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A Systematic Review of the Impact of Leverage and Macroeconomic Factors on Systematic Risk of Common Stock: Exploring Profitability as a Mediator and Size as a Moderator

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ABSTRACT

Purpose: Amid growing scholarly interest in the determinants of systematic risk, this study critically explores the dynamic interlinkages among financial and operating leverage, macroeconomic forces, and systematic risk in equity markets, positioning profitability as a mediating construct and firm size as a boundary condition that moderates the strength and direction of these relationships. By integrating theoretical postulations with empirical scrutiny, this research aspires to construct a methodologically fortified framework. The study aims to delineate the transmission of systematic risk inherent in common stocks and leverage dynamics within financial markets under disparate macroeconomic paradigms.

Design/Methodology/Approach: Employing the PRISMA 2020 benchmark for systematic review and the Biblioshiny platform for comprehensive analyses, the inquiry adopts a structured and sophisticated academic approach to examine, synthesize, and analyze the extensive literature across the temporal expanse from 1979 to 2024, encompassing a total of 206 empirical studies.

Findings: The results underscore critical gaps in comprehending the complex interactions between leverage, macroeconomic factors, and their effects on systematic risk associated to common stocks across diverse contexts. Particularly striking are the pivotal functions exerted by the mediating prowess of profitability and the moderating sway of company size amidst these intricate dynamics. Findings have the potential to empower stakeholders in the corporate financial sector.

Originality: This study brings coherence to a fragmented body of research by systematically integrating the interrelated influences of financial and operating leverage, alongside macroeconomic factors, on the systematic risk of common stock, while incorporating their mediating and moderating effects. Moving beyond the limitations of prior isolated analyses, it offers a unified, theory-grounded, and empirically validated framework. This integrative model advances a deeper understanding of how leverage and macroeconomic forces jointly shape the transmission of systematic risk within the equity markets.

KEYWORDS

Financial Leverage,
Operating Leverage,
Macro-Economic Factors,
Systematic Risk, Common
Stock, Profitability

JEL CLASSIFICATION

G32; G12; E44; L25; L26

I. Introduction

The complex relationship between leverage and the systematic risk of common stock remains a central focus in corporate finance, engaging both scholars and informed investors alike (Matemilola, Bany-Arifin, Azman-Saini, 2013; Rehman et al., 2019; Younas & Sarmad, 2020). Despite extensive

scholarly engagement, a conspicuous lacuna persists in empirical literature concerning the conjoint influence of leverage and macroeconomic determinants on systematic risk. This disparity is particularly pronounced when viewed through the prism of intricate mediating and moderating

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contingencies within a cohesive analytical construct.

This study is meticulously designed to achieve three key objectives. First, it aims to identify, analyze, and critically assess the existing body of scholarly literature that explores the influence of leverage and macroeconomic factors on systematic risk of common stocks. Second, it seeks to synthesize prior empirical investigations that have examined the mediating role of profitability in determining the relationship between leverage, macroeconomic variables, and systematic risk of common stocks. Third, it endeavors to consolidate and evaluate previous studies that have investigated the moderating effect of firm size on the impact of leverage and macroeconomic factors on systematic risk of common stocks. Through this synthesis, the study enhances empirical robustness and reinforces its theoretical foundation by integrating diverse perspectives and methodological insights in this study context.

The first objective of this study entails a rigorous cartographic delineation of the intellectual landscape surrounding leverage and macroeconomic volatilities as determinants of the systematic risk of common stock. Study systematically consolidates, synthesizes, and critically evaluates prior inquiries to uncover underlying patterns, conceptual divergences, and empirical inconsistencies. Through this process, it constructs a robust epistemological framework that resolves ongoing debates with precision and provides a structured path for future academic exploration. The second objective demands a detailed deconstruction of profitability's role as an intermediary within this complex relationship. It aims to clarify how a firm's financial health can either mitigate or intensify the interplay between leverage, macroeconomic fluctuations, and the systematic risk of common stocks. This approach presents a novel perspective for advancing financial theory and empirical

analysis in this context. The third objective examines the role of company size as a potential moderator in the relationship between leverage, macroeconomic factors, and the systematic risk of common stock, building on insights from prior studies. Thus, this investigation seeks to uncover how the scale of an organization might sculpt its approach to managing systematic risk in stocks, providing critical insights for tailoring risk management strategies to align with diverse organizational profiles.

The originality of this study is firmly embedded in its systematic synthesis of disparate yet interrelated scholarly perspectives on the impact of leverage and macroeconomic factors on the systematic risk of common stock, across different market conditions and firm characteristics. It integrates these perspectives into a unified analytical framework that highlights the combined mediation effect of profitability and the moderation effect of firm size. Hence, this novelty of this research lies in its ability to serve as an authoritative reference, furnishing decision-makers with an empirically substantiated and theoretically rigorous framework for high-stakes strategic and policy deliberations. Beyond its theoretical contributions, the inquiry furnishes indispensable analytical perspectives for practitioners and policymakers alike, fostering a more nuanced, comprehensive, and empirically grounded comprehension of risk dynamics within an advanced analytical schema.

This investigation is methodically structured as follows: theme 2 presents an incisive critical literature review that not only situates extant scholarship within its proper context but also meticulously excavates inherent lacunae. Theme 3 expatriates upon the methodological framework, rigorously delineating the research design, data acquisition protocols, and the analytical stratagems employed. A thorough and insightful analysis of the emerging critical findings is presented, strengthened by a

sharp discussion of their multifaceted implications in theme 4. To conclude, the study culminates in a refined synthesis of key insights, accompanied by well-grounded suggestions and definitive conclusions in theme 5, reinforcing its empirical and theoretical rigor in the context of this study and solidifying its contribution to the existing body of knowledge.

II. Critical Literature Review

Leverage and Systematic Risk Dynamics in Common Stock

Empirical investigations into the impact of financial leverage on systematic risk of common stocks remain significantly underexplored, with only a sparse body of scholarly literature subjecting this fundamental financial construct to rigorous empirical scrutiny (Aharon & Yagil, 2019; Qizam, 2017; Hamada, 1972; Wagdi & Tarek, 2019; Gahlon & Stover, 1979; Bowman, 1979; Ozdagli, 2009; Castagna & Matolcsy, 1978; Nawaz et al., 2017; Perinpanathan, 2014; Gunarathna, 2016; Wijesinghe, 2021; Sudharika et al., 2018; Gamlath, 2019). However, the extant literature offers only a superficial exploration of the direct causal relationship between financial leverage and the systematic risk of equities, neglecting the intricate contingencies and latent interactional phenomena that significantly influence this dyadic interrelation. This clear epistemological gap constitutes critical oversight, requiring a thorough and methodologically sound re-examination to uncover and explain the complex mechanisms that govern this intricate financial entanglement.

Moreover, empirical inquiries appraising the influence of operating leverage on the systematic risk of publicly listed equities are lamentably scarce within the divergent economic and institutional paradigms (Houmes, MacArthur & Stranahan, 2012; Alaghi, 2012; Rubinstein, 1973; Triest, Triest & Bartels, 1998; Dantas, Medeiros &

Lustosa, 2006; Azizah et al., 2020; Silwal, 2022; Lee & Park, 2014). The preponderance of these scholarly endeavors has been circumscribed within developed and emerging financial markets, underscoring the putative significance of operating leverage as a determinant of systematic risk inherent to common stock. Nevertheless, they have conspicuously eschewed the critical interrogation of the mediating and moderating idiosyncrasies that indubitably underpin this intricate relationship, failing to engage in a profound analytical dissection of its underlying dynamics. This execrable omission not only attenuates the epistemic profundity and inferential robustness of such studies but also engenders a profound ontological lacuna that obfuscates the holistic comprehension of these intricate financial contingencies.

Notwithstanding the aforementioned, scholarly undertakings that concurrently interrogate the confluence of financial and operating leverage in modulating the systematic risk of equities remain exceptionally scarce, with a mere smattering of empirical expositions endeavoring to elucidate this dialectical nexus within heterogeneous economic terrains (Mandelker & Rhee, 1984; Gahlon & Gentry, 1982; Huffman, 1983; Younas & Sarmad, 2020; Rehman et al., 2019; Bhatti et al., 2010; Gupta, Kumar & Verma, 2016; Cai & Zhang, 2011). Prior empirical excavations have postulated that vicissitudes in a firm's leverage architecture may engender profound perturbations in its stock valuation, eliciting both propitious and deleterious repercussions, albeit with an unsettling absence of empirical consensus. Specifically, some scholarly treatises posit that an escalation in leverage precipitates a diminution in stock valuation, as investors manifest exacerbated trepidation regarding the firm's solvency and its ability to discharge its debt obligations (Qizam, 2017; Castagna & Matolcsy, 1978; Nawaz et al., 2017). Contrariwise, alternate inquiries contend that an augmentation in leverage

exerts an auspicious influence on stock valuation by engendering investor confidence in the firm's profit-generative prowess and its long-term growth trajectories (Aharon & Yagil, 2019).

Crucially, the latent interdependencies that permeate the intricate dyadic interplay between financial and operating leverage and systematic risk of stock remain a conspicuously underexplored domain within the extant canon of financial literature. With the sole exception of Qizam (2017), wherein firm size was interrogated as a moderating contingency, preceding inquiries have largely neglected these quintessential interstitial complexities. This analytical dereliction circumscribes the generalizability, inferential tractability, and heuristic applicability of extant findings. Consequently, it necessitates a paradigmatic recalibration in financial scholarship that integrally synthesizes these cryptic interdependencies to engender a more epistemologically rigorous and ontologically exhaustive theoretical schema.

Macroeconomic Factors and Systematic Risk Dynamics in Common Stock

The prior seminal scholarly inquiries have assiduously interrogated the indelible impact of macroeconomic perturbations on equity returns across heterogeneous market architectures (Hussain & Shah, 2018; Rjoub, Tursoy & Gunsell, 2009; Hunjra et al., 2014; Malika et al., 2021; Yu Hsing, 2011; Liow, Ibrahim & Huang, 2006; Muradoglu, Taskin & Bigan, 2000; de Mendonca & da Silva, 2018; Issah & Antwi, 2017; Simbolon & Purwanto, 2018; Menike, 2006; Dissanayake & Kumara, 2014; Balagobei, 2017; Fernando, 2018; Rathnayaka & Seneviratna, 2018; Bamunusinghe & Lakmal, 2020; Francis, Ravinthirakumaran & Ganeshamoorthy, 2021; Madurapperuma, 2022; Ediriweera & Dissanayake, 2022; Jahufer & Irfan, 2014). These treatises have unanimously converged on the assertion that equity performance is shaped by a complex interplay of interwoven determinants. Notably, these factors include investor

sentiment fluctuations, exogenous geopolitical shocks, macroeconomic variations, microeconomic idiosyncrasies, and a multitude of abstruse variables that elude conventional analytical frameworks (Francis, Ravinthirakumaran & Ganeshamoorthy, 2021).

