
**DOES CHIEF EXECUTIVE OFFICER CHARACTERISTICS IMPACT ON
FIRMS CAPITAL STRUCTURE?**

A SYSTEMATIC LITERATURE REVIEW

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Abstract

This study systematically analyzes the existing literature of impact made by CEO characteristics on capital structure and thereby identifying existing gap in the literature to provide a basic conclusion. A systematic literature review methodology is used to review 8 articles selected from reputed referred journals for the period of 25 years from 1995-2020 to provide an overview of previous studies. This comprehensive literature review reveals different researchers across various geographies have proved CEO characteristics as an unobservable component impact on the firm capital structure. All existing literature is only based on examining the empirical relationship and none of the prior studies have adopted survey, qualitative and triangulation methods with lack of systematic theory development, which opens new spheres for future research. Further in the recent past there is an increase of research interest in this topic, but it is observed that most of the regions and countries are still not examined which provides scope for cross country studies. This study is a theoretical review in nature therefore, it does not provide any empirical results for conclusion where only a summary of the results of various researchers has been synthesized. This is the first literature review study done under this topic which will be useful to researchers and academics to understand the impact of CEO characteristics on capital structure in a theoretical perspective and to conduct future research in highlighted new avenues.

Keywords: CEO Characteristics, Capital Structure, Debt Capital, Literature Review, Upper Echelon Theory

1.0 Introduction

Any business entity needs capital to operate day to day tasks and for growth expansions. The capital funding can be sourced through debt or equity. Any organization has a capital structure which consists of debt and equity components. Companies in the modern day are significantly affected by numerous exterior environmental factors. hence its vital to plan capital structures wisely while considering all the factors and risks. Making an improper mix of capital sources employed in the firm might leads to serious consequences including entity future existence and performance.

To maximize entity value; the topmost decision makers such as Chief Executive Officers (CEOs) should take proper leverage choices. The decision-making ability of each CEO is unique and based on their cognitive capacity; the CEOs are taking effective decisions after incorporating all

the available information. The cognitive capacity of each CEO is molded by individual characteristics hence identifying the impact that is evident from the CEO characteristics on capital structure is vital and required to establish a comprehensive picture about causes of capital structure. Within the capital structure sphere, different researchers have done a number of studies to understand determinants of capital structure, yet there is no universally accepted conclusion.

According to Titman & Wessels (1988), Sibindi (2016) and Kumar et al. (2017) some of the firm-specific observable determinants such as firm size, growth opportunities, liquidity, tangibility and profitability have an impact on the capital structure. But Matemilola et al. (2013) found out that there is a significant unobservable component effect on the capital structure which has not been systematically analyzed by the prior researchers. The unobservable effect cannot observe through observable components and these includes top managers' characteristics and managerial quality (Wooldridge, 2002). Similarly, Abeywardene & Weerakoon (2015) found that unobservable effect is a higher proportion as a determinant in the capital structure of Sri Lankan Companies.

Wang et al. (2010) reveal that CEOs have the most dominant decision-making power in terms of capital structure and Graham & Havelly (2001) identified that their personal characteristics are significantly influence capital sourcing decisions. As prior researchers identified CEO as the key decision maker for financing decisions, it's vital to comprehend the impact made by their personal characteristics.

Few researchers in different parts of the world have carried out empirical studies on this topic to investigate the impact of various CEO characteristics on the capital structure. but these research studies yielding conflicting results which led to an inconclusive situation. Hence this study attempts to synthesize the findings on the impact made by CEO characteristics on the capital structure by analyzing the existing literature on impact of various CEO characteristics on the capital structure through Systematic Literature Review (SLR) methodology. However, there is no prior systematic literature review research has been carried out on CEO characteristics and capital structure topic. hence this study aims to provide a comprehensive up to date literature review on this topic by reviewing 8 refereed journal articles for the period of 1995-2020. Further this review study has considered different research carried under the CEO/manager characteristics and capital structure domain to review and identify existing research gaps in the literature which enable the pathway for future research studies in CEO characteristics and capital structure.

Purpose of this study to provide a widespread literature review of CEO characteristics and capital structure. Hence the study focuses on synthesizing all the existing literature under the domain of CEO characteristics and capital structure, sort the existing publications in an orderly manner for easy reference, classify articles based on their research methodologies, published period and geographies. Finally understand the gaps in the literature to suggest for future research avenues. Further through this study can understand which CEO characteristics are considered for research as well as what is the impact and relationship of those CEO characteristics with capital structure. The study will identify what are the most important research articles about the CEO characteristics and capital structure topic.

