporate annual report narratives.

In order to develop the sub-hypotheses of the relationship between CEOs' characteristics and positive tone in the UK context, the research classifies CEOs' characteristics to 'observed' and 'unobserved' features as follows:

4.3.1.1.1 Observed CEO Characteristics:

4.3.1.1.1.1 CEO Age:

Upper echelons theory assumes that older CEOs are more likely to have conservatism and cautious strategies in their decision making process (Hambrick and Mason, 1984). They refer this point of view to experience as older CEOs often have more experience that might improve the firm's wealth compared with younger CEOs who have just started their career, which allows them to make more balanced decisions and follow strategies that are more conservative.

In addition, there is some empirical evidence that supports this argument. For example, Huang, Rose-Green and Lee (2012) found positive association between CEO age and financial reporting quality is measured by firms' meetings or beating analyst forecast. Similarly, Martikainen, Miihkinen and Watson (2016) found a positive relationship between CEO age and risk aversion. Consistently, Olsen et al., (2016) found that younger CEOs have better abnormal returns and are more likely to take some risks in their decisions. Moreover, Serfling (2014) found a negative association between CEO age and stock return volatility, as older CEOs have less interest in risky investment. According to the previous discussion, older CEOs use more conservative strategies. Therefore, the current study expects that companies with older CEOs might have less positive tone in their narrative reporting.

H1a: Companies with older CEOs display less positive tone in UK corporate annual report narratives.

4.3.1.1.1.2 CEO Gender:

Recently, the gender of CEOs has been widely featured in literature reviews related to CEO characteristics, and the majority of these studies have found a significant association with different variables. Upper echelons theory assumes that the personalities of top managers will affect a firm’s strategies. Therefore, several studies support this idea by considering CEO gender, which is one of the most important CEO characteristics, and how it affects a firm’s outcome and reporting strategies. According to the business ethics literature, genders behave differently in their decision-making, values and interests; also, they have different responsibilities, understanding and risk preferences (Habib and Hossain, 2013; Zalata et al., 2018A). As men are more interested in increasing the economic benefits and have more probability of breaking the rules in order to achieve great success. However, female managers are more ethical in their attitude and decision-making (Butz and Lewis, 1996; Mason and Mudrack, 1996).

There is some empirical evidence regarding the investigation of CEO gender. Gul, Hutchinson, and Lai (2011) argue that having female directors enhances shareholder value and leads to better organisational outcomes. In addition, other empirical evidence found a greater female percentage at the board decreases impression management because female directors disclose information with more balance (García-Sánchez et al., 2019; Carter et al., 2003). In addition, Dunn (2010) found females are more likely to predict and realise their responsibilities as a CEO compared to men. Dunn also found a positive relationship between having a female CEO lead the company and firm performance, whereas there is other evidence to show that female CEOs are more commonly risk avoiders, follow conservative strategies and are less likely to be involved in earning management strategies (Zalata et al., 2018A; Davis et al., 2015; Palvia et al. 2015; Peni and Vahamaa 2010). Moreover, Shahab, Ntim, Ullah, Yugang and Ye (2020) found that female directors mitigate the positive relationship between CEO power and stock price crash risks.

Moreover, Ho et al., (2015) found female CEOs have a strong ethical nature, which leads to a better level of honesty in their financial reporting compared to male CEOs. Consistence with these findings, Faccio et al. (2016) found that companies with female CEOs have lower earnings volatility and leverage ratios compared with male CEOs. That means female CEOs follow conservatism strategies, more risk aversion and are less likely to be engaged with earning management.

According to the previous discussion, it is clear that female CEOs are more commonly risk avoiders and follow conservative strategies by disclosing more balanced information. Therefore, the current study expects that companies with female CEOs have less positive tone in their narrative reporting.

H1b: Companies with female CEOs display less positive tone in UK corporate annual report narratives.

Moreover, the current study proposes that the effect of a female CEO on positive tone is likely to be moderated by board gender diversity. In particular, the researcher argues that the effect of a female CEO on positive tone is likely to be greater when there is a higher female percentage on the board of directors. The researcher based this argument on business ethics research suggesting that a higher female percentage on a board plays an important role in appointing a female leader for the company as that might reduce the gender gap effect between the CEO and the board of directors (e.g., Wang and Kelen, 2013). In addition, it is important to consider the interdependene within a top management team because it affects the firm's outcomes (Plöckinger et al., 2016).

H1b1: the relationship between female CEOs and positive tone is moderated by the percentage of females on board.

4.3.1.1.1.3 CEO Financial Experiences:

Upper echelons theory assumes that CEOs with MBA degrees develop different styles and have more creative perspectives in their work compared with other CEOs (Bamber, Jiang and Wang, 2010). In addition, the majority of studies, which have examined CEO characteristics, reported that CEO educational background is a key factor that affects their decisions and strategies. In addition, there are more empirical studies that support this point of view, for example, as Kalkhouran et al., (2017) found; a higher education of top managers leads to better accounting strategic management and higher performance. Similarly, Ramón-Llorens et al., (2017) found educational background is positively associated with firm performance as it increases a company's sales and profit. Moreover, Lewis et al., (2014) found CEOs with an MBA voluntarily disclose more environmental information compared with other managers.

However, regardless of the aforementioned factors, financial expertise is one of the most important attributes for monitoring firm performance, sustainable and environmental reporting and a company's mechanisms (Zalata, Tauringana and Tingbani, 2018; Shahab et al., 2019). Beekes, Pope, and Young (2004) argued that to be able to understand the financial reporting and financial decision consequences, managers should have a financial background. Moreover, Custódio and Metzger (2014) found that CEOs with a financial background have a better ability in their communication with investors because they understand what they need. While the majority of previous studies have focussed on higher education and CEOs with a

Master of Business Administration (MBA) (e.g., Lin, Lin, Song and Li, 2011; Bamber, Jiang and Wang, 2010). Gounopoulos and Pham (2018) argue that CEOs' financial expertise might play a key role in financial reporting quality, besides just having a higher educational background degree. They found that CEOs with a financial background are less likely to be involved in earning management strategies compared with non-financial expert CEOs.

Moreover, CEOs with an accounting background are more likely to follow conservative strategies in their financial decisions and this has a great effect on tax avoidance (Bamber, John, and Yanyan, 2010; Dyreng, Hanlon, and Maydew, 2010). Similarly, Jiang, Zhu, and Huang (2013) investigated the Chinese stock market, and they found CEOs with financial expertise reduce real earning management and they disclose higher quality earning information. According to the previous discussion, CEOs with a financial background follow more conservative strategies, therefore, the current study expects that companies with CEOs who have financial expertise might have less positive tone in their narrative reporting.

H1c: Companies with CEOs who have financial expertise display less positive tone in UK corporate annual report narratives.

4.3.1.1.1.4 CEO Tenure:

CEO tenure is an important indicator that is widely used in top management literature to represent CEO characteristics (Miller and Shamsie, 2001, Musteen et al., 2006; Olsen et al., 2016). There are two different points of view about CEO tenure. On one hand, some evidence reveals that having the same CEO in one company for a long time as a long tenure is not efficient and has lots of disadvantages since staying in the same company for a long time will allow them to know more about a firm's strategies and weaknesses, which might motivate them to use some impression management strategies with external users in their decisions. Moreover, there will not be motivation to improve future performance or position (Miller and Shamsie, 2001; Nguyen et al., 2018; Selfing, 2014). Similarly, McClelland et al., (2012) confirm these findings as they reported a negative association between CEO tenure and future financial performance. Moreover, Musteen et al., (2006) argued that when the tenure of CEOs increases, they become less likely to change their strategies.

On the other hand, other evidence assumes that longer tenure has more advantages than disadvantages as it allows CEOs to know more about the company so there are more opportunities to improve firm performance and market position (Vintila et al., 2015; Olsen et al., 2016). They also found longer CEO tenure is positively associated with firm value and future stock returns. This can be explained by the longer that CEOs lead a company, the more they know about the improvements to make and what the company needs in order to have a better position in stock markets. Moreover, the CEO will be more familiar with the strategies and the objectives of the company based on shareholders' interests.

Based on the previous conflict in accounting literature, this study expects that CEO tenure might affect the style of narrative reporting regardless of whether it is positive or negative.

H1d: There is a significant association between CEO tenure and positive tone in UK corporate annual report narratives.

4.3.1.1.1.5 *CEO Duality*:

Agency theory assumes that CEO duality leads to poor CEO performance and lower firm performance as agency theory argues that having a separate CEO and chairman is important for effective monitoring, better protection for investors and it also increases the board independence (Fama and Jensen, 1983). They believe that having separate roles for a CEO and a chairman is very important for accounting management and control systems. Goyal and Park (2002) and Bhagat and Bolton (2008) found evidence to support agency theory and reported that CEO duality is significantly negatively associated with firm performance and CEO understanding of his/her responsibilities.

In contrast, stewardship theory confirms that having one person who fulfils the roles of CEO and chairman leads to higher firm performance, the best decision-making process and strong leadership (Finkelstein and Hambrick, 1996). In addition, Pham et al., (2015) noticed that CEO duality is related to higher earnings growth and abnormal returns. These studies argue that having all responsibilities in the hand of one person makes CEOs more effective in their decision-making and it reduces the conflict within the top team management.

Based on this conflict with two theories and the empirical evidence in the accounting literature, this study expects that CEO duality might affect the tone of narrative reporting whether it is positively or negatively.

H1e: There is a significant association between CEO duality and positive tone in UK corporate annual report narratives.

4.3.1.1.2 CEO Narcissism (Unobserved Characteristic):

In the last decade, there has been a growing interest to study the effect of CEO psychological features, such as CEO narcissism in management, leadership and organisational studies (Wales, Patel and Lumpkin, 2013). According to upper echelons theory, narcissistic CEOs choose different types of strategies compared with other CEOs as they found narcissistic CEOs prefer bold actions which attract attention whether it results in big gains or big losses (Chatterjee and Hambrick, 2007). There is conflicting evidence about the effect of CEO narcissism on a firm's outcomes as some studies found a positive association between narcissistic CEOs and firm outcomes. Olsen et al., (2014) found positive financial performance from narcissistic CEOs, however, Ham et al., (2018) reported negative association between CEO narcissism and firm performance and financial position. In addition, they reported that firms, which have narcissistic CEOs, are more likely to have lower profitability and cash flows.

Although there is conflict in empirical evidence which has investigated CEO narcissism, all of them agreed that narcissistic CEOs aims to take attention and focus on bold actions. Consequently, it is expected that narcissistic CEOs will have more optimistic tone in their narrative reporting and follow more impression management strategies regardless of whether their companies displayed a good performance or not during the previous year (Ham et al., 2018; Marquez-Illescas et al., 2019; Amernic and Craig, 2010).

Previous studies, such as Olsen et al., (2014), used different measures of CEO narcissism, a measure that is based on three factors. First, CEO photo in annual reports, second, CEO cash pay, and their CEO non-cash pay. Alternatively, Ham et al., (2017, 2018) used CEO signature as a proxy of narcissism. However, the researcher argues that these previous measurements reflect the CEO’s effort and workload rather than a psychological feature such as narcissism.

Consequently, the current study will examine CEO narcissism as a determinant of narrative tone. However, it will measure CEO narcissism by first-person pronoun usage, which reflects their personalities more than the previous measure mentioned above (Li, 2011; Alli et al., 2018). Therefore, the current research expects that narcissistic CEOs who use more first-person pronouns are more likely to have more positive tone in their narrative reporting.

H1f: Narcissistic CEOs are more likely to display positive tone in narrative reporting compared with non-narcissistic CEOs in the UK context.

Moreover, the current study argues that the effect of narcissistic CEOs on positive tone can be moderated by board independence. In other words, this study expects that the effect of narcissistic CEOs on positive tone is likely to be lower in the case of a higher independent board of directors as an independent board represents strong CG mechanisms and increases the governance-monitoring role of executives in order to improve financial reporting quality (Iatridis, 2016; Osma and Guillamo´n-Saorı´n, 2011).

H1f1: The positive effect of narcissistic CEOs on positive tone is lower in firms with a higher board independence percentage.

4.3.1.2 Corporate Governance Mechanisms:

In the last part of this chapter, the researcher develops the research hypotheses of CEO characteristics as determinants of narrative tone. However, other factors such as corporate governance are also important to investigate. Stakeholder theory takes into account all stakeholders including shareholders, customers, suppliers, investors, employees, financial institutions and government (Freeman, 2010). As a result, there should be some mechanisms to determine corporate governance in the company to satisfy and provide more information to all stakeholders. As strong and efficient corporate governance (CG) will improve the quality of financial reporting, it will also increase the transparency and decrease the scepticism of investors (Taylor et al., 2010). Moreover, Iatridis (2016) reported that efficient CG mechanisms will effect a firm's decisions and disclosure strategies. According to this discussion, this study expects a relationship between CG mechanisms and optimistic narrative tone in the UK context.

H2: There is a significant association between corporate governance mechanisms and positive tone in UK corporate annual report narratives.

4.3.1.2.1 Audit Committee Independence:

The audit committee has an important role in monitoring the financial reporting progress (Wang and Hussainey, 2013; Zalata et al., 2018B). Therefore, it is very important to consider the characteristics of the audit committee while investigating financial reporting narratives in general and narrative characteristics, in particular those such as tone and readability. There is empirical evidence that has proven the important role of an audit committee in financial reporting, such as Mangena and Pike (2005) who found a positive association between some AC characteristics, such as financial expertise and committee size, and the level of disclosure in interim reports as a larger AC will be more efficient in monitoring financial reporting process.

In the UK context, the Corporate Governance Code, The Code (2016) states that companies should have three non-executive directors as the minimum number of AC size, since they argue that larger ACs have a more efficient monitoring role in financial reporting. Moreover, Smith Committee Report (2003) states that the audit committee should revise a company's control system and risk management as part of its role in monitoring financial reporting process. In addition, Melloni et al., (2016) found a negative relationship between AC independence and impression management in business model reports.

According to the previous discussion, it is obvious that AC has an important role in the financial report monitoring process. Therefore, the current research expects that efficient AC with more independence will control positive tone in narratives and will make financial reporting more balanced.

H2a: There is a significant negative association between audit committee independence and positive tone in UK corporate annual report narratives.

4.3.1.2.2 Board Independence:

The independence of the board of directors is a very important indicator for a strong corporate governance and it is widely used to examine the efficiency of CG mechanisms (Iatridis, 2016). An independent board increases the efficiency of the board in decision making, monitoring roles and the best choices of the company (Melloni et al., 2016). According to agency theory, independent directors are more likely to provide executive directors with independent advice without any conflict of interest (Fama and Jensen, 1983). In addition, empirical studies proved that strong CG mechanisms, such as an independent board of directors, improve the reporting quality and the language of narratives (Singh and Davidson, 2003). Consequently, this study expects that an independent board of directors will control the positive tone of narratives and will make financial reporting more balanced.

H2b: There is a negative significant association between board independence and positive tone in UK corporate annual report narratives.

4.3.1.2.3 Board Gender Diversity:

In the last decade board diversity has been identified as one of the most effective mechanisms to improve corporate governance by providing more experiences, different opinions and alternative perspectives (Zhou, Kara and Molyneux, 2019; Ntim, 2015). In particular, gender diversity on board received more attention from regulators and started to be considered as one of the most important indicators of CG efficiency. The financial reporting council in their Guidance on Board Effectiveness argues that gender diversity increases the variety of options in decision-making and gives more experience variety (FRC, 2011). Moreover, the UK Corporate Governance Code highlights the importance of gender diversity as part of efficient CG structure (The code, 2016).

In addition, empirical studies have provided evidence about the usefulness of having a high female percentage on the board of directors. Brammer, Millington, and Pavelin

(2009) found that females on board affect firm effectiveness and improve a company's reputation. Moreover, Carter et al., (2003) found that female participation in the board of directors is very important as it has a significant positive effect on firm performance and corporate governance. Similarly, Sarhan, Ntim and Al‐Najjar (2018) confirm the same results and added that a strong CG structure increases the positive relationship between board gender diversity and firm performance. Moreover, the greater female percentage on the board decreases impression management because female directors disclose information with more balance (García-Sánchez et al., 2019; Campbell and Minguez-Vera, 2010). Moreover, Zalata et al., (2018A) reported that female directors are more often risk avoiders and follow conservative strategies. Similarly, Gul et al., (2011) proved that female directors are more ethical in their decisions and financial reporting style as they found companies with a high female percentage on board disclose more information related to pricing and have a higher transparency disclosure.

From the theoretical perspective, stakeholder theory assumes that there are more stakeholders rather than investors. Therefore, it is important to have a variety on board and consider factors such as gender diversity in order to represent as many stakeholders as possible (Poletti-Hughes and Briano-Turrent, 2019). Consistently, Adams and Ferreira (2005) found that females on board put in more effort and add different insights into efficiency and monitoring. In addition, they found females on board have higher attendance rates and are more likely to have monitoring positions on board. Therefore, board gender diversity plays an important role in CG efficiency as it improves stakeholders' wealth.

According to this discussion, it is clear that board gender diversity affects a firm's outcomes and has been one of the most important CG mechanisms over the last few years. In addition, empirical evidence has found that a higher female percentage on the board of directors decreases the impression management strategies, and moreover, female directors disclose more balanced information and conduct fewer risk-taking strategies. Therefore, the current study expects that firms with a high female percentage on board will have less positive tone in their narrative disclosure.

H2c: There is a negative significant association between female percentage on the board of directors and positive tone in UK corporate annual report narratives.

4.3.1.2.4 Board Size:

It is worth mentioning that board size is one of the most important indicators of CG efficiency in disclosure literature. However, there is a debate in disclosure literature regarding the efficient size of board. On one hand, there is the argument that an efficient board size exists when there is a limited number of members and a large board size has a negative effect on a board's efficiency (Melloni et al., 2016), since in this case, there is no motive for participation, and also, there is likely to be more communication problems in a large board size.

On the other hand, agency theory assumes that larger board size will represent a variety of experiences and that will increase board efficiency (Singh et al., 2003). In addition, a larger board size will increase the probability of having directors that are more independent. Moreover, according to stakeholder theory, large boards will represent the point of view of different stakeholders. Based on this conflict, this study expects a relationship between board size and narrative optimistic tone whether it is positive or negative association.

H2d: There is a significant association between board size and positive tone in UK corporate annual report narratives.

4.3.1.3 Firm Characteristics:

Firm characteristics are very important indicators for firm outcomes and strategies (Iatridies, 2016; Li, 2010B). Therefore, this study expects a relationship between firm characteristics and optimistic narrative tone in the UK context. The next section will develop research hypotheses related to firm characteristics as determinants of narrative tone in the UK context and as one of firms' strategies.

H3: There is a significant association between firm characteristics and positive tone in UK corporate annual report narratives.

4.3.1.3.1 Complexity:

Recently, tone and readability are the most two common narrative characteristics in financial reporting literature (Loughran and McDonald, 2016). Regulators start to pay attention to the style of narrative reporting to avoid any misunderstanding from investors and external users (Henry, 2008). For instance, FRC (2015) reported the importance of having readable narratives in the UK context to help investors in stock markets. Consequently, it is important to consider readability when investigating narrative tone as it has a moderated effect (Tan et al., 2014), and Tan et al., (2014) found that the use of positive tone in narrative reporting might affect investors' perception if the text is less readable. Consistent with this point of view, prospect theory and impression management theory assumes that managers will present more readable information in the case of positives and less readable information in the case of negatives (Henry, 2008; Clatworthy and Jones, 2006). Therefore, managers can change investors' perception of a company based on the way they present the information.

Moreover, Li (2008) found that companies with poor performance display less readable narratives in MD&A section in 10-K filings. This means that managers of companies with poor performance use impression management strategies and aim to hide their bad performance in annual reports using a less readable reporting style. This point motivates the researcher to investigate if managers of companies with more optimistic tone use a more readable style to show these positives and use less readable language when discussing negatives. Therefore, this study expects that language that is more readable is related to more optimistic narrative tone.

H3a: There is a significant negative association between narrative complexity and positive tone in UK corporate annual report narratives.

4.3.1.3.2 Firm Size:

Agency theory argues that agency conflicts and agency costs are more likely to be increased in larger firms as there is a large gap between owners and managers' areas of interest (Li, 2010B; Watts and Zimmerman, 1983). Moreover, Rogers et al., (2011) reported that managers of large companies follow more conservative strategies to avoid any future risks. As a result, these high costs and potential risks will control larger firms from over optimistic tone in narrative reporting, and will make them more cautious by disclosing balanced narrative reports (Li, 2010B). Consequently, large companies will have less optimistic tone in their narrative reporting, as they will try to discuss more negatives in narrative reporting and reduce agency costs. Therefore, the current study expects that large companies will have less optimistic tone in their narrative reporting.

H3b: There is a significant negative association between firm size and positive tone in UK corporate annual report narratives.

4.3.1.3.3 Leverage Ratio:

According to agency theory, agency costs are more likely to be increased in firms with a high leverage level (Jensen and Meckling, 1976; Watts and Zimmerman, 1983). These costs prevent companies from having an over optimistic tone in narrative reporting as their aim is to reduce these costs by reporting negatives and potential risks (Kang and Gray, 2011). Consequently, there is some research that argues that companies with a high leverage ratio will use less positive tone in narrative reporting and report more negatives to reduce agency costs.

However, according to impression management theory, companies with a high leverage ratio will have more optimistic tone in their narrative reporting as they aim to send signals to creditors that they are able to meet their obligations. As a result, based on their point of view, companies with a high leverage ratio will have more positive tone in narrative reporting. As a result of this conflict, this research expects that there is a relationship between leverage ratio and narrative tone whether it is positive or negative.

H3c: There is a significant association between leverage ratio and positive tone in UK corporate annual report narratives.

4.3.1.3.4 Firm Growth:

Agency theory assumes that firms with a high growth level have different strategies from firms with low growth level as they have a different perception of investments and opportunities (Li, 2010B). Moreover, growth is a motive for companies to disclose more information to decline the gap between market and book value. In addition, growth companies face more uncertainty about their future conditions than companies with low growth level do (Kang and Gray, 2011). In addition, companies with high sales growth ratio might display more optimistic tone compared with others in order to send signals to external users about their performance (Li, 2010B, Henry, 2008). Consequently, the current research expects that there is a significant positive association between growth ratio and positive tone in the UK context.

H3d: There is a significant positive association between firm growth level and positive tone in UK corporate annual report narratives.

4.3.1.3.5 Profitability:

Profitability, measured by ROE, is one of the most common variables as a measure of firm performance in accounting literature in general and narrative reporting studies in particular as they proved that firms' profitability has a great effect on disclosure strategies (Li, 2010B).

On one hand, agency theory assumes that companies with high profit disclose more information with more positive tone in their narratives in order to reflect their success and their performance (Schleicher and Walker, 2010; Melloni et al., 2016; Cen and Cai, 2014). Moreover, stakeholder theory supports this argument as profit is an important factor to all external users and stakeholders, not just shareholders. Therefore, companies with a high profit will have more optimistic tone in narrative reporting to increase the external users' confidence in the company (Chen and Roberts, 2010; Melloni et al., 2016). In addition, signalling theory assumes that managers of profitable companies aim to send signals to stock markets about their performance to satisfy their current investors and to attract potential investors in stock markets (Clatworthy and Jones, 2003).

On the other hand, impression management theory argues that low profitable companies might bias their stakeholders and external users by disclosing more optimistic tone in their narrative reporting and biasing the tone upwards and giving an impression of a good performance (Schleicher, 2012). Based on this point of view, low profitable companies will have more optimistic tone in narrative reporting.

According to the previous discussion, the current study expects that there is a relationship between profitability and narrative tone whether it is positive or negative.

H3e: There is a significant association between firms' profitability and positive tone in UK corporate annual report narratives.

4.3.2 Tone Predictive Power:

In the last part of this chapter, the researcher developed the research hypotheses for the determinants of NDT based on three different categories as follows: first, CEOs' personal and psychological characteristics, second, CG mechanisms, and finally, firm characteristics. In the next section, the researcher will develop the research hypotheses for tone consequences or tone predictive power in particular.

Signalling theory assumes that firms with positive information disclose this news to send a signal to the stock markets and external users about their performance and achievements in order to distinguish themselves from firms with bad news or no news, and as a result, they will have more optimistic tone in their narratives (Spence, 1973; Smith and Taffler, 2000). Moreover, prospect theory assumes that presenting firm performance information in a positive way will encourage investors to think about the results in an increasing perspective, then they will react positively and that will increase firms' stock returns and improves firms' outcomes (Tversky & Kahneman, 1981, 1986). In addition, this theory is known as "framing effects" theory as it argues that the outcomes of any process will be affected based on how positive versus negative information is framed and presented to external users (Kahneman, 2002; Henry, 2008).

4.3.2.1 Executives vs governance narrative reporting:

This study aims to investigate not only tone predictive power and its association with future performance but also who has this power inside the company that can help external users in predicting future performance (executives or governance). Therefore, in this section, the researcher explores the narrative reporting features for both executives and governance. It is noticeable that executives and governance teams are the strongest two groups within the company in general and are included in the narrative reporting process in particular. Both groups represent the great majority of narrative reporting in the UK annual reports. However, no one can expect that these two groups with different responsibilities would have the same tone in their narrative reporting. On one hand, executives provide information about firm performance, financial position, operational and financial review for the previous fiscal year, future developments and strategies (Clatworthy and Jones, 2003; Schleicher and Walker, 2010; Davis et al., 2015). Executives reports aim to give a fair review for the company and provide material information for investors and external users, and moreover, to attract potential investors (Yekini et al., 2016; Marquez-Illescas et al., 2019).

On the other hand, governance team in general and audit committee in particular are responsible for monitoring the effectiveness of internal quality control, risk management system, corporate going concern and monitoring the financial reporting process (Disclosure and Transparency Rules, 2018; Zalata et al., 2018; Melloni et al., 2016). According to the previous discussion and how different the responsibilities are for both groups and, consequently, their narrative reporting style, the current study argues that both groups have different tone consistency in UK annual report narratives.

H4: Net optimistic tone differs in UK annual report narratives among executives and governance sections.

4.3.2.2: Executive vs governance tone predictive power:

Based on revising previous literature as discussed in chapter two, the majority of studies that examine the consequences of NDT focussed on the short-term effects, however, studies about tone predictive power are limited (Wisniewski and Yekini, 2015; Loughran and McDonald, 2016). Recently, a few studies have investigated tone predictive power and found that tone is associated with future performance, as companies with higher optimistic tone have better future performance (e.g., Davis and Tama-Sweet, 2012; Davis et al., 2015). In addition, prior research found that tone has an explanatory power to predict future abnormal returns using a long window event study (Bartov et al., 2018; Boudt et al., 2018; Price et al., 2012). These findings support the viewpoint of Bryan (1997) when he argues that narratives contain useful information about a firm’s future vision and operations that might affect future firms’ outcomes. In addition, recent studies found that companies with less optimistic tone have a higher stock price crash and lower performance, indicating that tone can be predictive of a company’s future events (Druz et al., 2020; Fu et al., 2019).

According to the previous discussion, and besides the theoretical argument of prospect theory assuming that a firm's outcomes will be affected based on how positive versus negative the information is framed and presented to external users, the current study expects that companies with higher optimistic tone in their narratives will have better performance in the subsequent fiscal year.

H5: There is a significant positive association between net optimistic tone in UK annual report narratives and future performance.

