
INNOVATIVE MANAGEMENT
STRATEGIES ACROSS SECTORS IN
THE 21ST CENTURY: ADAPTING
TO DYNAMIC ENVIRONMENTS
AND ENHANCING
PERFORMANCE

Editor

Maurey Bond, Ph.D.



Innovative Management Strategies Across Sectors in the 21st Century: Adapting to Dynamic Environments and Enhancing Performance



Editor
Dr. Maurey Bond

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PREFACE

In a world that is continuously evolving, driven by rapid technological advancements and shifting economic landscapes, the study of management across various sectors becomes more crucial than ever. This edited volume, comprising a diverse collection of research, presents a comprehensive overview of innovative management strategies and their impact on organizational performance across multiple industries and geographical contexts.

The chapters in this book cover a wide range of topics, each contributing unique insights into the complexities of management in contemporary settings. From the intricate dynamics of oil price volatility and strategic decision-making in the oil and gas sector to the application of machine learning algorithms for analyzing house price trends in Paris, the book captures the essence of adapting to a volatile and unpredictable environment. These chapters underscore the importance of flexibility and strategic foresight in navigating uncertain market conditions.

Healthcare and education, two pillars of societal development, are also prominently featured in this collection. The studies examining nurses' performance satisfaction and educational management provide valuable lessons on the influence of organizational structure, work design, and competency in enhancing overall performance and satisfaction. These insights are vital for practitioners and policymakers aiming to improve service delivery in these critical sectors.

Human resources management is another focal point of this volume, with several chapters exploring its evolution in the digital age. From the role of gamification and e-recruitment in modern HR practices to the interplay of motivation, self-concept, and competence in human resource management performance, the book highlights the dynamic nature of managing people in organizations today. It also delves into the strategic use of digital marketing to enhance brand image and purchase intention, reflecting the growing importance of digital strategies in business success.

The book does not shy away from exploring more specialized areas of management, such as the influence of intellectual capital on competitive advantage and company value in the banking sector, and the concept of Islamic management within non-governmental organizations in Indonesia. These chapters offer a rich tapestry of management practices, illustrating how different cultural and economic contexts influence organizational behavior and outcomes.

Additionally, the book addresses the critical role of sustainability and corporate social responsibility in modern business practices. By examining the effects of profitability, ownership structure, and CSR disclosures, it provides a nuanced understanding of the factors that drive sustainable business practices.

This volume is a testament to the diverse and multifaceted nature of management science. It not only captures the theoretical advancements in the field but also offers practical insights for practitioners aiming to navigate the complexities of contemporary management. The rich array of perspectives presented here serves as a valuable resource for scholars, practitioners, and students alike, providing them with the knowledge and tools to drive positive change in their respective fields.

As you embark on this journey through the various chapters, I encourage you to reflect on the interconnectedness of the themes presented and consider how they apply to your own experiences and aspirations in the field of management. It is through this process of reflection and application that we can continue to advance our understanding of what it means to manage effectively in a rapidly changing world.

Welcome to an exploration of management that spans industries, disciplines, and borders. I hope you find this collection as enlightening and inspiring as I have.

Dr. Maurey Bond
Bursa – September 2024

CONTENTS

| | | |
|-------------------|---|-----|
| PREFACE | | iii |
| Chapter 1 | Adapting to Dynamic Oil Price Volatility: A Strategic Framework Incorporating Portfolio Resources, Dynamic Capabilities, Game-Theory Muhammad Zulkifli | 6 |
| Chapter 2 | Influence of Organizational Structure, Work Design and Competency Toward Nurses Performance Satisfaction: Study Case in Jakarta Seaport Hospital Dedy Nugroho | 26 |
| Chapter 3 | Exploring The Determinants of Human Resources Management Performance: The Interplay of Motivation, Self-Concept, and Competence NURLAELA Dedy Nugroho | 39 |
| Chapter 4 | Exploring The Impact of Educational Management on Student Satisfaction and Achievement Muhammad Zulkifli Dedy Nugroho | 51 |
| Chapter 5 | Dynamic Beyond Interest Rates: Unveiling Parisian House Price Trends with Machine Learning Algorithms Salsabila Nur Fadhilah Amine Marouane | 61 |
| Chapter 6 | The Effect of Profitability and Ownership Structure Mediated by Csr Disclosures in Manufacturing Companies Sri Anawati Muhammad Zulkifli | 73 |
| Chapter 7 | Intellectual Capital, Competitive Advantage, Financial Performance and Company Value Among Banking Industries in Indonesia by Generalized Structured Component Analysis (GSCA) Alfi Maghfuriyah Muhammad Zulkifli | 84 |
| Chapter 8 | The Concept of Islamic Management within Alawiyin Non Governmental Organization (NGOs) in Preserving Diversity Values in Indonesia Ali Ridho Muhammad Zulkifli | 93 |
| Chapter 9 | Exploring The Influence of Digital Marketing Strategy on Increasing Brand Image and its Impact on Purchase Intention at Depok's Beauty Salon Industry Suci Ayu Sudari Dedy Nugroho | 104 |
| Chapter 10 | Human Resource Development on MSME Performance in Cilodong, Depok through Competitive Advantage mediation to support Sustainability Development Goals Udriyah Muhammad Zulkifli | 113 |