2.0 Concepts of CEO Characteristics and Capital Structure

2.1 Decision-making Power of Chief Executive Officer (CEO)

Chief Executive Officer can be defined as the most senior and highest ranked executive in any organization with having authoritative power to lead and control entity to achieve its desired goals (Busenbark et al., 2016). In addition, Busenbark et al. (2016) identified the CEO as a unique individual who has the greatest influence and power within the top management further due to CEOs ability to influence on strategic decisions makes him a key person with the center of attention. According to Daily & Johnson (1997) CEO is the primary decision maker who sets the tone for the organization and most influential corporate leader within the organization. CEOs primary responsibilities include making key strategic corporate decisions, managing overall operations and setting up key policies for the organization. CEOs are usually appointed by the board of directors and shareholders at large. CEOs report to the board of directors regularly about the status of the organization as well as being the public face of the company (Wang et al., 2010).

All the above responsibilities and duties link to a common goal that needs be achieved by the CEO. The CEOs main goal is to maximize the value of the entity. Eventually CEO has the responsibility to take key strategic financing decisions. Further, Chief Effective Officer is the utmost influential person on the board regarding capital structure decision making (Wang et al. 2010). Whereas Zahra & Pearce (1989) argued that the financial decision making of an organization is influenced by the CEO since they have the highest organizational power. CEO of the organization can act as the chairman as well as can be the owner.

2.2 Upper Echelon Theory

This is the only related theory that defined and verified on how top decisions makers/manager's characteristics impact as well as relates with the organizational outcomes. This is a widely accepted and popular theory. According to Hambrick & Mason (1984), a person's decisions making ability is based on their cognitive base which can be measure through observable demographic characteristics such as age, functional tracks, career experiences, and education. These observable demographic characteristics are an efficient proxy to measure psychological dimensions. Further, top decision makers characteristics will reflect in entity strategic choices such as financial leverage and similarly organizational outcomes of strategic choices can be predicted by decision makers / managerial characteristics.

2.3 An Overview of Capital Structure

The Capital Structure is how an entity source funds from different debt and equity sources in order to finance entity operations and expansions (Atkinson et al., 2003). According to Pandey, (2010) simply this is a proportionate amount of debt and equity employed by the firm. Similarly, the capital structure consists with of lenders' and stockholders' funds (Akhtar & Oliver, 2009) and is considered as financial resources of an entity (Kumar et al., 2017). Margaitis & Psillaki (2010) say the capital structure consists of long-term loans, debentures, share capital and various reserves. Firms are required to find the optimal levels of capital structure in order to maximize

the firm value (Margaitis & Psillaki, 2010) and its required to constantly keep the optimal level for the future (Graham & Harvey, 2001)

The capital structure is usually expressed in the debt to equity (D/E) ratio. If a company has employed more debt than the equity in the capital structure, it is considered as a more aggressive capital structure scenario. On the other hand, if a company has employed more equity than the debt in the capital structure, it's a more conservative capital structure scenario (Pandey, 2010). Alternatively, capital structure of a firm can be measured by short term debt divided by the total assets or long-term debt divided by total assets and total debt divided by total assets (Margaitis & Psillaki 2010). According to Tahir et al. (2011) practically most entities use debt to finance operations. companies tend to employ more debt in their capital structure due to the tax advantage on the debt interest payments.

Table 1: Evolution of Capital Structure Theories

Researcher/s	Year	Research Outcome
Modigliani & Miller	1958	Irrelevancy Theory
Modigliani & Miller	1963	Expanded Irrelevance theory with tax effect
Kraus and Lizenberger	1973	Tradeoff Theory
Jensen and Meckling	1976	Agency Cost Theory
Ross	1977	Signaling Theory
Myers and Majluf	1984	Pecking Order Theory
Baker and Wurgler	2002	Market Timing Theory