Foremost among these determinants, investor sentiment fluctuations manifest as speculative distortions and behavioral anomalies, subverting the conventional mechanisms of price discovery (Francis, Ravinthirakumaran & Ganeshamoorthy, 2021). Concurrently, exogenous geopolitical dislocations, materializing through diplomatic fissures, trade imperatives, and foreign exchange volatilities, exert an overarching influence on macro financial equilibria. These geopolitical vagaries exacerbate macroeconomic volatility, engendering perturbations in sovereign monetary interventions, inflationary trajectories, interest rate recalibrations, and GDP oscillations, thereby constituting the cardinal forces sculpting stock market dynamism (Francis, Ravinthirakumaran & Ganeshamoorthy, 2021).

At a granular level, microeconomic contingencies, including firm-specific financial solvency, corporate strategic alignment, and competitive positioning, further delineate stock price trajectories. Additionally, equity market valuations are susceptible to an array of enigmatic forces, encompassing structural inefficiencies, liquidity discontinuities, and speculative aberrations, phenomena that defy conventional econometric quantification yet irrefutably dictate market dynamics (Rathnayake, Fernando & Fernando, 2019; Francis, Ravinthirakumaran & Ganeshamoorthy, 2021). These ineffable distortions amplify the intrinsic volatility, accentuating the systematic risk and rendering the market susceptible to nonlinear perturbations that elude orthodox financial paradigms (Rathnayake, Fernando & Fernando, 2019).

Profitability Mediation in Leverage, Macroeconomic Factors and Systematic Risk of Common Stock

The prior extant scholarly discourse delineates the intricate nexus between leverage, macro-economic conditions and the systematic risk of equity stocks, underscoring the mediating mechanisms that fortify financial stability, augment risk assessment methodologies, and high-stakes strategic imperatives (Novia & Anom, 2019). As Chauhan (2023) expounds, the mediating construct operates as a cardinal intermediary within this paradigm, illuminating the foundational mechanisms that orchestrate the leverage–systematic risk nexus in common stock. This, in turn, amplifies the theoretical profundity and fortifies the empirical rigor. A comprehensive comprehension of this mediating dynamic substantially enhances the investment stratagems and risk mitigation paradigms, engendering more perspicacious decision-making within financial markets (Chauhan, 2023). Nevertheless, this relationship is not universally invariant; highly leveraged enterprises operating within the stable, oligopolistic industries with minimal exogenous perturbations may exhibit attenuated mediating effects on the systematic risk inherent to common stock (Novia & Anom, 2019; Chauhan, 2023). This variability challenges the presupposition that mediation invariably facilitates a more nuanced understanding of the interplay between leverage and systematic risk of common stock in this complex context.

Nonetheless, extant empirical studies remain relatively sparse in comprehensively examining the role of profitability as a mediator in the interplay between leverage and the systematic risk of common stock. Given its stabilizing effect, high profitability possesses the potential to counterbalance the adverse ramifications of leverage, thereby moderating its impact on systematic risk (Chauhan, 2023; Astawinetu et al., 2023). A

substantive corpus of literature rigorously interrogates the mediating function of profitability, offering invaluable insights into its analytical pertinence (Novia & Anom, 2019; Natsir & Yusbardini, 2020; Nursetya & Hidayati, 2021; Paramitha, 2020; Li, Ashhari & Fan, 2022; Nugroho & Halik, 2020; Astawinetu et al., 2023; Mansyur et al., 2020). For instance, profitability has been established as a mediating factor in the interplay between capital structure and liquidity on firm valuation (Paramitha, 2020), while Novia & Anom (2019) demonstrated its intermediary role in the association between leverage, corporate size, and corporate governance vis-vis firm valuation. Li, Ashhari, & Fan (2022) expounded upon profitability's mediating influence on financial sustainability and capital leverage within Chinese microfinance institutions.

Furthermore, the mediatory capacity of profitability in the interrelations among capital structure, firm size, and firm valuation has been substantiated (Natsir & Yusbardini, 2020; Nursetya & Hidayati, 2021). Nugroho & Halik (2020) postulated profitability as an intermediary in the dynamic between corporate growth and systematic risk on firm valuation, while Astawinetu et al. (2023) empirically scrutinized whether profitability intervenes in the interdependencies of liquidity, operational efficiency, and leverage in shaping corporate valuation. Similarly, Mansyur et al. (2020) examined financial performance as a mediating construct in the impact of capital structure, wealth distribution, and financial configuration on stock price dynamics in the Indonesian banking sector. Beyond these inquiries, Baker (1973) interrogated the tripartite interrelation among risk, leverage, and profitability through an industry-specific analysis, whereas Sonia and Khafid (2020) examined the effect of liquidity, leverage, and audit committee efficacy on sustainability disclosure, with profitability operating as a mediating construct.

Moreover, Chauhan (2023) postulated that leverage modulates the beta coefficient of stock, thereby influencing systematic risk, with its impact contingent upon firm-level profitability. The theoretical underpinning of this assertion lies in the premise that a corporation's financial resilience reflects its risk tolerance and stability. A highly profitable entity may leverage additional debt without significantly exacerbating stock beta due to its robust financial architecture, thus mitigating potential risks. Conversely, firms with suboptimal profitability may experience exacerbated beta sensitivity when employing leverage, amplifying risk exposure (Astawinetu et al., 2023; Chauhan, 2023). Baker (1973) further expounded on the reciprocal interplay between profitability and leverage, positing that while profitability can modulate leverage, leverage reciprocally influences profitability. This duality underscores the mediating role of profitability within the leverage–performance nexus. Correspondingly, Sonia and Khafid (2020) affirmed that profitability mediates the relationship between leverage and sustainability reporting, attributing corporate profitability to the effective internal capital deployment, thereby diminishing firm failure probabilities.

The aforementioned inquiries predominantly positioned the firm valuation or corporate performance as dependent variables, with the exception of Chauhan (2023), whose study aligns more closely with the current line of inquiry by conceptualizing the systematic risk as the dependent variable. Empirical evidence corroborates the premise that stock price volatility correlates with the corporate performance and valuation, thus justifying the utilization of firm value and performance as viable proxies for equity market fluctuations (Mohamed et al., 2021; Sukesti et al., 2021; Natsir & Yusbardini, 2020; Milosevic-Avdalovic & Milenkovic, 2017).

Thus, the implications of these studies reinforce that a highly leveraged yet substantially profitable firm possesses

superior resources to manage leverage-induced risks. Conversely, firms grappling with profitability constraints may encounter heightened financial vulnerabilities, thereby exacerbating systematic risk within the industry. Consequently, the incorporation of profitability as a mediating variable engenders a more holistic comprehension of the leverage–systematic risk of common stock dynamic capturing its nuanced effects on risk transmission.

Apart from that, Chauhan (2023) postulates that corporate profitability and risk management acumen are instrumental in elucidating the intricate interplay between leverage and stock beta. A body of literature maintains that, when operationalized as an intervening variable, the intrinsic volatility of profitability enables firms to navigate shifts in economic conditions without incurring proportionate increases in systematic risk. In this conceptualization, profitability is fundamentally contingent upon prevailing macroeconomic and sector-specific contingencies, thereby functioning as a key mediator of the risk ramifications associated with additional leverage (Yoewono & Verenathan, 2023; Chauhan, 2023). However, over the long term, potential declines in profitability may precipitate heightened systematic risk exposure, as investors may perceive the firm as financially unstable, leading to increased volatility in stock returns and reduced confidence in its long-term performance (Yoewono & Verenathan, 2023; Novia & Anom, 2019; Chauhan, 2023).

The cumulative insights emanating from these scholarly discourses possess profound ramifications across multifaceted financial paradigms, shaping contemporary discourses on financial interdependencies, corporate governance architectures, and sustainability disclosure imperatives. The previous studies have offered diverse perspectives on the intricate relationship between leverage and the systematic risk of common stock, acknowledging profitability as a mediating force in this dynamic. Nonetheless,

substantial intellectual frontiers remain unexplored, necessitating deeper inquiry into industry-specific variations in systematic risk of common stock, the adaptive ramifications of regulatory shifts, and the behavioral dimensions of the investor sentiment in risk transmission.

Size-Driven Modulation in Leverage, Macroeconomic Factors, and Systematic Risk of Common Stock

The potential moderating influences that might attenuate or exacerbate the ramifications of leverage, both financial and operating, alongside macroeconomic determinants on the systematic risk of common stock remain a pivotal yet underexplored dimension of scholarly inquiry. A nascent but growing body of research has discerned firm size as an instrumental determinant in configuring corporate risk profiles. Notably, Panjaitan and Supriati (2023) and Vithessonthi and Tongurai (2014) posit that the salience of firm size as a moderator may manifest with diminished intensity in developing economies relative to their advanced counterparts. However, empirical discourse in this particular sphere remains sporadic, with a discernible paucity of rigorous academic scrutiny.

A compendium of studies has interrogated the moderating influence of firm size across multifarious financial interrelations, thereby furnishing an auxiliary foundation for extrapolating its potential role in systematic risk dynamics. For instance, Qizam (2017) investigated the bidirectional nexus between financial leverage and systematic risk, incorporating firm size as a moderating variable. Similarly, Al-Momani et al. (2022) examined its moderating efficacy in the interplay between capital structure and firm value. In the context of Islamic equity markets, Santosa (2020) assessed the moderating role of firm size in the interrelation between financial characteristics and firm valuation. Farooq and Jibrán (2017) expounded upon the moderating influence of firm size in the non-

linear interplay between leverage and performance within emerging markets. Meanwhile, Meshack et al. (2020) conducted a rigorous empirical analysis, unveiling the pivotal role of firm size as a moderator in the capital structure-financial performance nexus among non-financial firms listed on the Nairobi Securities Exchange. Moreover, the seminal work by Vithessonthi and Tongurai (2014) interrogated the interdependence between financial leverage and operating performance through the lens of firm size. Muigai and Muriithi (2017) expounded on its moderating function in the capital structure-financial distress continuum among non-financial entities in Kenya. Dehghan and Shorvarzi (2017) extended the discourse by probing both linear and curvilinear relationships between debt financing and firm performance, incorporating firm size as an intervening construct. In a divergent trajectory, Dalci et al. (2019) elucidated the moderating influence of firm size in the working capital-profitability interrelationship among German non-financial firms, thereby reinforcing its pertinence in corporate financial configurations.

Despite these scholarly contributions, the precise mechanisms and theoretical implications of firm size as a moderating factor remain contentious, necessitating further empirical investigation and theoretical elaboration. Although the significance of these interactions is evident, the extant literature has largely eschewed the integration of such moderating dynamics into its analytical frameworks, thereby overlooking a crucial determinant within this domain of inquiry.

III. Methodology

This systematic literature review has been meticulously structured in strict alignment with the PRISMA 2020 protocol, ensuring unwavering scholarly rigor, analytical depth, and methodological coherence. Its adoption

aligns with Page et al. (2021), who recognize PRISMA 2020 as a benchmark analytical tool in conducting systematic syntheses of prior evidence, thereby reinforcing the study's methodological rigor and evidentiary integrity. Within this rigorous investigative framework, the study undertakes an intricate dissection of the interdependent dynamics among leverage, macroeconomic determinants, and the systematic risk intrinsic to common stock, with an incisive inquiry into the mediating role of profitability and the moderating influence of firm size across the heterogeneous financial architectures.