| | | |
|-------------------|--|------|
| Chapter 11 | Influence of Organizational Structure, Work Design and Competency Toward Nurses Performance Satisfaction: Study Case in Omni Hospital Pulomas Jakarta Dedy Nugroho | 123 |
| Chapter 12 | Strategic Decision-Making in The Oil and Gas Sector: The Influence of Real-Time Digital Information Muhammad Zulkifli | 138 |
| Chapter 13 | Adapting Human Resources Management to the Digital Age: The Role of Gamification and E-Recruitment Feri Nugroho Muhammad Zulkifli | 156 |
| Chapter 14 | Unveiling the Dynamics of Organizational Structure and Strategy: Insights for Enhancing Corporate Performance Muhammad Zulkifli | 166 |
| Chapter 15 | Navigating The Paradigm-War: Advancing Management Science Through Paragrammatic and Dialectical Approaches: An Article Review Muhammad Zulkifli | 185 |
| Chapter 16 | Investigating The Direct and Indirect Effects of Knowledge Management and Attitude Behavior on The Performance Nurlaela Muhammad Zulkifli | 203 |
| | <i>Editor's Biographies</i> | 1035 |
| | <i>NCM Publishing House Certificate</i> | 216 |

CHAPTER 1

Adapting to Dynamic Oil Price Volatility: A Strategic Framework Incorporating Portfolio Resources, Dynamic Capabilities, Game-Theory

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ABSTRACT

The dynamics of oil price volatility have prompted strategic responses from various international oil and gas companies, which continue to explore various strategies to remain resilient. The analysis of strategic response within the oil and gas industry, amidst dynamic market conditions and price fluctuations, reveals critical insights from various theoretical perspectives. By integrating internal portfolio resources, dynamic capabilities, and game theory approach, the proposed framework offers a comprehensive understanding of industry dynamics. Highlighting the crucial significance of internal resources, such as financial capabilities, is essential and human capital, the analysis highlights their contribution to firm competitiveness. Firms can adjust to evolving environments through the utilization of dynamic capabilities. while the game theory approach aids in strategic interactions and risk management. The interplay between internal resources, dynamic capabilities, and external factors underscores the importance of collaborative relationships and strategic alliances. Ultimately, this framework utilized as the foundation of the company's strategy, the aim is not only to survive but also to strive for sustainability. Through well-crafted and implemented strategies, it is proven that the integration enables firms to develop robust strategies that optimize resource allocation and enhance long-term performance and competitiveness in the upstream oil and gas sector.

Keywords: Resource-Based View, Game-Theory, Dynamic Capabilities, Oil Price Volatility, Upstream Oil and Gas Sector.

1. INTRODUCTION

Oil, as a crucial commodity driving global economic development, holds immense strategic importance for industrial economies (Bibi, 2024; Bhattacharyya, 2011). Its pivotal role is underscored by the staggering volumes of crude oil traded daily, amounting to 39.7 billion barrels per day in 2015 (BP plc, 2016). This extensive trading activity shapes the global economic landscape, influencing markets and economies worldwide. Moreover, oil exploration has historically reshaped the distribution of power and wealth, with nations like Saudi Arabia serving as prominent examples of the transformative impact of oil wealth (Yergin, 1991).

Over the past few years, the oil market has witnessed considerable oscillations, notably characterized by a substantial decrease in oil prices. For instance, from June to December 2014, the spot price of Brent crude oil dropped from over \$100/bbl to around \$50/bbl (Bloomberg, 2017). This downward trajectory continued, with oil prices fluctuating around the \$50/bbl threshold in the following years (Oil and Gas 360, 2016). Such unpredictability in oil prices carries significant implications for diverse sectors of the economy and merits thorough scrutiny. Scholars have extensively studied the phenomenon and the influence of oil price shocks on different economic indicators has been subject to investigation. Cunado and de Gracia (2003) delved into the impact of oil price shocks on inflation, while Bruno and Sachs (1982) examined their effects on changes in manufacturing output. Furthermore, Papapetrou (2001) presented empirical findings on the relationship between oil price shocks and employment dynamics. These studies emphasize the wide-ranging ramifications of oil price fluctuations on various facets of economic activity.

The sharp decline in oil prices poses significant challenges which this applies particularly to firms engaged in the upstream segment of the oil and gas sector (Barbosa, F. et al., 2020). Revenue declines have become a common occurrence for many large firms, necessitating strategic adjustments to optimize operational processes and weather the crisis. In response, business leaders are increasingly turning to innovation strategies to enhance resilience and sustain competitiveness amidst challenging market conditions.

Considering the significant influence of the petroleum sector on the overall economy, it is essential for companies to adopt strategic responses that effectively mitigate the adverse effects of oil price shocks (Singh, 2015). This entails not only optimizing resource utilization but also enhancing the dynamic capabilities of corporate leaders to respond adeptly to external challenges. As the industry grapples with prolonged crises, strategic adaptations become essential for navigating uncertainties and ensuring long-term viability.

The dynamic nature of the oil market necessitates agile responses from companies operating within the sector (Piya, S. et al., 2020). By embracing innovative strategies and enhancing their dynamic capabilities, oil and gas firms can better position themselves to withstand market volatility and emerge stronger in the face of adversity. Strategic foresight and adaptability are critical for navigating the complexities of the oil market and ensuring sustained success in an ever-evolving economic landscape.