As mentioned above, this study aims to report not only narrative tone predictive power but also who has got this power inside the company to help external users in predicting future performance (executives vs governance). Executives are responsible for providing investors and external users with a fair review about firm performance, financial position, future plans and strategies. Moreover, they aim to maximize their benefits by focussing on good news and presenting information in a positive way to satisfy current investors and attract potential investors (Patteli and Pedrini, 2014; Davis et al., 2012; Yekini et al., 2016; Bartov, Faurel and Mohanram, 2018; Clatworthy and Jones, 2006). However, governance teams are responsible for monitoring the financial reporting process and reporting about firm responsibilities, principle risks, risk management system and firm going concern which affects firms' outcomes (Melloni et al., 2016; Mangena and Pike, 2005; Wang and Hussainey, 2013). Consequently, it is noticeable that both of them have reporting responsibilities that are associated with firms' future performance. Therefore, the current study aims to investigate which group tone has predictive power and can help external users in expecting firm future performance.

H5a: There is a significant positive association between an executive's net optimistic tone in UK annual report narratives and future performance.

H5b: There is a significant positive association between governance's net optimistic tone in UK annual report narratives and future performance.

4.3.3 Does Negativity Matter in the UK Context?

In the UK context, the majority of narrative disclosure studies reported that UK companies' disclosure consists of more positive information than negative (Schlcheicher and Walker, 2010; Clatworthy and Jones, 2003; Ressas and Hussainey, 2014; Yekini et al., 2016) as they argue that companies will not disclose negative information as it does not have much power in stock markets. Moreover, companies will not disclose negatives voluntarily when it is not required from regulators (Yekini et al., 2016). However, other researchers argue that negatives are important to investigate. As Filzen (2015) reported, firms which provide negative information are more likely to predict any negative earning shocks in the future. Also, Huang et al., (2014A) proved investors find reports useful when they contain bad news and focus on non-financial topics to make them aware about everything inside the company. Moreover, Iatridis (2016) found firms which have more pessimistic tone have less earning management and manipulations and strong corporate governance.

Motivated by these previous arguments and by Loughran's (2018) point of view when he suggested a researcher to consider both positives and negatives separately when investigating narratives' tone, the current research aims to investigate if negativity matters in the UK context. Therefore, the current study expects that negative tone might affect a firm's future performance.

H6: Companies with more negative narrative tone have lower performance in the subsequent fiscal year in the UK context.

4.4 Conclusion:

In this chapter, the researcher discusses relevant theories related to narratives' tone setting and develops the theoretical framework of the current study. According to the discussion above, most of narratives tone studies used agency theory and signalling theory, however stakeholder theory and managerial attributes perspective theories such as upper echelons theory were neglected in narratives' tone context. As a result, the researcher developed the hypotheses of the current research considering CEO personal and psychological characteristics, CG mechanisms and firm characteristics as determinants of narratives' tone. In addition, it discusses the hypotheses of tone predictive power and if negativity does matter in the UK context. In conclusion, there are six main research hypotheses for the current study as follow:

H1: there is an association between CEO personal and psychological characteristics and positive tone in UK corporate annual reports' narratives.

H2: there is an association between CG mechanisms and positive tone in UK corporate annual reports' narratives.

H3: there is an association between firm-specific characteristics and positive tone in UK corporate annual reports' narratives.

H4: Net optimistic tone differs in UK annual reports narratives among executives and governance sections.

H5: Companies with more optimistic narratives' tone have better performance in the subsequent fiscal year in the UK context.

H6: Companies with more negative narratives' tone have lower performance in the subsequent fiscal year in the UK context.

In the next chapter, methodology, variables' definitions, empirical models and statistical tests of the current study will be discussed. This will be followed by the empirical chapters, which are investigating the determinants of NDT and tone predictive power.

Chapter Five: Research Methodology

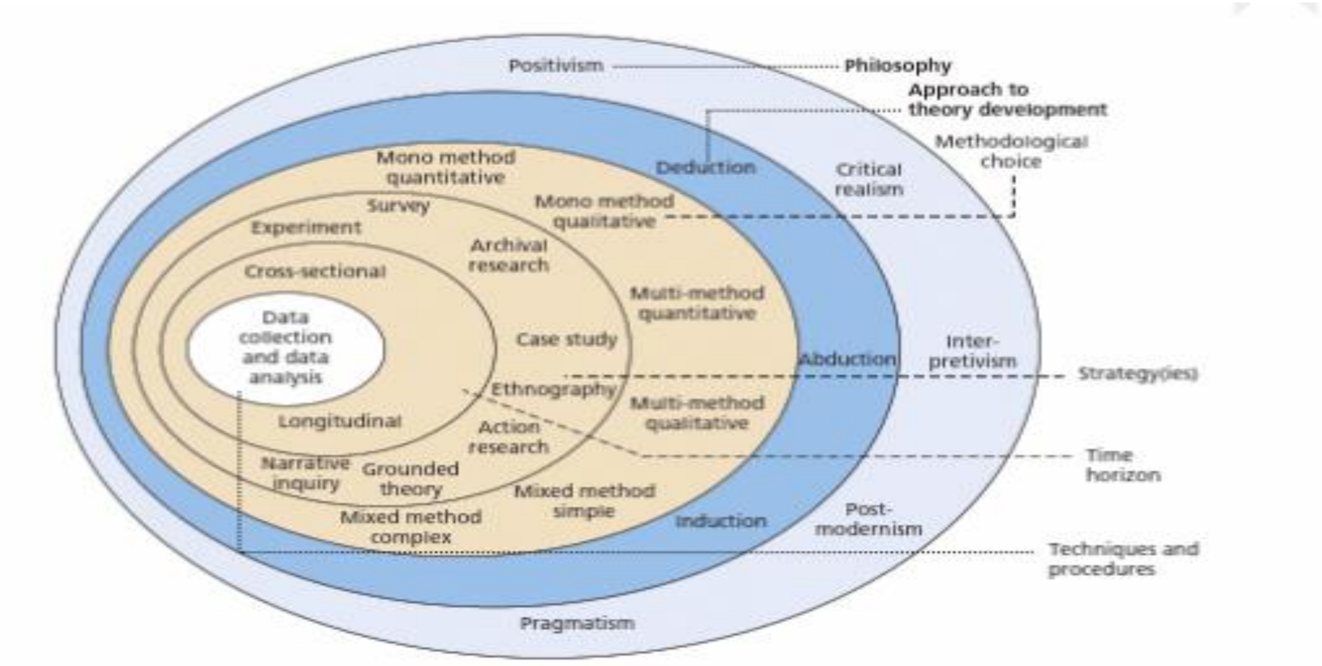
5.1 Introduction:

The previous chapters discussed the theoretical part of the current study, including a review of previous narratives' tone studies, UK context and theoretical framework with hypotheses development. It is clear from the previous chapters that, this study aims to investigate determinants of narratives' tone and tone predictive power in the UK context. Based on the previous discussion in the last chapters, this chapter aims to discuss the methodology and different tools that will be used in the empirical part of this research. In particular, this chapter presents the research philosophy, research approach, research design, empirical models and the main methods and variables will be used in the examination process. In addition, it will discuss different measurements of the main variable of the current research, NDT, and justify the choice of tone measurement that will be used in measuring NDT in the empirical parts. Moreover, this chapter presents the statistical texts that will be conducted in order to investigate the research hypotheses.

5.2 Research Philosophy:

Most of researchers plan their research based on a question or a problem that needs more evidences to be answered. However, this part is the middle of the researcher process, but first we need to explain the reasons of our choices, so others can see the progress of the research (Crotty, 1998). Consequently, there are some important layers of the research progress or procedures that need to be explained before conducting such a research (Saunders, Lewis and Thornhill, 2016). Saunders et al., (2016) called these procedures of research as layers of a "research onion". This research onion consists of six layers, research philosophies, approaches, strategies, choices, time horizons, techniques and procedures as shown in figure 5.1. These layers are important to be understand and explained before thinking about different tools and methods, which will be used to conduct the research (Saunders et al., 2016). In the current section, the researcher will discuss the concept of research philosophy the current research philosophy.

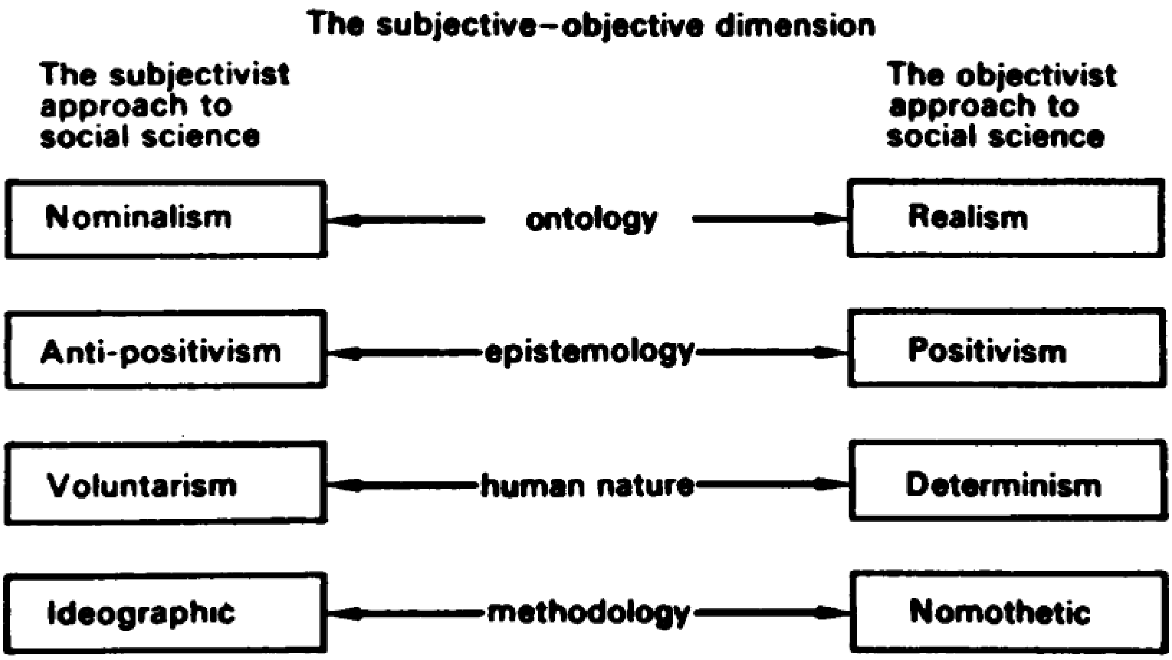
Figure 5.1: research onion.



Source: Saunders et al., (2016, P 124).

Research philosophy refers to the assumption about the development of knowledge (Saunders et al., 2016). According to this definition, development in knowledge does not mean a dramatic contribution in the field, or discovering a new theory. It can be solving one problem of a specific organisation or discussing some observations in the industry. Therefore, researchers applied different assumptions (philosophies) while conducting any research based on their point of view. Accounting and business researches are based on first, the nature of social science, second the nature of society assumptions. Nature of social science assumptions refer to ontology, epistemology, human nature and methodology. The subjective-objective dimension as shown in figure 5.2 can explain these assumptions.

Figure 5.2: The subjective-objective dimension.



Source: Burrell and Morgan (1979, p.3)

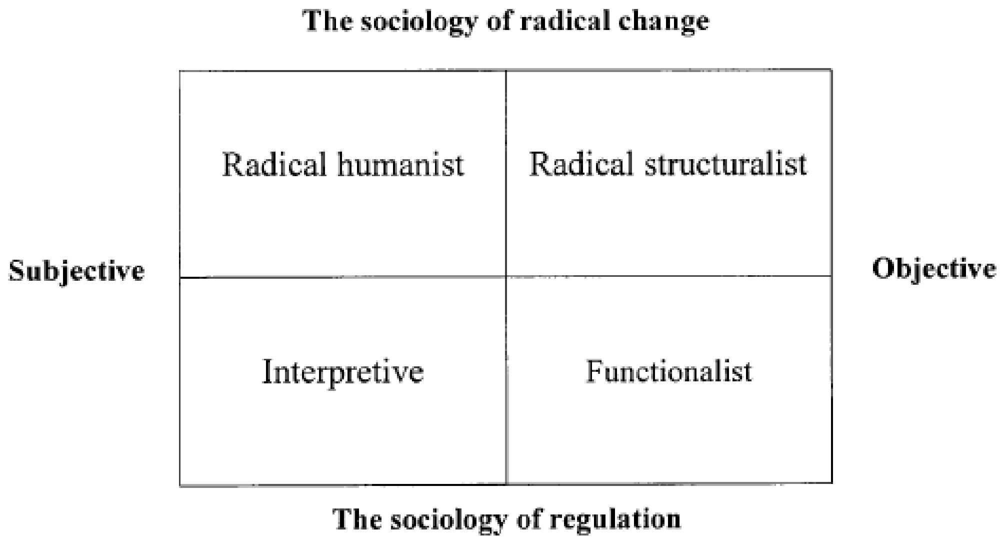
The first assumption, ontology, has two different positions. On one hand, Nominalism means that, social world is made of names, concepts and labels that give a structure to reality. On the other hand, realism considers social world external to individual cognition is a real world made up of hard and relatively immutable structures. The second assumption, epistemology, has two perspectives, Anti-positivism and Positivism. Positivism aims to know what happens in the social world based on causal relationships between different elements. However, Anti-Positivism is against the idea of searching for laws and regulations. It argues that social world can be explained by the point of view of individuals.

The third assumption, human nature, refers to the association between human beings and their environment. Voluntarism argues that, humans are completely free-willed, but determinism believes that humans are determined based on the external environment where there are located. The last assumption, methodology, discuss the different methods that can be used to investigate the social world. Ideographic approach argues that one can understand the social world by obtaining first-hand knowledge of the subject under investigation. However, nomothetic approach believe that it is important to design research based on a specific technique and scientific testing of the hypotheses (Burrell and Morgan, 1979).

Nature of society is based on two different positions, the sociology of radical change and the sociology of regulation. The sociology of radical change focusses more of the potentially perspective than actual perspective. However, the sociology of regulation aims to proof why it is important to have a regulation cover inside the society. Also what are the needs of regulation that organise the society (Burrell and Morgan, 1979).

According to the two perspectives of the subjective - objective and regulation, and radical change. Burrell and Morgan (1979) presented four research paradigms to be used in business studies named as, radical humanist, radical structuralism, Interpretive, and Functionalist as shown in figure 5.3.

Figure 5.3: The sociology of radical change

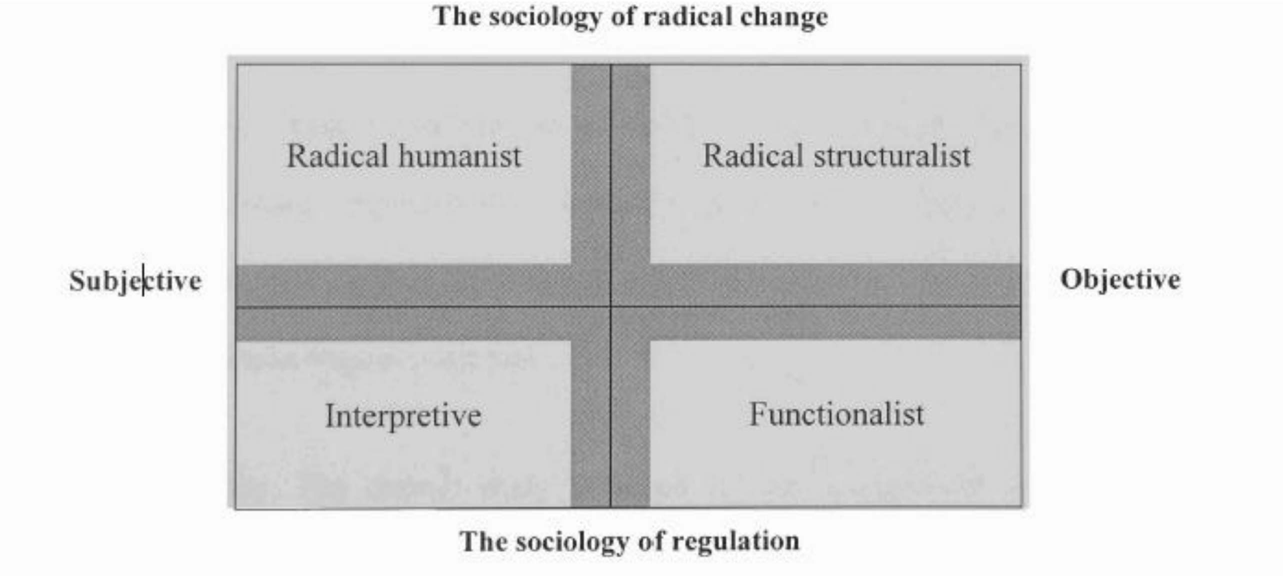


Source: (Burrell and Morgan, 1979, p, 22)

The radical humanist paradigm explains the subjective and radical change option. As it follows the subjectivist approach of social science; nominalism, anti-positivism, voluntarism and ideographic. In contrast, the radical structuralism paradigm represents the objectivist approach to social science; realism, positivism, determinism, and nomothetic. The interpretive paradigm represents the regulatory approach that aims to explain the need or regulations in society and organisations, but it follows the subjectivist approach (Saunders et al., 2016). However, the interpretive paradigm has some limitations, as it argues that observer might explains actions based on subjectivity perspective without any bias which cannot be happen in the real life. The functionalist paradigm represents the regulatory objectivist approach; also, it is the domain paradigm in business studies (Saunders et al., 2016). This paradigm aims to explain the facts and causes of the social phenomena. Therefore, the functionalist paradigm concerns about providing practical solutions to practical problems (Burrell and Morgan, 1979).

According to the argument saying that, a correct perspective cannot exist, transition zones can be considered between the four paradigms (Gioia and Pitre, 1990 cited in Abdelfattah, 2008). As it is better to link these paradigms together in these zones and have multi-paradigm approaches, which are more efficient in conducting research. Figure 5.4 presents the transition zones between the four paradigms.

Figure 5.4: The transition zones in the sociology of radical changes.



Source: (Gioia and Pitre, 1990 cited in Abdelfattah, 2008)

The current study aims to investigate the corporate annual report narratives' tone in the UK context. In particular, the current study aims to investigate the variation of narratives' tone in corporate annual reports considering its determinants such as, firm-financial characteristics, corporate governance mechanisms and CEOs personal and psychological characteristics. In addition, it examines narratives' tone effect and its ability to predict future performance and market value.

Therefore, to achieve these objectives, the researcher decides to use the interpretivist functionalist transition zone as a research philosophy of the current study. Moreover, it allows the researcher to use the deductive approach and test the research hypotheses.

5.3 Research approach:

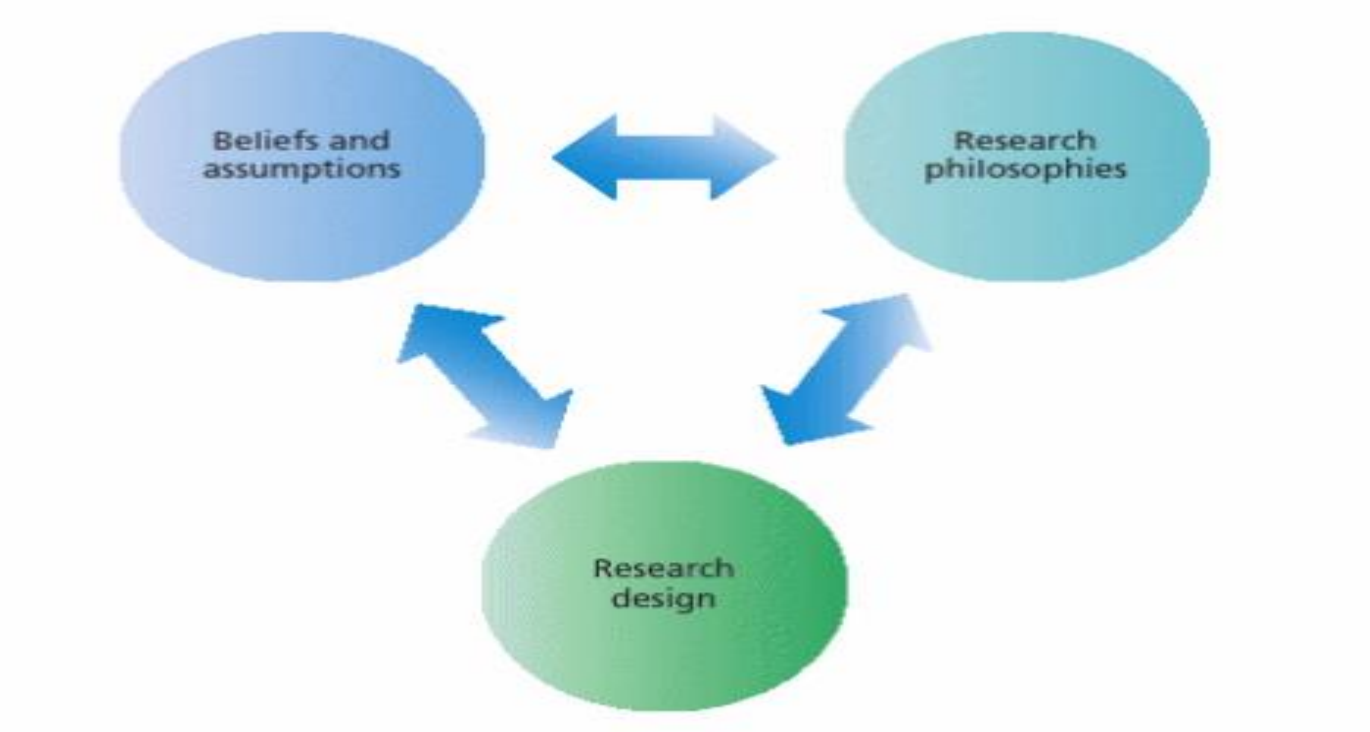
According to Saunders et al (2016) research onion, the second layer is the research approach. Generally, there are two main research approaches, the deductive approach and the inductive approach. Induction is a process, which starts with an observation for a certain phenomenon, then achieve a conclusion. However, Deduction is a process, which starts with a known fact or theory to be applied in a specific context to achieve the conclusion logically (Saunders et al., 2016, P, 146). In other words, the deductive approach starts from a theory, then hypotheses development, after that to collect data in order to obtain the results. In contrast, the inductive approach starts from data collection, then to develop a theory or argument based on the results obtained from the field.

As mentioned in the last section, the current research is following the interpretivist – functionalist transition zone philosophy. Moreover, it does not plan to develop a theory, but it aims to investigate corporate annual reports narratives' tone in the UK context. In particular, it seeks to examine the key factors that drive narratives' tone and to investigate tone predictive power. Therefore, the current research will follow the deductive approach, which is more suitable for such study. The deductive approach is based on developing certain hypotheses, which have been discussed in the theoretical framework and hypotheses development chapter. Then to test these hypotheses in order to have the outcomes and the findings of this research.

5.4 Research Design:

According to Saunders et al., (2016), research philosophy with its beliefs and research design are integrated together to conduct any research, as shown in figure 5.5. As mentioned above, the current study will use the interpretivist-functionalist transition zone as a research philosophy of the current study. As, it allows the researcher to use the deductive approach and test the research hypotheses, which have been discussed in the theoretical framework and hypotheses development chapter. In this section, the researcher will discuss the unit of analysis, the context of investigation, time horizon and sampling design.

Figure 5.5: Research designs.



Source: (Saunders et al., 2016, p 126).

The current research aims to investigate narratives' tone in the UK context by investigating non-financial companies listed in FTSE-ALLSHARE. In particular, it seeks to identify the key factors that drive narratives' tone in the UK context and its determinants. Moreover, it investigates the relationship between narratives' tone and firm value, which presents market performance. In addition, it investigates tone predictive power and its ability to predict accounting and market performance for the next fiscal year.

According to the above discussion, the UK corporate annual reports narratives will be the unit of analysis in the current study. Corporate annual reports are important and add value, as it conveys credible information to external users about firm performance and position in the stock market (Merkely, 2014). That is why narratives received more attention recently from policy makers worldwide and in the UK in particular, as discussed in the UK context chapter. Even if annual reports have some limitation, as it does not provide timeliness information, it is important to be investigated for several reasons.

First, annual reports are considered the main source of information for investors, analysts and external users to evaluate company's performance and position (Schleicher and Walker, 2010; Elshandidy et al., 2013; Yekini et al., 2016). Secondly, annual reports are official documents published by the companies based on the requirements of FCA and FRC in the UK; therefore, it is credible valid document to get information, which describe firm's position and strategies. Finally, and most importantly to the current study, corporate annual reports display the largest sample of narratives published by the firm compared with other documents such as press releases, earning announcements and half-yearly reports. Therefore, it can be generalised as narratives' sample of the company (Wisniewski and Yekini, 2015). As a result, the researcher decides to choose annual reports narratives as a unit of analysis in the current study.

The context of investigation in the current research will be the UK context, because it has several uniqueness characteristics as discussed in the UK context chapter. The UK regulatory setting is different from the US context. The US follows rule-based approach, which makes some restrictions in narrative reporting style. However, the UK follows principle-based approach, which gives managers more opportunities for tone management and allow them to choose their own narrative reporting style as it has less restrictions. In my opinion, that opens more research opportunities to examine such a context where there is more freedom in financial reporting style. Moreover, London Stock Exchange is one of the oldest stock markets worldwide (since 1571) and the largest market in Europe. As a result, the UK context might represent other European countries, which follow principle-based approach.

The current research will investigate non-financial companies listed in FTSE-ALLSHARE in London Stock Exchange from 2010 to 2018. The researcher chose 2010 as a starting point to conduct this research in order to avoid the financial crisis period, which has effects until 2009. As the research aims to investigate narratives' tone including positive and negative tones in the normal case without any extreme effects such as the financial crisis. It ends by 2018 because it was the last available annual reports during the investigation. However, for tone predictive power model, the observed period will be just until 2017, as financial information of the subsequent year, 2018, will be used as a measurement of future performance.

Moreover, this time horizon was selected because the UK received more attention about narrative reporting recently from FRC by issuing the strategic reporting guidance and narrative reporting guidance in 2014 and 2015 respectively. That motivates the research to investigate the UK context before and after this guidance and report about the difference between both periods in narrative reporting.

5.5 Research Methods and Variables:

In this section, the research will discuss the main variables that will be examined in the current research. According to the previous discussion above, it is obvious that narrative disclosure tone will be the main variable in the current study. As this research aims to investigate the tone's determinants and consequences. In order to measure narratives' tone, the current research will conduct a computerised quantitative textual analysis approach using software called CFIE. In the next part of this section, the researcher will discuss in details tone measurements and which measure is chosen as a measure of narratives' tone.

5.5.1 Tone measurements:

In the last decade, there is a growing interest in using computer linguistics tools to investigate narrative disclosures in accounting and finance (Henry and Leone, 2016). One of these main tools is the Bag-Of-Words (BOW) approach, which has been commonly used widely in the textual analysis studies in general, and the tone of narratives studies in particular. This approach aims to measure the word frequency in a document based on a list of words represent the examined phenomenon divided by the total number of words (Loughran and McDonald, 2016).

A number of researches examine Narrative Disclosure Tone (NDT) by identifying the frequency of positive and negative words, as a higher percentage of positive (negative) words signalise more optimistic (Pessimistic) tone. In the next section, the researcher will discuss and analyse the main four BOW have been commonly used in accounting and financial reporting literature named as (Harvard GI, Diction, Henry (2008), Loughran and McDonald (LM) (2011)) by classifying them to First: general dictionaries, second: specific dictionaries.

5.5.1.1 General Dictionaries:

5.5.1.1.1 Harvard General Inquirer wordlists:

This wordlist mainly used in sociology and psychology studies; it has 1,915 positive words and 2,291 negative words. Although Harvard GI wordlist was not created based on financial documents, some researchers in accounting and finance used it and Diction wordlists earlier because it was the only available positive/negative wordlist available that time (Loughran and McDonald, 2016). Tetlock (2007) was the first to link Harvard

GI wordlists to accounting studies by investigating Wall Street Journal stock column. He found that more pessimistic tone in this daily stock column leads to lower stock return and higher volatility. Similarly, Tetlock, Saar-Tsechansky, and MacSkassy (2008) used Harvard GI wordlist when they found a negative association between pessimistic tone of Dow Jones firm specific news and subsequent earnings. Moreover, Kothari, Li and Short (2009) found that, positive (negative) tone disclosures by firms and analysts in the US 10-K filings leads to lower (higher) stock volatility and forecast dispersion.