Hence, by meticulously dissecting the extant literature, this review constructs a refined synthesis of prevailing theoretical constructs. In doing so, it methodically reveals subtle discrepancies, lingering conceptual ambiguities, and significant empirical gaps that challenge the cohesion of contemporary academic discourse. This meticulous epistemological interrogation seeks not merely to elucidate the underlying theoretical incongruities but to refine conceptual precision, fortify analytical coherence, and delineate emergent trajectories for further scholarly interrogation.

In unwavering adherence to PRISMA's methodological prescriptions, a rigorously delineated search strategy was deployed, incorporating stringently defined inclusion and exclusion criteria to safeguard empirical robustness and ensure analytical validity (Page et al., 2021). The investigative purview encompassed an exhaustive examination of an extensive repository of high-impact academic databases and premier scholarly platforms, with Scopus serving as

the principal archival source, complemented by Oxford Journals, Taylor & Francis, JSTOR, Research4Life, and Emerald, alongside seminal texts in corporate finance spanning the scholarly continuum from 1979 to 2024.

The selection methodology was meticulously structured across five critical stages, after which identification, screening, eligibility assessment, inclusion, and exclusion, each scrupulously executed to uphold the highest echelons of academic rigor. As illustrated in figure 1, the PRISMA 2020, identification of new studies via databases and registers, an initial compendium of 436 scholarly articles was subjected to systematic evaluation. In the preliminary phase, 208 studies were expunged, comprising 57 redundant entries, 29 extraneous contributions misaligned with the research trajectory, and 122 eliminated on account of various justifiable scholarly rationales. The residual 228 articles advanced to the screening stage, wherein a further 22 were systematically disqualified, 14 on the grounds of technical inadequacies and 8 identified as duplications. Consequently, a final corpus of 206 rigorously vetted studies was integrated into this systematic literature review, solidifying its epistemological foundation with uncompromising analytical rigor, theoretical sophistication, and academic gravitas, thereby establishing an authoritative reference point for the nuanced interrogation of leverage, macroeconomic determinants, and systematic risk in common stock, while unveiling critical theoretical voids and empirical ambiguities that necessitate further scholarly interrogation.

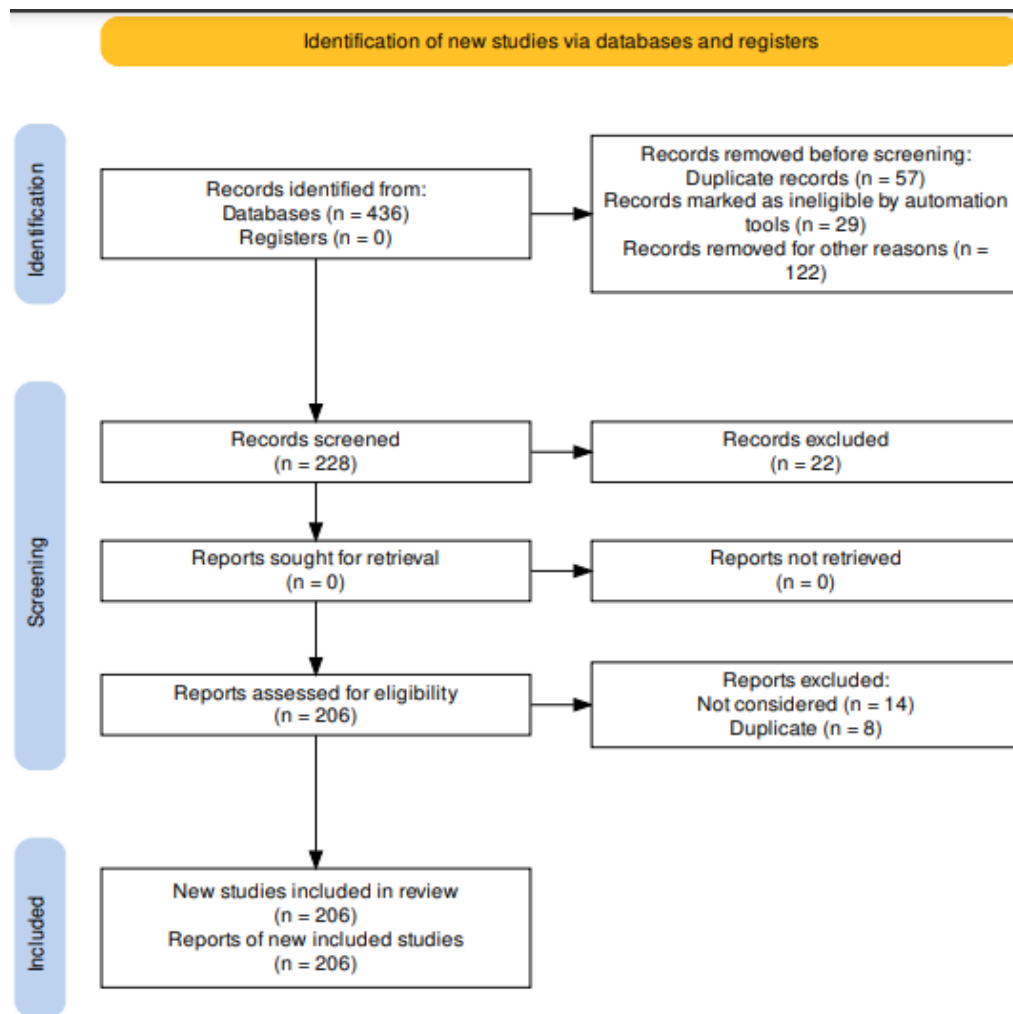


Figure 1. PRISMA 2020, Identification of New Studies Via Databases and Registers

Source: PRISMA 2020 Output analysis

The Biblioshiny has been deployed as a formidable analytical apparatus, enabling an incisive deconstruction of the dataset's structural framework and a rigorous assessment of annual scholarly proliferation. An intricately mapped global network of academic collaborations, augmented by a three-field plot analysis, has been meticulously architected to unravel the intricate interdependencies among nations, research titles, and extensively cited sources. Figure 2, the main information summary,

unveils these critical empirical revelations, illustrating that across the temporal expanse from 1979 to 2024, the rigorously adjudicated Scopus of 206 scholarly articles attained an average citation frequency of 16.11 per publication. This citation metric stands as an unequivocal testament to the corpus's profound intellectual gravitas, its enduring epistemological resonance, and its seminal role in sculpting the contemporary trajectory of academic discourse.



Figure 2. Main Information Summary

Source: Biblioshiny output of analysis

In spite of that, the temporal trajectory of scientific article production from 1979 to 2024 exhibits pronounced volatility, characterized by episodic perturbations and discernible oscillations, as delineated in figure 3, the annual scientific production. Notably, the period spanning 1979 to 2006 manifests considerable fluctuations, punctuated by intermittent surges and regressions. A conspicuous spike emerges between 2006 and 2007, only to be abruptly curtailed by a precipitous decline from 2007 to 2008, ostensibly reflecting the perturbative impact of exogenous determinants on scholarly output. Subsequently, a pronounced resurgence

ensues from 2008 to 2013, culminating in a period of relative stabilization until 2014, before succumbing to a contractionary phase between 2014 and 2015. Thereafter, an observable recovery trend is evidenced from 2015 to 2021, which is ultimately succeeded by a regressive downturn extending through 2024. This undulating pattern potentially signifies either an approaching saturation point in the research domain or an epistemological realignment in scholarly focus, thereby necessitating a rigorous analytical dissection to decode the underlying catalysts propelling these dynamic shifts.

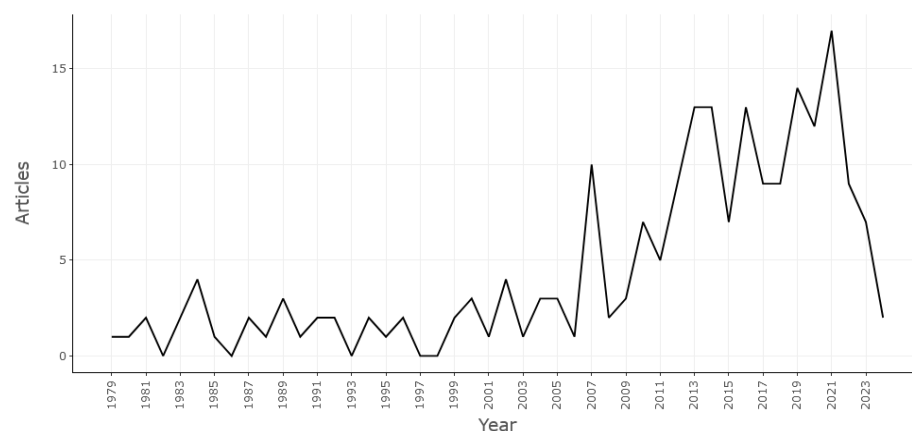


Figure 3. Annual Scientific Production

Source: Biblioshiny output of analysis

Global institutional collaboration patterns in table 1 and the global institutional collaboration patterns plot in figure 4, illustrate the global landscape of 66 academic collaborations, emphasizing institutional engagement across nations. Analyzing the patterns in table 1, the most frequent co-authorship occurs between USA and Canada with four collaborations, reflecting a highly integrated academic relationship shaped by shared funding mechanisms, institutional partnerships, and policy-driven initiatives. Other notable collaborations, such as USA–UK, China–Hong Kong, China–Singapore, Malaysia–UK, and Pakistan–Thailand, each with two collaborations, underscore the role of historical, geopolitical, and linguistic factors in facilitating cross-border academic networks. Regional clustering, particularly in China–Hong Kong and USA–Canada, suggests that geographical proximity, economic interdependence, and aligned research priorities foster sustained

institutional engagement. In contrast, emerging collaborations such as Pakistan–Thailand and Malaysia–Pakistan reflect the increasing participation of developing economies in global research, often supported by international grants, knowledge exchange programs, and academic mobility initiatives.

Moreover, these collaboration patterns, as captured in table 1, reveal an asymmetrical distribution of research partnerships, where dominant research economies engage in extensive academic collaborations, while developing nations participate selectively but in strategically significant ways. The presence of lower-frequency collaborations, each recorded once, across diverse country pairs, including Germany–UK, Germany–Netherlands, India–Germany, and Malaysia–Iran, suggests that global research connectivity is expanding, though with varying degrees of intensity across regions.