The leaders of these oil companies have realized that adapting to rapidly changing environments is essential for survival and growth. Resources and dynamic capabilities can be optimized internally, and a shift from competition to co-opetition in the perspective of game-theoretic approach as a new strategy in responding to uncertain environments (Gelei, A., & Dobos, I., 2023). From the background described above, a new phenomenon can be drawn which shows that corporate leaders are not only required to prepare general corporate strategies but are also expected to do something different to ensure the company survives external influences, especially the crisis of falling oil prices.

The problem statement lies in oil and gas companies employ strategic responses to effectively navigate the inherent dynamic volatility of the sector. Despite the multifaceted nature of this volatility, companies have predominantly focused on optimizing internal resources and capabilities as a primary strategy. This optimization entails various initiatives aimed at reducing costs, particularly targeting operational expenditure (Opex) and capital expenditure (Capex) (Rau, I. T et al., 2021). Opex cost efficiency initiatives aim to trim administrative expenses unrelated to production activities, while Capex optimization involves more efficient management of capital projects to enhance project delivery efficiency (Popescu, C., & Gheorghiu, S. A., 2021).

Moreover, companies are placing emphasis on streamlining project cycle times, with a focus on achieving results and generating value. Simultaneously, they are rationalizing their resource portfolios to achieve greater focus and efficiency. These sustainable cost reduction measures are designed to manage production declines and minimize disruptions, thereby strengthening the company's cash cost structure and financial resilience amidst market uncertainties.

Furthermore, the adoption of dynamic capability frameworks by top management has emerged as a crucial strategy for enhancing internal production processes and resource management practices. This framework underscores disciplined resource allocation and management, particularly during project implementation, with an emphasis on financial rigor and adherence to strict procedures. Effective management of managerial capabilities and fostering a culture of

continuous improvement are deemed essential for enhancing performance levels and responding adeptly to market dynamics.

In response to the prevailing low commodity prices for oil and gas, managers are increasingly directing their focus toward low-risk, cost-effective operations in both exploitation and exploration activities (Mena, C. et al., 2014). However, these challenging market conditions have also spurred companies to explore new strategies, such as leveraging low prices to pursue acquisitions of domestic oil companies. This strategic move aims to bolster market position, expand the resource base, and create value for stakeholders while adapting to changing market conditions.

Externally, oil and gas companies are adopting a game-theoretic approach to bolster their market position and competitiveness. This includes strategic acquisitions of offshore oil companies to expand asset bases and diversify operational footprints. Additionally, companies are renegotiating contracts with governments to extend exploration commitments for greater flexibility in exploration activities and project timelines. These external strategies aim to optimize resource allocation, mitigate risks, and unlock synergies to enhance overall company performance and shareholder value amidst dynamic market conditions.

2. LITERATURE REVIEW

Within the domain of business administration, harnessing resources and dynamic capabilities emerges as a pivotal necessity. Saloner, Shepard, and Podolny advocate for managerial proficiency in navigating the external environment to optimize the assets of company. This assertion highlights the intricate interplay between strategy, structure, and environment, a relationship underscored by seminal works such as those by Miles and Snow (1978) and Miller (1987). Building upon Porter's seminal insights (1991), the evolution of dynamic strategy theory emphasizes the significance of understanding the rationale behind companies' strategic choices.

At the core of scrutinizing internal factors lies the resource-based view (RBV), an essential theory expounded upon by scholars like Barney (1986, 1991), Peteraf (1993), and Wernerfelt (1984). This perspective posits that a company's competitive advantage emanates from its unique resource base, emphasizing the strategic importance of resource allocation and utilization. RBV provides a lens through which firms can assess their internal strengths and weaknesses, thereby informing strategic decision-making processes.

In recent research efforts, scholars have explored strategies for maintaining competitive advantage in ever-changing environments. Eisenhardt and Martin (2000) have emphasized the

crucial significance of dynamic capabilities in facilitating firms to adjust and excel amid fluctuating market terrains. These scholars conceptualize dynamic capabilities as comprising a firm's ability to integrate, develop, and reconfigure internal and external competencies, effectively addressing the changing dynamics of the market.

Dynamic capabilities essentially function as the driving force behind strategic agility and adaptability, empowering firms to promptly and efficiently address shifts in the competitive arena (Uhl-Bien, M., & Arena, M., 2018). Cultivating a culture of innovation and flexibility enables companies to develop the necessary skills to navigate turbulent market conditions and seize emerging opportunities. Additionally, dynamic capabilities empower firms to actively shape their environments, rather than passively responding to external influences.

Integration of dynamic capabilities into strategic decision-making the adoption of agile processes signifies a paradigm shift in organizational management, departing from conventional static models towards more flexible and responsive methodologies (Ghosh, S. et al., 2022). Within today's fiercely competitive business environment, where change is constant and uncertainty prevails, the ability to harness dynamic capabilities effectively has emerged as a key determinant of long-term success. By aligning strategic initiatives with the firm's evolving capabilities and market dynamics, companies can position themselves for sustained growth and competitive advantage.