Whereas Bartov, Faurel and Mohanram (2018) found the aggregate opinion tone from individuals on Twitter can predict the subsequent quarter earnings and abnormal returns in the US context using Harvard GI wordlist. Similarly, Sprenger, Sandner, Tumasjan and Welpe (2014) found stock market in the US react much stronger in the negative events compared with positive ones published on firm’s official Twitter accounts. In addition, Price, Doran, Peterson and Bliss (2012) utilise Harvard wordlist when they reported positive significant association between optimistic tone of conference calls and the cumulative abnormal return and abnormal trade volume. The authors compare between Harvard GI and Henry (2008) wordlist and they found Henry wordlist explains the stock market reaction more as it is specialised in financial reporting document not a general dictionary such as Harvard GI. In contrast, Feldman, Govindaraj, Livnat and Segal (2010) argue that, there is a small statistical difference between Harvard GI wordlist and Loughran and McDonald (2011) wordlist when they found a positive association between narrative tone in MD&A section, both 10-Q and 10-K and the abnormal return.

5.5.1.1.2 Diction Wordlists:

This wordlist is created for politics and social media studies, however some accounting researchers used it to textual analysis investigation not only as a wordlist but also as a software which the can enter their own wordlists. Diction has five master categories named as Activity, Optimism, Certainty, Realism and Commonality. In addition, it contains 686 positive words and 920 negative words to examine the tone of text. Davis, Piger, and Sedor (2012) used Diction positive/negative words to examine press releases tone in the US context. They found a positive relationship between optimistic tone and future performance based on the subsequent quarter Return on Assets (ROA). Similarly, Davis and Tama-Sweet (2012) and Patelli and Pedrini (2014) reported the same results when they investigated the MD&A section in 10-K filings.

Whereas Cho, Roberts and Patten (2010) found a negative association between optimistic tone in 10-K filings, using Diction wordlists, and environmental performance. They explained it that when firms have bad environmental performance they use over optimistic tone to mislead investors. In the UK context, Wisniewski and Yekini (2015) used Diction five master categories to examine annual reports narratives predictive power. They found just two from the five Diction master variables named as Activity and Realism can predict future abnormal returns.

5.5.1.2 Specific dictionaries:

5.5.1.2.1 Henry (2008) wordlist:

Unlike Harvard GI and Diction wordlists, to the best of our knowledge, Henry (2008) wordlist was the first wordlist that was created from financial documents and for accounting textual analysis and business communication studies. Henry (2008) created this positive/negative wordlist during examining 1,366 earning press releases in the US context when she found positive association between optimistic tone and abnormal returns in a short window event study. This wordlist contains 104 positive words and 85 negative words.

After Henry (2008) wordlist, accounting and financial reporting researchers started using this wordlist in textual analysis rather than general dictionaries. Price et al.,

(2012) argue that Henry wordlist is better than general dictionaries in explaining the stock market reaction to narrative disclosure tone as they found significant association between press releases optimistic tone and both short and long window event study. Consistently, Arslan-Ayaydin et al., (2016) found a positive relationship between optimistic tone in press releases disclosures, using Henry wordlist, and abnormal return in the short window event, but investors have less reaction in the long term when they used 62 days event study.

Similarly, Davis et al., (2015) reported the same conclusion that Henry wordlist is better in predicting future performance based on tone. Moreover, Doran, Peterson, and Price (2012) found tone measured by Henry (2008) wordlist has stronger results in explaining market reaction than Harvard general dictionary. Whereas Yekini, Wisniewski and Millo (2016) examine tone in the UK annual report narratives using Henry (2008) wordlist. They found positive association between optimistic tone in annual reports and cumulative abnormal returns, however they reported insignificant association between annual reports negativeness and market reaction. The researchers argue that this result maybe because of the limited negative words in Henry (2008) wordlist, so it might be different results using more comprehensive wordlist such as Loughran and McDonald (2011) wordlists.

5.5.1.2.2 Loughran and McDonald (2011) wordlists:

Motivated by using general dictionaries in accounting and financial textual analysis studies and the few number of words in Henry (2008) wordlist, Loughran and McDonald (2011) aimed to create a comprehensive positive/negative wordlist from financial documents that can be used in accounting and business communication studies. They create their master comprehensive wordlist by investigating over 50,000 annual reports (10-K filings) in the US context from 1994 until 2008. Unlike Henry (2008) dictionary, this wordlist contains 354 positive words and 2,329 negative words. After developing their own wordlist, they compared it with Harvard GI general dictionary and they found almost (75%) of negative words in these general wordlists are not negative in the financial context. Words such as (tax, capital, board, depreciation and vice) are included in Harvard negative words; however, it is obvious in financial context that, these words are not negative. After conducting their wordlist, they found negative tone is associated with lower abnormal returns and higher volatility.

After Loughran and McDonald (2011) wordlists, more researchers started using it when they examining the tone of narratives. Feldman et al., (2010) reported higher stock returns when the tone change is more optimistic. Also, Davis and Tama-Sweet (2012) and Davis et al., (2015) used Loughran and McDonald (2011) wordlist with Henry (2008) wordlist when they found tone in associated with the subsequent ROA. Similarly, Arslan-Ayaydin et al., (2016) used LM (2011) wordlist when they found positive market reaction to positive tone in press releases.

In a different way, Huang et al., (2014A) proved how managers might mislead investors by using abnormal optimistic tone, as they found it is related to poor future earnings and cash flow. Moreover, Huang et al., (2014B) used LM (2011) wordlist when they examined analyst's reports in the US context and they found investors react more to negative reports compared with analyst's positive reports. Whereas, Allee and Deangelis (2015) aimed to investigate the dispersion of the tone using LM (2011) comprehensive dictionary and they argue that investors and analysts react negatively when the negative tone is more dispersed. Recently, Bartov et al., (2018) found aggregate opinion tone from individuals on Twitter, using LM (2011) wordlist, can predict the subsequent earnings. Moreover, García-Sánchez et al., (2019) used LM (2011) wordlist when they proved that more female percentage in the board of directors decreases impression management strategy. In the UK context, Iatridis (2016) used LM

(2011) wordlist and reported that companies with high level of pessimistic tone display high conservatism, stronger corporate governance and lower earnings manipulation.

5.5.2 Criticising Narrative Disclosure Tone measures:

According to the previous discussion, it is worth mentioning that using specific dictionaries, such as Henry (2008) and LM (2011), are more applicable in financial reporting and business communication research than other general dictionaries such as Harvard or Diction. The reason is simply that these specific wordlists are created based on financial documents such as press releases and 10-K fillings, which reflect the real financial positive/negative words. However, general dictionaries have other definition for positive/negative words, as it is not based on financial documents. For instance, Li (2010B) did not found an association between the tone of forward looking disclosure sentences in MD&A section in the 10-K filings and future ROA using Harvard GI and Diction wordlists. However, he found a significant positive association using LM (2011) wordlist.

Similarly, Price et al., (2012) reported that Henry (2008) wordlist could explain the market reaction to narrative tone disclosure more than Harvard GI dictionary. In addition, Davis and Tama-Sweet (2012) and Davis et al., (2015) found significant positive association between narrative tone measured by Henry (2008) and LM (2011) wordlists and market reaction in the US context. However, they found insignificant association using Diction wordlists. In addition, Loughran and McDonald (2011, 2015) concluded that 75% of Diction negative words are not considered as pessimistic words in the financial documents context. That is because Diction words are created for social media and politics studies, not for financial reporting research. In contrast, Feldman et al., (2010) argue that, there is a small statistical difference between Harvard GI wordlist and LM (2011) wordlist when they examined the market reaction to the tone of 10-Q and 10-K filings. However, some studies nowadays start using both Henry and LM wordlist in their textual analysis for more accuracy such as (Davis and Tama-Sweet, 2012; Davis et al., 2015; Arslan-Ayaydin et al., 2016; Henry and Leone, 2016).

Recently, Henry and Leone (2016) compared between the most popular four measures of tone according to the literature (Henry, 2008; Diction; Harvard GI and LM, 2011). The authors found positive association between short-term market reaction and the tone of press releases in the US. However, the market reaction explanation is much better based on wordlists that created from financial documents such as Henry (2008) and LM (2011) than other general dictionaries such as Diction and GI wordlists. In addition, they proved, BOW approach has the same power as Naïve Bayesian machine learning approach. It is worth mentioning that, Loughran (2018) suggested future research to consider both positive and negative words separately when conducting tone textual analysis for more accuracy.

According to the previous discussion, the current research will use LM (2011) wordlist as a measure of NDT in the UK context for two reasons. First, using a domain wordlist such a LM (2011) or Henry (2008) is more applicable in financial reporting and business communication studies than other general dictionaries such as Diction or Harvard. As, domain wordlists were created based on financial document texts (Loughran and McDonald, 2011, 2015, 2016; Li, 2010B, Davis et al., 2015 and Henry and Leone, 2016). Second, LM (2011) wordlist is more comprehensive than Henry (2008) wordlist, as it has 343 positive words and over 2,300 negative words based on financial reporting documents.

Finally, the review of NDT measures can be presented as follow in table (5.1).

Table (5.1): Tone measurements summary:

Wordlists	Studies	Evaluation
Harvard GI	-Tetlock (2007) -Tetlock et al., (2008) - Kothari et al., (2009)	**Pros**: Harvard GI is one of the first wordlists have been used in textual

	-Feldman et al., (2010) -Loughran and McDonald (2011) -Price et al., (2012) -Doran et al., (2012) - Sprenger et al., (2014) -Henry and Leone (2016) - Bartov et al., (2018)	analysis. It has a great variety of words, 1,915 positive and 2,291 negative words. **Cons**: Harvard GI mainly used in sociology and psychology studies. Therefore, it is not created from financial document and most of negative words do not present negatives in financial contexts.
Diction	-Cho et al., (2010) -Rogers et al., (2011) -Davis et al., (2012) -Davis and Tama-Sweet (2012) - Wisniewski and Yekini (2015) -Davis et al., (2015) -Henry and Leone (2016)	**Pros**: Diction contains variety of words, 686 positive and 920 negative words. It also has five master categories named as Activity, Optimism, Certainty, Realism and Commonality can be used to examine the text. Moreover, researchers can use Diction just as a tool of linguistic analysis and setup their own wordlist. **Cons**: Diction is created for politics and social media studies. So, most of its words are not applicable in the financial contexts and business communication studies.
Henry (2008)	-Henry (2008) -Rogers et al., (2011) -Price et al., (2012) -Doran et al., (2012) -Davis et al., (2015) - Arslan-Ayaydin et al., (2016) -Henry and Leone (2016) -Yekini et al., (2016)	**Pros**: Henry (2008) is the first positive/negative wordlist created from financial document, US press releases. Therefore, it is more applicable to be used in financial reporting textual analysis. **Cons**: Henry's wordlist has a limited number of words, 104 positive and 85 negative words.
Loughran and McDonald (2011)	-Feldman et al., (2010) -Loughran and McDonald (2011) -Rogers et al., (2011) -Davis and Tama-Sweet (2012) -Huang et al., (2014A) -Huang et al., (2014B) - Allee and Deangelis (2015) -Mayew et al., (2015) -Davis et al., (2015) - Arslan-Ayaydin et al., (2016) -Iatridis (2016) -Henry and Leone (2016) -Rich et al., (2016) - Bartov et al., (2018) - García-Sánchez et al., (2019) - Marquez-Illescas et al., (2019) -Borochin et al., (2018) - Baginski et al., (2018) -Ataullah et al., (2018) -Lee and Park., (2019) -Barakat et al., (2019)	**Pros**: Similar to Henry (2008) wordlist, LM (2011) wordlist is created from a financial document, US 10-K filings. However, it filled the con of Henry (2008) wordlist, as it is more comprehensive. It contains 354 positive and 2,329 negative words from financial context. Therefore, it is more applicable to be used in financial reporting textual analysis. **Cons**: it might be better if future researches develop this wordlist based on different context rather than the US. As, to the best of our knowledge, there is no tone wordlist is created from outside the US until now.

5.5.3 CFIE software:

As discussed above, narratives' tone is the main variable of the current study. As the current study aims to investigate determinants and predictive power of narratives' tone in the UK context. In the last section, the researcher discussed and analysis different measurements of tone based on the previous literature. By the end of this discussion, the research justify the measurement of narratives' tone in the current study using Loughran and McDonald (2011) wordlists. The current research conducts a computerised quantitative textual analysis approach using software called Corporate Financial Information Environment (CFIE) developed by Lancaster University.

CFIE software is similar to Diction software and QSR software, as it can detect PDF annual report and transfer it into text in order to count the word frequency of such a text. CFIE software gives a word frequency of different narratives' characteristics; such as, forward-looking, uncertainty and, mostly important of the current study, positive and negative words. CFIE is the most suitable software to be used in the current study for several reasons. First, CFIE software is created especially for the UK annual reports and following the structure of UK PDF annual reports. Second, it created specifically for studies that follow bag-of-words approach as the current research conducted. Third, CFIE software can be provided with any wordlist to use in the textual analysis, which will be LM (2011) wordlist in the current research. Finally, CFIE can calculate the readability of the text based on FOG index that will be used in the current study.

5.6 Empirical Models:

According to the previous discussion in chapter two and figure 2.1 that represents the conceptual framework and the objectives of this researcher, the current study aims to investigate the key factors that drive NDT in the UK context and the effect of NDT on future performance. Therefore, the following section will discuss the research models that will be investigated in the empirical part of the current study.

5.6.1 Narrative disclosure tone determinants:

One objective of the current study is to investigate the determinants of narrative disclosures tone in the UK context. Therefore, in this first empirical part, tone will be the dependent variable. This part of the current study focusses on positive tone in investigating the key factors that drive NDT as the majority of studies in the UK context argued that firms disclose more positive information than negatives (e.g., Clatworthy and Jones, 2003; Smith and Taffler, 2010; Schleicher and Walker, 2010). Moreover, empirical research suggested that positive words are more accurate in measuring NDT as managers will not aim to use negative words voluntarily (Schleicher and Walker, 2010; Yekini et al., 2016). However, this study uses net tone (positive-negative) as a robustness test for the main results to control for negativity.

The independent variables that will be investigated in this part can be classified into three groups. The first is CEOs personal and psychological characteristics, named as, narcissism age, gender, financial background, tenure, duality, founder and compensation. The second group is the corporate governance mechanisms including board of director's characteristics named as board size, board independence, board diversity and board activity. In addition, this study will include audit committee characteristics as part of the corporate governance mechanisms named as audit committee independence and audit committee activity, because it has an essential role in monitoring the financial reporting progress. The third group of independent variables is firm characteristics named as, firm size, leverage ratio, sales growth, profitability, complexity and industry type. More details and explanation of the variables definition is mentioned in table (5.2).

Table (5.2): Variables definition

Variable	Definition
Positive_Tone	Number of positive words divided by the total number of words in annual report (to control for the length)
Net_Tone	Number of (positive words-negative words) divided by the total number of words in annual report.

Exec_Net_Tone	Number of (positive words-negative words) in the executives' section divided by the total number of words of that section.
Gov_Net_Tone	Number of (positive words-negative words) in the governance's section divided by the total number of words of the section.
CEO Narcissism	-Percentage of first-person pronounces in CEO letter to shareholders. -Score from 1 to 5 as follow: 1: No photo of CEO 2: CEO photo with other executives 3: CEO photo alone and occupied less than half the page 4: CEO photo alone and occupied more than half the page 5: CEO photo occupied the whole page
CEO Age	The age of CEO at the end of fiscal year.
CEO Gender	Dummy variable = 1 if the CEO is female and = 0 if the CEO is male.
CEO Financial Background	Dummy variable = 1 if the CEO has previous financial experience in either a banking or investment company, in a large auditing firm or in a finance-related role (e.g., financial advisor, VP of finance, CFO); zero otherwise.
CEO Tenure	Number of years serving as CEO in the company
CEO Duality	Dummy variable = 1 if the CEO is also the Chairman of the board, and =0 otherwise.
CEO Founder	Dummy variable = 1 if the CEO is the founder of the company, and =0 otherwise
CEO Compensation	Natural log for total salaries and bonuses that the CEO gets from the company.
Board Size	Total number of members in the board.
Board Independence	Percentage of independent directors in the board.
Board Diversity	Percentage of females on board of directors per year.
AC Independence	Percentage of independent members in the audit committee.
ROA+1	Proxy of future performance, measured as future return on assets for the subsequent year.
ROE+1	Alternative measure for future performance, return in Equity (ROE) ratio.
FOG Index	As a measurement of readability = 0.4 [(words/sentences) +100 (complex words/words)].
Firm Size	Natural logarithm of total assets at the end of fiscal year.

Firm Value	Measured by BTM: Ratio of book value to share price at the end of fiscal year.
Sales growth	Change in sales relative to the previous fiscal year.
Leverage	Total liabilities over total assets.
ROA	Return on assets, as indicator for current performance
Dividend	Measured as dividend per share.
FRC	Dummy variable =1 for the years after the Financial Reporting Council narrative reporting guidance (2015-2018)

As a result of this investigation the current study will report whither tone is CEOs driven, board driven, firm driven or it is driven by all of these factors. These independent variables were collected from Bloomberg database; moreover, some of the CEO characteristics were collected manually from companies' annual reports. Therefore, the following model is designed to investigate narratives' tone determinants based on the three independent variables groups as discussed above.

In order to investigate the key factors that drive positive tone in the UK annual reports narratives, the current study uses the following regression models. This part of the study starts with the base model that include the effect of firm characteristics on NDT. After that, the research adds CG mechanisms and CEO characteristics in the following models in order to investigate the key factors that drive NDT in the UK context as follows:

$$Pos\_Tone_{it} = \propto + \beta_1\, Fog_{it} + \beta_2\, Size_{it} + \beta_3\, Leverage_{it} + \beta_4\, DIV_{it} + \beta_5\, BTM_{it} + \beta_6\, Growth_{it} + \beta_7\, Profitability_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (1)$$

This model is focussing on firm characteristics as determinants of NDT. Where *Pos_Tone* is measured equal positive words divided by total number of words in the annual report to control for document length (e.g., Davis and Tama-Sweet 2012; Davis et al. 2015; Arslan-Ayaydin et al., 2016; Loughran and McDonald, 2011; Yekini et al., 2016). Other variables about firm characteristics are explained in (table 5.2). Previous researches recommended investigating *Firm_Size*, as large companies follow more conservatism strategies to avoid any future risks, and they will be more cautious with disclosing balanced narrative reports (Li, 2010; Rogers et al., 2011). In addition, other firm characteristics were considered such as *financial leverage* as a control of credit crunch (Yekini et al., 2016). This study also controls for other firm-specific characteristics that might affect positive tone such as *Sales_growth*, *Profitability*, *Dividend and Book-to-Market* ratio as a proxy of growth, current profit, investment activities and firm value respectively (Li, 2010; Davis et al., 2015). While *FRC* is a dummy variable equal 1 for years after the FRC narrative reporting guidance in 2014, in order to control for the regulatory guidance. In addition, the this model control for readability, using *FOG* index, as another important characteristic of narratives, because previous research shown that it is correlated with narratives' tone (Tan, Wang and Zhou, 2014). Finally, this study controls for *year* and *industry* fixed effect that might affect the positive tone of annual reports narratives (Davis et al., 2015).

Considering CG mechanisms as determinants of NDT, the current study added CG attributes in the second model:

$$Pos\_Tone_{it} = \propto + \beta_1\, AC\_IND_{it} + \beta_2\, B\_IND_{it} + \beta_3\, B\_gender\ diversity_{it} + \beta_4\, Fog_{it} + \beta_5\, Size_{it} + \beta_6\, Leverage_{it} + \beta_7\, DIV_{it} + \beta_8\, BTM_{it} + \beta_9\, Growth_{it} + \beta_{10}\, Profitability_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \tag{2}$$

Where *Pos_Tone* is measured equal positive words divided by total number of words in the annual report like model (1). CG mechanisms are explained in table (5.2), moreover this model control for firm characteristics that were used in model (1).

In order to investigate whether NDT is CEO, CG or firm driven, this model cover these three categories as determinants of NDT:

$$Pos\_Tone_{it} = \propto + \beta_1\, CEO\_age_{it} + \beta_2\, CEO\_gender_{it} + \beta_3\, CEO\_FinExp_{it} + \beta_4\, AC\_IND_{it} + \beta_5\, B\_IND_{it} + \beta_6\, B\_gender\ diversity_{it} + \beta_7\, CEO\_DUL_{it} + \beta_8\, CEO\_tenure_{it} + \beta_9\, CEO\_Founder_{it} + \beta_{10}\, CEO\_COMP_{it} + \beta_{11}\, FRC_{it} + \beta_{12}\, B\_size_{it} + \beta_{13}\, FOG_{it} + Firm\_controls_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (3)$$

Where *Pos_Tone* is measured equal positive words divided by total number of words in the annual report to control for document length (e.g., Davis and Tama-Sweet 2012; Davis et al. 2015; Arslan-Ayaydin et al., 2016; Loughran and McDonald, 2011; Yekini et al., 2016). Other variables in the model that capture CEO personalities, CG mechanisms and firm characteristics as control variables are explained in (table 5.2).

In order to investigate the effect of CEO narcissism on positive tone in UK annual reports narratives, the following model was used:

$$Pos\_Tone_{it} = \propto + \beta_1\, CEO\_NAR_{it} + \beta_2\, CEO\_age_{it} + \beta_3\, CEO\_gender_{it} + \beta_4\, CEO\_FinExp_{it} + \beta_5\, AC\_IND_{it} + \beta_6\, B\_IND_{it} + \beta_7\, B\_gender\ diversity_{it} + \beta_8\, CEO\_DUL_{it} + \beta_9\, CEO\_tenure_{it} + \beta_{10}\, CEO\_Founder_{it} + \beta_{11}\, CEO\_COMP_{it} + \beta_{12}\, FRC_{it} + \beta_{13}\, B\_size_{it} + \beta_{14}\, FOG_{it} + Firm\_controls_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (4)$$

Where *CEO_NAR* is measured based on the percentage of first-person pronounces in the CEO letter to shareholders, as mentioned above (e.g., Li, 2011; Libby et al., 2012). Following prior studies that investigated CEO narcissism (e.g., Olsen et al., 2014; Marquez-Illescas et al., 2019), this study controls for other CEO personalities, CG and firm features. While *Pos_Tone*, other controls for CEO personalities, CG and firm-specific characteristics were measured as explained above in model (3). Moreover, this study controls for *CEO_COMP*, as compensation is one factor that might affect CEO psychological features (Olsen et al., 2014).

CEO narcissism measurement:

Measuring personal characteristics is very challenging, especially psychological traits such as narcissism (Ham et al., 2018). Narcissism in social science, leadership and psychology studies are commonly measured by the Narcissistic Personality Inventory (NPI-40) developed by Raskin and Terry (1988). The NPI contains 40 pairs of statements of which the CEO must choose one for every pair in order to measure the level of narcissism. However, previous research has argued that it is the CEOs themselves who do this measurement so they may be biased in their choices; therefore, they decided to conduct different measures to capture narcissism. For instance, Ham et al., (2018) used CEO signature size as a proxy of narcissism. Moreover, a composite measure based on the CEO's photo in the annual report, CEO's relative cash pay and CEO's relative non-cash pay were created as a measure of CEO narcissism (Chatterjee and Hambrick, 2007; Olsen et al., 2014).

However, the researcher argues that the CEO compensation, cash pay and non-cash pay, represents the effort and expertise of a CEO, not his/her psychological characteristics. Alternatively, it might be better to use other measurements of narcissism, which reflect CEOs' personalities, such as the use of first-person pronouns in financial reporting which had been used in psychology literature to measure narcissism (Li, 2011; Alli et al., 2018). Moreover, sociolinguistics research supported this argument as first-person pronouns allow the provider of the message to link themselves to the good news, but the absence of first-person pronouns distances the provider from the bad news (Libby et al., 2012). Therefore, the current study uses the percentage of first-person pronouns in the CEO letter to shareholders as a proxy of narcissism. However, in our robustness checks the researcher will follow Chatterjee and Hambrick, (2007) in the use of the photo of the CEO in annual reports as a second proxy to capture narcissism, giving a score from 1 to 5 as defined in the table (5.2) above.

Previous researches argued that even managers' characterises are important to be investigated, however the interactions between top management team have implications for companies' outcomes (e.g., Zhang, Ou, Tsui and Wang, 2017). Therefore, the following models (5) and (6) aim to investigate the interactions effects of top management team characteristics on positive tone in UK annual reports narratives.

In model (5), the researcher examines the moderation effect of board independence, as a proxy for strong CG, on the relationship between CEO narcissism and positive tone. As explained above in hypotheses development, strong CG mechanisms increase the governance-monitoring role of executives in order to improve financial reporting quality (Osma and Guillamo´n-Saorı´n, 2011).

$$Pos\_Tone_{it} = \propto + \beta_1\, CEO\_NAR_{it} + \beta_2\, B\_IND_{it} + \beta_3\, CEO\_NAR * B\_IND_{it} + \beta_4\, CEO\_age_{it} + \beta_5\, CEO\_gender_{it} + \beta_6\, CEO\_FinExp_{it} + \beta_7\, CEO\_DUL_{it} + \beta_8\, CEO\_tenure_{it} + \beta_9\, CEO\_Founder_{it} + \beta_{10}\, CEO\_COMP_{it} + \beta_{11}\, FRC_{it} + \beta_{12}\, AC\_IND_{it} + \beta_{13}\, B\_size_{it} + \beta_{14}\, B\_gender\ diversity_{it} + \beta_{15}\, FOG_{it} + Firm\_controls_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (5)$$

Where *CEO_NAR*B_IND* represent the interaction between narcissistic CEO and percentage of independent directors on board. While *Pos_Tone*, other controls for CEO personalities, CG and firm-specific characteristics were measured as explained above in model (1).

In model (6), the study examines the moderation effect of board gender diversity, on the relationship between CEO gender and positive tone. As explained above in hypotheses development, higher female percentage on board plays an important role in appointing a female leader for the company, as that might reduce the gender gap effect (Wang and Kelen, 2013).

$$Pos\_Tone_{it} = \propto + \beta_1\ CEO\_gender_{it} + \beta_2\ B\_gender\ diversity_{it} + \beta_3\ CEO\_gender * B\_gender\ diversity_{it} + \beta_4\ CEO\_age_{it} + \beta_5\ CEO\_FinExp_{it} + \beta_6\ CEO\_DUL_{it} + \beta_7\ CEO\_tenure_{it} + \beta_8\ CEO\_Founder_{it} + \beta_9\ CEO\_COMP_{it} + \beta_{10}\ FRC_{it} + \beta_{11}\ AC\_IND_{it} + \beta_{12}\ B\_size_{it} + \beta_{13}\ B\_IND_{it} + \beta_{14}\ FOG_{it} + Firm\_controls_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (6)$$

Where *CEO_gender* is measured as dummy variable, as mention in table (5.2). While *CEO_gender*B_ gender diversity* represents the interaction between CEO gender and percentage of female directors on board. While *Pos_Tone*, other controls for CEO personalities, CG and firm-specific characteristics were measured as explained above in model (3).

5.6.2 Narrative disclosure tone consequences:

In the last section, the research discussed and designed the models to examine the determinants of narratives' tone in the UK context based on three groups of variables. In this section, the research will discuss the investigation of tone consequences. As discussed in the literature review chapter and hypotheses development chapter, the current research aims to examine not only the determinants of narratives' tone, but also narratives' tone predictive power and its association with the performance of the subsequent fiscal year.