Table 1. Global Institutional Collaboration Patterns

	From	To	Frequency
1.	Australia	Bangladesh	1
2.	Australia	Colombia	1
3.	Australia	Netherlands	1
4.	Australia	Singapore	1
5.	Australia	United Kingdom	2
6.	Belgium	Sweden	1
7.	Canada	Hong Kong	1
8.	Canada	Korea	1
9.	Canada	Spain	1
10.	Canada	Tunisia	1
11.	Canada	Turkey	1
12.	China	Australia	1
13.	China	Bangladesh	1
14.	China	Canada	1
15.	China	Hong Kong	2
16.	China	New Zealand	1
17.	China	Singapore	2
18.	China	Thailand	1
19.	Finland	Belgium	1
20.	Finland	Sweden	1
21.	Germany	Italy	1
22.	Germany	Netherlands	1
23.	Germany	United Kingdom	1
24.	India	Ethiopia	1
25.	India	Germany	1
26.	India	Iran	1
27.	Italy	Brazil	1

28.	Italy	Netherlands	1
29.	Macedonia	North Macedonia	1
30.	Malaysia	Iran	1
31.	Malaysia	Morocco	1
32.	Malaysia	Norway	1
33.	Malaysia	Pakistan	2
34.	Malaysia	Thailand	1
35.	Malaysia	United Arab Emirates	1
36.	Malaysia	United Kingdom	2
37.	Netherlands	Luxembourg	1
38.	Pakistan	Macedonia	1
39.	Pakistan	North Macedonia	1
40.	Pakistan	Norway	1
41.	Pakistan	Thailand	2
42.	Pakistan	United Arab Emirates	1
43.	Pakistan	United Kingdom	1
44.	Singapore	Hong Kong	1
45.	Singapore	Thailand	1
46.	Spain	france	1
47.	Thailand	Hong Kong	1
48.	Thailand	Macedonia	1
49.	Thailand	North Macedonia	1
50.	Thailand	United Arab Emirates	1
51.	United Kingdom	Cyprus	1
52.	United Kingdom	Greece	1
53.	United Kingdom	Hong Kong	1
54.	United Kingdom	Morocco	1
55.	USA	Canada	4
56.	USA	China	2
57.	USA	Cyprus	1
58.	USA	Finland	1
59.	USA	France	1
60.	USA	Greece	1
61.	USA	Italy	1
62.	USA	Korea	1
63.	USA	New Zealand	1
64.	USA	Singapore	1
65.	USA	Turkey	1
66.	USA	United Kingdom	2

Source: Biblioshiny output of analysis

The countries' collaboration world map plot in figure 4 provides a visual representation of these trends, highlighting the structural dynamics of global academic networks. Dominant research economies such as the USA, UK, and China emerge as central hubs, forming dense and globally distributed academic collaborations, while developing nations establish more regionally concentrated partnerships. The spatial distribution of co-authorship networks reveals that research intensity is driven not

only by geographical proximity but also by thematic research alignment, institutional research capacity, and access to international funding. These trends indicate that the globalization of academic collaboration is increasingly influenced by interdisciplinary research priorities, transnational policy frameworks, and strategic institutional networks, collectively shaping the evolving structure of international research cooperation.

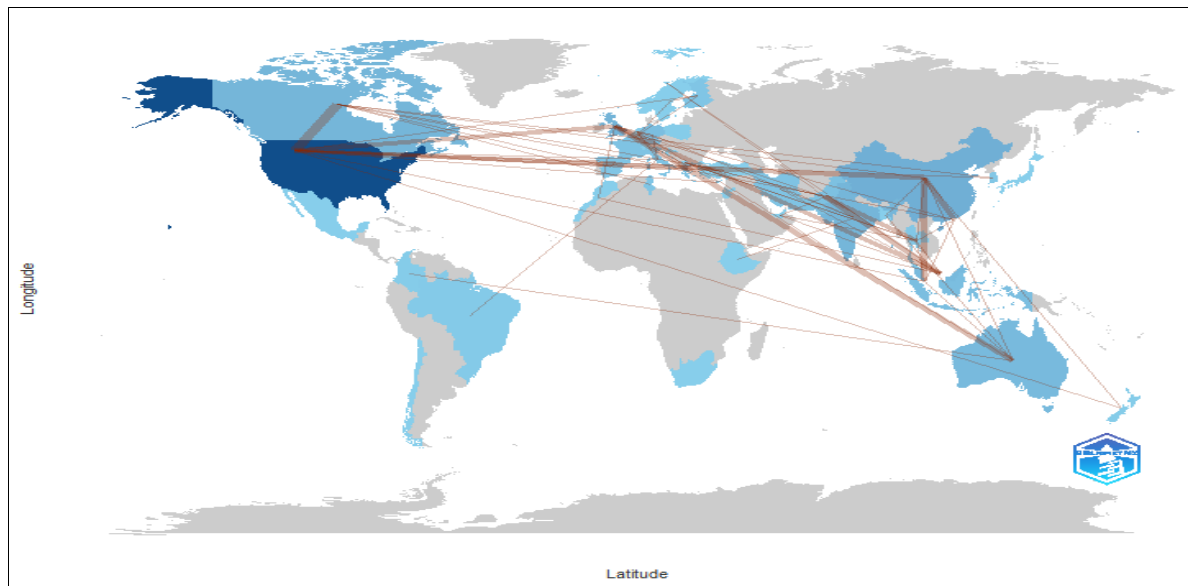


Figure 4. Global Institutional Collaboration Patterns

Source: Biblioshiny output of analysis

Furthermore, figure 5, the three-field plot meticulously delineates a rigorously architected three-field plot analysis, an intricate cartographic construct devised to expound upon the multifaceted interrelations among the geopolitical provenance of authorship (AU_CO), the thematic frameworks encapsulated within research titles (TI_TM), and the epistemological scaffolding constituted by cited sources (CR_SO). This sophisticated visualization encapsulates a holistic dissection of the

global research milieu, illuminating the convoluted synergies between transnational scholarly affiliations, thematic congruencies, and the hierarchical substratum of intellectual provenance. By unraveling these intricate interdependencies, the three-field plot serves as an advanced heuristic mechanism, elucidating the intercontinental transmission of erudition, the confluence of conceptual paradigms, and the structural topology of contemporary academic discourse.

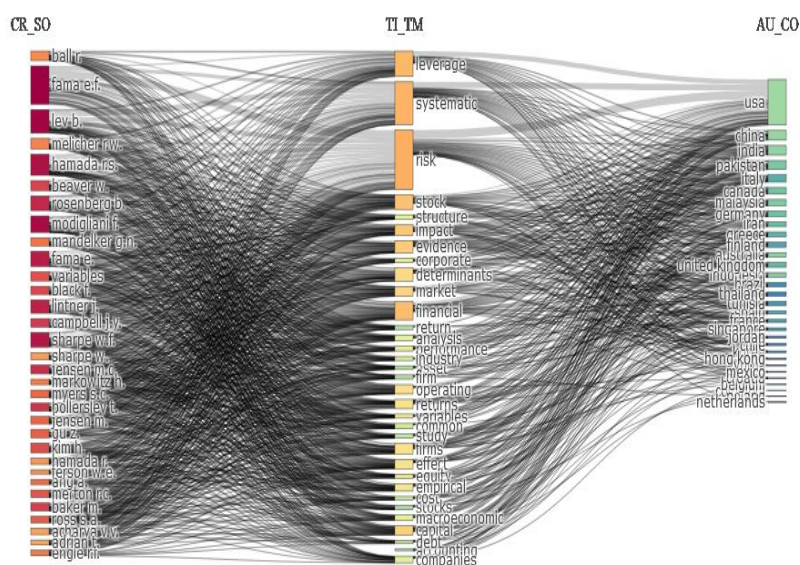


Figure 5. Three-Field Plot

Source: Biblioshiny output of analysis

Alternatively, table 2 systematically presents the high-impact journals analyzed in this rigorous study, offering a comprehensive synthesis of their scholarly contributions. It delineates key details, including the author(s), year of publication, research

domain, and respective scholarly publisher, thereby establishing a robust intellectual foundation for the theoretical framework of this seminal study.

Table 2. High-Impact Journal Articles Considered in This Study

Author(s)	Year	Research Domain	Scholarly Publisher
Al-Momani et al.	2022	Capital structure and firm value Relationship: the moderating role of Profitability and firm size evidence from Amman stock exchange	WSEAS transactions on environment and development
Aharon, D.Y. & Yagil, Y.	2019	The impact of financial leverage on shareholders' systematic risk	MDPI: Sustainability
Baker, S. H.	1973	Risk, leverage and profitability: an Industry analysis	JSTOR
Bowman, R.G.	1979	The theoretical relationship between Systematic risk and financial (Accounting) variables	WILEY
Chauhan, G.S.	2023	Mediating role of profitability relating to financial leverage and stock returns	Emerald Insight
Cai, J. & Zhang, Z.	2011	Leverage change, debt overhang, and stock prices	ELSEVIER
Castagna, A. D., & Matolcsy, Z. P.	1978	The relationship between accounting Variables and systematic risk and the Prediction of systematic Risk	Sage Journal
de Mendonca, H.F. & da Silva, R.B.	2018	Effect of banking and macroeconomic variables on systemic risk: an application of ΔCOVAR for an emerging economy	ELSEVIER
Gahlon, J.M. & Stover, R.D.	1979	Diversification, financial leverage and conglomerate systematic risk	JSTOR
Gahlon, J.M. & Gentry, J.A.	1982	On the relationship between Systematic risk and the degrees of Operating and financial leverage	JSTOR
Houmes, R.E., MacArthur, J.B. & Stranahan, H.	2012	The operating leverage impact on systematic risk within a context of choice: an analysis of the US trucking industry.	Emerald Insight
Huffman, L.	1983	Operating leverage, financial Leverage, and equity risk	ELSEVIER
Hamada, R.S.	1972	The effect of the firm's capital structure on the systematic risk of common stocks	WILEY
Issah, M. & Antwi, S.	2017	Role of macroeconomic variables on firms' performance: evidence from the UK	Taylor & Francis
Liow, K.H., Ibrahim, M.F. & Huang, Q.	2006	Macroeconomic risk influences on the property stock market	Emerald Insight
Mandelker, G. N. & Rhee, S.G.	1984	The impact of the degrees of Operating and financial leverage on Systematic risk of common stock	JSTOR
Rubinstein, M. E.	1973	A mean-variance synthesis of Corporate financial theory	WILEY
Silwal, P.P.	2022	Corporate governance, zero leverage and financial constraint: A financing decision from Nepalese non-financial firms	Taylor & Francis
Rjoub, H., Tursoy, T. & Günsel, N.	2009	The effects of macroeconomic factors on stock returns: Istanbul stock Market	Emerald Insight
Yoewono, H. & Verenathan, S.	2023	The effect of profitability, solvency, And systematic risk on stock returns with	Accounting and Finance Studies

Madurapperuma, W.	2022	moderating variables by audit Quality The dynamic relationship between economic crisis, macroeconomic variables and stock prices in Sri Lanka	Emerald Insight
Muradoglu, G., Taskin, F. & Bigan, I.	2000	Causality between stock Returns and Macroeconomic variables in Emerging markets	JSTOR
Matemilola, B.T., Bany-Ariffin, A.N. & Azman-Saini, W.N.W.	2013	Impact of leverage and managerial Skills on shareholders' return	ELSEVIER
Silwal, P.P.	2022	Corporate governance, zero leverage and financial constraint: a financing decision from Nepalese non-financial firms	Taylor & Francis

Source: Author's compilation from Scholarly literature

IV. Critical Findings and Discussion

The intricate interrelation between leverage, macroeconomic factors, and systematic risk of common stock remains a focal point of contention in financial scholarship. Current study spearheaded an exhaustive synthesis of prior literature to decipher intricate interdependencies within complex financial frameworks, systematically unraveling the mediating and moderating mechanisms while interrogating and refining the theoretical constructs that underpin the interplay between leverage, macroeconomic forces, and systematic risk inherent to common stock, elucidating the intricate interdependencies that define these correlations.