Realizing the full potential of dynamic capabilities in developing a culture of innovation, collaboration, and ongoing learning within an organization necessitates a collective endeavor the organization (Arokodare, M. A., 2020). Leaders must champion a forward-thinking mindset and empower employees to embrace change and experimentation. Moreover, investments in technology, infrastructure, and talent development are essential to enhance the firm's capacity to adapt and innovate in response to evolving market demands.

The strategic exploitation of resources and dynamic capabilities holds profound implications enhancing organizational performance and gaining a competitive edge are crucial objectives. Firms can achieve this by adopting a dynamic approach to formulating and executing strategies, which boosts resilience, agility, and competitiveness amidst the complexities and uncertainties of the business environment (Ahmad, J., 2024). Integrating dynamic capabilities into strategic decision-making processes presents firms with a transformative opportunity to excel navigate turbulent market conditions and emerge as industry leaders in the digital age.

The emerging concept of ambidextrousness, introduced by O'Reilly and Tushman (2004), has garnered attention in strategic management literature. Ambidexterity pertains a firm's capacity to explore fresh opportunities while leveraging existing ones is critical capabilities. This dual

focus allows organizations to balance innovation and efficiency, crucial for long-term success in turbulent environments.

Furthermore, recognizing the significance of ecosystem dynamics is vital when shaping competitive advantage has gained prominence in recent years. Scholars like Moore (1993) and Adner (2006) highlight the significance of understanding and strategically leveraging interdependencies among firms, customers, suppliers, and other stakeholders within an industry ecosystem. Recognizing these complex relationships can provide firms with strategic insights to enhance their competitive positioning.

Moreover, the digital revolution has revolutionized the landscape of competition, prompting scholars and practitioners to reconsider traditional notions of competitive advantage. Concepts such as platform ecosystems (Gawer & Cusumano, 2002) and network effects (Shapiro & Varian, 1999) have become central in understanding how digital technologies reshape industries and create new sources of value. Firms that effectively harness digital platforms and leverage network effects can significantly enhance their competitiveness in the digital era.

The sustainability and corporate social responsibility (CSR) have emerged as critical considerations in contemporary strategic management. Stakeholder theory, as proposed by Freeman in 1984, underscores the necessity of considering the concerns of diverse stakeholders such as employees, communities, and the environment in strategic decision-making processes. Incorporating sustainability initiatives into corporate strategies not only improves reputation and brand value but also cultivates enduring resilience when confronted with environmental and social adversities.

Advancements in artificial intelligence (AI) and machine learning (ML) have been notable in recent times. have presented new opportunities and challenges for strategic management. AI-driven analytics and decision-making tools offer firms unprecedented insights into market trends, customer behavior, and competitive dynamics (Fischer, T., 2024). However, effectively integrating AI into strategic processes requires careful consideration of ethical implications, data privacy concerns, and organizational readiness for digital transformation. Thus, firms must continuously adapt their strategic approaches to leverage the transformative potential of AI while mitigating associated risks.

The dynamic capability framework introduced by Amy Shuen, Paul F. Feiler, and David J. Teece in 2014 offers valuable insights into enhancing strategic reliability, particularly for high-tech firms operating in fast-paced markets. Dynamic capabilities encompass a meta-process governing various organizational processes, enabling firms to swiftly adapt and transform in response to market dynamics. This framework emphasizes the optimization of resources such

as technology, organizational structure, operational efficiency, and business model innovation to create and sustain competitive advantage. In today's rapidly in today's ever-changing business environment, characterized by disruptive technologies and frequent market changes, dynamic capabilities are essential for maintaining organizational agility and resilience.

In addition to dynamic capability frameworks, there exist various other models and frameworks to analyze and understand the interactions within organizations and their consequences. For instance, game theory, as proposed by Shapiro (1989), offers a valuable lens for studying strategic interactions among decision-makers. By modeling business interactions as strategic games, game theory provides insights into complex negotiations and decision-making processes, enabling firms to anticipate and navigate competitive dynamics effectively. Moreover, game theory facilitates the analysis of mutually beneficial outcomes in negotiations with suppliers, contractors, and other stakeholders, thereby enhancing strategic decision-making.

Ross (2016) highlights the relevance of the game theory approach in studying competitors within a firm's external environment. By examining the strategic interactions between competitors, firms can gain valuable insights into potential outcomes and competitive strategies. This understanding enables firms to formulate proactive responses and competitive approaches to maintain or enhance their market position. Furthermore, integrating game theory with other strategic frameworks such the Resource-Based View (RBV) offers a comprehensive insight into competitive dynamics and strategic positioning.

2.1. Resources-based View (RBV)

The Resource-Based View (RBV), championed by Barney (1986, 1991), Peteraf (1993), and Wernerfelt (1984), provides a theoretical foundation for comprehending competitive advantage rooted in a firm's distinct resources and capabilities. As per Barney (1991), resources encompass an array of tangible and intangible assets, processes, and organizational traits under the firm's control. These resources empower firms to devise and execute strategies that augment efficiency, effectiveness, and overall performance. Through harnessing their unique resources, firms can attain enduring competitive advantage and superior financial outcomes over time.

The RBV stresses the strategic significance of cultivating and utilizing firm-specific resources possessing characteristics such as value, rarity, inimitability, and non-substitutability (VRIN) (Hafeez, K. et al, 2019). This VRIN framework allows firms to recognize and give priority to resources that provide a lasting competitive edge. By concentrating on resources meeting the VRIN criteria, firms can efficiently distribute resources and foster capabilities that elevate

strategic competitiveness and ensure sustained viability in the market. In recent times, scholars have expanded the RBV framework to encompass dynamic capabilities as a critical factor influencing competitive advantage in fluid and unpredictable contexts.