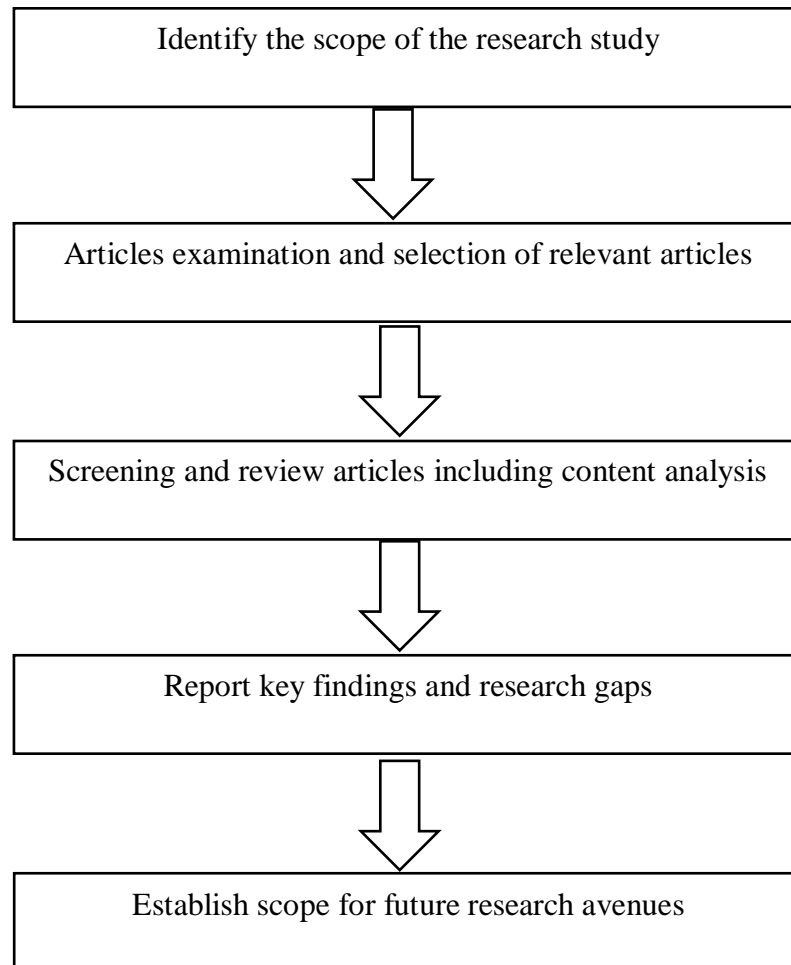
Table 1 demonstrates theories that give systematic guidance to decide the combination of debt and capital in the entity. Weerakoon Banda (2016) explains that irrespective of having theoretical growth in past decades; still there is a lack of specific theory providing the guidance for optimal capital structure. But according to Berger et al. (1997) CEOs are taking these theories into consideration when making leverage decisions.

3.0 Methodology

According to Fink (2005) a systematic approach should adopt to review existing literature which must explain the comprehensive mechanism and scope including all the material relevant to the area of investigation. Accordingly, as suggested by Tranfield et al. (2003) systematic literature review methodology has been adopted in this study as this is the most appropriate methodology when reviewing existing literature in a specific scope of the research study. The systematic literature review was used to identify, summarize and critically evaluate prior studies to communicate outcomes and implications of a large pool of specific research studies. This will provide a comprehensive summary of current literature relevant to the research question in order to answer clearly formulated research questions.

Further systematic review methodology reduces any unintended bias which is evident in other review methodologies (Bimrose et al., 2005). Adopted systematic literature review summary steps as follows.

Figure 1: Systematic Literature Review Approach



3.1 Sample Selection

To develop a sample for this study a comprehensive pool of articles was reviewed on many reputed journal article databases such as Emerald, Taylor & Francis, Oxford University Press, JSTOR, Elsevier Science Direct, SAGE & Wiley. These databases were selected due to these databases are well reputed journal publishers in the world and only consist with quality peer reviewed research papers while replicated research studies are not evident. Commenced the review with keyword search and then delimited to the literature using a combination of deductive and inductive methods. The article searches in each of the above seven electronic databases were performed using the key words of CEO Characteristics/Manager Characteristics. Further, only the peer-reviewed research paper journal articles published were considered for the sample selection. Due to the availability of large number of results from the key word search, then

focused on the articles published in the last 25 years (1995-2020) and papers with full text available delimiting conditions to get the most relevant results.

As elaborated above the sample selection was carried out in few steps. As step 1, the initial exploration was done using the CEO Characteristics/Manager Characteristics keywords in title criteria. Based on the initial screening resulted in 1348 articles. In step 2 screening carried out based on the time period; where only research papers published in last 25 years (1995 to 2020) were considered with the aim of analyzing the recent literature with current empirical results. With time period screening results narrowed down to 1075 articles. After the second step duplicated articles which were presented more than one database were eliminated in step three. Finally, after doing a thorough review and filtering by reading the narrowed sample articles and eliminated all the irrelevant articles for the study while developed the final sample of 4 papers in step 4. Subsequently checked for references and further 4 additional articles were found relevant to the study from other sources. Summary of the systematic process of article selection is presented in table 2.

Table 2: Sample Selection Steps

Database	Step 1	Step 2	Step 3	Step 4
Emerald	54	49	49	1
Taylor & Francis	402	332	329	0
Wiley	591	487	478	1
Elsevier Science Direct	50	42	42	1
JSTOR	22	18	15	0
Oxford Press	3	3	3	0
SAGE	226	144	141	1
Other				4
Total	1348	1075	1057	8

3.2 Analysis of Literature

The literature review was carried out by reviewing 8 articles. These studies were descriptively analyzed with respect to publication year, geographic basis, research methodology and industry. The sample study covering a 25-year period from 1995 to 2020 where the majority of the research papers have been published in the past 6 years period. This implies a growing interest in financial makeup research in the recent past. Since this a new area which was identified by researchers there is an upward trend of research studies on this topic. Table 3 represents the number of articles published in each year period.