In aspiration to actualize primary objective of this existing study, it becomes critical evident that the preceding scholarly endeavors have predominantly dissected the associations between leverage, macroeconomic determinants, and systematic risk of common stock in mutually exclusive paradigms, thereby perpetuating a fragmented and ostensibly superficial comprehension of their intricate interrelationship, across diverse theoretical and empirical contexts. Despite extensive academic scrutiny, critical gaps persist, obscuring a holistic comprehension of how these variables coalesce to shape the market volatility and stock performance. The existing body of literature remains fragmented, with some studies suggesting that leverage amplifies stock volatility,

whereas others indicate a stabilizing effect (Qizam, 2017; Castagna & Matolcsy, 1978; Nawaz et al., 2017; Aharon & Yagil, 2019). The absence of theoretical unanimity raises concerns regarding the generalizability of these findings across different market environments. Furthermore, much of the research has focused on either developed or emerging economies, thereby neglecting the broader global context within which these variables interact (Nugroho & Halik, 2020; Aayale, Seffar & Koutene, 2022; Abbas et al., 2019; Panjaitan & Supriati, 2023; Vithessonthi & Tongurai, 2014; Madurapperuma, 2022).

Additionally, while fluctuations in leverage ratios have been linked to stock price movements, the precise mechanisms driving this relationship remain underexplored. Macroeconomic conditions, including interest rates, inflation, and GDP growth, further complicate this dynamic, exerting a profound yet inconsistent influence on systematic risk (Rathnayake, Fernando & Fernando, 2019; Francis, Ravinthirakumaran & Ganeshamoorthy, 2021; Madurapperuma, 2022). Prior empirical investigations, despite their methodological rigor, have largely failed to capture these interdependencies, often relying on static models that do not account for temporal and structural variations across markets. The failure to incorporate potential interaction effects among these variables weakens the explanatory power of existing frameworks and calls for a more integrative approach.

Moreover, previous studies have compartmentalized financial and operating leverage, macroeconomic determinants, and systematic risk of common stocks as disparate constructs, thereby obscuring the intricate interdependencies that drive stock market fluctuations. Despite significant efforts to understand these factors, the findings remain inconsistent, particularly across developed and emerging markets (Nawaz et al., 2017; Madurapperuma, 2022). Although some studies acknowledge that fluctuations in leverage ratios can influence stock prices in both positive and negative ways, empirical findings remain inconsistent across contexts. This inconsistency, coupled with the absence of a unifying theoretical framework, raises concerns about the validity and generalizability of these conclusions (Mandelker & Rhee, 1984; Houmes, MacArthur & Stranahan, 2012; Wagdi & Tarek, 2019; Wijesinghe, 2021; Azizah et al., 2020; Gupta, Kumar & Verma, 2016).

Moreover, prior investigations have overlooked the dynamic interaction effects that may profoundly modulate the influence of leverage on the systematic risk of common stock, thereby hindering a holistic understanding of the underlying financial mechanisms and their broader market implications (Wagdi & Tarek, 2019; Wijesinghe, 2021; Azizah et al., 2020). Addressing these complexities is paramount to forging a more robust and incisive financial risk framework, as any fragmented perspective inherently distorts the true mechanisms governing the market behaviours. In this vein, preceding empirical evidence unequivocally substantiates the profound influence of macroeconomic variables on systematic risk, with forces such as interest rates, inflation, and GDP growth not merely exerting pressure but fundamentally dictating the stock volatility and market dynamics. Nevertheless, a critical examination of notable studies uncover a persistent scholarly divide, rooted in methodological inconsistencies and contextual disparities. Discrepancies stem

from variations in study periods, sample sizes, and economic landscapes (Malika et al., 2021; Bamunusinghe & Lakmal, 2020), further exacerbated by a disproportionate focus on developed economies (Chauhan, 2023; Issah & Antwi, 2017; Yu Hsing, 2011). Although Chauhan (2023) offers valuable insights, the fragmented empirical landscape exposes fundamental methodological deficiencies. In particular, the failure to consider industry-specific dynamics and firm-level risk determinants not only undermines the reliability of the current findings but also limits their generalizability across diverse economic contexts. Furthermore, past investigations exhibit methodological diversity, employing varied analytical techniques and temporal frameworks while failing to arrive at conclusive findings (Malika et al., 2021). One of the most glaring limitations is the neglect of interaction effects between explanatory and response variables, significantly weakening the explanatory power of these studies (Malika et al., 2021). The contradiction among empirical results underscores the intricate and evolving relationship between macroeconomic factors and stock beta, necessitating a more refined analytical approach.

Another notable shortcoming in the current literature is the absence of a unified, multidimensional framework that is effectively capable of encapsulating the interdependence among leverage, macroeconomic determinants, and systematic risk of common stock in this domain. Thus, a rigorous, integrative approach is crucial to unraveling the complex interdependencies between leverage, macroeconomic forces, and the systematic risk of common stock, ensuring a more precise evaluation of risk transmission channels across market vulnerabilities. Integrating fragmented scholarly inquiries into a cohesive theoretical model will deepen analytical rigor, enabling a more precise and multidimensional assessment of the intricate, interdependent relationships among leverage, macroeconomic forces, and

systematic risk, while also capturing their broader structural implications for financial stability and market dynamics.

Expanding upon the second objective of this inquiry, the interrelationship between leverage, macroeconomic factors, and systematic risk of common stock, with profitability as a mediating construct, remains an intellectually compelling yet methodologically underdeveloped domain. Despite the theoretical plausibility of profitability mediating the adverse ramifications of leverage on systematic risk of common stock, the empirical landscape is marred by inconsistencies, methodological inadequacies, and an overarching failure to integrate macroeconomic contingencies. A subset of the literature substantiates the mediating role of profitability (Chauhan, 2023; Li, Ashhari, & Fan, 2022; Natsir & Yusbardini, 2020; Nugroho & Halik, 2020; Astawinetu et al., 2023), while others present divergent conclusions, indicating both positive and negative mediation effects (Novia & Anom, 2019; Nursetya & Hidayati, 2021), partial mediation with statistical significance (Paramitha, 2020), or an absence of mediation altogether (Mansyur et al., 2020). These contradictions raise profound questions regarding the theoretical robustness and empirical validity of prevailing discourse, particularly in the absence of an integrated macro-financial framework.

A rigorous critical evaluation of the extant studies unveils several conceptual and methodological deficiencies that undermine their applicability within dynamic financial markets. While Chauhan (2023) posits that profitability functions as a counterbalancing force mitigating leverage-induced systematic risk, this assertion is not universally corroborated, as many studies conceptualize profitability as a mediating factor within alternative financial domains, including corporate valuation, financial sustainability, and governance mechanisms (Novia & Anom, 2019; Paramitha, 2020; Li, Ashhari, & Fan, 2022). The extrapolation of such

findings to the leverage-systematic risk interplay is methodologically tenuous, as the contextual foundations of these studies fail to incorporate capital structure variations, industry-specific leverage risks, and macroeconomic volatilities that directly influence systematic risk. Novia and Anom (2019) further challenge the universality of profitability's mediating effect, contending that in macroeconomically stable and low-volatility industries, leverage does not inherently exacerbate systematic risk, thereby nullifying or weakening profitability's mediating capacity. This underscores a critical research gap concerning the boundary conditions under which profitability effectively moderates the leverage-risk relationship, a dimension largely overlooked in prior inquiries.

A significant portion of empirical studies inadequately incorporate macroeconomic determinants essential for accurately delineating leverage-induced systematic risk in inherent common stock and its profitability-driven mediation (Astawinetu et al., 2023; Mansyur et al., 2020). Static econometric models often dominate this field, limiting the ability to capture evolving macro-financial interactions, such as inflationary pressures, interest rate volatilities, monetary policy shifts, and economic cycles (Novia & Anom, 2019; Mansyur et al., 2020). These factors inherently redefine the nexus between leverage and systematic risk. Their exclusion leads to distorted evaluations of profitability's mediating influence, often leading to spurious inferences in prior studies. The absence of these critical elements undermines analytical precision, resulting in findings that lack empirical robustness and fail to maintain cross-contextual validity in diverse financial environments. For example, within industries insulated from macroeconomic turbulence, profitability's assumed mediation may be significantly weakened or rendered negligible, contradicting the conventional assertion that profitability invariably counteracts leverage-induced

systematic risk (Novia & Anom, 2019). Therefore, integrating macroeconomic fluctuations, capital market regulations, and sectoral risk exposures is essential for establishing a more comprehensive and empirically rigorous mediation model.

Given these empirical and theoretical lacunae, future research must transcend the inherent constraints of the extant studies by adopting a multi-dimensional, macro-financially integrated analytical framework. A more granular methodological approach, one that synthesizes firm-level risk determinants, industry-specific leverage dynamics, and macroeconomic volatility metrics, is imperative for clarifying the true mediating role of profitability. Hence, theoretical paradigms must be reconfigured to reflect contemporary financial architectures, addressing the structural inconsistencies and empirical gaps that persist in the existing body of knowledge. Without addressing the deep-seated structural flaws and persistent empirical voids in existing scholarship, the discourse will remain plagued by misconceptions and analytical distortions. Neglecting this imperative transformation will irrevocably ossify a fractured and erroneous conceptualization of the intricate nexus between leverage and macroeconomic forces in dictating the systematic risk of common stock, with profitability constituting a critical mediating conduit that modulates the transmission and intensity of risk exposure.

Thus, the theoretical underpinning of the nexus among leverage, macroeconomic factors, and the systematic risk of common stocks demands a comprehensive reconceptualization to improve both conceptual clarity and empirical precision. In response, a methodological paradigm shift is warranted. This shift prioritizes a dynamic econometric modeling, the integration of macro-financial variables, and the adoption of cross-sectoral comparative analyses, all of which serve to refine the analytical framework and clarify profitability's mediating role in the

transmission of systematic. These approaches will refine the analytical framework by clarifying profitability's mediating role in the relationship between leverage, macroeconomic factors, and the transmission of systematic risk in common stocks. Thus, advancing a systematic research in this direction is imperative to confront the critical empirical deficiencies exposed throughout this discussion, fortify theoretical precision, and maximize the predictive power of financial risk models in volatile and rapidly evolving capital markets.

Empirical inquiries into the moderating influence of firm size on the effect of leverage and macroeconomic forces on systematic risk inherent in common stock have yielded discordant findings. This observation, central to the third objective, underscores a profound analytical lacuna within this discourse, highlighting the need for a more rigorous investigation into firm size as an intervening variable in this intricate relationship. Thus, the nexus between firm size and systematic risk remains an arena of unresolved scholarly contention. While notable studies posit that larger firms inherently attenuate risk exposure through expansive financial buffers and operational diversification, thereby tempering volatility and enhancing resilience (Vithessonthi & Tongurai, 2014; Dehghan & Shorvarzi, 2017), other research contests this deterministic framework, failing to substantiate a definitive causal relationship (Mansyur et al., 2020; Li, Ashhari, & Fan, 2022). The inherent ambiguity in the relationship between firm size and stability challenges the notion that sheer scale guarantees systemic resilience. A longstanding axiom holds that corporate gigantism provides complete insulation from systemic vulnerabilities, largely due to enhanced financial latitude and economic leverage. However, this oversimplified view fails to capture the intricate interplay of market forces and financial contingencies that characterize real-world economic dynamics.