As outlined by Teece (2007), dynamic capabilities pertain to a firm's capacity to amalgamate, construct, and reconfigure internal and external resources. This enables firms to detect and capitalize on opportunities, adjust to evolving market dynamics, and maintain competitive superiority in the long run. The incorporation of dynamic capabilities into the RBV framework highlights the significance of synergizing these concepts of agility, innovation, and adaptability in achieving and maintaining competitive superiority amidst rapid technological advancements and market disruptions.

Moreover, the RBV framework has been applied across various industries and contexts to analyze strategic decision-making, resource allocation, and competitive positioning (Nayak, B. et al., 2023). From manufacturing and technology to services and healthcare, firms across diverse sectors have utilized the RBV framework to identify, develop, and leverage their core competencies and distinctive resources. By aligning their resource investments with strategic objectives and market opportunities, firms can enhance their competitive positioning and create sustainable value for stakeholders.

Barney's (1991) resource categorization framework provides a foundational to grasp the myriad assets and capabilities influencing a firm's competitive edge, he categorizes them into distinct groups. These classifications comprise physical capital resources, human resources, and organizational capital resources. Physical capital resources encompass tangible assets like manufacturing facilities, machinery, and technology infrastructure, as well as access to raw materials and strategic geographical locations (Zhang, C. et al., 2023). Human resources, on the other hand, pertain to the skills, knowledge, and capabilities of employees, ranging from individual workers to the collective workforce as a whole.

Moreover, Barney emphasizes the importance of organizational capital resources, which encompass the systems, processes, and structures within the company. These include formal mechanisms for reporting and control, coordination systems, as well as informal networks and relationships that facilitate collaboration and knowledge sharing (Brennecke, J. et al, 2024). Recognizing the interplay between these three categories of resources is crucial for firms seeking to leverage their internal capabilities to achieve strategic objectives and competitive advantage.

In addition to Barney's classification, scholars have expanded the categorization of resources to include financial, information, and relational resources. Financial resources encompass the

capital and funding available to the firm, which enable investment in strategic initiatives and operational activities (Gomber, P. et al., 2017). Information resources refer to the data, knowledge, and informational assets that provide understandings into market trends, customer preferences, and competitive dynamics. Relational resources encompass the firm's network cultivating relationships with stakeholders such as suppliers, customers, partners, and regulators can yield strategic benefits in terms of resource accessibility, market intelligence, and collaboration prospects (Kano, L. et al., 2020).

| V | R | I | O | |
|----------|------|------------|-----------|-----------------------------------|
| VALUABLE | RARE | INIMITABLE | ORGANIZED | |
| NO | | | | COMPETITIVE DISADVANTAGE |
| YES | NO | | | COMPETITIVE PARITY |
| YES | YES | NO | | TEMPORARY COMPETITIVE ADVANTAGE |
| YES | YES | YES | NO | UNUSED COMPETITIVE ADVANTAGE |
| YES | YES | YES | YES | SUSTAINABLE COMPETITIVE ADVANTAGE |

Figure 1. VRIO.

The figure-1, Barney's VRIO framework provides a solid foundation for assessing strategic resources, but it's essential to recognize that good advantage in the dynamic business landscape can be influenced by various other theories and perspectives. One prominent theory in this regard is the Resource-Based View (RBV). RBV underscores the significance of internal resources and capabilities in shaping a firm's competitive edge. According to RBV, firms should prioritize harnessing their distinctive resources and capabilities to secure enduring competitive advantages.

An aspect of RBV that complements VRIO is the notion of resource heterogeneity and immobility. This viewpoint posits that resources and capabilities differ among firms and are not readily transferable or duplicable. Hence, it is not solely about possessing valuable, rare, inimitable, and organized resources, but also about having resources exclusive to the firm and challenging for competitors to obtain or reproduce. For instance, a firm's organizational culture, stakeholder relationships, and tacit knowledge might constitute valuable resources that are challenging to imitate or transfer.

Another theory that can enhance the understanding of strategic resources is Dynamic Capabilities Theory. This theory focuses on a firm's capability to adjust and rearrange its resources and competencies to address evolving market conditions and competitive pressures

is essential. It implies that firms must consistently innovate and develop their resource pool to uphold a competitive edge over time. Within this framework, resources that are valuable, uncommon, and inimitable may still become obsolete if firms fail to adapt to emerging trends and disruptions in their industry.

Furthermore, the concept of Core Competencies, pioneered by Prahalad and Hamel, underscores the significance of constructing and utilizing distinctive capabilities that empower firms to excel in particular domains (e Cunha, M. P. et al., 2020). Core competencies embody the collective knowledge within the organization, spanning skills, technologies, and insights essential to the firm's competitive strategy. Recognizing and fostering core competencies can aid firms in cultivating enduring competitive advantages that are arduous to replicate for competitors to replicate.