This study investigates tone predictive power in the UK annual reports narratives using the following regression models:

$$ROA_{it+1} = \propto + \beta_1\ Net\_Tone_{it} + \beta_2\ Size_{it} + \beta_3\ Leverage_{it} + \beta_4\ MTB_{it} + \beta_5\ DIV_{it} + \beta_6\ ROA_{it} + \beta_7\ S\_Growth_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (7)$$

Where *ROA* is a proxy for future performance measured as ROA for the subsequent fiscal year (Price et al., 2012; Davis et al., 2015; Patteli and Pedrini, 2014). Whereas *Net_Tone* is equal (positive-negative) words divided by total number of words in annual report to control for document length (e.g., Davis and Tama-Sweet 2012; Arslan-Ayaydin et al., 2016; Loughran and McDonald, 2011; Yekini et al., 2016). This model controls for firm characteristics as follow, because they have been considered as important indicators for firm outcomes (Iatridis, 2016; Li, 2010). Previous researches recommended controlling for *Firm_Size*, as large companies follow more conservatism strategies to avoid any future risks, and they will be more cautious with disclosing balanced narrative reports (Li, 2010; Rogers et al., 2011). In addition, this study consider *leverage* as a control of credit crunch (Yekini et al., 2016). This study also control for other firm-specific characteristics that might affect firm's outcomes such as *Sales_growth*, ROA, *Dividend and MTB*, as a proxy of growth, current performance, investment activities and market risk respectively (Li, 2010; Davis et al., 2015). Finally, this model controls for *year* and *industry* fixed effect that might affect firm's outcomes (Davis et al., 2015).

In order to examine who got the power inside the company that can help in predicting future performance, the researcher run the same model but using *Executives_Net_Tone* and *Governance_Net_Tone*, instead of *Net_Tone*, respectively in model (8) and (9).

$$ROA_{it+1} = \propto + \beta_1\ Exec\_Net\_Tone_{it} + \beta_2\ Size_{it} + \beta_3\ Leverage_{it} + \beta_4\ MTB_{it} + \beta_5\ DIV_{it} + \beta_6\ ROA_{it} + \beta_7\ S\_Growth_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (8)$$

$$ROA_{it+1} = \propto + \beta_1\ Gov\_Net\_Tone_{it} + \beta_2\ Size_{it} + \beta_3\ Leverage_{it} + \beta_4\ MTB_{it} + \beta_5\ DIV_{it} + \beta_6\ ROA_{it} + \beta_7\ S\_Growth_{it} + Year\_FE_t + IND\_FE_i + \varepsilon_{it} \quad (9)$$

Where Exec_Net_Tone equal (positive-negative) words in the executives' section divided by total number of words for the section. Whereas, Gov_Net_Tone equal (positive-negative) words in the governance' section divided by total number of words for the section. The researcher uses the same control variables that were used in model (7) as explained above.

5.7 Sample Selection and Data Collection:

This study examines the tone of narrative sections, after excluding notes of financial statements and external auditor reports, of the FTSE all-share non-financial listed companies in London Stock Exchange. The notes of financial statements were excluded as it is descriptive and explain the figures inside the statements without any impression management strategies or tone management (Yekini et al., 2016; Loughran and McDonald, 2011; Davis and Tama-Sweet, 2012). Moreover, the external auditor reports were excluded as the current study focuses on corporate annual reports narratives. In other words, this study focuses on narratives reported by the company itself, not by the external auditor report.

The current research use FTSE all-share listed companies to cover the largest sample of FTSE London stock exchange listed companies, as that gives more explanatory power and generalisation of the results (Li, 2010A). Following previous studies (Henry, 2008; Feldman et al., 2010: Loughran and McDonald, 2011; Davis et al., 2012; Davis et al., 2015; Yekini et al., 2016; Rich et al., 2016; Henry and Leone, 2016: Ataullah et al., 2018) financial companies are excluded. As they have different regulation, accounting practices and different structure of financial statements compared with non-financial companies (Schleicher and Walker, 2010). Moreover, this study excludes companies with missing annual reports and companies with annual reports that are not readable by CFIE software.

Annual reports were collected from Bloomberg database; however, the missing reports were collected manually from companies' websites. Financial data about firm characteristics, performance and market firm value were collected from DataStream and Bloomberg databases. Corporate governance mechanisms and CEO personal characteristics were collected from Bloomberg database, however missing data about corporate governance and CEO personalities were collected manually from companies' annual reports.

The sample covers annual reports for fiscal years from 2010 to 2018. It starts in 2010 for some reasons. First, to avoid financial crisis period from 2007 to 2009 when the tone results might be biased with not stable stock market conditions. Second, the UK received more attention about narrative reporting recently from FRC by issuing the strategic reporting guidance and narrative reporting guidance in 2014 and 2015 respectively. That motivates the research to investigate the UK context before and after this guidance and report about the difference between both periods in narrative reporting. Moreover, choosing this period allows the researcher to report about FRC guidance moderation effects on the relationship between NDT and future performance. In other words, this study will report whether the FRC narrative guidance improves NDT in predicting future performance or not. The sample period ends in 2018 as it was the most recent annual reports and financial data during the time of analysis.

The included companies in the sample are based on FTSE All-Share stock market Index. From the entire list, 283 companies that operate on financial services sector were excluded, as they have different regulation, accounting practices and different structure of financial statements compared with non-financial companies (Schleicher and Walker, 2010). Moreover, 35 companies with missing data and PDF annual reports that were not transferable to text were excluded. Therefore, the last sample includes 224 listed companies in London Stock Exchange from 2010 to 2018, representing 2,437 firm year observations.

5.8 Statistical Analysis and tests:

In the last sections, the researcher discussed the main variables of the current study including research models. Moreover, it discussed sample selection criteria and data sources. This section will provide an overview of the statistical analysis and tests that will be conducted in the empirical part of the current study. There are two types of statistical tests, parametric and non-parametric tests. Parametric test is based on some assumptions that need to be exist, however non-parametric test does not require any assumptions. Although parametric tests have more power in statistical analysis compared with non-parametric according to the literature, these assumptions named as normality of distribution and linearity must be satisfied.

skewness-kurtosis numerical normality test will be used to check for normality, where the data follows normal distribution when the skewness value is closer to zero. In order to check the linearity, dependent variable will be plotted against the independent variables. In order to test the homoscedasticity of residuals, the current study uses Cook-Weisberg test for the residuals of main model that examine the key factors drive positive tone in annual reports narratives. It is worth mentioning that, this study will check the multicollinearity problem, if there is a linear relationship between two or more of the independent variables. As that might conduct bias in the OLS regression, if there is a liner association between two of the independent variables. The current research will conduct Person test in order to check the multicollinearity between all explanatory variables.

Finally, in order to test the hypotheses of the current research, the current study will conduct OLS regression, which is the most common statistical technique in narrative disclosure literature. In addition, prior studies report that OLS regression is more powerful when the model contains continuous and dummy variables (Hutcheson and Sofroniou, 1999 cited in Abdelfattah, 2008). The pooled OLS method is used as a liner regression in the current study. The current study is using pooled OLS regression for different reasons. First, for some firms, the number of observation differs among the firms that are included in the current study due to missing data and some annual reports that were not transferred to text for the textual analysis. Second, the pooled OLS regression is more suitable than panel regression when the study has large number of firms with limited number of years, which is the case of the current study (Greene, 2008 cited in Aboud, 2015). Moreover, Nguyen et al., (2018) argue that using quantile regression is more efficient while examining CEO personal characteristics. As long as the current study investigates CEO personal and psychological features as determinants of NDT, the researcher will follow Nguyen et al., (2018) using quantile regression as a robustness analysis for the main results of the current study.

5.9 Conclusion:

The current study uses the interpretivist-functionalist transition zone, as a research philosophy to achieve the research objectives, as using multi-paradigm approaches is more efficient for conducting research. Moreover, the current research follows the deductive approach to test the research hypotheses that were developed based on relevant theories as discussed in the previous chapter. It is worth mentioning that, this chapter discussed and analysed different tone measures in order to choose and justify tone measurement in the current study. Consequently, this research will use Loughran and McDonald (2011) master wordlist in order to measure tone in the UK corporate annual reports narratives. This research will conduct a quantitative computerised textual analysis, bag-of-words approach, using software called CFIE. After that, the current chapter discussed the main methods and variables will be used in order to investigate the determinants and consequences of narratives' tone in the UK context. Moreover, it discussed the sample selection criteria and time horizon of the current research to be conducted from 2010 to 2018 in order to avoid the financial crisis period and be able to investigate the effect of FRC 2014 narrative guidance. The following chapters will present the empirical part of the current research with discussion of research findings.

Chapter Six: Determinants of Narrative Disclosure Tone

6.1 Introduction:

As mentioned in the previous chapters, the current study has two main objectives. First, to investigate the key factors that drive NDT in the UK annual reports narratives. Second, to examine NDT predictive power, and its ability to expect future performance in the UK context. This chapter provides the empirical analysis, results and discussion about the key factors that drive NDT in the UK context, whereas the empirical results and analysis of the NDT consequences will be discussed in the next chapter. The current chapter starts with descriptive statistics for the main variables of this part in the current study. After that, it discusses the regression diagnostics for the data of the current study, including the additional analyses that are done in the current study, such as using alternative proxy for narratives tone in order to control for negativity in UK annual reports narratives. Then is shows the empirical results with the regression analysis results of the determinants of NDT in the UK context following by a discussion of these findings and testing the research hypotheses. Finally, this chapter ends with a conclusion of the main findings of key factors that drive NDT in the UK context.

6.2 Descriptive statistics:

In this section, the researcher provides descriptive statistics for the variable of the current study. Table (6.1) includes the main variable, positive tone, other variables that are using as determinants of positive tone and other control variables. The mean value of Pos_Tone is 0.018; with a minimum of 0.002 and a maximum of 0.059 suggesting that UK annual reports narratives have a positive sentiment after controlling for the length of the report. It is noticeable that the percentage of pos_Tone is low, however this percentage is common and in line with prior studies that used positive words divided by the total number of words in the annual reports to control for the length (e.g., Loughran and McDonald, 2011; Davis and Tama-Sweet, 2012; Davis et al., 2015; Yekini et al., 2016). In addition, the Net Tone was using as alternative measure of NDT for robustness analysis in order to control for negative words in the annual reports. The mean of Net tone is 0.002 with a minimum of -0.098 and a maximum of 0.055.

The average age of CEOs in our study is 53 years old, however just 4.6% from the CEOs in our sample are females. These results are close to previous studies that investigated CEOs characteristics (e.g., Ho et al., 2015). While 20% of CEOs in our sample have financial experiences, and 2.7% of CEOs are tended to be narcissistic based on the first person pronounce usage as a proxy of narcissism. However, using the photo of CEO as a proxy of narcissism, following Olsen et al., (2014) and giving a score from 1-5, the mean value of CEO photo is 2.869. There is 3% of the CEOs in the sample having a role duality, while the average tenure of CEOs in this sample is 6.14 years. The descriptive shows that 7.3% of the CEOs in the current study were the founder of the companies.

Table (6.1): Descriptive statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
Pos Tone	2437	0.018	0.004	0.002	0.059
Net Tone	2437	0.002	0.005	-0.098	0.055
CEO_Age	2437	53.1	6.58	32	79
CEO_Gender	2437	.046	.209	0	1
CEO Finexp	2437	0.205	0.404	0	1
CEO NAR	2437	0.027	0.08	0	0.074
CEO Photo	2437	2.869	0.694	1	5
CEO Duality	2437	0.03	0.169	0	1
CEO Tenure	2437	6.14	5.72	0.083	41.5
CEO Comp	2437	14.196	0.841	9.876	18.069
CEO_Fonder	2437	0.073	0.26	0	1
AC IND	2437	97.983	8.674	0	100
B_Diversity	2437	15.583	11.032	0	57.143
B_Size	2437	8.467	2.085	3	19
B_IND	2437	60.884	12.984	0	92.857
FRC	2437	0.437	0.496	0	1
FOG	2437	21.671	2.98	14.122	83.406
Size	2437	7.209	1.70	2.323	12.927
Lev	2437	21.78	18.3	0	165.5
DPS	2437	0.22	0.34	0	3.07
BTM	2437	0.49	0.57	-5.45	12.08
Profit	2437	24.9	92.9	-345.6	240.9

Sales growth	2437	8.246	22.416	-93.0	383.89

Moreover, the descriptive statistics show that 60.8% of members on board are independent, with an average number of 8 members on board. However, there is just an average of 15% as females on board in our sample. The mean value of size of firms in the current sample is 7.209 with a minimum of 2.323 and a maximum of 12.927 using the natural log of companies' total assets. The average of dividends per share (DPS) in the sample is 0.22, and the profitability based on ROE shows an average of 24.9. Moreover, the mean value of BTM ratio is 0.49, while the value of sales_growth in our sample is 8.246%. These previous results are consistent with prior studies in NDT (e.g., Li, 2010, Davis et al., 2015; Yekini et al., 2016; Marquez-Illescas et al., 2019).

Table (6.2): Positive tone based on Years

Year	Mean	SD	Min	Median	Max
2010	0.0169	0.0036	0.0017	0.0172	0.0294
2011	0.0176	0.0032	0.0082	0.0176	0.0298
2012	0.0179	0.0033	0.0038	0.0178	0.0324
2013	0.0179	0.0032	0.0076	0.0179	0.0296
2014	0.0182	0.0037	0.0038	0.0180	0.0412
2015	0.0181	0.0039	0.0031	0.0181	0.0398
2016	0.0182	0.0032	0.0036	0.0182	0.0371
2017	0.0183	0.0029	0.0043	0.0184	0.0281
2018	0.0191	0.0051	0.0021	0.0186	0.0591
Total	0.018	0.004	0.002	0.018	0.059

Table (6.2) present the details descriptive statistics of the main variable of the current study, named as Positive Tone, among different years of the sample from 2010-2018. It is noticeable that the positive tone is increased after the guidance of narrative reporting issued by FRC in 2014. As the mean of positive tone before 2014 was around 1.7%, however after 2014 it starts to be between 1.8% and 1.9%. Even if it does not seem like a big change based on these numbers because the positive words were scaled by total number of words in the annual report. However, it actually reflects a big change in how many positive words started to be used after 2014. Table (6.3) provides a details descriptive for the main variable, positive tone, bust based on different industries in the current sample according to the ICB. The results show that positive tone in corporate annual reports' narratives differs among different sectors in the UK context. This is constant with prior narrative tone literature in the UK context, which reported that companies in the same industry would adopt the same disclosure style. As it can be considering as a failure if it does not have the same performance companies with other firms in the same industry. However, nobody should expect that companies from different industries would have the same narrative disclosure practices (Smith and Taffer, 2000). Therefore, the results show that technology, telecommunications and consumer goods industries display higher optimistic tone in their narrative reporting.

Table (6.3): Positive tone based on industries:

Industry	Mean	SD	Min	Median	Max
Basic Materials	0.0163	0.0033	0.0105	0.0158	0.0345
Consumer Goods	0.0186	0.0038	0.0095	0.0185	0.0412
Consumer Services	0.0179	0.0036	0.0021	0.0178	0.0396
Health Care	0.0181	0.0026	0.0096	0.0177	0.0267
Industrials	0.0184	0.0032	0.0031	0.0184	0.0296
Oil & Gas	0.0161	0.0038	0.0017	0.0161	0.0251
Technology	0.0189	0.0049	0.0115	0.0185	0.0591
Telecommunications	0.0188	0.0020	0.0138	0.0188	0.0248
Utilities	0.0184	0.0018	0.0136	0.0182	0.0233
Total	0.018	0.004	0.002	0.018	0.059

6.3 Regression diagnostics:

The current study conducts linear regression analysis to investigate the key factors that drive positive tone in the UK annual reports narratives. Cooke (1998) reports about the importance of detailed data screening to evaluate the impact of distribution problems, moreover the problems of multicollinearity. The pooled OLS method is used as a liner regression in the current study. The current study is using pooled OLS regression for different reasons. First, for some firms, the number of observation differs among the firms that are included in the current study due to missing data and some annual reports that were not transferred to text for the textual analysis. Second, the pooled OLS regression is more suitable than panel regression when the study has large number of firms with limited number of years, which is the case of the current study (Greene, 2008 cited in Aboud, 2015). To justify using OLS regression, there are four main assumption need to be checked:

1. Linearity: that indicates to the relationship between the dependent and independent variable should be linear.
2. Independence and normality of errors: that means the error terms should be independent (the residuals are not correlated). Moreover, the residuals should follow normal distribution.
3. Homoscedasticity: the variance of the error terms is constant for each observation.
4. Multicollinearity: that indicates to having no linear relationship between two or more independent variables (no multicollinearity).

If any of the four assumptions are violated, even if there is nonlinearity, non-normality, heteroscedasticity or multicollinearity, then the results of the regression models might be inefficient and misleading. There are some regression diagnostics models can be employed to check the OLS linear regression assumptions. These models will be analysed in the following sections:

6.3.1 Checking Linearity:

As mentioned above, the relationship between dependent and independent variables should be linear. Linearity can be checked by plotting each independent variable with the dependent variable in order to see how well the fitted regression line indicate their association. Using Stata software function two-way scatter, the researcher checked the linearity between dependent variable, pos_Tone, and each independent variable in the main model of investigating the key factors drive positive tone in the UK annual reports narratives as shown in figure 6.1 in the appendix. The results show that the relationships between dependent variable and independent variables are linear.

6.3.2 Checking normality of residuals:

Although the OLS regression analysis is still efficient and unbiased even if the normality assumption is violated, checking for normality is required for valid hypothesis testing (Gujarati 2004). Even if, Gujarati (2004) reports that this assumption can be relaxed in large sample cases (greater than 100) and the sample of current study is 2,437 firm years observation, the current study still check the normality of residuals. As mentioned above, normality indicates that residuals should follow normal distribution. Normality can be checked using two methods, named as graphical and numerical. In the current study, both methods were used in order to check this assumption.

Following the graphical method, the current study used Stata Q-Q plot and Histogram in order to check the normality of residuals assumption for the main model. Following the numerical method, there are many numerical ways can be conducted to test the normality of residual assumption. The current study conducts skewness-kurtosis numerical normality test. In this text, the data follows normal distribution when the skewness value is closer to zero. Both methods, graphical and numerical, confirm that the residuals of the main model that investigate the key factors that drive positive tone follow normal distribution as shown in figure 6.2 and table (6.4).

Figure 6.2: NDT determinants normality tests:

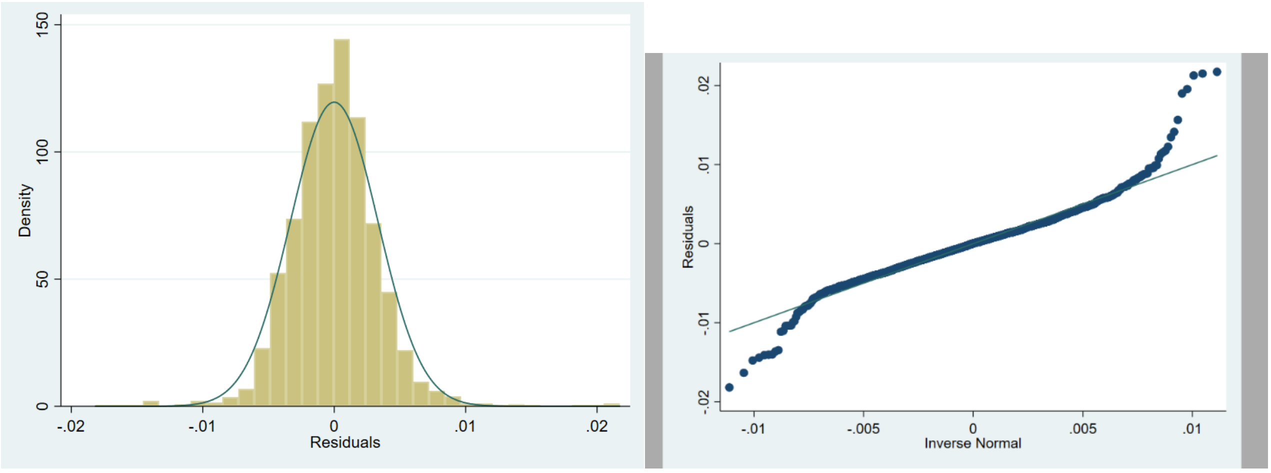


Table (6.4): Skewness/Kurtosis normality test:

Variable	Skewness	kurtosis	Adj chi (2)	Prob>chi (2)
Residual	0.769	12.146	0.63	0.691

6.3.3 Checking homoscedasticity of residuals:

The homoscedasticity assumption indicates to the variance of error terms is constant for each observation. Unequal variance can be investigated by using visual graphs or the Cook-Weisberg test. Breusch-Pagan / Cook-Weisberg examines the null hypothesis that the error variances are all equal. In order to test the homoscedasticity of residuals, the current study uses Cook-Weisberg test for the residuals of main model that examine the key factors drive positive tone in annual reports narratives. The results in table (6.5) indicates homoscedasticity (no heteroscedasticity problem)

Table (6.5A): Breusch-Pagan / Cook-Weisberg heteroscedasticity test:

Test	Chi (2)	Prob> Chi (2)
Breusch-Pagan / Cook-Weisberg	0.02	0.9711

Table (6.5B): Cameron & Trivedi's decomposition of IM test for Heteroscedasticity

Source	Chi-Square	Df	Prob>Chi2

heteroscedasticity	32.90	35	0.5700
Skewness	5.69	7	0.5760
Kurtosis	2.16	1	0.1416
Total	40.75	43	0.5693

6.3.4 Checking for multicollinearity:

As mentioned before, multicollinearity indicates if there is a linear relationship between two or more independent variables. In the cases of multicollinearity problem, it will be difficult to recognise the effects of independent variables and the OLS regression results might be biased (Murray, 2006, cited in Abdelfattah, 2008). There are two ways in order to check the multicollinearity between independent variables named as, person correlation coefficients and Variance Inflation Factors (VIF). The current study uses both of them to check the multicollinearity assumption.

Table (6.6) presents the Person correlation between the main variables in the current study. This correlation test provides an initial association between our variables and they key variable (*Pos_Tone*), moreover it sheds light on any potential multicollinearity. The results show that CEO personal and psychological characteristics are significantly associated with positive tone in UK annual reports narratives, which is supporting upper echelons theory that firm’s outcomes are predicted by their top managers’ characteristics (Hambrick and Mason, 1984). In addition, there is a significant positive association between *CEO_Compensation, firm_Size, ROE* and *sales_growth* with *CEO_narcissism*. These results suggest that larger firms, firms with high performance and growth ratio are more likely to appoint narcissistic CEOs with high compensations, in line with previous studies (e.g., Chatterjee and Hambrick 2007; Marquez-Illescas et al., 2019). Finally, the correlation between explanatory variables in the current study are relatively low, and the maximum person correlation is 42.5% between AC independence and board independence. That indicates there is not multicollinearity problems in the empirical models of the current study.

Table (6.6): Correlation Matrix

VAR	Pos	Age	gender	FinExp	NAR	DUL	Tenure	COMP	Found	AC_IND
pos	1									
Age	-0.031*	1								
Gender	-0.037*	-0.065**	1							
FinExp	-0.016	-0.078***	-0.034*	1						
NAR	0.042**	0.051**	0.050**	-0.004	1					
DUL	-0.038*	0.201***	-0.38*	-0.023	-0.016	1				
tenure	-0.037*	0.253***	-0.058***	-0.066**	-0.016	0.082***	1			
COMP	0.089***	0.096***	0.016	0.036*	0.326***	-0.055***	0.091***	1		
Found	-0.092***	0.142***	-0.062***	-0.017	-0.069***	0.081***	0.379***	0.044**	1	
AC_IND	-0.071***	0.056**	0.028	0.041**	0.061***	-0.080***	0.010	0.073***	-0.020	1
B_Size	0.039*	0.049**	0.043**	0.051**	0.321***	-0.047**	-0.029	0.366***	-0.018	0.053***
B_IND	-0.057***	0.056***	0.046**	0.023	0.197***	-0.081***	-0.087***	0.236***	-0.106***	**0.425*** **
B_div	0.156***	0.096***	0.205***	-0.023	0.228***	-0.041**	-0.013	0.198***	-0.038*	0.144***
FOG	-0.274***	0.002	-0.036*	0.008	0.046**	-0.023	-0.031	-0.024	-0.026	0.017
Size	-0.151***	0.078***	0.028	-0.025	0.380***	-0.037*	-0.034*	0.287***	-0.051	0.050**
Lev	0.029	-0.037*	0.029	0.156***	0.039**	0.034*	-0.121***	0.018	-0.098***	0.028
BTM	-0.139***	0.065***	0.029	-0.006	-0.089***	-0.047**	-0.040**	-0.072***	-0.018	0.008
Profit	0.023	0.099***	-0.012	0.039*	0.028*	-0.006	0.001	0.016	0.109***	0.007
S_grwth	0.030	-0.024	-0.005	0.010	0.013*	-0.002	-0.017	-0.011	-0.004	0.003

VAR	B_Size	B_IND	B_DIV	FOG	Size	Lev	BTM	Profit	S_grwth
B_Size	1								
B_IND	0.133***	1							
B_div	0.249***	0.305***	1						
FOG	0.026	-0.019	-0.010	1					
Size	0.340***	0.242***	0.094***	0.043**	1				
Lev	0.116***	0.058***	0.103***	0.039*	0.049**	1			
BTM	-0.005	-0.017	-0.055***	-0.009	0.073***	-0.116***	1		
Profit	0.022	0.003	0.092***	0.026	-0.029	0.011	-0.178***	1	
S_grwth	-0.024	-0.019	-0.001	-0.008	-0.005	-0.015	-0.045**	-0.008	1

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level

Moreover, the current study conducted multicollinearity check using VIF score after each regression analysis. VIF is a commonly used value in previous literature that indicates strong or weak multicollinearity is VIF of 10; a VIF above 10 indicates strong multicollinearity (Chatterjee and Price, 1991). The maximum VIF score is 2.46 with a mean of VIF values equal 1.67. These results are consistent with the person correlation results indicating that there is not multicollinearity problem in the current study.

6.3.5 Regression diagnostics summary:

According to the previous discussion, there is a liner relationship between the dependent variable and each independent variable. Moreover, the normality checks show that the residuals of the main model in the current study follow a normal distribution. In addition, person correlation and VIF score show that there is no multicollinearity problem between independent variables in the current study. Moreover, the data in the current study does not suffer from heteroscedasticity. Even if all the OLS assumptions are valid, the current study will conduct a robustness analysis in order to check the results from OLS regression. There are three robustness analysis will be conducted for the results in the current study. First, the researcher will use another proxy of CEO narcissism rather than first-person pronouns usage in order to check the original results. Second, controlling for negative tone will be conducted as a robustness check using Net_Tone, in order to check the original results using Pos_Tone. Finally, Nguyen et al., (2018) argue that using quantile regression is more efficient while examining CEO personal characteristics. As long as the current study investigates CEO personal and psychological features as determinants of NDT, the researcher will follow Nguyen et al., (2018) using quantile regression as a robustness analysis for the main results of the current study.

6.4 Regression results and discussion:

6.4.1 CEO characteristics and positive tone:

One objective of the current study is to investigate the key factors that drive NDT in the UK context. In order to report whether NDT is CEO driven, CG driven, firm driven or different factors from all of them. Table (6.7) presents the empirical results of the key factors that drive positive tone in the UK annual reports narratives.