Nevertheless, as notable seminal studies reveal, the relationship between firm size and risk absorption is neither linear nor absolute. Rather than operating in isolation, firm size interacts with a confluence of exogenous macroeconomic forces, endogenous financial architectures, and sectoral idiosyncrasies to shape risk outcomes (Simbolon & Purwanto, 2018; Madurapperuma, 2022). Among these factors, macroeconomic determinants, including inflationary trajectories, interest rate volatilities, foreign exchange oscillations, and GDP cyclicity, play a particularly influential role in stock performance. However, their impact is far from uniform, variations in financial structure, industry dynamics, and market positioning result in differential susceptibility among firms of varying scales (Issah & Antwi, 2017; Simbolon & Purwanto, 2018; Madurapperuma, 2022; Ediriweera & Dissanayake, 2022). This heterogeneity underscores the necessity of evaluating systematic risk exposure within a broader economic and financial context rather than relying on firm size as an isolated determinant.

Building on this perspective, firm size differentially conditions a company's resilience or vulnerability in response to economic shocks. Smaller and mid-sized enterprises, encumbered by suboptimal liquidity reserves and constrained market penetration, exhibit pronounced sensitivity to macroeconomic disruptions, rendering them acutely susceptible to systematic risk fluctuations (Issah & Antwi, 2017; Simbolon & Purwanto, 2018; Ediriweera & Dissanayake, 2022). In contrast, larger corporations, bolstered by diversified revenue streams and sophisticated capital structuring, generally manifest superior resilience against macroeconomic adversities (Simbolon & Purwanto, 2018; Madurapperuma, 2022). Nonetheless, one might contend that this resilience is neither absolute nor unconditional, as even large firms remain vulnerable to the detrimental effects of high leverage. In particular, during

economic contractions when liquidity constraints intensify and debt-service obligations escalate, the fragility induced by leverage becomes especially pronounced. Hence, over-leveraged enterprises, irrespective of their scale, may find their financial stability compromised, exacerbating their exposure to systematic risk. While size may confer a degree of risk mitigation, its efficacy is ultimately contingent upon the firm's financial prudence, strategic agility, and adaptability to prevailing economic conditions (Ediriweera & Dissanayake, 2022; Madurapperuma, 2022).

The fundamental failure of the extant literature is the myopic disaggregation of leverage and macroeconomic factors as isolated catalysts of systematic risk inherent to common stock, rather than as interwoven forces operating within a complex, reciprocal feedback loop. This omission disregards the conditioning effect of firm size, which dictates the extent to which leverage and macroeconomic forces interact within a reciprocal, self-reinforcing dynamic, either amplifying or mitigating systematic risk in common stock. Concurrently, a firm's capital structure, specifically, the composition and magnitude of financial and operational leverage, serves as the conduit through which macroeconomic volatilities are either exacerbated or dampened. Yet, the scholarly discourse remains conspicuously deficient in interrogating the extent to which firm size modulates this transmission mechanism. This critical lacuna has precipitated the development of flawed risk assessment models that systematically understate firm size's contingent role, thereby distorting investment risk projections and undermining the precision of macroprudential regulatory frameworks.

Furthermore, this epistemic deficiency is compounded by the marked divergence in firm size-risk dynamics between developed and emerging markets, highlighting the need for more context-sensitive risk assessment

frameworks. Empirical evidence substantiates that macroeconomic volatilities exert a disproportionately pronounced influence on stock beta in emerging economies, relative to their developed-market counterparts, even when firm size is held constant (Panjaitan & Supriati, 2023; Vithessonthi & Tongurai, 2014). This suggests that while leverage and macroeconomic variables are ubiquitously acknowledged as principal architects of market volatility, their interaction with firm size remains perennially under-theorized. The resultant lacuna in scholarly inquiry has fostered a body of literature riddled with superficial conjectures, methodological inconsistencies, and tenuous generalizations, thereby diminishing the applicability of financial risk models in both academic and practical domains. Besides, this empirical dichotomy eviscerates the oversimplified premise that firm size alone predicates financial resilience. Rather, the volatility absorption capacity of firms is intricately contingent upon the structural robustness of the economic milieu, the sophistication of financial intermediation systems, and the regulatory fortitude of capital markets. These findings imply that firm size should not be relegated to a peripheral role. Instead, future inquiries must elevate it to a primary determinant in models of systematic risk of common stocks, thereby fostering a more robust understanding of risk dynamics. The moderating role of firm size should not be extrapolated through rudimentary correlation-based assessments but must be rigorously investigated within a multi-dimensional econometric framework that accommodates leverage interdependencies and macroeconomic sensitivities. This necessitates a transition from traditional linear regression models to more nuanced, dynamically specified methodologies that robustly encapsulate the heterogeneous effects of firm size across varying economic contingencies.

Prevailing discourses on systematic risk remain myopically fragmented, treating leverage and macroeconomic volatilities as

discrete determinants while disregarding firm size's moderating function. This conceptual omission engenders distorted risk extrapolations, suboptimal capital structure decisions, and attenuated regulatory efficacy. Firm size is not a passive exogenous parameter but an active, endogenous force that conditions the reciprocal transmission of financial leverage and macroeconomic perturbations, thereby shaping systemic risk dynamics.

The failure to internalize firm size within risk models has precipitated theoretical incongruities, empirical lacunae, and an erosion of predictive fidelity in financial risk prognostication. This deficiency perpetuates miscalibrated investment strategies, impairs corporate financial decision-making, and circumscribes the macroprudential responsiveness of regulatory bodies.

Ameliorating this epistemological void is not merely an academic prerogative but a functional exigency. A paradigmatic reorientation is imperative, one that transcends reductionist methodologies in favor of a causality-driven, integrative schema capable of delineating firm size's contingent role in systematic risk exposure. Embedding firm size within holistic risk assessment frameworks will enhance the precision of financial prognostics, fortify regulatory apparatuses, and furnish policymakers with empirically substantiated macroprudential stabilization mechanisms. Continued inattention to this discourse may sustain theoretical inadequacies and hinder the development of robust explanatory models for financial vulnerability in the context.

Research Contribution

Advancing the discourse in financial risk and corporate finance, this study offers a significant intellectual contribution by meticulously synthesizing fragmented scholarly perspectives and constructing a coherent epistemological framework that elucidates the complex interdependencies among financial leverage, operational

leverage, macroeconomic fluctuations, and the systematic risk of common equities. Through this rigorous synthesis, the study unearths profound theoretical lacunae, exposing the historical myopia of extant literature in apprehending the mediating function of profitability in channeling leverage and macroeconomic oscillations into systematic risk of common stock paradigm and the moderating contingency of firm size in adjudicating the magnitude and trajectory of these interrelations. By architecting a holistically integrated analytical paradigm, this research refines the ontological articulation of systematic risk of equity determinants, furnishing an augmented theoretical substratum for ensuing empirical inquiries. This enriched conceptualization serves as an indispensable heuristic for advancing theoretical sophistication and empirical rigor. It empowers scholars and financial practitioners to scrutinize systematic risk with unprecedented analytical depth and strategic acuity, thereby not only refining the precision of financial decision-making but also transforming the effectiveness of risk governance frameworks, the very advancements that were previously inconceivable.

V. Conclusion

This systematic review provides a comprehensive analysis of the complex interactions between financial leverage, macroeconomic factors, and the systematic risk of common stock, emphasizing the mediating role of profitability and the moderating effect of firm size. Building on the gaps identified in the literature review (Section 2) and the findings (Section 4), this study addresses the fragmented approach of previous research, which has typically examined these variables in isolation, resulting in inconclusive insights. This compartmentalized approach has hindered the development of robust risk assessment models.

Conventional frameworks have struggled to capture the multifaceted interactions, driving risk across different market conditions and firm contexts. Besides, the extant literature lacks a cohesive framework that integrates the effects of leverage and macroeconomic factors on systematic risk, while also considering the mediating effect of profitability and the moderating influence of firm size among these complex relationships. The absence of a mediating effect weakens the theoretical depth and empirical applicability of risk assessments in this context, as it overlooks crucial interdependencies between leverage, macroeconomic factors, and the systematic risk inherent in common stocks. This omission compromises the accuracy and robustness of the findings and reduces its capacity to reflect real-world financial complexities.

Firm size, traditionally viewed as an organizational characteristic, plays a pivotal role as a moderator in the relationship between leverage, macroeconomic factors, and systematic risk. Despite its significance, previous studies have largely overlooked this moderating role, resulting in analytical gaps that this study aims to address. To remedy this deficiency, future research must adopt more nuanced and rigorous methodologies focused on the moderating influence of firm size within these relationships.

The review is also limited by variations in study methodologies, the lack of longitudinal data, and its exclusive reliance on English-language publications. Another concern in the academic discourse is the over-reliance on traditional frameworks, which fail to account for the simultaneous impacts of macroeconomic and firm-specific factors. This oversight diminishes the explanatory power of existing models, reducing their effectiveness in predicting risk in modern market conditions in the study context.

Hence, this study proposes an integrative analytical framework that incorporates

macroeconomic variability, fluctuations in capital structure, and firm-specific contingencies. This framework advances theoretical clarity and facilitates the development of empirically robust predictive models. By overcoming the shortcomings of conventional risk assessment models, it bridges the gap between academic research and practical risk management frameworks, enabling the creation of better financial forecasting models, optimized capital allocation strategies, and more informed policy frameworks.

This review calls for the formulation of a research agenda that synthesizes interconnected theoretical perspectives within an integrative framework. To advance the field, future research should adopt sophisticated econometric methodologies, including panel data regressions and structural equation modeling, to achieve higher levels of analytical precision and theoretical rigor. Longitudinal studies conducted under varying market conditions will yield valuable insights into the dynamic evolution of the relationships among leverage, macroeconomic factors, and systematic risk, thereby enhancing the temporal validity and contextual relevance of empirical findings. Sector-specific investigations are recommended to assess how industry-specific characteristics shape the transmission of systematic risk. Different sectors may exhibit distinct capital structure behaviors, exposure profiles, and sensitivities to macroeconomic fluctuations, necessitating industry-tailored analytical approaches. Such disaggregated analysis can reveal heterogeneity in financial behavior and risk exposure that aggregate models may overlook. Furthermore, incorporating cross-country comparative studies will deepen the understanding of systematic risk dynamics across varied economic and institutional landscapes. These comparisons can illuminate how differences in regulatory regimes, financial market development, and macroeconomic stability influence the

interplay among leverage, macroeconomic factors, profitability, firm size, and systematic risk. This integrative approach will enhance theoretical accuracy, improve empirical robustness, and increase the global applicability of risk assessment models in the context. Additionally, expanding the scope to include behavioral finance elements such as investor sentiment and market irrationality could deepen our understanding of risk propagation. These psychological and market-driven factors can offer greater insight into how they influence systematic risk in common stocks.

The practical implications of this research extend to policymakers, corporate strategists, financial managers, and institutional investors. Policymakers should consider enhancing macroprudential oversight and revising regulatory frameworks to better address the interdependencies among leverage, macroeconomic conditions, and systematic risk. Such changes could lead to more effective national and global risk management strategies. Corporate strategists and financial managers can use these insights to optimize capital structures, mitigate risks, and enhance resilience against market uncertainties. Institutional investors can benefit from a deeper understanding of systematic risk, allowing them to construct diversified portfolios that are more resilient to both macroeconomic shocks and firm-specific challenges.