In conclusion, while Barney's VRIO framework offers a systematic method for evaluating strategic resources, incorporating additional theories like RBV, Dynamic Capabilities Theory, TCE, Institutional Theory, and Core Competencies can provide a more holistic comprehension of how firms can utilize their resources to attain and maintain competitive advantage. By encompassing diverse viewpoints, firms can more effectively assess their resource repertoire and make well-informed strategic choices that harmonize with their enduring objectives and competitive landscape.

2.2. Dynamic Capability (DC)

Dynamic Capability encompasses the capacity of a company to amalgamate, construct, and adapt internal and external competencies to confront swift environmental shifts. It's depicted as a process facilitating companies to adjust and influence the markets they engage in. Teece et al. (1997) delineate dynamic capabilities as distinct from ordinary capabilities and strategic resources, essential for companies' operations and survival (Prahalad, 1993; Winter, 2003). Dynamic capabilities transmute a set of resources and competencies identified by RBV as pivotal to competitive advantage. This distinction is corroborated by the majority of research on dynamic capabilities (Eisenhardt & Martin, 2000; Newey & Zahra, 2009, Teece et al., 1997; Winter, 2003).

Porter's elucidation of dynamic strategy theory in 1991 stands as a pivotal advancement in strategic management literature. This theory accentuates the necessity of adjusting to shifts in the business landscape and consistently refining strategies to sustain competitiveness. It acknowledges that strategies are not fixed but must instead be adaptive and responsive to both external and internal alterations.

Within dynamic strategy theory, two primary streams of thought emerge in this context. The initial stream centers on competitive strategies, highlighting the pursuit of a competitive edge over competitors via differentiation, cost leadership, or focus. This perspective is frequently linked with Porter's Five Forces framework, which examines the competitive dynamics within an industry to identify strategic opportunities and threats. The second stream of dynamic strategy theory emphasizes cooperative strategies, where firms collaborate with rivals to achieve mutual benefits. Co-opetition theory, introduced by Adam Brandenburger and Barry Nalebuff in the 1990s, proposes that firms can both cooperate and compete simultaneously, leading to better outcomes for all parties involved. This approach recognizes that in certain situations, cooperation with competitors can be more beneficial than competition alone.

While these two streams of dynamic strategy theory may appear to be conflicting, they are, in fact, complementary. Rather than viewing them as competing approaches, they should be integrated to form a comprehensive understanding of corporate strategy. Companies can benefit after both competitive and cooperative strategies depending on the specific context and objectives. Optimizing resources and the significance of dynamic capabilities cannot be overstated for firms striving to execute dynamic strategies efficiently. Dynamic capabilities denote a firm's capacity to amalgamate, construct, and adapt internal and external competencies to navigate swiftly evolving environments (Ferreira, J. et al., 2020). Through continual enhancement of their dynamic capabilities, firms can adjust to shifting market conditions and capitalize on emerging opportunities.

Co-opetition theory and game-theoretic strategies provide additional tools for firms to navigate complex competitive landscapes. Co-opetition encourages firms to collaborate with competitors strategically, forming alliances and partnerships to achieve common goals while still competing in other areas (Kumar, A. et al., 2021). Game-theoretic strategies involve analyzing strategic interactions between firms and making decisions based on the expected behavior of competitors. By adopting a dynamic strategy that incorporates elements of both competitive and cooperative approaches, firms can maintain their grand vision while effectively responding to changing market dynamics. This integrated approach allows firms to remain agile and resilient in the face of uncertainty, positioning them for long-term success in an ever-changing business landscape.

2.3. Game-theory Approach

Brandenburger and Nalebuff (1996) employ game theory concepts to elucidate diverse business scenarios. They explore various non-zero-sum games as illustrative tools for real-world

instances of competitive and cooperative interactions, known as co-opetition. Non-zero-sum games depict situations where one player's gain doesn't entail another player's loss (Li, X. et al., 2023). The authors also underscore the significance of player identification within the corporate sphere and the selection of appropriate games. Understanding the ongoing dynamics empowers decision-makers with effective strategies. Taking this notion forward, Costa et al. (2009) strive to devise a methodology for discerning suitable games. Utilizing company resources effectively, firms employ the dynamic capability framework internally, along with external strategies integrating game theory and co-opetition approaches. These methods aid in formulating strategies that sustain performance amidst uncertain environmental conditions.

Game theory offers a diverse array of tools and methodologies for scrutinizing strategic interactions (McCain 2014). Nevertheless, Camerer (1991) delves into certain critiques of game theory. The author notes that empirical research in business strategy predominates, and game theory techniques typically lack consistent empirical validation. Additionally, Camerer (1991) highlights the assumption of player rationality as a constraining factor and points out the broader unfamiliarity of strategy researchers with game theory.

Camerer (1991) outlines several reasons for the limited utilization of game theory in strategic research. The author points out the ongoing evolution and refinement of theories, which could mitigate concerns regarding their applicability. Moreover, Camerer (1991) notes that valid research findings don't always translate into widespread consistency. Lastly, the author highlights certain methods for resolving specific types of games where less rationality is needed to compute equilibrium points.