Table 3: Analysis by Year of Publication

Year	Number of Research Articles
1995-2013	1 (1997)
2014	2
2015	1
2016	0
2017	1
2018	1
2019	1
2020	1
Total	8

As per table 4, the sample consists of research studies done in various regions such as Asia, America and Africa. Majority of research studies have been conducted in Asian region which is 62.5% from the sample and none of the research has been carried on Europe and Oceania regions on this topic. The breakup of geographical basis is as follows,

Table 4: Analysis by Geographies and Economic Status

Country	Region	Economic Status	Number of Articles	%
United States	North America	Developed	2	25.00%
China	Asia	Developing	1	12.50%
Malaysia	Asia	Developing	1	12.50%
India	Asia	Developing	1	12.50%
Pakistan	Asia	Developing	1	12.50%
Jordan	Asia	Developing	1	12.50%

When analyzing the country wise articles published; it can clearly see that all the researchers focused only a single country setting and haven't focused on cross country analysis. This a clear limitation when generalizing the results across different cultures and economies. Further approximately 75% of research has been carried out in developing countries where much of the recent focused on the developing countries on this topic. There are 3 main research methods applied in different papers. Broadly classified in to empirical, survey and conceptual work. The analysis presented in table 5 shows that all the sample studies have been used empirical methodology with an emphasis on regression and correlation analysis. Primary survey method that hasn't used may be due to difficulty in obtain responses from CEOs. It is debatable if the researchers only used empirical results to measure implications on behavioral decisions and none of the researchers adopt the triangulation approach to have more validity and completeness of their findings. This can be considered a methodological research gap.

Table 5: Analysis by Research Method

Methodology	Number of Articles	%
Quantitative secondary data	8	100.00%
Quantitative survey data	0	00.00%
Quantitative Modelling	0	00.00%
Qualitative Approach	0	00.00%
Triangulation Approach	0	00.00%
	8	100.00%

As per table 6, findings of the articles by industry indicate that CEO characteristics and capital structure research is not restricted for a sector rather all the research has been carried out covering multi sector strategy. Multi sector/industry samples are helpful to compare results across a wide range of industry sectors.

Table 6: Analysis by Studies Industry Sector

Industry/Sector	Number of Articles	%
Multi Sectors without Finance Sectors	7	87.50%
Multi Sectors with Finance Sectors	1	12.50%
Specific Sector	0	00.00%
	8	100.00%

When a researcher referred work of another author called as citations. The citation analysis focused on examine cited references of sample articles under the study topic. Citation analysis will be helpful to understand the quality of the articles as well as comprehend most important articles under the CEO Characteristics and capital structure topic. Google scholar and other sources have used to quantify the citation information. Based on the gathered citation information, only 6 out of 8 articles were cited where ranging from 2279 to 0 citations. Berger et al. (1997) is the most cited article with 2279 citations on board. The citation analysis details are presented in table 7.

Table 7: Analysis by Citation Count

Author/s	Number of Citations as at July 2021
Berger et al. (1997)	2279
Ting et al. (2015)	66
Naseem et al. (2019)	30
Chen et al. (2014)	12
Wang et al. (2014)	10
Alqatamin (2018)	02
Barno (2017)	00
Kaur & Singh (2020)	00

4.0 Discussion and Findings

Empirical studies on CEO Characteristics and capital structure are based on a large body of theoretical studies and literature. As per the sample, first research studies in this topic were published in 1997 covering US market. Subsequent to first publication, once again attention on this research topic emerged in 2014 focusing on US and developing markets. majority of CEO characteristics and capital structure research studies are based on developing economies (China, India, Jordan, Kenya, Malaysia & Pakistan). The empirical results and conclusions of these developed and developing economies are varied due to the presence of cultural, demographic, regulatory and financial literacy level differences in each market segment.

Based on the analysis carried out in sample, the following CEO characteristics cited in the sample studies. The details are summarized in table 8. The analysis carried out based on; which CEO characteristics has been considered for each research study. As presented in table 8, researchers examined CEO age as a key determinant; where 7 out of 8 research studies investigated CEO age implications on capital structure. Similarly, CEO gender, CEO tenure, CEO education, CEO equity ownership and CEO duality were examined as key CEO characteristics in a number of research studies.

As per the sample results CEO gender was examined in 6 articles, CEO tenure was examined in 6 articles, CEO education was examined in 4 articles, CEO equity ownership was examined in 4 articles and CEO duality was examined in 3 articles. There was no single research study carried on covering all the CEO characteristics and the investigated CEO characteristics are vary from research study to study.