In this section, the CEO personalities and psychological features is discussed as determinants of NDT. Column (3) in table (6.7) presents the results about CEO personal/ observed characterises as determinants of positive tone (model 3). The results show that age is negatively and significantly associated with positive tone, with a coefficient of -0.0032 and t value of -1.91. Supporting H1a that older CEOs display less positive tone. This is consistent with psychological research arguing that older individuals have more conscientiousness; therefore, they might provide neutral and fair description for firm's performance (Ashton and Lee, 2016). Female CEO is negatively and significantly associated with positive tone, with a coefficient of -0.0081 and t value of -1.97. Supporting H1b that female CEOs display less positive tone, due to having more ethical attitude in decision-making (Zalata et al., 2018A).

Financial experts' CEO is negatively and significantly associated with positive tone, with a coefficient of -0.0025 and t value of -1.39. Supporting H1c that CEOs with financial experience display less positive tone, in line with prior literature showing that financial experts CEOs follow more conservative strategies (Gounopoulos and Pham, 2018). CEO tenure is negatively associated with positive tone, with a coefficient of -0.0017 and t value of -1.33, but it is not significant. Therefore, H1d which assuming that there is a significant association between CEO tenure and positive tone in the UK context has been rejected. While CEO duality is negatively and significantly associated with positive tone, with a coefficient of -0.0059 and t value of -1.49. Supporting H1e that there is a significant association between CEO duality and positive tone in the UK context. These previous results support upper echelons theory, which assumes that firm's outcomes are predicted by their top managers' characteristics (Hambrick and Mason, 1984). As the current study contributes to the financial reporting literature by providing an evidence supporting upper echelons theory that CEO characteristics affect the tone of narrative reporting in the UK context.

In addition, it is important to mention that firm specific characteristics and CG mechanisms that were investigated in model (1) and (2) have been used as control variables in model (3) which is focussing on CEO personal/observed characteristics effects. Moreover, the researcher control for other CEO characteristics that might affect NDT named as CEO founder and CEO compensation (Marquez-Illescas et al., 2019). The results show that CEO founder is negatively and significantly associated with positive tone, with a coefficient of -0.0098 and t value of -3.51. This result indicates that when the CEO is the founder of the company they tend to display less positive tone in narrative reporting. While CEO compensation is positively and significantly associated with positive tone, with a coefficient of 9.8811 and t value of 4.10, indicating that companies that led by CEOs with high salaries have more positive tone in narrative reporting. It is noticeable in table (6.7) that R2 has been increased from model (2) to Model (3) by 1.51%, which reflect the explanatory power of CEO personal characteristics on changes in positive tone in the UK context. In addition, the results show that the VIF score for this model is 1.64; therefore, the multicollinearity problem does not exist in this model.

Column (4) in table (6.7) presents the results about CEO psychological/ unobserved characteristic, named as CEO narcissism, as determinants of positive tone (model 4). The results show that CEO narcissism is positively and significantly associated with positive tone, with a coefficient of 0.0041 and t value of 4.23. Supporting H1f, that narcissistic CEOs are more likely to use positive tone compared with non-narcissistic CEOs. This result is consistent with upper echelons theory, which assumes that narcissistic CEOs prefer bold actions, which attract attention, compared with non-narcissistic CEOs, whether it results in big gains or big losses (Chatterjee and Hambrick, 2007; Ham et al., 2018). It is noticeable that R2 increases by 1.13% from model (3) to model (4), which represents the explanatory power of CEO narcissism on changes in positive tone in the UK context.

Moreover, it is important to mention that firm specific characteristics, CG mechanisms and CEO personal characteristics that were investigated in model (1), model (2) and model (3) have been used as control variables in model (4) which is focussing on CEO psychological/unobserved characteristics effects. In addition, the results show that the VIF score for this model is 1.61; therefore, the multicollinearity problem does not exist in this model.

Table (6.7): Determinants of NDT:

Pos_Tone	Model (1)	Model (2)	Model (3)	Model (4)
CEO_NAR				**0.0041***** **(4.23)**
CEO_age			-0.0032** (-1.91)	-0.0023** (-2.04)
CEO_Gender			-0.0081** (-1.97)	-0.0041 (-1.29)
CEO_Fin_exp			-0.0025** (-1.39)	-0.0041** (-2.51)
CEO_duality			-0.0059* (-1.49)	-0.0079** (-1.99)
CEO_Tenure			-0.0017 (-1.33)	-7.7706 (-0.65)

CEO_founder			-0.0098***	-0.0081***
			(-3.51)	(-2.92)
CEO_Compensation			9.8811***	8.3911***
			(4.10)	(3.67)
AC_IND		-0.0025***	-0.0028***	-0.0019**
		(-2.92)	(-3.15)	(-2.47)
B_Diversity		0.0024***	0.0025***	0.0021***
		(3.23)	(3.31)	(2.76)
B_size		0.0076*	0.0057	0.0017
		(1.93)	(1.41)	(0.44)
B_IND		-4.0106*	-9.3206*	-0.0012*
		(-0.64)	(-1.48)	(-1.87)
FOG	-0.0031***	-0.0031***	-0.0031***	-0.0031***
	(-13.69)	(-14.10)	(-14.27)	(-14.22)
Size	-1.3808***	-1.9108***	-2.0318***	-1.8308***
	(-7.70)	(-7.56)	(-8.05)	(-7.67)
Leverage	-7.6706**	-4.5906*	-4.4406*	-3.6906
	(-2.01)	(-1.23)	(-1.17)	(1.00)
DIV	0.0014***	0.0095***	0.0075***	0.0074***
	(6.54)	(4.17)	(3.27)	(3.24)
BTM	-0.0047***	-0.0048***	-0.0045***	-0.0054***
	(-3.83)	(-3.99)	(-3.93)	(-4.48)
Sales growth	1.0207*	1.0407*	9.7408*	8.9080*
	(1.85)	(1.92)	(1.81)	(1.66)
ROE	1.0507*	3.9707*	3.5807*	2.4607
	(0.21)	(0.47)	(0.42)	(0.35)
FRC	0.0017***	0.0012***	0.0013***	0.0013***
	(4.61)	(3.28)	(3.39)	(3.37)
Constant	0.0225***	0.0188***	0.0205***	0.0201***
	(3.74)	(1.88)	(1.83)	(1.82)
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Observations	2,437	2,437	2,437	2,437
VIF	1.69	1.70	1.64	1.61
R2	16.12%	17.81%	19.32%	20.45%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.

Coefficient for each variable is reported, and t test values appear in brackets.

6.4.2 Corporate governance mechanisms and positive tone:

In the last section, the researcher shows and discuss firm specific characteristics as determinants of positive tone in the UK context. In this section, CG mechanisms effects will be discussed as determinants of NDT. Column (2) in table (6.7) presents the results about CG mechanisms as determinants of positive tone (model 2). The findings show that audit committee independence is negatively and significantly associated with positive tone, with a coefficient of -0.0025 and t value of -2.92. Supporting H2a that companies with higher level of independent audit committee have less positive tone in their narrative reporting in the UK context. Similarly, board independence is negatively and significantly associated with positive tone, with a coefficient of -4.0106 and t value of -0.64. Supporting H2b that companies with higher level of independent board of directors display less positive tone in their narrative reporting in the UK context. These results are in line with prior literature which reported that strong CG mechanisms have an important role in monitoring financial reporting process (Zalata et al., 2018B; Iatridis, 2016). Moreover, it reduces impression management strategies (Melloni et al., 2016).

On the other hand, in contrast with the literature, the results show that board gender diversity is positively and significantly associated with positive tone in the UK context, with a coefficient of 0.0024 and t value of 3.23. Therefore, H2c assuming that higher female percentage on board is negatively associated with positive tone has been rejected. That can be explained as there is a small percentage of females on board in the UK context compared with prior studies that have been conducted in the US context. As it has been shown in the descriptive statistics the mean of females on board is 15.58%. Therefore, maybe this percentage does not show the real effect of board gender diversity on board in the UK context. Whereas, board size is positively and significantly associated with positive tone, with a coefficient of 0.0076 and t value of 1.93. Supporting H2d that there is a significant association between board size and positive tone in the UK context.

Moreover, it is important to mention that firm specific characteristics that was investigated in model (1) have been used as control variables in model (2) which is focussing on CG mechanisms effects. It is noticeable in table (6.7) that R2 has been increased from model (1) to Model (2) by 1.69%, which reflect the explanatory power of CG mechanism on changes in positive tone. In addition, the results show that the VIF score for this model is 1.70; therefore, the multicollinearity problem does not exist in this model.

6.4.3 Firm characteristics and positive tone:

In the previous sections of regression results and discussion, the researcher discussed the results of CEO characteristics and CG mechanisms as determinants of NDT in the UK context. This section discusses firm-specific characteristics as determinants of NDT in the UK context. Column (1) in table (6.7) reports the results about firm specific characteristics as determinants of positive tone (model 1). The results show that firm specific characteristics explain 16.12% of the changes in positive tone. Starting with the readability of annual reports, recently Loughran and McDonald (2016) reported that tone and readability are the most two common narratives' characteristic in financial reporting literature. The results show that firm narratives' complexity is negatively and significantly associated with positive tone, with a coefficient of -0.0031 and t value of -13.69. Supporting H3a that there is a negative association between the level of narratives' complexity and positive tone in the UK context. In other words, managers provide positive information they make it in an easy way to read for external users. These results are consistent with Tan et al., (2014) found that the use of positive tone in narrative reporting might affect investors' perception if the text is less readable. In addition, it is consistent with impression management theory assumes that, managers will present more readable information in the case of positives and less readable information in the case of negatives (Henry, 2008; Clatworthy and Jones, 2006).

While Firm size is negatively and significantly associated with positive tone, with a coefficient of -1.3808 and t value of -7.70. Supporting H3b that large firms display less positive tone in their narrative reporting in the UK context. This is in line with prior literature, which reported that managers of large companies follow more conservatism strategies to avoid any future risks and that might control large firms from over optimistic tone in narrative reporting (Rogers et al., 2011; Li, 2010B). Moreover, the results show that leverage ratio is negatively and significantly associated with positive tone, with a coefficient of -7.6706 and t value of -2.01. Supporting H3c assuming a significant association between leverage and positive tone in the UK context. This result is supported by the agency theory perspective assuming that companies with high leverage ratio use less positive tone and report negatives in narrative reporting to reduce agency costs (Kang and Gray, 2011).

Firm sales growth is positively and significantly associated with positive tone, with a coefficient of 1.0207 and t value of 1.85. Supporting H3d that companies with high growth ratio display more positive tone in their narrative reporting in the UK context. This is consistent with signalling theory perspective, as companies aim to send positive signals if they have good news such as higher growth ratio (Smith and Taffler, 2000). ROE ratio is positively and significantly associated with positive tone, with a coefficient of 1.0507 and t value of 0.21. Supporting H3e that there is a significant association between profitability and positive tone in the UK context. This result is consistent with agency and signalling theory assuming that companies with high profit disclose more information with more positive tone in their narratives in order to reflect their success and their performance (Schleicher and Walker, 2010; Melloni et al., 2016). Controlling for the narrative reporting guidance issued by FRC in 2014, the results show that UK companies use more positive tone in their narrative reporting after FRC guidance in 2014. As the FRC dummy variable, =1 if years > 2014 and 0 otherwise, is positively and significantly associated with positive tone, with a coefficient of 0.0017 and t value of 4.61.

To investigate if multicollinearity problem affects the results in model (1), the researcher calculates variance inflation factor (VIF). A commonly used value in previous literature that indicates strong or weak multicollinearity is VIF of 10; a VIF above 10 indicates strong multicollinearity (Chatterjee and Price, 1991). The VIF score for this model is 1.69; therefore, the multicollinearity problem does not exist in this model.

6.4.4 The moderation effects of corporate governance mechanisms:

In the previous parts, the researcher discussed the results about key factors that drive NDT in the UK context. The results show that positive tone in the UK context is driven by different factors named as CEO observed and psychological unobserved characteristics, CG mechanisms and firm specific characteristics. In this section, the researcher aims to discuss the results about the moderation effects of CG on the relationship between CEOs characteristics and positive tone in the UK context. Table (6.8) presents the results of these interactions to provide about CG moderation role. Column (1) of table (6.8) shows the results about the moderation effect of board independence on the relationship between CEO narcissism and positive tone (model 5). While CEO narcissism remains positively and significantly associated with positive tone, with a coefficient of 0.013 and t value of 2.33, the interaction between CEO narcissism and board independence is negatively and significantly associated with positive tone, with a coefficient of -0.0015 and t value of -1.87. These results indicate that higher independence level of board reduces the positive association between CEO narcissism and positive tone. In other words, strong CG mechanism can control the positive tone of narcissistic CEOs. Therefore, these results are supporting H1f1 that the positive effect of narcissistic CEOs on positive tone is lower when firms have higher board independence percentage. The VIF score is 2.46; therefore, the researcher concludes that multicollinearity problem does not exist in this model.

Table (6.8): CG moderation effects:

Pos_Tone	1	2
CEO_NAR	**0.013** (2.33)**	
B_IND	**-2.7616* (-0.36)**	-0.001 (-1.64)
CEO_NAR*B_IND	**-0.0015** (-1.87)**	
CEO_gender	-0.0015 (-0.47)	**-0.0018** (-2.20)**
B_diversity	0.0027*** (3.49)	**0.0025*** (3.17)**
CEO_gender*B_diversity		**0.0065** (2.24)**
CEO_age	-0.0015* (-1.33)	-0.0015* (-1.35)
CEO_FinExp	-0.0032** (-1.93)	-0.0032** (-1.91)
CEO_DUL	-0.0069* (-1.72)	-0.0063 (-1.57)
CEO_Tenure	-0.0001 (-1.19)	-0.0014 (-1.08)
CEO_Compensation	9.4411*** (3.96)	1.2610*** (4.51)
CEO_Founder	-0.0091*** (-3.32)	-0.0010*** (-3.62)
AC_IND	-0.0026*** (-3.07)	-0.0027*** (-3.19)
B_Size	0.0034 (0.89)	0.0051 (1.29)
FRC	0.0012*** (3.25)	0.0013*** (3.40)
FOG	-0.0032*** (-14.41)	-0.0031*** (-14.13)
Size	-1.8819*** (-7.32)	-1.8508*** (-7.78)
Leverage	-2.7506 (-0.74)	-2.5206 (-0.67)
BTM	-0.0049*** (-4.12)	-0.0056*** (-4.68)

Profitability	1.6108	1.6107
	(0.02)	(0.22)
Sales_growth	1.0107*	1.0107*
	(1.87)	(1.87)
Constant	0.0198***	0.0201***
	(1.78)	(1.83)
Year FE	YES	YES
Industry FE	YES	YES
Observations	2,437	2,437
VIF	2.46	1.96
R2	19.34%	19.62%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

Whereas, Column (2) of table (6.8) shows the results about the moderation effect of board gender diversity on the relationship between CEO gender and positive tone (model 6). While, Female CEO remains negatively and significantly associated with positive tone, with a coefficient of -0.0018 and t value of -2.20. The interaction between female CEO and the percentage of females on board is positively and significantly associated with positive tone, with a coefficient of 0.0065 and t value of 2.24. These results indicate that more females on board increases the negative association between female CEO and positive tone. Therefore, these results are supporting H1b1 that the negative effect of female CEOs on positive tone is higher in firms with higher female percentage on board. Moreover, these results are consistent with business ethics research suggesting that higher female percentage on board is associated with appointing a female leader in supporting their decisions, as it reduces the gender gap effect between CEO and board of directors (Wang and Kelen, 2013). The VIF score is 1.96; therefore, the researcher concludes that multicollinearity problem does not exist in this model.

These findings contribute to the accounting and financial reporting literature not only by providing an evidence that supports the upper echelons theory, but also showing the CG mechanisms play an important role in moderating the tone of CEOs in the UK context.

6.5 Robustness test:

6.5.1 Alternative measure for CEO narcissism:

In order to check the robustness of the results and account for endogeneity problems related to measurement error, the researcher use different measure for CEO narcissism in models (4) and (5). While first-person pronounce usage were used, as a proxy for narcissism, in the original analysis, the researcher follows Chatterjee and Hambrick, (2007) in using the photo of CEO in annual reports as an alternative proxy to capture narcissism giving a score from 1 to 5 as defined in (table 5.2). Table (6.9) confirms the original results mentioned above, as narcissistic CEOs are more likely to use positive tone in narrative reporting compared with non-narcissistic CEOs, however this relationship is lower when the company has higher independency level of board of directors. That confirm hypotheses H1f and H1f1, that narcissistic CEOs have the desire to focus on positive tone in narrative reporting, however strong CG mechanisms play an important role in monitoring CEO attributes towards positive tone.

Table (6.9): alternative measure of CEO narcissism:

Pos_Tone	(1)	(2)
CEO_NAR	0.0071***	**0.0074*** **
(Photo)	(7.18)	**(7.44)**
B_IND	-0.0011*	**-0.0014** **
	(-1.78)	**(-2.20)**
NAR*B_IND		**-0.0042** **
		(-3.10)
CEO_age	-0.0018**	-0.0018**
	(-1.68)	(-1.66)
CEO_gender	-0.0037*	-0.0039
	(-1.11)	(-1.22)
CEO_FinExp	-0.0042**	-0.0042**
	(-2.54)	(-2.52)

AC_IND	-0.0028***	-0.0027**
	(-3.17)	(-3.23)
B_diversity	0.0025***	0.0022***
	(3.32)	(2.94)
CEO_duality	-0.0077*	-0.0081**
	(-1.94)	(-2.06)
CEO_Tenure	-2.5106	-1.6706
	(-0.20)	(-0.13)
CEO_Compensation	9.8911***	8.6711***
	(4.21)	(3.67)
CEO_founder	-0.0086***	-0.0082***
	(-3.14)	(-2.98)
B_Size	0.0004	0.0029
	(1.05)	(0.74)
FRC	0.0013***	0.0012***
	(3.36)	(3.26)
FOG	-0.0032***	-0.0031***
	(-14.42)	(-14.52)
Size	-1.5408***	-1.7508***
	(-6.39)	(-7.01)
Leverage	-2.2606*	-2.3706
	(-0.60)	(0.63)
DIV	0.0075***	0.0074***
	(3.27)	(3.24)
BTM	-0.0056***	-0.0054***
	(-4.19)	(-4.54)
Sales growth	9.7208*	9.0218*
	(1.81)	(1.80)
ROE	1.2018*	6.2018
	(0.02)	(0.09)
Constant	0.0168**	0.0189***
	(0.64)	(1.66)
Year FE	YES	YES
Industry FE	YES	YES
Observations	2,437	2,437
VIF	1.64	1.61
R2	21.14%	21.42%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

6.5.2 Controlling for negative tone:

While the main focus was on positive tone in the main analysis as a proxy of NDT, the researcher aims to check the robustness of the results by using *Net_Tone* as a proxy of NDT, measured as (positive words-negative words)/ total number of words. In other way, that aims to control for the negative tone in annual reports narratives, in order to mitigate endogeneity problems related to omitted variables. Table (6.10) confirms the original results that NDT in annual reports is driven by different factors, named as CEO characteristics, CG mechanisms and firm characteristics. However, it is notable that variables' *coefficient*, *t-value and R2* are lower compared with our main analysis when positive tone was used as a proxy of NDT. These results are not surprising, as it is in line with previous studies in the UK context reporting that NDT is more accurate to be measured by positives rather than negatives, as managers tend to bias the number of negative words (Schleicher and Walker, 2010; Yekini et al., 2016). Moreover, they reported that positive words are more in use and have more explanatory power than negatives in the UK context, especially when the principles-based approach is operated with less restriction in monitoring financial reporting.

Table (6.10): Determinants of NDT (robust):

Net_Tone	Model (1) robust	Model (2) robust	Model (3) robust	Model (4) robust
CEO_NAR				**0.0019**
				(1.27)
CEO_age			-0.0034*	-0.0023*
			(-1.42)	(-1.37)
CEO_Gender			-0.0043*	-0.0029*
			(-0.87)	(-0.60)
CEO_Fin_exp			-0.0012*	-0.0068**
			(-0.42)	(-0.27)
CEO_duality			-0.0020*	-0.0032*
			(-0.33)	(-0.52)
CEO_Tenure			-0.0012	-0.0016
			(-0.59)	(-0.82)
CEO_founder			-0.0058*	-0.0056*
			(-1.37)	(-1.32)
CEO_Compensation			1.4210***	1.3910***
			(3.87)	(3.82)
AC_IND		-0.0033***	-0.0036***	-0.0036***
		(-2.58)	(-2.77)	(-2.77)
B_Diversity		0.0016*	0.0019**	0.0021*
		(1.45)	(1.68)	(1.84)
B_size		0.0012*	0.0062	0.0024
		(1.73)	(1.01)	(0.40)
B_IND		-0.0018*	-0.0024**	-0.0025***

		(-1.92)	(-2.41)	(-2.62)
FOG	-0.0082***	-0.0047*	-0.0043*	-0.0045*
	(-2.44)	(-1.41)	(-1.36)	(-1.46)
Size	-2.8818***	-2.2308***	-2.3608***	-2.4608***
	(-8.35)	(-5.85)	(-3.17)	(-6.56)
Leverage	-0.0018***	-0.0021***	-0.0021***	-0.0002***
	(-3.33)	(-3.73)	(-3.51)	(-3.70)
DIV	0.0014***	0.0012***	0.0093***	0.0012***
	(4.38)	(3.47)	(2.67)	(2.98)
BTM	-0.0012***	-0.0012***	-0.0097***	-0.0094***
	(-6.81)	(-5.61)	(-5.29)	(-5.71)
Sales growth	1.5307*	1.3007*	1.2617*	1.2907*
	(1.82)	(1.59)	(1.53)	(1.56)
ROE	1.6406	8.4907	8.7107	7.5907
	(1.26)	(0.66)	(0.68)	(0.69)
FRC	0.0005*	0.0004*	0.0005*	0.0004*
	(0.84)	(0.74)	(0.84)	(0.74)
Constant	0.0011	0.0024	0.0009	0.0011
	(1.13)	(1.56)	(0.52)	(0.60)
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Observations	2,437	2,437	2,437	2,437
VIF	1.69	1.70	1.64	1.63
R2	10.85%	12.17%	12.36%	12.74%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

In addition, table (6.10) as a robustness check shows that CEO narcissism is positively associated with Net_Tone; however, it is not significant. In other words, after controlling for negative tone, the significant relationship between narcissistic CEOs and NDT started to dissolve. This is not surprising, as upper echelons theory suggests that narcissistic CEOs prefer bold actions, which attract attention by focussing on positives whether it results in big gains or big losses (Chatterjee and Hambrick, 2007; Ham et al., 2018). Therefore, they focus only on positive tone, not negatives, to get more attention. Finally, as a robustness check for the results regarding to the moderation effect of CG, table (6.11) confirms our main results that the moderation effect of CG mechanisms for the relationship between CEO characteristics and NDT is still statistically significant, even after controlling for negative words by using Net_Tone as a proxy of NDT. That means strong CG mechanisms play an important role in having a balanced (not biased) narrative reporting.

Table (6.11): Robustness test for CG moderation effects

Net_Tone	1	2
CEO_NAR	**0.0069**	
	(0.083)	
B_IND	**-0.0021****	-0.0025***
	(-1.82)	(-2.60)
CEO_NAR*B_IND	**-0.0076***	
	(-0.62)	
CEO_gender	-0.0029*	**-0.0032****
	(-0.61)	**(-2.56)**
B_diversity	0.0022*	**0.0016***
	(1.86)	**(1.40)**
CEO_gender*B_diversity		**0.0011****
		(2.55)
CEO_age	-0.0023*	-0.0023*
	(-1.36)	(-1.32)
CEO_FinExp	-0.0065*	-0.0045*
	(-0.26)	(-0.17)
CEO_DUL	-0.0034*	-0.0032*
	(-0.55)	(-0.53)
CEO_Tenure	0.0015	0.0017
	(0.80)	(0.88)
CEO_Compensation	1.3910***	1.4910***
	(3.84)	(4.16)
CEO_Founder	-0.0054*	-0.0061*
	(-1.28)	(-1.44)
AC_IND	-0.0035***	-0.0036***
	(-2.72)	(-2.77)
B_Size	0.0023	0.0036
	(0.38)	(0.59)
FRC	0.0004*	0.0005
	(0.73)	(0.75)
FOG	-0.0051*	-0.0045*
	(-1.51)	(-1.34)
Size	-2.3108***	-2.3408***
	(-6.08)	(-6.45)
Leverage	-0.0002***	-0.0002***
	(-3.68)	(-3.68)
BTM	-0.0010***	-0.0011***
	(-5.69)	(-6.09)
Profitability	7.4017	8.9017
	(0.67)	(0.81)
Sales_growth	1.2907*	1.3107*
	(1.57)	(1.59)

Constant	0.0012	0.0011
	(0.69)	(0.63)
Year FE	YES	YES
Industry FE	YES	YES
Observations	2,437	2,437
VIF	3.29	1.94
R2	12.14%	12.30%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

6.5.3 Quintile regression:

As mentioned above, one robustness analysis that is conducted to check the main analyses is using quintile regression, especially since this study has CEO characteristics effects (Nguyen et al., 2018). The quintile regression results in table (6.12) confirm the main results for the main analyses. It shows that positive tone is driven by different factors named as firm financial characteristics, CG mechanisms and CEO personal characteristics. Moreover, it confirms that CEO narcissism is positively and significantly associated with positive tone. Finally, table (6.13) confirms the main results that CG mechanisms play an important role in moderating the relationship between CEOs characteristics and positive tone.