In conclusion, this systematic review highlights significant shortcomings in existing methods for assessing the impact of financial leverage and macroeconomic factors on the systematic risk of common stock. By unveiling the underexplored connections between leverage, macroeconomic factors, profitability, and firm size, the study calls for a shift toward more comprehensive and rigorous analytical approaches. The refined framework and methodological recommendations offer substantial benefits to policymakers, corporate strategists, institutional investors,

and academic researchers. As the financial landscape evolves, adopting a multidimensional approach will be essential for managing risk effectively. The insights from this study provide valuable guidance for developing robust investment strategies and regulatory policies that address contemporary market complexities.

References

- Alaghi, K. (2012). Operating leverage and systematic risk, *African Journal of Business Management*, 6 (3), 1095-1099. <https://doi.org/10.5897/AJBM11.2266>
- Astawinetu, E.D., Istiono, Rachmawati, T., & Penangsang, P. (2023). Can Intervene in the Effects of Liquidity, Activity, and Leverage on Company Value? *Journal of Economics, Finance and Management Studies*, 06, 3336-3344 <https://doi.org/10.5281/zenodo.8163633>
- Al-Momani, T. M., Obeidat, M. I. S., Almomani, M. A. & Darkal N. M.A. M.Y. (2022). Capital Structure and Firm Value Relationship: The Moderating Role of Profitability and Size Evidence from Amman Stock Exchange, *WSEAS transactions on environment development*, 18, 1073-1084. <https://doi:10.37394/232015.2022.18.102>
- Azizah1, S.N., Sholikhah, A.F., Panuntun, B., Kamaluddin, N., & Silviana, I. (2020). Effect Of Operating Leverage, Growth Asset, and The Size Of The Company on Systematic Risk Research Article in Proceedings of the 2nd International Conference of Business Accounting and Economics, 5 – 6. <https://dx.doi.org/10.4108/eai.5-8-2020.2301087>
- Aharon, D.Y. & Yagil, Y. (2019). The impact of financial leverage on shareholders' systematic risk, *Sustainability (Switzerland)*, 11(23), 6548. <https://doi.org/10.3390/su11236548>
- Aayale, J., Seffar, M., & Koutene, J. (2022). “Financial Indicators, Stock Prices and Returns Evidence from Banks Listed on the Stock Exchange of an Emerging Market *International Journal of Accounting, Finance, Auditing, Management and Economics* 3(2-2), 533-551. <https://doi.org/10.5281/zenodo.6390322>
- Abbas, G., Hammoudeh, S., Shahzad, S. J., Wang, S., & Wei, Y. (2019). Return and volatility connectedness between stock markets and macroeconomic factors in the G-7 countries *Journal of Systems Science and Systems Engineering*, 28(1), 1–36 <https://doi.org/10.1007/s11518-018-5371-y>
- Balogobei, S. (2017). Macroeconomic Variables and Stock Market Returns in Sri Lanka. *Journal of Finance & Accounting*, 9(2), 206-218. <https://doi.org/10.5296/ajfa.v9i2.11832>
- Baker, S. H. (1973). Risk, Leverage and Profitability: An Industry Analysis. *The Review of Economics and Statistics*, 55(4), 503–507. <https://doi.org/10.2307/1925675>
- Bowman, R.G.(1979). The Theoretical Relationship Between Systematic Risk and (Accounting) Variables, *The Journal of Finance*, 34(3), 617-630 <https://doi.org/10.2307/2327430>
- Bhatti, A.M., Majeed, K., Ijaz-ur-Rehman & Khan, W.A. (2010). Effect of Leverage

- on Risk and Stock Returns: Evidence from Pakistani Companies, *International Research Journal of Finance and Economics*, 58, 1450-2887. https://www.researchgate.net/publication/216660466_Affect_of_Leverage_on_Risk_and_Stock_Returns_Evidence_from_Pakistani_Companies
- Bamunusinghe, B .A .P. S. & Lakmal, W .A .I. (2020). The impact of macroeconomic variables on the stock market returns in Sri Lanka, *Journal of Wayamba University of Sri Lanka* 1(1), 2756-9373.
- Chauhan, G.S. (2023), "Mediating role of profitability relating financial leverage and stock returns", *International Journal of Emerging Markets* <https://doi.org/10.1108/IJOEM-04-2022-0557>
- Cai, J. & Zhang, Z. (2011). Leverage change, debt overhang, and stock prices. *Journal of Corporate Finance*, 17(3), 391–402. <https://doi.org/10.1016/j.jcorpfin.2010.12.003>
- Castagna, A. D., & Matolcsy, Z. P. (1978). The Relationship Between Accounting Variables and Systematic Risk and the Prediction of Systematic Risk. *Australian Journal of Management*, 3(2), 113-126. <https://doi.org/10.1177/031289627800300201>
- Dalci, I., Tanova, C., Ozyapici, H. & Bein, M.A. (2019). The Moderating Impact of Firm Size on the Relationship between Working Capital Management and Profitability, *Prague Economic Papers*, 28(3), 296-312. <https://doi.org/10.18267/j.pep.681>
- Dehghan, H. & Shorvarzi, M. (2017). Analyze the linear and curvature relationship of by debt and firms' performance and moderator role of firm size, *Journal of Accounting Finance and Auditing Studies*, 3(4), 1-31. <https://www.um.edu.mt/library/oar/handle/123456789/27330>
- de Mendonca, H.F. & da Silva, R.B. (2018). Effect of banking and macroeconomic variables on systemic risk: An application of Δ COVAR for an emerging economy, *The American Journal of Economics and Finance*, 43,141-157. <https://doi.org/10.1016/j.najef.2017.10.011>
- Dissanayake, D.H.S.W. & Kumara, U.E.S. (2014). Macroeconomic Determinants of Stock return: A case in Sri Lanka, *Journal of Accounting and Finance*, 1(2). https://www.researchgate.net/publication/336252682_Macroeconomic_Determinants_of_Stock_Return_A_Case_in_Sri_Lanka
- Dantas, J. A., Medeiros, O. R. & Lustosa, P. R. B.(2006). The Impact of the Degree of Leverage on Stock Returns: An Empirical Study in the Brazilian Market, *Sao Paulo, n.* 41, Mai/Ago. <https://dx.doi.org/10.2139/ssrn.891846>
- Ediriweera, E.A.I.N. & Dissanayake, A.R. (2022). Economic Factors and Stock Market Performance: Sri Lankan Context, *Economics*. 11(3), 117-127 <https://doi:10.11648/j.eco.20221103.13>
- Fernando, A. (2018). Macroeconomic Impact on Stock Market Returns and Volatility: Evidence from Sri Lanka. *Bus Eco J* 9:

- 379, 9(4). <https://doi:10.4172/2151-6219.1000379>
- Francis, S.J., Ravinthirakumaran, N. & Ganeshamoorthy, M. (2021). The Impact of Macroeconomic Variables on Stock prices in Sri Lanka: A bounds testing approach, *International Journal of Accounting & Business Finance*, 7, 68 – 91. <https://doi:10.4038/ijabf.v7i0.108>
- Farooq, U. & Jibrán, A.Q. (2017). Firm Size as Moderator to Non-Linear Leverage-Performance Relation: An Emerging Market Review, *Binus Business Review*, 8(2), 99-106. <https://doi.org/10.21512/bbr.v8i2.1711>
- Gunarathna, V. (2016). How does financial leverage affect financial risk? An empirical study in Sri Lanka. *Amity Journal of Finance*, 1(1), 57-66.
- Gupta, P, Kumar, S. & Verma, P. (2016). Impact of Degrees of Operating and Financial Leverage on Systematic Risk: Evidence from India. *Academy of Taiwan Business Management Review*, 12(1), 140-148.
- Gahlon, J.M. & Stover, R.D. (1979). Diversification, Financial Leverage and Conglomerate Systematic Risk, *The Journal of Financial and Quantitative Analysis*, 14(5), 999-1013. <https://doi.org/10.2307/2330302>
- Gahlon, J.M., & Gentry, J.A. (1982). On the Relationship between Systematic Risk and the Degrees of Operating and Financial Leverage, *Financial Management*, 11(2), 15-23. <https://www.jstor.org/stable/3665021>
- Gamlath, G.R.M. (2019). The impact of financial leverage on firm growth of Sri Lankan listed companies, *Journal of Management and Tourism Research*, 2(1), 64-83. https://www.uwu.ac.lk/wp-content/uploads/2019/JMTR_V2I1-cH5.pdf
- Houmes, R.E., MacArthur, J.B. & Stranahan, H. (2012). The operating leverage impact on systematic risk within a context of choice: An analysis of the US trucking industry, *Managerial Finance*, 38(12), 1184-1202. <https://doi.org/10.1108/03074351211271283>
- Huffman, L. (1983). Operating Leverage, Financial Leverage, and Equity Risk, *Journal of Banking and Finance*, 7(2) 197-212. [https://doi.org/10.1016/0378-4266\(83\)90032-8](https://doi.org/10.1016/0378-4266(83)90032-8)
- Hamada, R.S. (1972). The effect of the firm's capital structure on the systematic risk of common stocks. *Journal of Finance*, 27(2), 435-452. <https://doi.org/10.2307/2978486>
- Hunjra, A. I., Chani, M. I., Shahzad, M., Farooq, M. & Khan, K. (2014). The Impact of Macroeconomic Variables on Stock Prices in Pakistan. *International Journal of Economics and Empirical Research*. 2(1), 13-21
- Hussain, S. & Shah, S.M.A. (2018). Macro-Economic Factors and Firm Downside Systematic Risk: Socio-Political index as Moderation, *Emerging Issues in Economics and Finance (AIC-EIEF)*, *Journal of Managerial Sciences*. 11(03). <https://ssrn.com/abstract=3176041>

- Issah, M. & Antwi, S. (2017). Role of macroeconomic variables on firms' performance: Evidence from the UK, *Cogent Economics & Finance*, 5(1). <https://doi.org/10.1080/23322039.2017.1405581>
- Jahufer, A. & Irfan, S.S.M. (2014). contribution of macro-economic factors on the stock market performance in Sri Lanka, *Journal of Management, Southeastern University Sri Lanka*, 10(1).
- Liow, K.H., Ibrahim, M.F. and Huang, Q. (2006) "Macroeconomic risk influences on the property stock market", *Journal of Property Investment & Finance*, 24 (4), 295-323. <https://www.emerald.com/insight/content/doi/10.1108/14635780610674507/full/html>
- Li, Y., Ashhari, Z.M. & Fan, Y. (2022). Financial sustainability and capital leverage of microfinance institutions in China: The mediating role of profitability, *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2153411>
- Lee, S. & Park, S.B. (2014). A Study on the Association between Operating Leverage and Risk: The Case of the Airline Industry, *International Journal of Economics and Finance*, 6(3). <https://doi:10.5539/ijef.v6n3p120>
- Menike, L.M.C.S. (2006). The Effect of Macroeconomic Variables on Stock Prices in Emerging Sri Lankan Stock Market, *Sabaragamuwa University Journal*, 6(1), 50-67. <https://doi:10.4038/suslj.v6i1.1689>
- Mansyur, A., Mus, A.R., Rahma, Z. & Suriyanti, S. (2020). Financial Performance as Mediator on the Impact of Capital Structure, Wealth Structure, Financial Structure on Stock Price: The Case of The Indonesian Banking Sector, *EJBMR, European Journal of Business and Management Research*, 5(5). <https://doi.org/10.24018/ejbmr.2020.5.5.526>
- Mohamed, E.A., Ahmed, I.E., Mehdi, R. & Hussain, H. (2021). Impact of corporate performance on stock price predictions in the UAE markets: Neuro-fuzzy model, *Intelligent Systems in Accounting, Finance and Management* published by John Wiley & Sons Ltd., 28(1), 52-71. <https://doi.org/10.1002/isaf.1484>
- Madurapperuma, W. (2022). The dynamic relationship between economic crisis, macroeconomic variables and stock prices in Sri Lanka, *Journal of Money and Business*, Emerald Publishing Limited, 3(1), 25-42. <https://doi.org/10.1108/JMB-06-2022-0033>
- Milosevic-avdalovic, S. & Milenkovic, I. (2017). Impact of company performances on the stock price: An empirical analysis on select companies in Serbia, *Original scientific paper*, (64) 2, 561-570. <https://doi:10.5937/ekoPolj1702561M>
- Muradoglu, G., Taskin, F. & Bigan, I. (2000). Causality between Stock Returns and Macroeconomic Variables in Emerging Markets, *Russian & East European Finance and Trade*, 36(6), 33-53. <https://www.jstor.org/stable/pdf/27749553.pdf>
- Meshack, K., Nyamute, W., Okiro, K. & Duncan, E. (2020). The Effect of Capital