Table 8: Analysis CEO Characteristics Hypothesis Supported or Not Supported

CEO Characteristic	Number of Research Studies	Hypothesis Supported	Hypothesis Not Supported	Supported Rate
CEO Age	7	7	0	100.00%
CEO Gender	6	4	2	66.67%
CEO Tenure	6	4	2	66.67%
CEO Equity Ownership	4	3	1	75.00%
CEO Education	4	2	2	50.00%
CEO Duality	3	1	2	33.33%
CEO Cash Compensation	2	1	1	50.00%
CEO Equity Compensation	1	1	0	100.00%
CEO Confidence Level	1	1	0	100.00%
CEO Directorship	1	0	1	00.00%
CEO Option Holdings	1	0	1	00.00%
CEO Experience in Top Management	1	0	1	00.00%
CEOs Network	1	0	1	00.00%
CEO as Founder	1	0	1	00.00%

Further table 8 displays the number of hypothesis supported and not supported by CEO characteristics across sample studies. As mentioned above 7 research studies considered CEO age as a key CEO characteristic and amongst those, all the 7 research studies accepted and supported CEO age as a key determinant impact on capital structure. Similarly, CEO gender has a 66.67% hypothesis supported rate, CEO tenure has a 66.67% hypothesis supported rate, CEO equity ownership has a 75% hypothesis supported rate. Further CEO education and CEO duality have a 50% and 33.33% hypothesis supported rate respectively.

It's vital to highlight that all the considered sample CEO characteristics and capital structure relationships were contradictory and vary from each study. Table 9 summarize all the contradictory relationship among each CEO characteristics with capital structure.

Table 9: Analysis of CEO Characteristics Relationship with Capital Structure

Leverage / Debt ratio Increases (+) / Decreases (-)	Empirical Evidence
CEO Age (+)	Wang et al. (2014), Alqatamin (2018) and Naseem et al. (2019)
CEO Age (-)	Chen et al., (2014), Ting et al. (2015), Barno (2017) and Kaur & Singh (2020)
CEO Male Gender (+)	Chen et al. (2014), Alqatamin (2018) and Naseem et al. (2019)
CEO Male Gender (-)	Barno (2017)
CEO Tenure (+)	Kaur & Singh (2020)
CEO Tenure (-)	Berger et al. (1997), Wang et al. (2014) and Naseem et al. (2019)
CEO Education (+)	Ting et al. (2015) and Naseem et al. (2019)
CEO Equity Ownership (+)	Berger et al. (1997), Alqatamin (2018)
CEO Equity Ownership (-)	Kaur & Singh (2020)
CEO Duality (-)	Naseem et al. (2019)
CEO Cash Compensation (+)	Wang et al. (2014)
CEO Equity Compensation (+)	Wang et al. (2014)
CEO Confidence Level (-)	Ting et al. (2015)

By examining 8 empirical studies; analyzed the impact of various CEO characteristics on capital structure. Table 9 presents a summary of the direction of the relationship between various CEO characteristics and capital structure. CEO age is the most prominent key CEO characteristic which has a significant impact on developed and developing economies firm's capitals structure. Total of 16 CEO characteristics has been studied under 8 empirical studies but only 9 CEO characteristics were proved to have a significant impact on firm capital structure. According to Wang et al. (2014) studies done in US market reveals that CEO age has a positive relationship with leverage where older CEOs employing more debt in their firm capital structure. Similar results were found in developing markets (Jordan and Pakistan) by Alqatamin (2018) and Naseem et al. (2019). Where CEO age has a positive relationship with capital structure. This is due to when CEOs age passed by, they equip with more knowledge and risk management capabilities to take appropriate debt financing arrangements. Whereas only in developing countries (China, Malaysia, Kenya and India) can be evident a negative relationship between

CEO age and capital structure. This was supported research studies carried by Chen et al. (2014), Ting et al. (2015), Barno (2017) and Kaur & Singh (2020).

When analyzing the CEO gender characteristic, in developing countries (China, Jordan and Pakistan) having a positive relationship with the capital structure where male CEOs employ more debt in the firm capital structure and this was supported by research studies carried out by Chen et al. (2014), Alqatamin (2018) and Naseem et al. (2019). Since males are inherently more confident and aggressive in nature resulted outcome to take more risk and employ more debt.

Whereas Barno (2017) proved that there is a negative relationship between male CEO and debt ratio. Need to highlight that CEO gender variable was not significant in any developed county research study. According to Berger et al. (1997) and Wang et al. (2014) studies done in US market reveals that CEO tenure has a negative relationship with leverage where being CEO for large number of years will result in employing lesser debt in capital structure. Similar results were found in the developing market (Pakistan) by Naseem et al. (2019). Where CEO tenure has a negative relationship with capital structure. This consistent outcome in developed and developing markets due to be a CEO for long tenure will have more business sense and understanding of capital markets to avoid unwanted risk in debt financing. Whereas Kaur & Singh (2020) proved that there is a positive relationship between CEO tenure and debt ratio in Indian context.