Table (6.12): Determinants of NDT robustness (quantile regression)

Pos_Tone	Model (1)	Model (2)	Model (3)	Model (4)
CEO_NAR				0.0025**
				(2.33)
CEO_age			-2.9806*	-3.3406*
			(-0.26)	(-0.29)
CEO_Gender			-0.0032**	-0.0033**
			(-0.93)	(-0.96)
CEO_Fin_exp			-0.0026**	-0.0025**
			(-1.45)	(-1.40)
CEO_duality			-0.0046*	-0.0039*
			(-1.08)	(-0.93)
CEO_Tenure			-9.6206	-2.7706
			(-0.72)	(-0.20)
CEO_founder			-0.0013***	-0.0013***
			(-4.36)	(-4.49)

CEO_Compensation			5.6811**	5.6411**
			(2.29)	(2.21)
AC_IND		-0.0002**	-0.0002***	-0.0002***
		(-2.05)	(-2.75)	(-2.64)
B_Diversity		0.0003***	0.0003***	0.0003***
		(3.74)	(4.15)	(4.59)
B_size		0.0062*	0.0005*	0.0005*
		(1.73)	(1.38)	(1.32)
B_IND		-7.2806*	-5.7607*	-9.1017*
		(-1.19)	(-0.09)	(-0.14)
FOG	-0.0035***	-0.0035***	-0.0035***	-0.0035***
	(-16.09)	(-15.43)	(-14.96)	(-14.71)
Size	-1.4908***	-1.7408***	-1.8818***	-1.7708***
	(-6.50)	(-6.97)	(-7.22)	(-6.76)
Leverage	-4.9016*	-2.1506*	-5.3707*	-6.9607*
	(-1.34)	(-0.56)	(-0.13)	(-0.17)
DIV	0.0012***	0.0091***	0.0070***	0.0073***
	(5.87)	(3.99)	(2.91)	(2.92)
BTM	-0.0038***	-0.0039***	-0.0037***	-0.0041***
	(-3.23)	(-3.21)	(-2.89)	(-3.13)
Sales growth	2.2616	8.2016***	9.8806***	9.5406***
	(0.77)	(2.68)	(3.10)	(2.96)
ROE	2.7607	5.8808	4.7107	4.7207
	(0.39)	(0.08)	(0.62)	(0.61)
FRC	0.0012***	0.0081**	0.0095**	0.0091**
	(3.58)	(2.14)	(2.41)	(2.29)
Constant	0.0228***	0.0192***	0.0192***	0.0191***
	(3.97)	(1.83)	(1.66)	(1.67)
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Observations	2,437	2,437	2,437	2,437
Pseudo R2	9.14%	10.28%	11.27%	11.71%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

Table (6.13): CG moderation effects robustness (quantile regression):

Pos_Tone	1	2
CEO_NAR	**0.0139****	
	(2.38)	
B_IND	**-0.0001**	-9.3627
	(-1.32)	(-0.14)
CEO_NAR*B_IND	**-0.0017****	
	(-2.00)	
CEO_gender	-0.0028**	**-0.0087***
	(-0.80)	**(-1.02)**
B_diversity	0.0003***	**0.0003*****
	(4.38)	**(4.23)**

CEO_gender*B_diversity		**0.0002***
		(0.69)
CEO_age	-5.2207*	-5.4016*
	(-0.04)	(-0.46)
CEO_FinExp	-0.0024**	-0.0022*
	(-1.36)	(-1.26)
CEO_DUL	-0.0057*	-0.0051*
	(-1.35)	(-1.19)
CEO_Tenure	-3.2906	-1.3516
	(-0.24)	(-0.10)
CEO_Compensation	6.6011***	9.1611***
	(2.60)	(3.64)
CEO_Founder	-0.0013***	-0.0014***
	(-4.24)	(-4.68)
AC_IND	-0.0022**	-0.0023**
	(-2.50)	(-2.58)
B_Size	0.0005*	0.0006
	(1.48)	(1.78)
FRC	0.0004*	0.0005
	(0.73)	(0.75)
FOG	-0.0036***	-0.0033
	(-15.31)	(-14.07)
Size	-1.7108***	-1.6518***
	(-6.24)	(-6.53)
Leverage	-4.7727	-2.3017
	(-0.12)	(-0.06)
BTM	-0.0042***	-0.0042***
	(-3.24)	(-3.23)
Profitability	4.5207	4.2617
	(0.59)	(0.55)
Sales_growth	9.7816***	9.3516***
	(3.05)	(2.91)
Constant	0.0189***	0.0194***
	(1.59)	(1.68)
Year FE	YES	YES
Industry FE	YES	YES
Observations	2,437	2,437
Pseudo R2	11.87%	11.64%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

6.6 Conclusion:

This chapter provides the empirical results and discussion about the key factors that drive NDT in the UK annual reports narratives. It starts with the descriptive statistics of the main variables of the current study; moreover, it tests the regression assumptions before conducting the main regression analysis. In addition, it includes the results of the robustness analysis that was conducted in order to confirm the results of the main analysis of the current study. The results show that, positive tone in the UK context is driven by different factors named as firm-specific characteristics, CG mechanisms, CEO personal and psychological characteristics. As, smaller companies, lower leverage ratio companies, higher sales growth and profitability companies display more positive tone in annual reports narratives. Moreover, companies with strong corporate governance mechanisms display less positive tone in narrative reporting.

In addition, supporting upper echelons theory perspective, the results show that CEOs personal characteristics affect NDT. As, older CEOs, female CEOs and CEOs with financial expertise display less positive tone in UK annual reports narratives. Considering the psychological features of CEOs, the results show that narcissistic CEOs tend to use more positive tone than non-narcissistic CEOs in the UK context. Moreover, considering the moderation effect of CG mechanisms, the results show that higher independence level of board reduces the positive tone of narcissistic CEOs. In addition, more females on board support female CEO decision by increasing the negative association between female CEO and positive tone. These results indicate that strong CG mechanisms have an important moderation role in narrative reporting. The current study has theoretical and practical implications. Theoretically, it provides a supporting evidence for upper echelons theory, which states that, strategic choices and firm's outcomes are predicted by their top managers' characteristics (Hambrick and Mason, 1984). Practically, it informs analysts and investors about the characteristics of CEOs who are using more positive tone in their communication with external users through annual reports. Whereas this chapter discusses the results of NDT determinants, the next chapter will provide the results about tone predictive power as consequences of NDT in the UK context.

Chapter Seven: Narrative Disclosure Tone Predictive Power

7.1 Introduction:

As mentioned in the previous chapters, the current study has two main aims. First, to investigate the key factors that drive NDT in the UK annual reports narratives, which was discussed in the previous chapter. Second, to examine NDT predictive power in the UK context. This chapter provides the empirical analysis, results and discussion about NDT predictive power and its association with future performance, moreover it shows who has the power inside the company that can help external users in predicting future performance (executives VS governance). The current chapter starts with descriptive statistics for the main variables of this empirical part in the current study. After that, it discusses the regression diagnostics for the data of the current study, including the additional analyses that are done in the current study, such as using alternative measure of future performance, in addition examining the moderation effect of the FRC narrative reporting guidance. Then it shows the empirical results of the regression analysis of NDT predictive power in the UK context following by a discussion of these findings and testing the research hypotheses. Finally, this chapter ends with a conclusion of the main findings of these empirical analyses.

7.2 Descriptive statistics:

Table (7.1) provides the descriptive statistics of the main variables in the current study. The mean value of *Net_Tone* in the sample is 0.002, which shows that annual reports narratives in the UK context have a variation between positive and negative words; however, they have more positivity. This value is in line with prior tone studies that measure net optimistic tone as (positive-negative) divided by the total number of words in the document to control for the length (e.g., Yekini et al., 2016; Davis and Tama-Sweet, 2012; Davis et al., 2015; Marquez-Illescas et al., 2019). It is obvious that the mean value of *Exec_Net_Tone* and *Gov_Net_Tone* is different. The mean value of *Exec_Net_Tone* is 0.1428 indicating that 14.28% of executive sections in annual reports have optimistic tone. However, the mean value of *Gov_Net_Tone* is 0.0471 indicating that just 4.71% of governance sections in annual reports have optimistic tone. Therefore, the researcher concludes that executives have more optimistic tone in their annual reports narratives compared with governance reporting, supporting H4 assuming that net optimistic tone differs among executives and governance sections.

Table (7.1): Descriptive Statistics

Variable	**Obs**	**Mean**	**Std.Dev**	**Min**	**Max**
Net_Tone	2,322	0.0021	0.0051	-0.0982	0.0550
Exec_Net_Tone	2,322	0.1428	0.0052	0.0425	0.1957
Gov_Net_Tone	2,322	0.0471	0.0053	-0.0595	0.0862
ROA+1	2,322	6.2965	14.9052	-68.9512	236.7815
Size	2,322	7.2090	1.7007	2.3228	12.9270
Lev	2,322	21.7787	18.3461	0	165.5771
MTB	2,322	4.2415	37.8824	-964.2491	918.2393
DIV	2,322	0.2186	0.3419	0	3.07
ROA	2,322	6.2966	92.9912	-345.5713	240.862
S_Grwoth	2,322	8.2463	22.416	-93.00	383.89

The current study argues that these results can be explained by the different responsibilities for both groups as executives are responsible for giving a fair view about companies' performance, and therefore, they want to present the information in a positive way to attract new investors. However, governance team is more responsible for monitoring the financial reporting process, internal control quality and risk management strategies. As a result, governance team has less positive tone in their narrative reporting. Moreover, the descriptive shows that *Fut_ROA* has an average of 6.29, indicating that most of companies in FTSE AllShare have positive performance from 2010-2018. The average of *firm size* in this sample is 7.21 with a minimum of 2.3 and a maximum of 12.9. The average of dividends per share (*DPS*) in the current study's sample is 0.22, and the *current performance* based on *ROA* shows an average of 6.92, while the value of *sales_growth* in our sample is 8.24%.

7.3 Regression Diagnostics:

Following the same tests that were conducted in the first empirical chapter during investigating the determinants of NDT, the researcher conducts the same regression diagnostic checks for tone predictive power models. The part of the study conducts linear regression analysis to investigate tone predictive power in the UK annual reports narratives. Cooke (1998) reports about the importance of detailed data screening to evaluate the impact of distribution problems, moreover the problems of multicollinearity. The pooled OLS method is used as a liner regression in the current study. The current study is using pooled OLS regression for different reasons. First, for some firms, the number of observation differs among the firms that are included in the current study due to missing data and some annual reports that were not transferred to text for the textual analysis. Second, the pooled OLS regression is more suitable than panel regression when the study has large number of firms with limited number of years, which is the case of the current study (Greene, 2008 cited in Aboud, 2015). To justify using OLS regression, there are four main assumption need to be checked:

1. Linearity: that indicates to the relationship between the dependent and independent variable should be linear.

2. Independence and normality of errors: that means the error terms should be independent (the residuals are not correlated). Moreover, the residuals should follow normal distribution.

3. Homoscedasticity: the variance of the error terms is constant for each observation.

4. Multicollinearity: that indicates to having no linear relationship between two or more independent variables (no multicollinearity).

If any of the four assumptions are violated, even if there is nonlinearity, non-normality, heteroscedasticity or multicollinearity, then the results of the regression models might be inefficient and misleading. There are some regression diagnostics models can be employed to check the OLS linear regression assumptions. These models will be analysed in the following sections:

7.3.1 Checking Linearity:

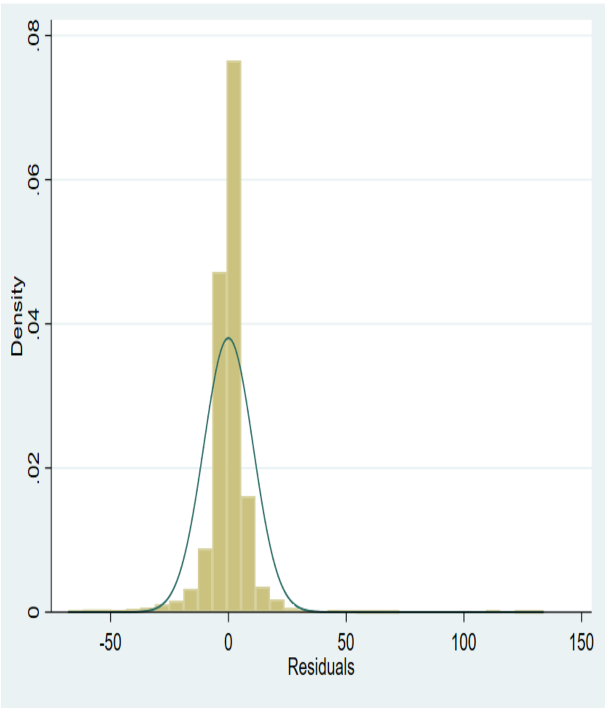
As mentioned above, the relationship between dependent and independent variables should be linear. Linearity can be checked by plotting each independent variable with the dependent variable in order to see how well the fitted regression line indicate their association. Using Stata software function two-way scatter, the researcher checked the linearity between dependent variable, ROA+1, and each independent variable in the main model of investigating the tone predictive power in the UK annual reports narratives as shown in figure 7.1 in the appendix. The results show that the relationships between dependent variable and independent variables are linear.

7.3.2 Checking normality of residuals:

Although the OLS regression analysis is still efficient and unbiased even if the normality assumption is violated, checking for normality is required for valid hypothesis testing (Gujarati 2004). Even if, Gujarati (2004) reports that this assumption can be relaxed in large sample cases (greater than 100) and the sample of current study is 2,437 firm years observation, the current study still check the normality of residuals. As mentioned above, normality indicates that residuals should follow normal distribution. Normality can be checked using two methods, named as graphical and numerical. In the current study, both methods were used in order to check this assumption.

Following the graphical method, the current study used Stata Q-Q plot and Histogram in order to check the normality of residuals assumption for the main model. Following the numerical method, there are many numerical ways can be conducted to test the normality of residual assumption. The current study conducts skewness-kurtosis numerical normality test. In this text, the data follows normal distribution when the skewness value is closer to zero. Both methods, graphical and numerical, confirm that the residuals of the main model that investigates tone predictive power follows normal distribution as shown in figure (7.2) and table (7.2).

Figure 7.2: NDT predictive power normality tests:



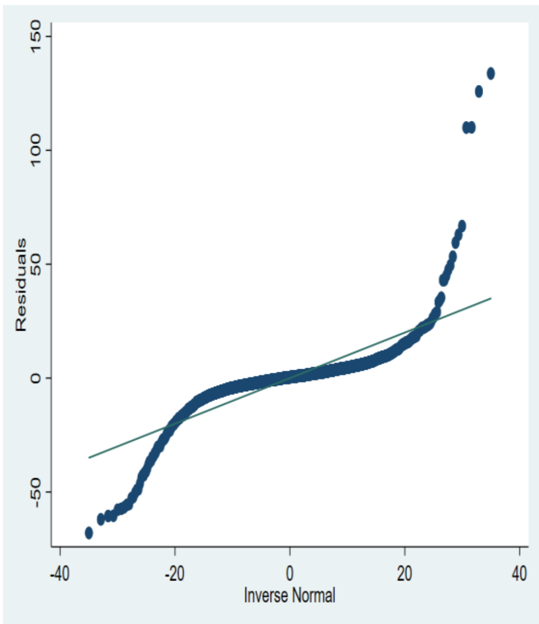


Table (7.2): Skewness/Kurtosis normality test:

Variable	Skewness	kurtosis	Adj chi (2)	Prob>chi (2)
Residual	0.942	18.172	0.84	0.475

7.3.3 Checking homoscedasticity of residuals:

The homoscedasticity assumption indicates to the variance of error terms is constant for each observation. Unequal variance can be investigated by using visual graphs or the Cook-Weisberg test. Breusch-Pagan / Cook-Weisberg examines the null hypothesis that the error variances are all equal. In order to test the homoscedasticity of residuals, the current study uses Cook-Weisberg test for the residuals of main model that examine the tone predictive power in annual reports narratives. The results in table (7.3) show that errors have non-constant variance; therefore, the current data suffer from heteroscedasticity.

Table (7.3A): Breusch-Pagan / Cook-Weisberg heteroscedasticity test:

Test	Chi (2)	Prob> Chi (2)
Breusch-Pagan / Cook-Weisberg	481.80	0.000

Table (7.3B): Cameron & Trivedi's decomposition of 1M test for Heteroscedasticity

Source	Chi-Square	Df	Prob>Chi2
heteroscedasticity	1851.28	226	0.000
Skewness	134.64	23	0.000
Kurtosis	5.94	1	0.0148
Total	1991.86	250	0.000

7.3.4 Checking for multicollinearity:

As mentioned before, multicollinearity indicates if there is a linear relationship between two or more independent variables. In the cases of multicollinearity problem, it will be difficult to recognise the effects of independent variables and the OLS regression results might be biased (Murray, 2006, cited in Abdelfattah, 2008). There are two ways in order to check the multicollinearity between independent variables named as, person correlation coefficients and Variance Inflation Factors (VIF). The current study uses both of them to check the multicollinearity assumption.

Table (7.4) presents the Person correlation between the main variables in the current study. This correlation test provides an initial association between each variable and the dependent variable (*Fut_ROA*); moreover, it sheds light on any potential multicollinearity. The correlation matrix shows that small companies, firms with higher growth, higher current performance and lower leverage ratio have more optimistic tone in their annual reports narratives and better future performance. These results are consistent with prior tone studies (e.g., Wisniewski and Yekini, 2015; Li, 2010; Marquez-Illescas et al., 2019). Finally, the correlation between explanatory variables in the current study are relatively low, indicating that there are not any multicollinearity problems in our empirical models.

Moreover, the current study conducted multicollinearity check using VIF score after each regression analysis. VIF is a commonly used value in previous literature that indicates strong or weak multicollinearity is VIF of 10; a VIF above 10 indicates strong multicollinearity (Chatterjee and Price, 1991). The maximum VIF score is 3.26 with a mean of VIF values equal 3.07. These results are consistent with the person correlation results indicating that there is not multicollinearity problem in the current study.

Table (7.4): Correlation Matrix

VAR	Net_Tone	Exec_Tone	Gov_Tone	FUT ROA	Size	Lev	MTB	DIV	ROA	S_Growth
Net_Tone	1									
Exec_Net_Tone	0.7701***	1								
Gov_Net_Tone	0.3460	0.1640	1							
FUT ROA	0.1273***	0.1143***	0.0131	1						
Size	-0.0445**	-0.0285	-0.0368**	-0.1172***	1					
Lev	-0.0579***	-0.0855***	0.0345**	-0.0921***	0.2661***	1				
MTB	0.0221	0.0214	-0.0083	0.5100***	-0.0983***	-0.0383*	1			
DIV	0.0403**	0.0850***	-0.0111	0.0849***	0.4599***	0.0288	-0.0222	1		
ROA	0.0588***	0.0475**	0.0325	0.7695***	-0.0980***	0.0108	0.5328***	0.0519**	1	
S_Growth	0.0956***	0.0879***	0.0173	0.0716***	-0.0806***	-0.0921***	0.0204	-0.0437**	0.0155	1

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.

7.3.5 Regression diagnostics summary:

According to the previous discussion, there is a liner relationship between the dependent variable and each independent variable. Moreover, the normality check shows that the residuals of the main model in the current study follow a normal distribution. In addition, person correlation and VIF score show that there is no multicollinearity problem between independent variables in the current study. However, the data in the current study suffers from heteroscedasticity. Therefore, the current study will conduct a robustness analysis in order to check the results from OLS regression. There are two robustness analysis will be conducted for the results in the current study. First, the researcher will use another proxy of future performance, ROE+1, rather than ROA+1, which is used in the main analyses, in order to check the original results. Second, an alternative measure of net optimistic tone will be used to check the main results. In the main analyses, net tone was used (positive-negative) words, however in the additional analyses the abnormal optimistic tone will be used as a robustness check. Moreover, transformation will be used for some data variables before employing the regression tests. Finally, year and industry fixed effect are used for all the models in the current study, which might fix OLS regression problems (Davis et al., 2012; Davis et al., 2015).

7.4 Regression results and discussion:

7.4.1 Corporate narrative tone predictive power:

Table (7.5) presents the main empirical results of NDT predictive power. Column (1) reports about corporate narrative tone predictive power and its association with future performance. The regression results show that corporate net optimistic tone in annual reports narratives is positively and significantly associated with future ROA, with a coefficient of 0.1247 and t value of 3.15. Supporting H5, which is assuming that, net optimistic tone in UK annual reports narratives can predict future performance. This is in line with prior studies in the US context arguing that narrative tone is positively associated with the subsequent quarter performance (Arslan-Ayaydin et al., 2016; Davis et al., 2015). In addition, these results are in line with prior studies found that narratives have the ability to predict future returns (e.g., Wisniewski and Yekini, 2015). Moreover, this result supports signalling theory, which assumes that improving performance companies aim to send a good signal about current and future performance to external users to distinguish themselves from companies with bad performance (Smith and Taffler, 2000).

In addition, the current study controls for other firm characteristics that might affect future performance. The researcher found that small firms and lower leverage ratio companies have better performance for the subsequent year. Moreover, companies with higher growth, current performance and those paying more dividends have better future performance. To investigate if multicollinearity problem affects the results in this model, the researcher calculates variance inflation factor (VIF). A commonly used value in previous literature that indicates strong or weak multicollinearity is VIF of 10; a VIF above 10 indicates strong multicollinearity (Chatterjee and Price, 1991). The VIF score for this model is 3.07; therefore, the researcher concludes that multicollinearity problem does not exist in this model.

Table (7.5): Narratives tone predictive power (future performance)

ROA+1	**Model (1)**	**Model (2)**	**Model (3)**
Intercept	0.06012***	0.0879**	0.0607***
	(4.36)	(1.57)	(2.76)
Net_Tone	**0.1247*** **		
	(3.15)		
Exec_Net_Tone		**0.1052*** **	
		(2.69)	
Gov_Net_Tone			**0.0466**
			(0.13)
Size	-0.3521***	-0.3568***	-0.3508***
	(-2.41)	(-2.44)	(-2.40)
Lev	-0.0328***	-0.0322***	-0.0346***
	(-2.82)	(-2.76)	(-2.96)
MTB	0.08829***	0.088***	0.0879***
	(14.06)	(14.02)	(13.98)
DIV	4.2757***	4.1776***	4.4893***
	(5.70)	(5.55)	(5.95)
ROA	0.6426***	0.6438***	0.6452***
	(42.39)	(42.49)	(42.53)
S_Grwoth	0.0207***	0.0214***	0.0237***

	(2.37)	(2.44)	(2.73)
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,322	2,322	2,322
VIF	3.07	3.07	3.05
Adj-R2	63.63%	63.59%	63.47%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

7.4.2 Executives VS governance tone predictive power:

As mentioned before, the current study aims to report about not only narrative tone predictive power, but also who has got this power inside the company, is it the executives or governance. Column (2) and (3) in table (7.5) report about executives and governance tone predictive power of future performance respectively (model 2 and 3). The results show that executives' net optimistic tone in annual reports narratives is positively and significantly associated with future ROA, with a coefficient of 0.1052 and t value of 2.69. Supporting H5a, that executives' net optimistic tone in UK annual reports narratives can predict future performance. However, the researcher found that governances' net optimistic tone is positively associated with future ROA, with a coefficient of 0.0466 and t value of 0.13, but it is not significant. Therefore, the hypothesis H5b assuming governance net optimistic tone can predict future performance was rejected.

As a result, the researcher concludes that executive's tone has the power that can help external users in predicting future performance for the company, but not governances' tone. These results can be explained by the nature of narrative reporting for both of them as they have different responsibilities. Executives provide a fair view about firm performance, operational and financial review for the previous fiscal year, future developments and strategies, which is more related to firm performance. However, governance team is responsible for monitoring the financial reporting process and reporting about the effectiveness of internal quality control and risk management system. It is worth mentioning that, these results support signalling theory that managers have more incentive to send good signals about firm performance to external users to satisfy current shareholders and attract potential investors (Clatworthy and Jones, 2003).

These results contribute to the accounting and financial reporting literature by showing not only the relationship between NDT and future performance in the UK context, but also which part of annual reports can help external users in predicting future performance.

Moreover, the current study controls for the same firm characteristics that have been used in model (1) and the regression analysis shows the same results that small companies have better performance and current profitability and growth ratio are significantly associated with future performance. The VIF score for model (3) and (4) are 3.07 and 3.05 respectively, and therefore, the researcher concludes that multicollinearity problem does not exist in these models.

7.5 Additional analyses:

7.5.1 Robustness test (alternative measure for future performance):

In order to check the robustness of the previous results, an alternative measure for future performance was used in the additional analysis in order to account for endogeneity problems related to measurement errors. While the current study used future ROA in the main analyses as a proxy of future performance, the researcher use future Return on Equity (ROE) as an alternative proxy to measure future performance. Table (7.6) confirms the main results that corporate net optimistic tone is positively and significantly associated with future performance, with a coefficient of 0.5394 and t value of 2.07. Moreover, the robustness analyses confirm that executives' net optimistic tone, but not governances' tone, has the power to help in predicting future performance for the company. As the results show that executives' net optimistic tone is positively and significantly associated with future ROE, with a coefficient of

0.5937 and a t value of 2.30. However, the relationship between governance net optimistic tone and future ROE was not significant.

Table (7.6): Robustness analysis (Alternative measure for Future performance)

ROE+1	Model (1)	Model (2)	Model (3)
Intercept	0.0304* (0.33)	0.8031* (2.17)	0.0856* (0.58)
Net_Tone	**0.5394** **(2.07)**		
Exec_Net_Tone		**0.5937**** **(2.30)**	
Gov_Net_Tone			**0.1349** **(0.55)**
Size	-1.3805** (-1.42)	-1.3554** (-1.39)	-1.6762** (-2.17)
Lev	-0.2657 (-3.45)	-0.2599 (-3.37)	-0.2721 (-3.52)
MTB	0.8497*** (22.08)	0.8506*** (22.11)	0.8505*** (22.08)
DIV	11.7634*** (3.35)	11.5558*** (3.27)	12.3016*** (3.51)
ROA	3.3538*** (33.59)	3.3506*** (33.59)	3.3431*** (33.50)
S_Grwoth	0.0517 (0.87)	0.0514 (0.87)	0.0649 (1.10)
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,322	2,322	2,322
VIF	2.16	2.16	3.05
Adj-R2	56.58%	56.17%	56.07%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level. Coefficient for each variable is reported, and t test values appear in brackets.

7.5.2 Robustness test (omitted variables):

In the main analysis for investigating NDT predictive power, the current study used firm-specific characteristics as control variables. However, this additional analysis aims to address the concern of endogeneity due to omitted variables. Therefore, the current study includes CG mechanisms as additional controls that can affect NDT and future performance (Melloni et al., 2016; Li, 2010B). It is important to consider the characteristics of audit committee while investigating financial reporting narratives in general and narratives' characteristics in particular such as tone. As audit committee has an important role in monitoring the financial reporting progress (Wang and Hussainey, 2013; Zalata et al., 2018B). Moreover, board characteristics is important to be considered while investigating NDT as it can be one of the effective NDT determinants and it can be related to future performance (Li, 2010B; Iatridis, 2016).

Table (7.7) present the results of the additional controls to investigate the relationship between NDT and future performance. These additional analyses confirm the main results that NDT is associated with future performance and can expect company's future performance. Moreover, it confirms the main findings that executives' tone, but not governance, is associated with future performance, meaning that it can be used in helping external users in predicting future performance.

Table (7.7): Omitted variables bias

ROA+1	Model (1)	Model (2)	Model (3)
Intercept	0.0309**	0.1125**	0.0261*
	(1.20)	(1.89)	(0.85)
Net_Tone	**0.1199*** **		
	(3.01)		
Exec_Net_Tone		**0.1014*** **	
		(2.58)	
Gov_Net_Tone			**0.0458**
			(0.02)
B_IND	0.0375**	0.0385**	0.0406**
	(2.07)	(2.12)	(2.23)
B_Diversity	0.0807***	0.0811***	0.0826***
	(3.59)	(3.61)	(3.67)
AC_Size	0.0218	0.0266	0.0764
	(0.09)	(0.11)	(0.31)
AC_IND	0.0514**	0.0527**	0.0563**
	(2.10)	(2.15)	(2.30)
AC_Activity	0.3120**	0.3056**	0.2752**
	(2.19)	(2.15)	(1.94)
Other controls	YES	YES	YES
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,206	2,206	2,206
VIF	1.72	1.72	1.71
Adj-R2	63.94%	63.90%	63.79%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

7.5.3 Robustness test (abnormal optimistic tone):

In the main analyses, the current study used net tone (positive-negative) words as a proxy of optimistic tone in annual reports narratives. However, in order to check these main results, the researcher follows Huang et al., (2014) in using the abnormal optimistic tone to measure optimism in annual reports narratives. Huang et al., (2014) classify positive tone to normal tone that was used in the main analyses, which refers to the neutral description of current available information about the company. While abnormal tone refers to managerial strategic choice of tone to inform or mislead investors, in other words it can be described as the exaggerated tone. Following Huang et al., (2014) abnormal tone is measured based on the residuals of normal tone determinants model as follows:

$$Net\_Tone_{it} = \propto + \beta_1\, Size_{it} + \beta_2\, Lev_{it} + \beta_3\, MTB_{it} + \beta_4\, Div_{it} + \beta_5\, ROA_{it} + \beta_6\, S\_Growth_{it} + \beta_7\, BTM_{it} + \varepsilon_{it}$$

Following what was conducted in the main analyses; the researcher run the same model again using *Exec_Net_Tone* and *Gov_Net_Tone* instead of *Net_Tone* to capture the abnormal tone of executives and governance sections. After that, the researcher used the residuals of these models as a proxy of abnormal tone in the main models to report if abnormal optimistic tone can predict future performance. Table (7.8) shows that corporate abnormal optimistic tone is positively and significantly associated with future performance, with a coefficient of 0.1648 and t value of 3.60. Consistent with the main results, the robustness results show that executives' abnormal optimistic tone can predict future performance, but not governances' abnormal optimistic tone. As the results show that executives' net optimistic tone is positively and significantly associated with future performance, with a coefficient of 0.1355 and a t value of 2.99. However, the relationship between governance net optimistic tone and future performance was not significant.