3. RESEARCH METHOD

3.1. The Strategic Framework

Refer to above problem on the ever-changing market conditions and price fluctuations in the upstream oil and gas sector, some adjustments often entail shifts in production levels, cost-cutting measures, and operational changes aimed at maintaining competitiveness and profitability amidst market fluctuations. These strategic responses underscore the dynamic nature within the upstream oil and gas industry, companies face the ongoing necessity to adjust their strategies for effective navigation of shifting market dynamics. As previously explored, internal factors like resources and dynamic capabilities wield substantial influence on company strategy in the oil and gas domain. Hence, we propose a framework model comprising three variables: a game-theory approach, portfolio resources, and dynamic capability, serving as precursors to strategy formulation aimed at enhancing company performance.

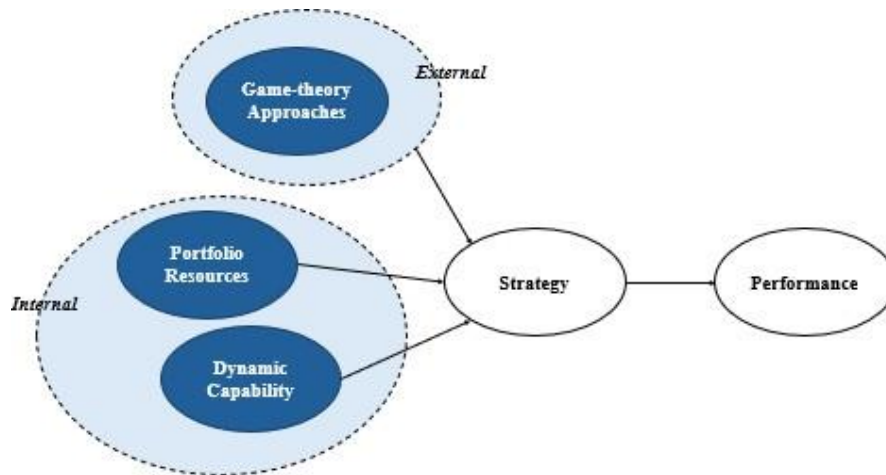


Figure 2. The Framework Proposed Model.

4. RESULT AND DISCUSSION

Analyzing, the suggested framework model in the context of how the oil and gas industry reacts to dynamic market conditions and price fluctuations reveals several critical insights supported by various theoretical perspectives. The framework model proposed will integrate various theoretical perspectives to provide a comprehensive understanding of strategic decision-making in the oil and gas industry. By taking into account both internal and external factors, companies can formulate resilient strategies to manage market fluctuations and boost competitiveness, and achieve long-term sustainability.

The analytical provided offers a comprehensive overview of how internal the portfolio resources, dynamic capabilities, and game theory approach interact to shape strategic decision-making and enhancing competitiveness in the upstream oil and gas sector involves leveraging internal portfolio resources, particularly financial capabilities and human capital cannot be overstated in shaping the competitiveness of companies within the upstream sector of the oil and gas industry rely heavily on financial resources serve as the lifeblood of exploration, production, and innovation initiatives within these firms. Whether it's funding exploratory drilling projects, developing new extraction techniques, or investing in cutting-edge technology, financial capabilities provide the necessary resources to drive growth and maintain competitiveness in a highly dynamic market environment.

Similarly, human capital as technical expertise is pivotal in shaping the competitive dynamics among upstream firms. This expertise, acquired through extensive experience and specialized training, equips these firms to address intricate hurdles and seize nascent prospects adeptly. Additionally, cultivating an atmosphere of innovation and creativity internally is indispensable

for sustaining a competitive advantage in an industry marked by swift technological progress and evolving market dynamics. Human capital, therefore, acts as a catalyst for driving innovation and fueling long-term growth and sustainability.

The transformative impact of technological innovation and digitalization extends beyond operational efficiency to encompass broader strategic imperatives such as risk management and environmental stewardship. By leveraging cutting-edge technologies, upstream firms can proactively identify and mitigate operational risks, thereby enhancing safety, reliability, and regulatory compliance. Additionally, digitalization enables firms to adopt more sustainable practices, such as minimizing environmental impact and reducing carbon emissions, aligning with global trends towards sustainability and responsible resource management.

The pivotal role of internal portfolio resources, technological innovation, and digitalization in shaping the competitiveness of upstream oil and gas firms cannot be overlooked. By strategically allocating financial resources, nurturing human capital, and embracing technological advancements, firms can enhance their operational efficiency, drive innovation, and maintain a competitive edge in an increasingly challenging business environment. As the industry continues to advance, firms that prioritize investments in internal resources and technological innovation will be best positioned to thrive and succeed within the upstream segment of the oil and gas industry.

The examination highlights the essential role dynamic capabilities play in fostering success amidst the ever-changing environment of the oil and gas sector. Amidst the sector's challenges and transformations, dynamic capabilities emerge as crucial facilitators with rapid technological advancements and market dynamics, firms must possess the agility and flexibility to adapt swiftly to evolving conditions. Dynamic capabilities empower firms to not only react to changes but also to excel amidst uncertainty, elevating their operational functions to higher levels of performance. This adaptability is particularly critical in the upstream oil and gas sector, where firms encounter continuous challenges in exploration, extraction, and production activities.

In practical terms, dynamic capabilities enable firms to overcome the constraints of their conventional operational functions. For instance, in exploration and production endeavors, firms can leverage dynamic capabilities to enhance their capacity to identify and exploit new reserves effectively. This may entail adopting cutting-edge seismic imaging techniques, drilling technologies, or reservoir modeling approaches to optimize resource extraction and maximize recovery rates. By consistently refining and enhancing their operational processes, firms can

augment the efficiency and effectiveness of their exploration and production activities, thereby bolstering their competitiveness in the market.