When analyzing the CEO education characteristic, in developing countries (Malaysia and Pakistan) having a positive relationship with the capital structure were having sound educational background and knowledge in business/finance to understand financial concepts will lead to employing more debt in capital structure. But CEO education characteristic is not a prominent significant variable in developed markets. According to Berger et al. (1997) and Alqatamin (2018) studies done in US market and Jordan reveals that CEO equity ownership has a positive relationship with leverage where when CEOs share ownership in the firm will tend to employ more debt due to when with the debt firm can maximize the firm value which will in turn benefit the CEO stock ownership and this is linked to CEO employee share option schemes. Whereas Kaur & Singh (2020) proved that there is a negative relationship between CEO equity ownership and debt ratio in the Indian context. Naseem et al. (2019) proved that when CEO also playing the Chairman role will lead to lesser debt employed in the capital structure due to CEO needs to carefully play the conformance and performance role in the firm while properly taking financing decisions. But CEO duality variable was not significant in any developed county research study. According to Wang et al. (2014) studies done in US market reveals that CEO Cash Compensation and equity compensation have a positive relationship with leverage. But this phenomenon is not evident in any developing country research studies. Similarly, research studies carried out by Ting et al. (2015) in Malaysian context prove that CEO confidence level and employing debt in capital structure has a negative relationship.

4.1 Main Points Evident from the Systematic Literature Review

Based on the comprehensive analysis carried out on sample publications, the following gaps and limitations in research methodology, theoretical frameworks and study background can be evident.

4.1.1 Research Methodology

All the sample research articles are empirical in nature and based on secondary data. They have adopted regression analysis and correlation to examine the impact of CEO characteristics on capital structure. None of the researchers adopted the survey methods, qualitative methodology or triangulation approach for the research studies. While adopting the survey methods the researchers can achieve more reliable outcomes on the spectrum of CEO characteristics such as attitude towards debt financing which cannot be pooled through secondary data sources.

Similarly, quantitative research studies will be helpful to assess the real implications on CEO characteristics on debt financing in a different dimension. Further through adopting the triangulation approach the researchers can achieve augmented results for the research study. As all the researchers adopted regression-based models to understand the impact of CEO characteristics on capital structure but these results are can be more reliable if researchers adopt more robust methods such as mathematical modeling to analyze impact of CEO characteristics on capital structure.

4.1.2 Theoretical Frameworks

Lack of theoretical frameworks established on the CEO characteristics and capital structure research studies has been noted from the analysis. Except for 2 research articles other research articles were not based on any proper theory. Upper echelon theory is the framework that explains the link between CEO characteristics and firm leverage in a granular level. According to Hambrick & Mason (1984) upper echelon theory describes and proves how top decisions makers' such as CEO characteristics impact firm leverage.

4.1.3 Geographical Concentration and Cross-country Studies

All the research articles were limit to a specific country to understand the CEO characteristics impact on capital structure. The literature reveals that its vital to carry out cross country study in developed and developing economies contexts to understand the implications of CEO Characteristics in different jurisdictions as well as to achieve international comparability.

4.1.4 Study Focus

The sample research articles only have measure the impact made by CEO characteristics on the firm leverage, but they lacked studies that focused on assessing the CEO characteristics impact on the real financing decisions such as debt issuance and equity issuance.

4.2 Scope for Future Research

As explained above this literature review study has highlighted methodological and conceptual issues which should require to address in the future and serves guidance for future research studies. With the increasing interest in CEO characteristics impact on capital structure in the

recent past should carry out proper focus research studies to provide solutions to practical real-life problems. Hence encourage the following avenues for future research studies.

This is a new research study topic which has not been thoroughly analyzed by researchers hence there is so many avenues to carry out innovative research in different developed and developing economies considering a cross country (Europe, Oceania, North America, South America, Asia and Africa) setting to reveal the international comparability of results. Since most of the existing studies carried out using empirical relationships its vital to adopt survey, qualitative and triangulation approaches for future research studies. By adopting these methods, the researchers can reveal more insights and more reliable results. These other research methods will be helpful to gauge how CEO characteristics impact on capital structure in a different dimension and adopt more robust methods such as mathematical modeling to analyze the impact of CEO characteristics on capital structure.

Further its vital to consider all the CEO characteristics in a single study to enhance the validity and completeness of conclusions and eliminate the contradictions. Existing all the studies have only focused on the financial aspects of what is the implication from CEO characteristics towards leverage but equally important need to consider on understanding the behavioral aspects implications on debt ratio such as how will risk appetite levels of CEOs impact real financing decisions such as debt or equity issuances.