Table (7.8): Executives abnormal optimistic tone predictive power

ROA+1	Model (1)	Model (2)	Model (3)
Intercept	0.1049***	0.1039***	0.0966***
	(6,74)	(6.66)	(6.25)
Ab_Net_Tone	**0.1648*** **		
	(3.60)		
Ab_Exec_Net_Tone		**0.1355*** **	
		(2.99)	
Ab_Gov_Net_Tone			**0.0438**
			(1.06)
Size	-0.6474***	-0.6438***	-0.5957***
	(-3.97)	(-3.94)	(-3.66)
Lev	-0.0598***	-0.0602***	-0.0607***
	(-4.64)	(-4.66)	(-4.69)
MTB	0.0671***	0.0669***	0.0673***
	(8.88)	(8.86)	(8.89)
DIV	4.5418***	4.5239***	4.5027***
	(6.06)	(6.03)	(6.00)
ROA	0.0896***	0.0895***	0.0894***
	(30.93)	(30.91)	(30.77)
S_Grwoth	0.0360***	0.0362***	0.0367***
	(3.69)	(3.71)	(3.75)
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,322	2,322	2,322
VIF	1.74	1.74	1.72
Adj-R2	51.12%	51.04%	50.87%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level.
Coefficient for each variable is reported, and t test values appear in brackets.

7.5.4 Moderating effect of FRC narratives guidance:

Recently, the UK regulation settings received more attention about narrative reporting from FRC by issuing narrative reporting guidance in 2014 aiming to improve narrative reporting quality. Therefore, in the additional analysis this study aims to investigate the moderation effect of the guidance issued by FRC on the relationship between narrative tone and future performance. Consequently, the current study can report if this guidance helps narratives tone in predicting future performance and providing external users with relevant useful information. In order to investigate the FRC narratives guidance moderation effect, the following regression model was used:

$$ROA_{it+1} = \propto + \beta_1\ Net_{Tone}{}_{it} + \beta_2\ FRC_{it} + \beta_3\ Net_{Tone} * FRC_{it} + \beta_4\ Size_{it} + \beta_5\ Leverage_{it} + \beta_6\ MTB_{it} + \beta_7\ DIV_{it} + \beta_8\ ROA_{it} + \beta_9\ S\_Growth_{it} + Year\_FE + IND\_FE_i + \varepsilon_{it}$$

Where *ROA* and *Net_Tone* is measured following the same in the previous models as a proxy of future performance and net optimistic tone respectively. While FRC is a proxy of regulatory narrative guidance issued by FRC equal 1 if year is > 2014 and equal 0 otherwise, *Net_Tone*FRC* represents the moderation effect of FRC guidance for the relationship between Net_Tone and future performance.

Column (1) of table (7.9) shows the results regarding the moderation effect of FRC guidance on the relationship between Net_Tone and future performance. While Net_Tone remains positively and significantly associated with future performance, with a coefficient of 0.0196 and t value of 2.39, the results show that the interaction between Net_Tone and FRC is positively and significantly associated with future performance, with a coefficient of 0.1998 and t value of 1.65. These results indicate that the new narratives guidance issued by FRC increases corporate narrative tone power in predicting future performance.

Table (7.9): FRC moderation effects

ROA+1	Model (1)	Model (2)	Model (3)
Intercept	0.0142*** (6.83)	0.0091** (4.79)	0.0141*** (3.36)
Net_Tone	0.0196** (2.39)		
FRC	-5.2482** (-2.15)	-3.3664* (-1.96)	-2.3821 (-0.40)
Net_Tone*FRC	**0.1998*** **(1.65)**		
Exec_Net_Tone		0.0165** (2.05)	
Exec_Net_Tone*FRC		**0.2021*** **(1.69)**	
Gov_Net_Tone			0.0067 (0.09)
Gov_Net_Tone*frc			**-0.0052** **(-0.45)**

Controls	YES	YES	YES
Year FR	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,322	2,322	2,322
VIF	3.26	3.26	3.18
Adj-R2	63.62%	63.24%	63.14%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level. Coefficient for each variable is reported, and t test values appear in brackets.

Following the main analyses, the researcher run the same model to investigate FRC guidance moderation effects but using Exec_Net_Tone and Gov_Net_Tone instead of using just Net_Tone for the entire annual reports. Column (2) in table (7.9) shows that Exec_Net_Tone remains positively and significantly associated with future performance. In addition, the interaction between Exec_Net_Tone and FRC is positively and significantly associated with future performance, with a coefficient of 0.2021 and t value of 1.69. However, column (3) in Table (7.9) shows that the interaction between Gov_Net_Tone and FRC is not significantly associated with Future performance. There results support the main analysis when the researcher found executives' tone, but not governances' tone, has the power that help in predicting future performance. Therefore, the current study concludes that the FRC narratives guidance improves the power of corporate tone in general and executives' tone in particular in predicting a company's future performance. These results have a valid implication to regulatory makers, as it shows the importance of providing narrative reporting guidance. Moreover, it shows how this guidance might improve narrative reporting in providing useful information to external users and predicting firm performance.

7.5.5 Future market performance:

In the main analyses, the current study used future ROA as a proxy of future performance, focusing on accounting-based performance. However, in the additional analysis the researcher aims to investigate if narrative tone can predict future market performance. Therefore, future Tobin's Q ratio was used as a proxy of future market-based performance. Table (7.10) shows that corporate net optimistic tone, executive net optimistic tone and governance net optimistic tone are positively associated with future market performance, however, they are not significant. These results are consistent with Wisniewski and Yekini (2015) when they found optimism in annual reports narratives is positive but not significant with future stock returns. In addition, these results are in line with prior studies that found positive tone is not significant with stock market reaction in the long term, as positive tone affect the market performance just in the short term (Arslan-Ayaydin et al., 2016; Huang et al., 2014).

Table (7.10): Narratives tone predictive power (future market performance)

Tobin's Q +1	**Model (1)**	**Model (2)**	**Model (3)**
Intercept	0.0105*** (3.97)	-0.0468* (-0.04)	0.9879*** (2.35)
Net_Tone	**0.0736** **(0.97)**		
Exec_Net_Tone		**0.0788** **(1.06)**	
Gov_Net_Tone			**0.0135** **(0.19)**
Size	-0.1109*** (-3.95)	-0.1114*** (-3.97)	-0.1109*** (-3.95)
Lev	-0.0003** (-0.01)	-0.00001** (-0.04)	-0.0001** (-0.05)
MTB	0.0257*** (20.51)	0.0257*** (20.51)	0.0257*** (20.52)
DIV	0.3441*** (2.67)	0.3373*** (2.61)	0.3526** (2.74)
Cur_Tobin's Q	0.7006*** (56.54)	0.7005*** (56.54)	0.7005*** (56.53)
S_Grwoth	0.0033** (1.99)	0.0033** (1.99)	0.0035** (2.12)
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,322	2,322	2,322
VIF	3.07	3.07	3.05
Adj-R2	77.73%	77.73%	77.72%

*Significance at the 10% level; **significance at the 5% level; *** significance at the 1% level. Coefficient for each variable is reported, and t test values appear in brackets.

7.5.6 Does negativity matter in the UK context?

Motivated by the argument in the UK context that most of companies disclose positive information than negatives, as they argue positive tone has more power; moreover, companies will not disclose negatives voluntarily when it is not required from regulators (e.g., Schlcheicher and Walker, 2010; Clatworthy and Jones, 2003; Ressas and Hussainey, 2014; Yekini et al., 2016). The researcher aims in this additional analysis to investigate the effect of negative tone and its ability to predict future performance in the UK context. Therefore, the main model was running again but using *Negative_Tone* instead of *Net_Tone*, in order to report about negativity's effect.

Column (1) in table (7.11) shows the base model including control variables without negative tone as independent variable. Column (2) in table (7.11) shows the findings of negative tone predictive power. The results show that negative tone in annual reports narratives is negatively and significantly associated with future ROA, with a coefficient of -0.1140 and t value of -2.28. Supporting H6, that negative tone in UK annual reports narratives does matter and can predict future performance. It is obvious that the adj-R2 is increasing from the base model in column (1) to column (2) that includes negative tone by 0.14%. That means negative tone has explanatory power to predict future performance in the UK context. Moreover, as a robustness check, the researcher used ROE+1 as alternative measure for future performance and it confirms the original results.

Table (7.11): negative tone predictive power

DEP Var	**(1) ROA+1**	**(2) ROA+1**	**(3) ROE+1**
Intercept	0.5850***	0.7525***	0.1031**
	(4.23)	(4.81)	(0.89)
Neg_Tone		**-0.1140****	**-0.1078****
		(-2.28)	**(-2.19)**
Size	-0.3505**	-0.3268**	-2.7388**
	(-2.40)	(-2.23)	(-2.54)
Lev	-0.0347***	-0.0328***	-0.2648
	(-2.98)	(-2.81)	(-3.10)
MTB	0.0879***	0.0883***	0.8986***

	(13.99)	(14.05)	(21.10)
DIV	3.1656***	3.0933***	18.244***
	(4.66)	(4.55)	(3.70)
ROA	0.6452***	0.6435***	2.6801***
	(42.54)	(42.42)	(24.27)
S_Grwoth	0.0238***	0.0211***	0.0245
	(2.73)	(2.42)	(0.37)
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
Observations	2,322	2,322	2,322
VIF	1.76	1.73	1.75
Adj-R2	63.42%	63.56%	46.72%

7.6 Conclusion:

This chapter provides the empirical results and discussion about the NDT predictive power in the UK context. It starts with the descriptive statistics of the main variables of the current empirical part; moreover, it tests the regression assumptions before conducting the main regression analysis. In addition, it includes the results of the robustness analyses that were conducted in order to confirm the results of the main analysis of the current study. The results show that corporate net optimistic tone in annual reports narratives is positively and significantly associated with future performance. However, in order to answer the question about who has this power inside the company, the researcher spilt annual reports to executives' reporting and governance reporting. The results show that executive's tone has the power to help external users in predicting future performance for the company, but not governances' tone. These results can be explained by the nature of narrative reporting for both of them as they have different responsibilities. Moreover, this result supports signalling theory, which assumes that improving performance companies and their managers aim to send a good signal about current and future performance to external users to distinguish themselves from companies with bad performance (Smith and Taffler, 2000).

Considering the narrative reporting guidance issued in 2014, the current study investigates whether it moderates the relationship between NDT and future performance. The results show that, the FRC narratives guidance improves the power of corporate tone in general and executives’ tone in particular in predicting a company’s future performance. These empirical results have practical implications by showing investors and analysts that part of annual reports might predict future performance. Moreover, it provides an evidence about the importance of narratives’ guidance issued by regulators, as the results show that the FRC guidance in 2014 improves tone predictive power in expecting future performance. Moreover, it shows that negativity does matter in the UK context, as it is associated with future performance. Whereas the previous two chapters discuss the empirical part of the current research, in particular the results of NDT determinants and NDT predictive power, the next chapter will provide the conclusion, limitations and suggestions for future research in NDT literature.

Chapter Eight: Conclusion, Limitations and Areas for Future Research

8.1 Overview:

The main aim of the current research was to investigate the determinants and consequences of NDT in the UK context. While prior studies examined firm-specific characteristics as determinants of NDT, the current study moved to top manager-specific characteristics as key factors that drive NDT in the UK context. In particular, this study investigated CEOs' psychological and personal characteristics, CG mechanisms and firm characteristics as determinants of NDT in the UK context. Therefore, this research can report whether NDT is firm driven, CG driven or firm driven. Moreover, it investigates if strong CG mechanisms moderate the tone of CEOs in the UK.

In addition, it investigated not only tone predictive power and if NDT is associated with future performance, but also who has this power inside the company (executive vs governance). In other words, it aims to examine which tone of both teams has the power to help external users in predicting the company's future performance. Moreover, motivated by the argument that UK companies disclose more positive information than negatives, the current research examined if negativity matters in the UK context by linking it to future performance.

This chapter summarises the main findings of the current study based on the discussions in chapter six and seven. After that, the main contributions and implications are highlighted. Finally, it ends with the limitation of the current study and provides areas for future research.

8.2 Summary:

Computerised textual analysis was conducted in order to measure the tone of narrative disclosure using CFIE software. The current research used Loughran and McDonald (2011) wordlist to capture NDT in UK annual reports narratives. This wordlist is created based on financial documents, therefore, it is more applicable for use in financial reporting and business communications studies compared with general wordlists (Loughran and McDonald, 2016; Marquez-Illescas et al., 2019).

Investigating the key factors that drive NDT in the UK context, the current research found that positive tone in annual report narratives is driven by different factors, named as CEO personalities, CG mechanisms and firm characteristics. The empirical analyses show that older CEOs and female CEOs are negatively and significantly associated with positive tone in UK annual reports narratives. These results are consistent with psychological and business ethics research as they argue that older individuals are more conscientiousness, and therefore, they might provide a fair description for a firm's performance (Ashton and Lee, 2016), moreover, females have a more ethical attitude than males and are less engaged in impression management strategies (García-Sánchez et al., 2019).

In addition, the current research found that Financial expert CEOs are negatively and significantly associated with positive tone. This result is in line with prior literature showing that financial expert CEOs follow more conservative strategies (Gounopoulos and Pham, 2018). Considering the psychological features of CEOs, the current study found that CEO narcissism is positively and significantly associated with positive tone. This result is consistent with previous literature, which reports that narcissistic CEOs prefer bold actions, which attract attention, compared with non-narcissistic CEOs, whether it results in big gains or big losses (Chatterjee and Hambrick, 2007; Marquez-Illescas et al., 2019). Overall, these previous results support upper echelons theory, which assumes that firms' strategies and outcomes are predicted by their top managers' characteristics.

Investigating CG mechanisms and firm characteristics as determinants of NDT, the current research found that smaller companies, lower leverage ratio companies, higher sales growth and profitability companies display more positive tone in annual report narratives. Moreover, companies with strong corporate governance mechanisms display less positive tone in narrative reporting.

Considering the moderation effect of CG on the relationship between CEO personalities and positive tone, the current research found that strong CG mechanism can control the positive tone of narcissistic CEOs as a higher independence level of the board reduces the positive association between CEO narcissism and positive tone. Moreover, the results show that more females on board increases the negative association between female CEOs and positive tone. These results are consistent with business ethics research suggesting that a higher percentage of females on board is associated with appointing a female leader in supporting their decisions as it reduces the gender gap effect (Wang and Kelen, 2013).

Investigating tone predictive power and its association with future performance, the current research found that corporate net optimistic tone in UK annual report narratives is positively and significantly associated with future performance. These results are in line with prior studies which found that narratives have the ability to predict future returns (e.g., Wisniewski and Yekini, 2015). Moreover, this result supports signalling theory, which assumes that companies send signals to external users to help them distinguish companies with improving performance from companies with declining performance (Smith and Taffler, 2000).

However, the current study aims to report about not only narrative tone predictive power, but also who has this power to help external users in predicting a company's future performance, executives or governance. The results show that only executives' net optimistic tone in annual report narratives is positively and significantly associated with future performance. Therefore, the current study concludes that the tone of executives, not governance, has the power to help external users in predicting a company's future performance.

Moreover, the empirical results show that executives have more optimistic tone in annual report narratives compared with governance team. These results can be explained by the nature of narrative reporting for both of them as they have different responsibilities. Executives provide a fair view about firm performance, operational and financial review, future developments and strategies, which is more related to firm performance. However, governance team is responsible for monitoring the financial reporting process and reporting about the effectiveness of internal quality control and the risk management system.

Considering the moderation effect of FRC narrative guidance issued in 2014, the current study examines how it affects tone predictive power in the UK context. The empirical results show that the FRC narratives guidance improves the power of corporate tone in general and executives' tone in particular in predicting a company's future performance. Moreover, the current research found that negativity does matter in the UK context as it is associated with future performance. All of these previous results are robust by robustness checks, additional analyses and alternative regression analyses. Finally, Table (8.1) presents a summary of hypotheses tests as follows:

Table (8.1): summary of hypotheses tests.

Variables	Hypotheses	Regression result
CEO characteristics and positive tone	H1a: Companies with older CEOs display less positive tone in UK corporate annual report narratives.	Accepted
	H1b: Companies with female CEOs display less positive tone in UK corporate annual reports' narratives.	Accepted
	H1b1: the relationship between female CEOs and positive tone is moderated by the percentage of females on board.	Accepted
	H1c: Companies with financial expertise CEOs display less positive tone in UK corporate annual reports' narratives.	Accepted
	H1d: There is a significant association between CEO tenure and positive tone in UK corporate annual reports' narratives.	Rejected
	H1e: There is a significant association between CEO duality and positive tone in UK corporate annual report narratives.	Accepted
	H1f: Narcissistic CEOs are more likely to display positive tone in narrative reporting compared with non-narcissistic CEOs in the UK context.	Accepted
	H1f1: The positive effect of narcissistic CEOs on positive tone is lower in firms with higher board independence percentage.	Accepted
CG and positive tone	H2a: There is a negative significant association between Audit committee independence and positive tone in UK corporate annual report narratives.	Accepted
	H2b: There is a negative significant association between board independence and positive tone in UK corporate annual report narratives.	Accepted
	H2c: There is a negative significant association between female percentage in board of directors and positive tone in UK corporate annual report narratives.	Rejected
	H2d: There is a significant association between board size and positive tone in UK corporate annual report narratives.	Accepted

Firm characteristics and positive tone	H3a: There is a significant negative association between narrative complexity and positive tone in UK corporate annual report narratives.	Accepted
	H3b: There is a significant negative association between firm size and positive tone in UK corporate annual report narratives.	Accepted
	H3c: There is a significant association between leverage ratio and positive tone in UK corporate annual report narratives.	Accepted
	H3d: There is a significant positive association between firm growth level and positive tone in UK corporate annual report narratives.	Accepted
	H3e: There is a significant association between firms’ profitability and positive tone in UK corporate annual report narratives.	Accepted
Tone predictive power	H4: Net optimistic tone differs in UK annual reports narratives among executives and governance sections.	Accepted
	H5a: There is a significant positive association between executive’s net optimistic tone in UK annual reports narratives and future performance.	Accepted
	H5b: There is a significant positive association between governance’s net optimistic tone in UK annual reports narratives and future performance.	Rejected
	H6: Companies with more negative narrative tone have lower performance in the subsequent fiscal year in the UK context.	Accepted

8.3 Research contributions and implications:

The current study has several contributions to accounting and financial reporting literature as follows: first, it adds to the debate on key factors that drive NDT by highlighting CEOs' personalities, experience of psychological features and CG mechanisms as new dimensions of NDT determinants. In particular, it shows how CEO age, gender, financial expertise and narcissism affect a company's narrative disclosure tone. While prior studies focus on firm specific characteristics and accounting strategies as determinants of NDT (e.g., Li, 2010B; Iatridis, 2016), the current research moves to top-managers' specific characteristics. This is conducted by applying the upper echelons theory perspective and investigating CEOs' characteristics as key factors that drive NDT.

Second, it sheds light on the important role of strong CG attributes in moderating the positive tone of CEOs and controlling tone management strategies. In particular, it shows the role of independent boards in moderating the positive tone of narcissistic CEOs and reducing their positive tone compared with companies with a less independent board. Moreover, it shows how more females on a board affect the tone of female CEOs. These findings contribute to financial reporting literature by linking it to different disciplines such as psychology and business ethics.

Third, to the best of the researcher's knowledge, the current study is the first in the UK context to provide supporting evidence from upper echelons theory that CEOs' personal and psychological characteristics affect NDT, where the principles-based approach is operated. The UK principle-based approach is different than the rules-based approach in the US context where the great majority of tone studies have been conducted. The principle-based approach provides more flexibility and freedom for managers to frame narratives with external users, and consequently, more opportunities for tone management, compared with the US rule-based approach with more restriction on narrative reporting style.

Fourth, while most tone studies focus on short-term consequences, the current study sheds the light on the long-term effect of NDT and its association with future performance. Moreover, it contributes to the debate of who has the power that can help external users in predicting future performance (executive vs governance) by showing that executives' tone has the power in predicting companies' future performance. In addition, it found different tone consistency inside the annual report among different sections showing that executives have more optimistic tone than governance in their narrative reporting.

Fifth, prior narrative disclosure studies in the UK context argue that negativity does not have an effect and companies disclose more positive information than negatives as managers will not disclose negative information voluntarily when it is not required (e.g., Yekini et al., 2016; Schleicher & Walker, 2010). However, the current study contributes to financial reporting literature in general and narrative reporting literature in the UK context in particular by showing that negative tone does matter. As the empirical results show that negativity is associated with future performance, therefore, it can be used to predict future bad performance in the UK context.

In addition, the current study has theoretical and practical implications. The theoretical implications are: first, the current study provides supporting evidence for upper echelons theory, which states that strategic choices and firms' outcomes are predicted by their top managers' characteristics (Hambrick and Mason, 1984). Second, this evidence is taken from the UK context where the principles-based approach is operated with less restriction and more tone management opportunities in narrative reporting compared with the US context where the rule-based approach is followed. Third, this study distinguishes between the tone of executives and governance team in order to show that there is different tone consistency inside the whole annual reports within different sections.

The practical implications are: first, the current research informs analysts, investors and external users about the characteristics of CEOs who are using more positive tone in their communication with external users through annual reports. Second, it shows policy makers the importance of having strong CG in monitoring financial reporting features. Third, these results show analysts and external users which part of annual reports narratives can be used in predicting a company's future performance. Fourth, it provides evidence about the importance of narratives guidance issued by regulators, and how it improves a company's communications with external users.

8.4 Limitations and Suggestions for Future Research:

The current research aimed to investigate the key driving factors that drive NDT and tone predictive power in the UK context. Therefore, it extends the knowledge and contributes to financial reporting literature in general and tone literature in particular. However, the current study still has some limitations that need to be considered in future research.

First, while the current study used bag of words approach in order to capture tone, advanced methods considering the meaning of texts rather than word frequency in capturing tone are still needed. Although this study acknowledges the contribution of El-Haj et al., (2020) in creating new software to capture narrative characteristics, especially tone words, from PDF structured annual reports, as the most popular structure for annual reports outside the US context, it still focusses on word frequency in measuring the tone. Moreover, future research should consider both positive and negative words separately when conducting tone textual analysis for more accuracy (Loughran, 2018).

Second, while the main focus was annual report narratives to capture tone in order to compare between executives and governance sections, future studies might compare between different documents of narrative reporting to investigate which channel affects market reaction and firms' outcomes more with more informative power. In addition, more investigation into narrative tone in sustainability reports is still needed.

Third, because of data restrictions, the current study used secondary data to capture CEO narcissism. However, future research might use more direct measures such as NPI. The NPI contains 40 pairs of statements of which the CEO must choose one for every pair in order to measure the level of narcissism. By conducting this in a financial reporting context, researchers will have the opportunity to compare between direct and indirect narcissism measurements.

Fourth, this study focusses on the UK context, however, future research might compare the determinants of NDT between different countries that follow different CG regulatory settings. That would enable researchers to report about CG setting and regulation effects on financial reporting in general and narrative tone in particular.

According to the previous limitations, there are some areas that future research can consider as follows: first, NDT is an important proxy of financial reporting quality as it can expect future performance and risks (Melloni et al., 2016; Li, 2010A). While, prior studies state that corporate tax avoidance is associated with firm risk (see Guenther, Matsunaga & Williams, 2017), corporate governance (Kovermann & Velte, 2019) and financial reporting quality (Durnev, Li & Magnan, 2017), the current research argues that corporate tax avoidance might affect the tone of financial reporting. Therefore, this research suggests future research to consider tax avoidance as an important determinant of NDT.

Second, it is obvious that the vast majority of NDT studies examined US data. As a result, more evidence about NDT from outside the US is still needed (Plöckinger et al., 2016) for researchers to compare their results based on different contexts. Consistent with this point, future research might investigate the different regulatory settings and effects on NDT by comparing companies that follow common law (e.g., US, Canada, and UK) with other European countries which follow civil law (e.g., Germany, Italy, and Spain). No one can expect firms that follow different regulatory settings to have the same financial reporting style. Moreover, considering the regulation changes in the European context, future research might investigate the change in financial reporting frequency effect on NDT. The European Commission introduced a mandatory quarterly Interim Management Statements (IMSs) by early 2007 for all EU members, however, in 2013, the European Commission stopped this mandatory requirement because they found it affected long-term investments (European Commission, 2013).

Therefore, this regulation change might affect corporate financial reporting style in general and narrative tone in particular.

Third, prior research argues that financial reporting attributes are derived by societal values (e.g., Mazzi, Slack and Tsalavoutas, 2018). Recently, the concept of social capital has been introduced as a measure of trust and honesty in a business environment. The norms of a society with higher social capital are likely to have higher financial reporting quality ss it can decrease impression management mechanisms and improve financial reporting quality (Jha, 2019). As a result, the current research suggests future research to consider social capital as a determinant of NDT.

Fourth, most narrative tone studies focus on the provider of information (companies or managers), without considering the sophistication level of receivers (investors). However, future research should consider the understandability of external users, especially investors in the stock market. This can be conducted by classifying investors as sophisticated investors and small traders, as both groups will have a different reaction in the stock market.

Fifth, most NDT studies aimed to investigate the tone of managerial, operational and financial review sections, such as MD&A, CEO letters to shareholders and chairman statements. However, future research might investigate NDT in different channels of disclosures related to CSR, strategic reports and environmental performance. Consequently, future research might be able to report about tone consistency among different sections of annual reports and examine which sections are more informative compared with others.

Sixth, while the current study considers board characteristics as the only mechanism of CG attributes that drive NDT in the UK context, future research might consider other CG mechanism such as ownership structure and executives' compensation that might affect the tone of narrative reporting.

Seventh, while the current study used the OLS regression with robustness tests and additional analysis in order to address the endogeneity problem, future research might use GMM regression analysis to compare with the current results and show the different statistical results.

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Appendices

Appendix A:

Table 2.1: Summary of main prior studies investigating NDT

Author	Purpose	Sample Size	Tone proxy	Country	Main Findings
Abrahamson and Amir (1996)	Examine the information content of president letter to shareholders and how investors use it to assess the firm. (**consequences**)	2,600 firm observation.	-letters to shareholders. -self-constructed index.	US	The negative words in the narrative reporting is negatively associated with firm performance and earnings.
Smith and Taffler (2000)	Investigate the relationship between the content of chairman statements and firm failure. (**Consequences**)	264 firm observation	Chairman Statements. -Self-constructed index.	UK	The information content of chairman statements can predict firm failure.
Clatworthy and Jones (2003)	Compare the amount of news in the chairman statements of companies with improving and declining performance are different or not. (**Consequences**)	100 firm observation.	Chairman statement. -Manual content analysis.	UK	Both groups take the credit of positives and blame external factors for negatives. Companies with improving performance focus on good news more than bad news with more assertive compared with bottom firms.
Clatworthy and Jones (2006)	The effect of company performance on narratives chairman statements	100 firm observations.	-Chairman statements. -Manual content analysis.	UK	Managers in profitable companies are selective in their disclosure to make it associated with the firm performance.
Tetlock (2007)	The role of media into stock market reaction. (**Consequences**)	3,709 firm observation.	-Wall Street Journal -Harvard wordlist	US	Positive association between pessimistic tone on one hand and stock return and trade volume.
Tetlock et al., (2008)	The role of media to predict firms' accounting earnings. (**Consequences**)	17,769 firm observations.	- Dow Jones firm specific news -Harvard wordlist.	US	Negative association between pessimistic tone of Dow Jones firm specific news and subsequent earnings.