- Structure on Financial Performance with Firm Size as a Moderating Variable of Non-Financial Firms Listed at the Nairobi Securities Exchange, *European Scientific Journal*, 16(22).
<https://doi:10.19044/esj.2020.v16n22p139>
- Malika, N., Salma, D., Jihen, B., Fatma, B.A., Islem, A., Fatma, B.B. & Donia, M. (2021). The impact of macroeconomic variables on Stock market in United Kingdom, MPRA Paper 106246, University Library of Munich, Germany.
<https://ideas.repec.org/p/prapa/mprapa/106246.html>
- Muigai, R.G. & Muriithi, J.G. (2017). The Moderating Effect of Firm Size on the Relationship Between Capital Structure and Financial Distress of Non-Financial Companies Listed in Kenya, *Journal of Finance and Accounting*, 5(4), 151-158.
<https://doi.org/10.11648/j.jfa.20170504.15>
- Matemilola, B.T., Bany-Ariffin, A.N. & Azman-Saini, W.N.W. (2013). Impact of Leverage and Managerial Skills on Shareholders' Return, *Procedia Economics and Finance*, 7, 103-115.
[https://doi.org/10.1016/S2212-5671\(13\)00224-4](https://doi.org/10.1016/S2212-5671(13)00224-4)
- Mandelker, G. N. & Rhee, S.G. (1984). The Impact of the Degrees of Operating and Financial Leverage on Systematic Risk of Common. *Journal of Financial and Quantitative Analysis*, 19(1), 45-57.
<https://doi.org/10.2307/2331000>
- Nawaz, R., Ahmed, W., Imran, Sabeer, S. & Arshad, M. (2017). Financial Variables and Systematic Risk. *Chinese Business Review*, 16(1), 36-46.
<https://doi:10.17265/1537-1506/2017.01.004>
- Novia, A. & Anom, P.I.B. (2019). The role of profitability in mediating the effect of leverage, corporate size, and good corporate governance on company values in manufacturing companies of Indonesia stock exchange, *RJOAS*, 89(5), 157-168.
<https://doi:10.18551/rjoas.2019-05.19>
- Natsir, K. & Yusbardini, Y. (2020). The Effect of Capital Structure and Firm Size on Firm Value Through Profitability as Intervening Variable, *Advances in Economics, Atlantis Press, Business and Management Research*, 145.
<https://doi:10.2991/aebmr.k.200626.040>
- Nursetya, R.P. & Hidayati, L.N. (2021). How does firm size and capital structure affect firm value, *journal of management and entrepreneurship research*, 1(2), 67-76.
<https://doi.org/10.34001/jmer.2020.12.01.2-7>
- Nugroho, M. & Halik, A. (2020). The Effect of Growth and Systematic Risk on the Firm's Value: Profitability as a Mediating Variable, *Journal of Economics, Business, & Accountancy Ventura*, 23(3), 466 – 476.
<https://doi.org/10.14414/jebav.v23i3.2468>
- Ozdagli, A. K. (2009). Financial Leverage, Corporate Investment, and Stock Returns, *FRB of Boston Working Paper*, 09(13).
<http://dx.doi.org/10.2139/ssrn.1518591>
- Perinpanathan, R. (2014). Impact of Financial Leverage on Financial Performance Special Reference to John Keels Holdings PLC Sri Lanka, *Scientific*

- Research Journal (SCIRJ), 2(2).
<https://dx.doi.org/10.2139/ssrn.2720276>
- Paramitha, P. D. P. (2020). The Role of Profitability in Mediating the Effect of Capital Structure and Liquidity on Firm Value in Food and Beverage Sub-Sector in Indonesian Stock Exchange. *Journal of Economics and Business Jagaditha*, 7(2), 80-91.
<https://doi.org/10.22225/jj.7.2.2154.8-19>
- Panjaitan, I. V. & Supriati, D. (2023). The Effect of Profitability and Leverage on Firm Value with Firm Size as a Moderating Variable, *Research of Finance and Banking (RFB)*, 1(1), 34-46.
<https://doi.org/10.58777/rfb.v1i1.34>
- Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D. & Moher, D. (2021). Updating guidance for reporting systematic reviews: development of the PRISMA 2020 statement, *Journal of Clinical Epidemiology*, 134, 103-112.
<https://doi.org/10.1016/j.jclinepi.2021.02.003>
- Qizam, I. (2017). On the causality analysis of the correlation between financial leverage and systematic risk: evidence from Indonesian Stock Exchange, *Investment Management and Financial Innovations Journal*, 14(4), 73-89.
[https://doi:10.21511/imfi.14\(4\).2017.08](https://doi:10.21511/imfi.14(4).2017.08)
- Rathnayake, K.M.N.D., Fernando, P. I. N. & Fernando, A.G.N.K. (2019). Impact of Microfinance Services on Growth of Micro Small and Medium Scale Enterprises: Empirical Evidence from Micro, Small and Medium Scale Enterprises in Kalutara district, *Journal of Management and Tourism Research (JMTR)*, 2(1), 49-63.
- Rubinstein, M. E. (1973). A Mean-Variance Synthesis of Corporate Financial Theory, *The Journal of Finance*, 28(1), 167-182.
<https://doi.org/10.1111/j.1540-6261.1973.tb01356.x>
- Rathnayaka R.M.K.T. & Seneviratna D.M. K. N. (2018). Impact of Macroeconomic Variables on Stock Market Returns: A Case Study of Colombo Stock Exchange, *Sri Lanka, Kelaniya Journal of Management*, 6,1-12.
<https://doi.org/10.4038/kjm.v6i0.7541>
- Rjoub, H., Türsoy, T. & Günsel, N. (2009). The effects of macroeconomic factors on stock returns: Istanbul Stock Market, *Studies in Economics and Finance*, 26(1), 36-45.
<https://doi.org/10.1108/10867370910946315>
- Rehman, M.A., Khurshid, M.K., Iltaf, F., Hafeez, M.A. & Kashif, M. (2019). Impacts of Leverage on Systematic Risk Based on Capital Asset Pricing Model: A Comparison of High and Low Capital-Intensive Firms, *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, 11(5).
<https://doi.org.10.14456/ITJEMAST.2020.88>
- Sonia, D. & Khafid, M. (2020). The Effect of Liquidity, Leverage, and Audit Committee on Sustainability Report Disclosure with Profitability as a Mediating Variable, *Accounting Analysis Journal (AAJ)*, 9(2), 95-102.
<https://doi.org.10.15294/aaj.v9i2.31060>
- Simbolon, L. & Purwanto (2018). The Influence of Macroeconomic Factors on Stock Price:

- The Case of Real Estate and Property Companies, in *Global Tensions in Financial Markets*,
Research in Finance, 34, 19–39.
<https://doi.org/10.1108/S0196-382120170000034010>
- Silwal, P.P. (2022). Corporate governance, Zero leverage and financial constraint: A financing decision from Nepalese non-financial firms, *Building Resilient Organizations*, 1st Edition. 8– 10.
<https://doi.org/10.4324/9781003313663-3>
- Santosa, P.W. (2020). The Moderating Role of Firm Size on Financial Characteristics and Islamic Firm Value at Indonesian Equity Market, *Business: Theory and Practice*, ISSN 1648-0627 /eISSN 1822-42022020, 21(1), 391–401.
<https://doi.org/10.3846/btp.2020.12197>
- Sudharika, W.A.K., De Silva, S.P.R., Madhusankha, G.T., Madhushanka, K.Y.V. & Siriwardhana, L.L. (2018). The impact of capital structure on firms' performance: Evidence from companies listed in the Hotels and Travels Sector of Colombo Stock Exchange, *Faculty of Management Studies & Commerce*.
<https://mgt.sjp.ac.lk/acc/wp-content/uploads/2018/12/a-Article-Group-20.pdf>
- Sukesti, F., Ghozali, I., Fuad, F., Almasyhari, A.K. & Nurcahyono, N. (2021). Factors affecting the stock price: the role of firm performance, *Journal of Asian Finance, Economics and Business*, 8 (2), 0165–0173.
<https://doi.org/10.13106/JAFEB.2021.VO L8.NO2.0165>
- Triest, S.P., Triest, S.V. & Bartels, A. (1998). On the Theoretical Relation Between Operating Leverage, Earnings Variability, and Systematic Risk, *BETA Publications: Preprints*, BETA Institute for Business Engineering and Technology Application, 25.
- Vithessonthi, C. & Tongurai, J. (2014). The effect of firm size on the leverage performance relationship during the financial crisis of 2007–2009, *Journal of Multinational Financial Management*, 29,1–29.
<https://dx.doi.org/10.2139/ssrn.2285980>
- Wagdi, O. & Tarek, Y. (2019). The impact of financial risk on systematic risks: international evidence, *Journal of Applied Finance & Banking*, 9 (6), 203-216. <https://ssrn.com/abstract=3422505>
- Wijesinghe, H. (2021). The Impact of Financial Variables on Systematic Risk of Common Stock, *The Journal of ARSYM, Conference: 6TH Symposium of accounting & finance research*, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka, 2(1).
- Yoewono, H. & Verenathan, S. (2023). The Effect of Profitability, Solvency, And Systematic Risk on Stock Returns with Moderating Variables by Audit Quality. *Accounting and Finance Studies*, 3 (2), 130–141.
<https://dx.doi.org/10.47153/afs32.6532023>
- Yu Hsing (2011). Impacts of macroeconomic variables on the stock market in Bulgaria and policy implications, *Journal of Economics and Business*, 14(2), 41-53.
- Younas, K. & Sarmad, M. (2020). The Impact of the Degree of Financial leverage and Degree of Operating

Leverage on the Systematic Risk of
Common Stock, Malaysian E- Commerce
Journal, 4(1), 24-32.
[https://doi.org.10.26480/mecj.01.2020.24.
32](https://doi.org.10.26480/mecj.01.2020.24.32).