5.0 Conclusion

This study primary aim is to review existing literature of the impact made by CEO characteristics on the capital structure to contribute more in depth understanding of this topic. For this purpose, a systematic literature review methodology was adopted. Through searches done in different databases and delimiting conditions led to a final sample of 8 articles for the 1995 to 2020 study period. There is a trend in the past couple of years in researching in this topic domain.

As per systematic literature review outcome, most CEO characteristics such as CEO age, CEO gender, CEO tenure, CEO equity ownership, CEO education and CEO duality have an impact on the capital structure. Different researchers across various jurisdictions have proved that as an unobservable component; the CEO characteristics make an impact on the firm capital structure. Hence can conclude CEO characteristics as a determinant of capital structure.

The major focus of CEO characteristics on capital structure research is on studying the empirical relationships. Based on the analysis carried out; it's clear that there is a dearth of studies carried out in this research topic in all parts of the world. Hence it encourages to carry out more research in this topic to comprehend more results and to derive conclusions. Since CEO characteristics as an unobservable element impact to capital structure decisions; it's vital to identify the impact evident from CEO characteristics on the capital structure to have a complete picture about determinants of capital structure.

References

- Abeywardene, N.L.E, & Weerakoon, Y.K. (2015). Impact of Observable Determinants and Unobservable effect on capital Structure: Evidence from Quoted Public Manufacturing Companies in Sri Lanka. *The International Journal of Business & Management*, 3(6), 150-158.
- Akhtar, S. & Oliver, B. (2009). Determinants of capital structure for Japanese multinational and domestic corporations. *International Review of Finance*, 9(1-2), 1-26. <https://doi.org/10.1111/j.1468-2443.2009.01083.x>
- Alqatamin, R.M. (2018). Capital structure and CEO's personal characteristics: evidence from Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(2), 113–125. <http://dx.doi.org/10.6007/IJARAFMS/v8-i2/4188>
- Atkinson, S.M., Baird, S.B. & Frye, M.B. (2003). Do female mutual fund managers manage differently. *Journal of Financial Research*, 26(1), 1-18. <https://doi.org/10.1111/1475-6803.00041>
- Baker, M. & Wurgler, J. (2002). Market timing and capital structure. *Journal of Finance*, 57 (1), 1-32. <https://doi.org/10.1111/1540-6261.00414>
- Barno, L.J. (2017). Impact of managers characteristics on capital structure among firms listed in Nairobi securities exchange Kenya. *International Journal of Economics, Commerce and Management*, 5(7), 487-503.
- Berger, P.G., Ofek, E. & Yermack, D.L. (1997). Managerial entrenchment and capital structure decisions. *The Journal of Finance*, 52(4), 1411-1438. <https://doi.org/10.1111/j.1540-6261.1997.tb01115.x>
- Bimrose, J., Brown, J. & Barnes, S.A. (2005). *A systematic literature review of research into career-related interventions for higher education*. http://www.hecsu.ac.uk/assets/assets/documents/Literature_review.pdf
- Busenbark, J.R., Krause, R., Boivie, S. & Graffin, S.D. (2016). Toward a configurational perspective on the CEO A review and synthesis of the management literature. *Journal of Management*, 42(1), 234-268. <https://doi.org/10.1177/0149206315618448>
- Chen, Y, Zhang, X. & Liu, Z. (2014). Manger characteristics and the choice of firm low leverage: evidence from China. *American Journal of Industrial and Business Management*, 4(10), 573-584. <https://doi.org/10.4236/ajibm.2014.410062>
- Daily, C.M., & Johnson, J.L. (1997). Sources of CEO power and firm financial performance: a longitudinal assessment. *Journal of Management*, 23(2), 97-117. [https://doi.org/10.1016/S0149-2063\(97\)90039-8](https://doi.org/10.1016/S0149-2063(97)90039-8)
- Fama, E.F. & French, K.R. (2006). Profitability, investment and average returns. *Journal of Financial Economics*, 82, 491-518. <https://doi.org/10.1016/j.jfineco.2005.09.009>
- Fink, A. (2005), *Conducting Research Literature Reviews: From the Internet to Paper*, 2nd ed., Sage Publications, Thousand Oaks, CA.
- Graham, J. & Harvey, C. (2001). The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics*, 60(2-3), 187-243. [https://doi.org/10.1016/S0304-405X\(01\)00044-7](https://doi.org/10.1016/S0304-405X(01)00044-7)