Henry (2008)	Market reaction to press release tone. (**Consequences**)	1,366 firm observation	-Press releases -Henry (2008) wordlist.	US	Positive association between optimistic tone and abnormal returns.
Kothari et al., (2009)	Stock volatility and analysts' error dispersion to narrative tone. (**Consequences**)	100,000 report.	-10-Q, 10-K and analysts' reports -Harvard wordlist.	US	Positive tone leads to lower stock volatility, cost of capital and forecast dispersion. Pessimistic tone drives higher volatility.
Feldman et al., (2010)	Market reaction to MD&A tone changes in 10-Q and 10-K. (**Consequences**)	153,988 firm observation.	MD&A in 10-Q, 10-K -Harvard and LM (2011) wordlist	US	Positive relationship between changes of narrative tone and short-term abnormal returns after controlling accruals and earnings surprises.
Li (2010B)	The key factors drive FLS tone and if FLS tone can predict future performance.	140,000 firm observation.	-MD&A in 10-K and 10-Q. -Naïve Bayesian algorithm	US	Firms with small size, old age, better performance, less volatility and lower accruals have more optimistic tone. Firms with more optimistic tone in FLS have better future performance
Schleicher and Walker (2010)	When and how managers use the tone in their forward-looking statements. (**Determinants**)	841 firm observations.	-Outlook section in annual reports. -Manual content analysis.	UK	Companies with impending declines are more likely to bias the tone upwards. Loss and risky firms display more optimistic tone.
Cho et al., (2010)	The effect of positive tone on environmental and social performance. (**Consequences**)	190 firm observations	10-K filings. -Diction wordlists.	US	Negative association between environmental firm performance and the optimistic tone.
Loughran and McDonald (2011)	Abnormal return and stock volatility to narrative tone disclosures in 10-K filings. (**Consequences**)	50,000 firm observation	-10-K filings. -Harvard and LM (2011) wordlists.	US	Negative tone is associated with lower abnormal return, trade volume and higher stock volatility.
Rogers et al., (2011)	Investigate the relationship between disclosure tone and shareholders litigation.	628 firm observations	-Earning announcement -Henry (2008), Diction and LM (2011) wordlists.	US	Optimistic tone is associated with higher litigation risk. The tone of sued firms is more optimistic during damage periods

					compared with other periods.
Price et al., (2012)	Market reaction to the informativeness of quarterly conference calls. (**Consequences**)	2,880 firm observations	-Quarter conference calls. -Henry (2008) and Harvard wordlists.	US	Positive association between optimistic tone and abnormal returns, short term and long term, and trade volume.
Davis and Tama-Sweet (2012)	Compare the narrative tone in two channels of disclosures (quarter press release, 10-K). (**Consequences**)	16,923 firm observations.	-Press releases and 10-K filings. -LM (2011) wordlist and Henry (2008) Diction.	US	Managers report less pessimistic languages and more optimistic languages in press release compared with MD&A section in 10-K.
Davis et al., (2012)	Examine the predictive power of narrative tone to expect the subsequent quarter performance. (**Consequences**)	23,017 firm observations.	-Quarter press releases. -Diction wordlist.	US	Optimistic tone in quarter press release is positively associated with the subsequent quarter performance. There is a positive market reaction to net optimism tone.
Schlcheicher (2012)	If the positive FLD statement can provide real good news or can be a bad news.	481 firm observation.	-Outlook section in annual report. -Manual content analysis.	UK	In the positive FLD statements, real good news are related more to sales and comparisons with last year's results. But, bad news positive statements are more likely to refer to aims and objectives.
Doran et al., (2012)	The effect of US conference calls tone on stock returns (**Consequences**)	200,000 firm observations.	-Conference calls. -Henry (2008) wordlist.	US	Positive association between tone disclosures and abnormal returns immediately after the event positive tone diminishes the effect of negative news surprises.
Sprenger et al., (2014)	Market reaction to non-financial news on Twitter. (**Consequences**)	439,960 Tweets cover 500 firms.	-Firm's Twitter official account. -Harvard wordlist.	US	Stock market in the US react much stronger in the negative events compared with positive ones.
Ressas and Hussainey (2014)	Examine the financial reporting of good and bad news in financial institutions around the	110 firm observations.	-Chairman's Statements in annual reports. -Manual content analysis.	UK	Managers take the credit of good news and blame other factors for bad news. UK companies decrease the release of good news

	financial crisis year. (**Consequences**)				and disclose more negatives directly before and after the crisis.
Patelli and Pedrini (2014)	Examine the relationship between optimism CEOs letters and firm performance (**Consequences**)	664 firm observations.	-Letters to shareholders in 10-K filings. -Diction wordlist.	US	Positive tone is significantly associated with past and future firm performance.
Huang et al., (2014A)	Examine the stock market reaction to narrative tone disclosures in US press releases. (**Consequences**)	14,475 firm observations.	-Press releases. -LM (2011) wordlist.	US	Abnormal positive tone is related to poor future earnings and cash flow for one to three subsequent years
Huang et al., (2014B)	Examine the investor's reaction to the reports written by analysts. (**Consequences**)	363,952 firm observations.	-Analyst's reports. -LM (2011) wordlist.	US	Investors react more to negatives than positives. Analysts can predict earnings growth up to the next five years.
Tama-Sweet (2014)	Examining the relationship between narratives' tone and insiders.	20,000 firm observations.	-Earning announcement. -Diction wordlist.	US	Positive relationship between change of optimistic tone and CEO next equity sales.
Tan et al., (2014)	Examine the joint effect of tone moderated by readability on investor sophistication. (**Consequences**).	Experiment with MBA students.	-N/A.	US	tone does not affect participants' earnings' judgment when the text is easy to read, however, positive tone affect the earnings judgement of less sophisticated investors once readability is low.
Wisniewski and Yekini (2015)	Examine the predictive power of narratives if it can expect one fiscal year performance. (**Determinants**)	1,463 firm observations.	-Annual reports. -Diction wordlists.	UK	Two variables (Activity and Realism) are significantly positively associated with future performance.
Davis et al., (2015)	Investigate managers-specific characteristic which drives CEOs to use positive language in their narrative reporting. (**Determinants**)	2,098 firm observations.	-Conference calls. -Diction, Henry (2008) and LM (2011) wordlists.	US	Female CEOs use less optimistic tone. Managers who have previous experiences in charity organizations are more likely to use more positive tone.

Mayew et al., (2015)	The effect of tone and management's opinion in MD&A on firm's going concern (**Consequences**)	45, 265 firm observations	-MD&A in 10-K filings. -LM (2011) wordlist.	US	Management opinion and MD&A tone can predict firm going concern (bankrupt).
Allee and Deangelis (2015)	Market reaction to the dispersion of the tone or the degree of which tone. (**Consequences**)	63,570 firm observations.	-Conference calls. -LM (2011) wordlist.	US	Analysts ask more positive questions and investors react positively when the tone is positive. Analysts react negatively when the negative tone is more dispersed.
DeHaan et al., (2015)	If managers withhold negative earnings news when markets have low attention.	192,485 firm observations.	-Earning announcement.	US	Managers report negative earnings news in busy trading days and after trading hours.
Henry and Leone (2016)	Market reaction to narrative tone and to compare word-count approach with machine learning methods. (**Consequences**)	75,599 firm observations.	-Press release. - Henry (2008) wordlist. GI wordlists. Diction Wordlists. LM (2011) wordlists.	US	The market reaction explanation of wordlists created from financial documents such as Henry (2008) and LM (2011) is better than other general dictionaries (GI and Diction). Word count approach has the same power as Naïve Bayesian machine learning approach.
Yekini et al., (2016)	Market reaction to positiveness narrative tone. (**Consequences**)	1,672 firm observations.	-Annual reports. -Henry (2008) wordlist.	UK	Positive tone leads to higher abnormal returns. Insignificant association between negativeness and market reaction.
Arslan-Ayaydin et al., (2016)	Examine the effect of managers inflate tone on the abnormal return. (**Consequences**)	26,000 firm observations.	-Press releases. -Henry (2008) and LM (2011) wordlists.	US	Positive relationship between tone and abnormal return in the short term, but investors have less reaction in the long term.
Segal and Segal (2016)	Examine the relationship between news' tone and investor attention.	167,470 firm observations.	-8-K filings. -LM (2011) wordlist.	US	More positive news when during trading hours and more negatives after finishing trade hours.

Iatridis (2016)	Examine the relationship between earnings manipulation, conservatism, CG and negative tone. (**Determinants**)	405 non-financial listed companies.	-Annual reports. -LM (2011) wordlist.	UK	Companies with high level of pessimistic tone display high conservatism, stronger corporate governance and lower earnings manipulation.
Liebmann et al., (2016)	Examine stock and CDS traders' different understanding of financial news' tone.	2,160 firm observation	-Thompson Reuters News. -Self constructed dynamic wordlist.	US	Stock and CDS traders have different interpretation and focus on different content of the same news.
Rich et al., (2016)	The effect of MD&A tone on financial reporting delay as a measurement of financial reporting quality. (**Consequences**)	362 firm observations	-MD&A section in 10-K. -LM (2011) wordlist.	US	Optimistic tone leads to timelier financial reporting. Positive tone presents more confidence in financial reporting as there are no delays in the subsequent years reporting.
Melloni et al., (2016)	What are the key factors behind too optimistic business model reports?	79 firm observations.	-Business Model section. -Manual content analysis.	UK	Optimistic tone is associated with bad performance and weak governance.
Yang and Liu (2017)	The effect of earning disclosures' tone on firm performance (**Consequences**)	470 firm observations	Twitter -Manual content analysis	UK	firms reduce publishing negative earnings news on their account on Twitter and focus more on positives
Luo and Zhou (2017)	The effect of tone and management ability teams on market reaction. (**consequences**)	15,885 firm observations.	-Earning announcement. -LM (2011) wordlist	US	market reacts positively to earning announcements optimistic tone when management teams are more powerful
Guillmon-Saorin et al., (2017)	Market reaction to non-GAAP information.	845 firm observations	-Earning announcement. -Machine-learning approach.	EU	Positive market reaction to non-GAAP disclosures with low impression management.
Buchholz et al., (2018)	Examine the impact of CEO narcissism on narrative tone disclosures. (**Determinants**)	6,700 firm observations.	-10-K filings. -LM (2011) wordlist.	US	Narcissistic CEOs are more likely to use more optimistic tone in narrative reporting compared to non-narcissistic CEOs.

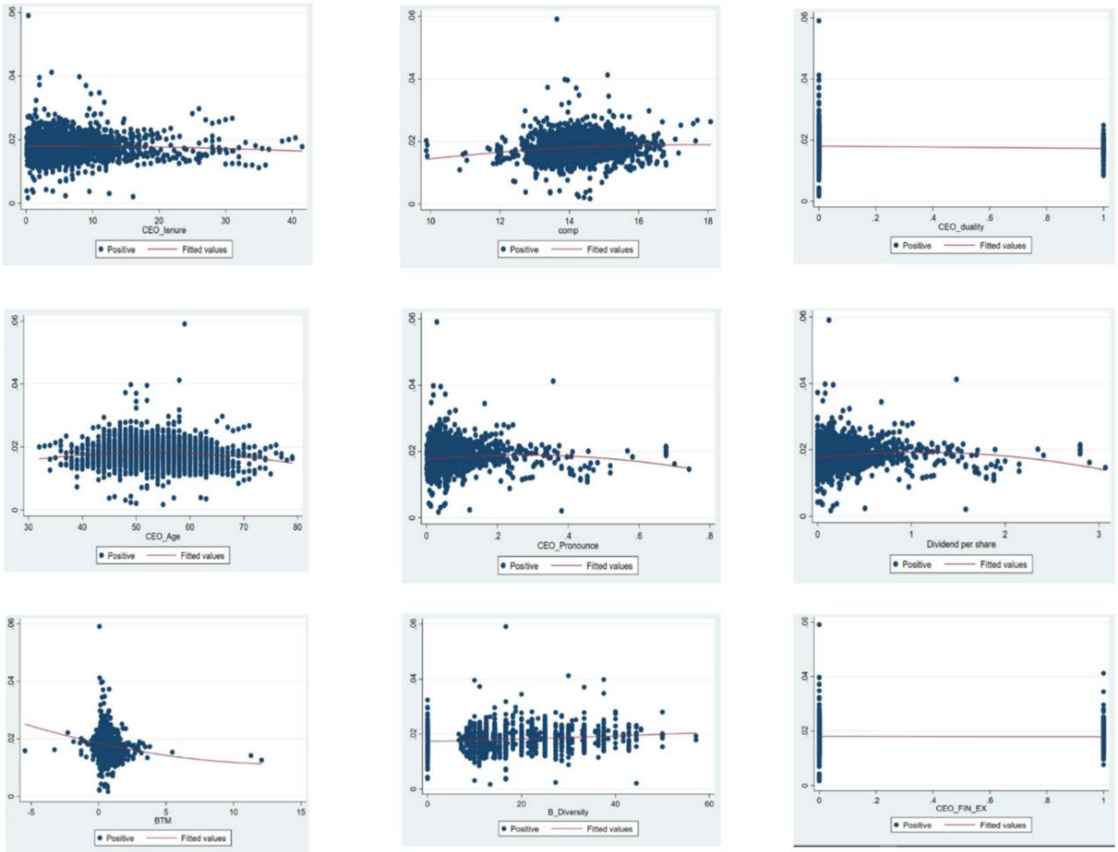
Aly et al., (2018)	The effect of firm performance on narratives' tone	315 firm observations	-Annual reports. -Manual content analysis	Egypt	Egyptian companies disclose positives more than negatives. There is a positive relationship between firm performance and tone.
Bartov et al., (2018)	If the individual tweets can predict the firm earnings surprise and price reaction. (**Consequences**)	33, 186 firm observations.	-Twitter. -Harvard and LM (2011) wordlist.	US	Positive relationship between immediate market reaction, and the opinions on Twitter. the aggregate opinion tone from individuals on Twitter can predict the subsequent quarter earnings
Baginski et al., (2018)	Investigate the relationship between the tone of managerial forecast reports and investor's disagreement. (**Consequences**)	4,000 firm observations.	-Managerial forecast reports. -LM (2011)	US	More positive tone leads to more disagreement between investors. However, they noticed small investors are more likely to be misled by the positive tone compared with sophisticated investors.
Boudt et al., (2018)	Investigate the informative of press releases' tone.	50,000 firm observations.	-Press release. -Henry (2008) and LM (2011) wordlists.	US	Tone is more informative to predict future returns when firms are smaller, younger and have high growth ratio.
Marquez–Illescas et al., (2019)	If narcissistic CEOs use more optimistic tone in their narrative reporting. (**Determinants**)	3,377 firm observations.	-Earning announcement -LM (2011) wordlist.	US	Narcissistic CEOs use more optimistic tone compared to non-narcissistic CEOs, however, this relationship is decreased and become weaker in firms with older CEOs.
García-Sánchez et al., (2019)	The effect of board diversity on sustainability reporting quality. (**Determinants**)	273 firm observations.	-Sustainability reporting. -LM (2011) wordlist.	US	Greater female percentage at the board decreases impression management.
Borochin et al., (2018)	The effect of narratives' tone on market uncertainty. (**Consequences**)	52, 658 firm observations.	-Conference calls. -LM (2011) wordlist.	US	There is a negative relationship between conference calls' tone and market uncertainty.
Asasy et al., (2018)	The effect of firm performance on languages choices	Experiments	-N/A	US	Managers write negative news in less readable way. They aim

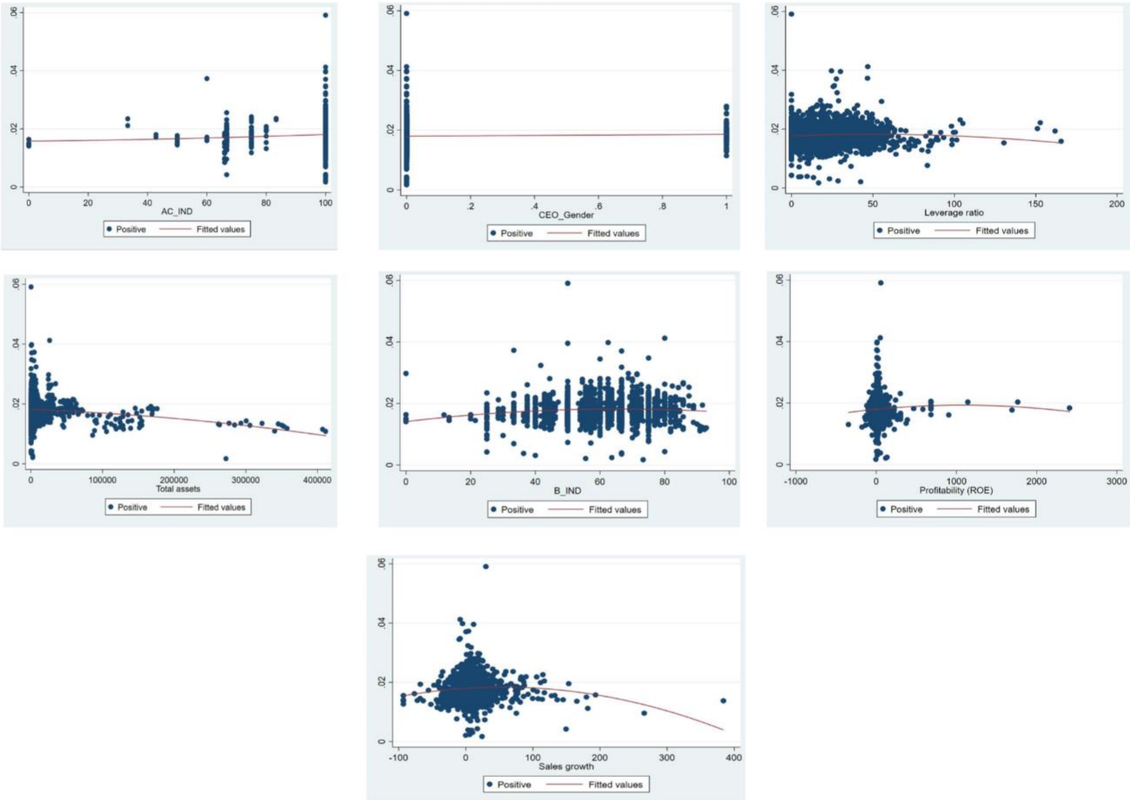
					to present poor performance in positive way.
Lee and Park (2019)	The effect of Audit committee financial expertise on abnormal optimistic tone (**Determinants**)	24,699 firm observations	-10-K filings. -LM (2011) wordlist.	US	Audit committees with more financial expertise reduce the abnormal optimistic tone in narrative reporting.
Fu et al., (2018)	Can tone predict price crash risk? (Consequences)	11,345 firm observations.	-Conference calls. -LM (2011) wordlist.	US	Positive relationship between pessimistic tone and future crash risk.
Ataullah et al., (2018)	The effect of narratives' tone on conservatism strategies. (**Consequences**)	2,236 firm observations.	-Chairman statements. -Henry (2008) and LM (2011)	UK	optimistic tone decreases leverage and dividends, also it increases cash holding
Bakarich et al., (2019)	The relationship between narratives' characteristics and company life cycle.	24,268 firm observations	-10-K filings -LM (2011) wordlist.	US	Companies' disclosures are more readable and more optimistic when they are moving from the beginning to maturity.
DeBoskey et al., (2019)	Examine the effect of CEO power on earning announcement tone.	5,862 firm observations.	-Earning announcement. -LM (2011)	US	Positive relationship between CEO power and optimistic tone. However, this association is weaker when the company has efficient CG.
Shan (2019)	If disclosure tone in media, affect the extent of voluntary disclosure.	1,118 firm observation	-Newspaper -Diction wordlist.	China	Positive association between the tone of firms' news in social media and the extent of voluntary disclosure.
Brochet et al., (2019)	Examine the effect of managers' cultural background on their communication with investors considering market reaction.	57,740 firm observations.	-Conference calls. -LM (2011) wordlist.	US	Managers with individualistic culture use more optimistic tone and self-referencing, with less apologise. Market reacts positively to optimistic tone without considering managers background
Barakat et al., (2019)	The effect of risk announcements' tone of the equity and debt base market reaction.	305 firm observations.	-Risk announcements at Media news. -LM (2011) wordlist.	INT	Net negative tone and uncertainty tone have a strong reputational effects on market reaction

Imam and Bhardwaj (2019)	Examine the tone and readability of media during financial crisis for IPO companies.	76 news articles for 10 IPO stocks	-News articles. -Manual analysis.	US	Tone is more optimistic in non-crisis time and more pessimistic during the global crisis. Readability has insignificant association with financial crisis.
Rahman (2019)	Examine market reaction and annual earnings to narratives' tone of quarterly reporting.	1,032 firm observation	-Interim Management Statements. -Manual content analysis.	UK	Third quarter's tone, but not first quarter is positively associated with annual earnings and market reactions.
Campbell et al., (2019)	Examine if tone volatility is driven by operation risk or managers' transparency. How investors react to that?	11,331 firm observations.	-10-K, 8-K and conference calls. -LM (2011) wordlist.	US	Both, firms' operation risk and managers' transparency drive tone volatility. However, investor react only when tone volatility discuss operation risks.
Del Gaudio et al., 2020	The effect of negative tone on banks risks.	-Annual reports. -LM (2011) wordlists.	584 firm observations.	US	Higher negative tone helps explain bankruptcy risks.
Du and Yu (2020)	The relationship between CSR reports tone and performance.	-CSR reports. -LM (2011) wordlist.	1,258 firm observations.	US	Optimistic tone is associated with future CSR performance.
Choi (2020)	The relationship between abnormal tone and insider trading.	-10-K reports. -LM (2011) wordlist.	230 firm observations.	US	More abnormal optimistic tone is associated with lower insider trading.
Druz et al., 2020	Examine if negativity can predict future performance.	-Conference calls -LM (2011) wordlist.	70,997 firm observations.	US	Negativity is associated with future performance.
Liu and Han (2020)	The relationship between media tone and future returns.	-Media -LM (2011) wordlist.	48,301 firm observations.	US	Low negative media tone is associated with higher returns.
D'Augusta and DeAngelis (2020)	The relationship between tone fluctuation and earnings performance.	-10-K reports. -LM (2011) wordlist.	45,361 firm observations.	US	The relationship between tone and earning performance depends of whether the company meets or beats investors' expectations.

Appendix B:

Figure 6.1: NDT determinants linearity checks.

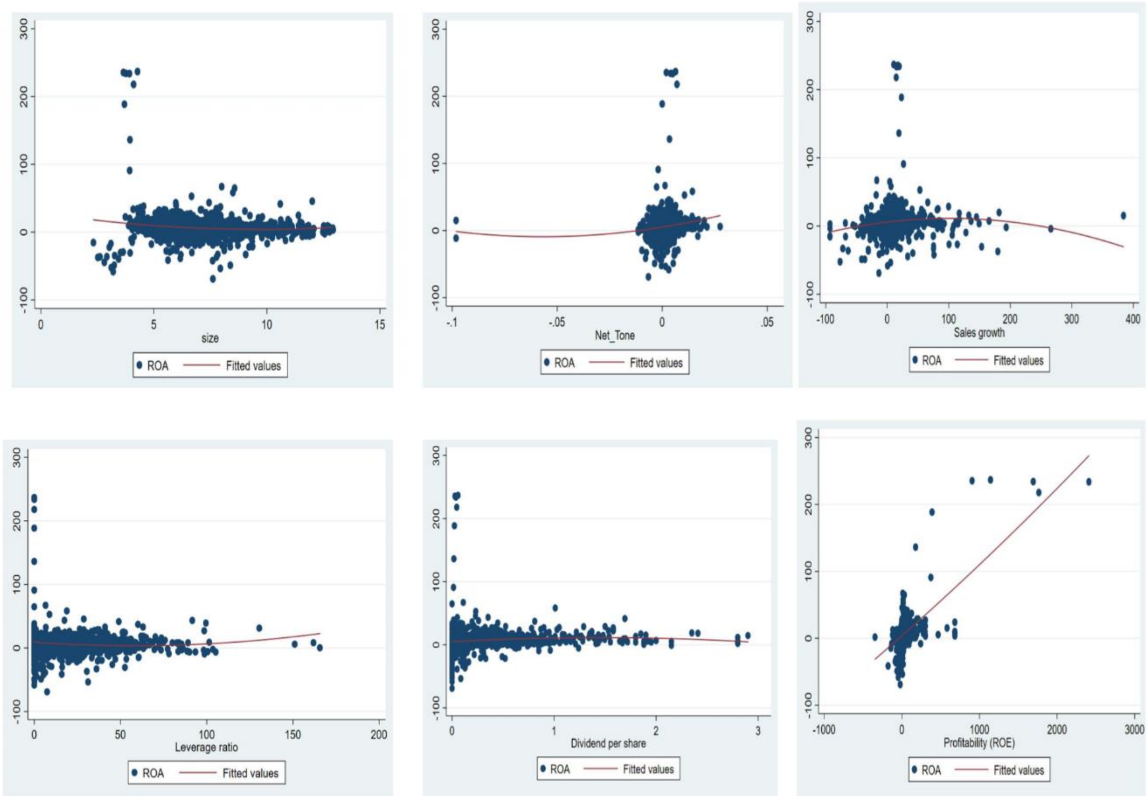




AC_IND
Positive
Fitted values
CEO_Gender
Positive
Fitted values
Leverage ratio
Positive
Fitted values
Total assets
Positive
Fitted values
B_IND
Positive
Fitted values
Profitability (ROE)
Positive
Fitted values
Sales growth
Positive
Fitted values

Appendix C:

Figure 7.1: NDT predictive power linearity check:



Appendix D:

FORM UPR16

Research Ethics Review Checklist

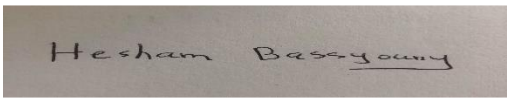
Please include this completed form as an appendix to your thesis (see the Research Degrees Operational Handbook for more information

Postgraduate Research Student (PGRS) Information			**Student ID:**	845022
PGRS Name:	Hesham Mohamed Mohamed Abdelghany Bassyouny			
Department:	Acc&FM	**First Supervisor:**	Dr. Tarek Abdelfattah	
Start Date: (or progression date for Prof Doc students)		**01/02/2018**		
Study Mode and Route:	Part-time ☐ Full-time ☒	MPhil ☐ PhD ☒	MD ☐ Professional Doctorate ☐	

Title of Thesis:	Narrative Disclosure Tone: The Upper Echelons Theory Perspective and Predictive Power in the UK context
Thesis Word Count: (excluding ancillary data)	75422

If you are unsure about any of the following, please contact the local representative on your Faculty Ethics Committee for advice. Please note that it is your responsibility to follow the University's Ethics Policy and any relevant University, academic or professional guidelines in the conduct of your study
Although the Ethics Committee may have given your study a favourable opinion, the final responsibility for the ethical conduct of this work lies with the researcher(s).

UKRIO Finished Research Checklist: (If you would like to know more about the checklist, please see your Faculty or Departmental Ethics Committee rep or see the online version of the full checklist at: http://www.ukrio.org/what-we-do/code-of-practice-for-research/)	
a) Have all of your research and findings been reported accurately, honestly and within a reasonable time frame?	YES ☒ NO ☐
b) Have all contributions to knowledge been acknowledged?	YES ☒ NO ☐
c) Have you complied with all agreements relating to intellectual property, publication and authorship?	YES ☒ NO ☐
d) Has your research data been retained in a secure and accessible form and will it remain so for the required duration?	YES ☒ NO ☐
e) Does your research comply with all legal, ethical, and contractual requirements?	YES ☒ NO ☐

Candidate Statement:		
I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s)		
Ethical review number(s) from Faculty Ethics Committee (or from NRES/SCREC):		N/a
If you have *not* submitted your work for ethical review, and/or you have answered 'No' to one or more of questions a) to e), please explain below why this is so:		
This research used secondary data.		
Signed *(PGRS)*:		**Date:** 12/08/2020