- Hambrick, D.C. & Mason, P.A. (1984). Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206. <https://doi.org/10.2307/258434>
- Harris, M. & Raviv, A. (1990). Capital structure and the informational role of debt. *Journal of Finance*, 45, 321-349. <https://doi.org/10.1111/j.1540-6261.1990.tb03693.x>
- Jensen, M.C. & Meckling, W.H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kaur, R., & Singh, B. (2020). The impact of CEOs' characteristics on corporate leverage: Indian scenario. *The Journal of Business Perspective*, 33(12), 159–175. <https://doi.org/10.1177/0972262920954596>
- Kraus, A. & Litzenberger, R.H. (1973) A state-preference model of optimal financial leverage. *Journal of Finance*, 28(4), 911-922. <https://doi.org/10.2307/2978343>
- Kumar, S., Colombage, S. & Rao, P. (2017). Research on Capital Structure Determinants: a review and future direction. *International Journal of Managerial Finance*, 13(2), 106-132. <https://doi.org/10.1108/IJMF-09-2014-0135>
- Modigliani, F. & Miller, M.H. (1958). The cost of capital, corporation finance and the Theory of Investment. *American Economic Review*, 48(3), 261-297.
- Modigliani, F. & Miller, M.H. (1963) Corporate income taxes and the cost of capital: a correction. *American Economic Review*, 53(3), 433-443.
- Margaritis, D. & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking and Finance*, 34(3), 621-632.
- Matemilola, B.T., Bany-Ariffin, A.N. & McGowan, C. (2013). Unobservable effects and firm's capital structure determinants. *Managerial Finance*, 39(12), 1124-1137. <https://doi.org/10.1108/MF-08-2012-0187>
- Myers, S.C. (1984). The Capital Structure Puzzle. *The Journal of Finance*, 39(3), 81-102. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Myers, S.C. (2001). Capital Structure. *The Journal of Economic Perspectives*, 15(2), 81-102. <https://doi.org/10.1257/jep.15.2.81>
- Myers, S.C. & Majluf, N.S. (1984). Corporate financing and investment decision when firms have information investors do not have. *Journal of Financial Economics*, 13(2), 187-221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Naseem, M.A., Lin, J., Rehman, R. u., Ahmad, M.I., & Ali, R. (2019). Does capital structure mediate the link between CEO characteristics and firm performance. *Management Decision*, 58(1), 164-181. <https://doi.org/10.1108/MD-05-2018-0594>.
- Ovtchinnikov, A.V. (2009). Capital structure decisions: evidence from deregulated industries. *Journal of Financial Economics*, 95, 249-274. <https://doi.org/10.1016/j.jfineco.2009.10.003>
- Pandey, I.M. (2010). *Financial Management*, 10th ed., Vikas Publishing House Pvt. Ltd., India
- Ross, S.A. (1977). The determination of financial structure: the incentive-signaling approach. *Journal of Economics*, 8(1), 23-40. <https://doi.org/10.2307/3003485>

- Sibindi, A.B. (2016). Determinants of Capital Structure: a literature Review. *Risk Governance & Control: Financial Markets & Institutions*, 6(4), 227-237. <https://doi.org/10.22495/rcgv6i4c1art13>
- Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26, 3-27. [https://doi.org/10.1016/0304-405X\(90\)90011-N](https://doi.org/10.1016/0304-405X(90)90011-N)
- Tahir, I., Mohd, R. & Ahamdad, R. (2011) The Relationship between enterprise risk management (ERM) and firm value: evidence from Malaysian public listed companies. *International Journal of Economics and Management Sciences*, 1(2), 32-41.
- Ting, I.W.K., Azizan, N.A.B., & Kweh, Q.L. (2015). Upper Echelon Theory Revisited: The relationship between CEO Personal Characteristics and Financial Leverage Decision. *Procedia - Social and Behavioral Sciences*, 195, 686-694. <https://doi.org/10.1016/j.sbspro.2015.06.276>
- Titman, S. & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance*, 43(1), 1-19. <https://doi.org/10.1111/j.1540-6261.1988.tb02585.x>
- Tranfield, D., Denyer, D. & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207-222. <https://doi.org/10.1111/1467-8551.00375>
- Wang, L.H., Kuo, H.C., & Lin, D. (2014). CEO traits, corporate performance, and financial leverage. *International Journal of Economics and Finance*, 7(1), 68-86. <https://doi.org/10.5539/ijef.v7n1p68>
- Wang, Y., Chuang, C. & Lee, S. (2010). Impact of compositions and characteristics of board of directors and earnings management on fraud. *African Journal of Business Management*, 4(4), 496-511. <https://doi.org/10.5897/AJBM.9000328>
- Weerakoon Banda, Y.K. (2016). CFOs' views on corporate financing decisions: Evidence from emerging market of Sri Lanka. *Qualitative Research in Financial Markets*, 8(4), 331-358. <https://doi.org/10.1108/QRFM-12-2014-0031>
- Wooldridge, J.M. (2002). *Econometrics analysis for cross section and panel data*, 1st ed., The MIT Press, Cambridge.
- Zahra, S.A., & Pearce, J.A. (1989). Boards of directors and corporate financial performance: a review and integrative model. *Journal of management*, 15(2), 291-334. <https://doi.org/10.1177/014920638901500208>