Dynamic capabilities transcend mere technical innovation to encompass broader organizational competencies. Firms equipped with robust dynamic capabilities are better equipped to navigate intricate regulatory landscapes, geopolitical risks, and market uncertainties. They exhibit the resilience and adaptability necessary to withstand shocks and disruptions, enabling them to maintain operational continuity and seize emerging opportunities. Additionally, dynamic capabilities encouraging innovation and fostering a culture of continuous improvement within organizations, leading to efficiency gains, cost reductions, and performance enhancements across the entire value chain.

Dynamic capabilities optimizing resource allocation and management within firms. By aligning resources with strategic priorities and market opportunities, firms can maximize the value generated from their investments and operations. This strategic resource allocation empowers firms to optimize their capital expenditure, minimize operational costs, and enhance overall profitability. Additionally, dynamic capabilities enable firms to capitalize on emerging trends and market dynamics, positioning them for long-term growth and sustainability in an increasingly competitive and volatile industry landscape.

Dynamic capabilities emerge as a critical determinant of success for Companies within the upstream oil and gas industry. By fostering adaptability, innovation, and strategic agility, dynamic capabilities empower firms to navigate market uncertainties, enhance operational performance, and seize growth opportunities. With ongoing evolution within the industry, companies that prioritize the cultivation and development of dynamic capabilities will be best positioned to thrive amidst the challenges and opportunities of the future.

The analysis highlights of the game-theory approach in providing a structured framework for understanding and strategizing within competitive environments, particularly within the framework of the oil and gas sector. Game theory offers valuable insights into strategic interactions among firms, enabling them to assess potential risks, anticipate competitors' moves, and formulate strategic responses accordingly. By leveraging game-theory principles, firms can navigate the complexities of dynamic market conditions more effectively, ultimately enhancing their competitive positioning and performance.

One of the benefits of employing the game-theory approach is its capacity to aid in analyzing diverse strategic decisions, including risk mitigation strategies, alliances, mergers, acquisitions, and resource allocation decisions. By modeling different scenarios and outcomes based on competitors' potential moves, firms can gain valuable insights into the potential implications of

their strategic choices and identify optimal courses of action. This analytical rigor allows firms to make informed decisions that align with their broader strategic objectives and enhance their competitive advantage in the marketplace.

The analysis acknowledges the interconnected nature of internal portfolio resources, dynamic capabilities, and external factors such as the competitive landscape and supplier relationships. This recognition underscores the importance of holistic strategic decision-making, this approach considers both internal factors and external dynamics. Collaborative relationships with suppliers and strategic alliances are highlighted as critical mechanisms for enhancing operational efficiency and competitiveness, as they enable firms to access complementary resources, share risks, and capitalize on economies of scale.

The analytical summary concludes by emphasizing the significance of integrating a game theory approach with considerations of internal portfolio resources and dynamic capabilities. This holistic approach enables firms to develop robust strategies that address competitive dynamics are addressed, risks are mitigated, and resource allocation is optimized, thereby improving long-term performance and competitiveness within the upstream oil and gas sector. Overall, the analytical summary offers a thorough comprehension of how the interaction among internal resources, dynamic capabilities, and the game theory approach impacts strategic responses within the upstream oil and gas sector. It underscores the importance of leveraging insights from game theory alongside considerations of internal capabilities to navigate dynamic market conditions effectively. The integration of the game-theory approach with considerations of internal portfolio resources, dynamic capabilities, and external factors enables firms to develop robust strategies that address competitive dynamics, mitigate risks, and optimize resource allocation. By leveraging insights from game theory alongside collaborative relationships and strategic alliances, firms can navigate dynamic market conditions with agility and resilience, ultimately enhancing their long-term performance and enhancing competitiveness within the oil and gas sector.

5. CONCLUSION AND RECOMMENDATIONS

The suggested framework model aims to analyze how the oil and gas industry responds to dynamic market conditions and price fluctuations provides invaluable insights gleaned from various theoretical perspectives. By amalgamating multiple theoretical frameworks, including internal portfolio resources, dynamic capabilities, and the game theory approach, this model offers a holistic understanding of strategic decision-making within the sector. This

comprehensive approach enables firms to navigate the complexities of the industry's volatile landscape more effectively.

The proposed framework offers a significant advantage in cultivating an atmosphere of innovation and ongoing enhancement within organizations. By highlighting the significance of dynamic capabilities, firms are motivated to adjust to evolving market circumstances, embrace a new of technologies, with explore innovative business models. This culture of innovation not only enhances firms' competitiveness but also ensures their long-term sustainability in an increasingly challenging environment.

The framework underscores the importance of strategic alliances and collaborative partnerships in driving industry innovation and growth. In an increasingly interconnected global economy, no single company can thrive in isolation. By forging strategic alliances with suppliers, technology partners, and other industry stakeholders, firms can leverage complementary strengths, share risks, and access new markets more effectively. These collaborative relationships not only enhance firms' capabilities but also create synergies that drive value creation and sustainable growth.

A key focal point of the analysis is the pivotal role played by internal portfolio resources, particularly financial capabilities and human capital, in shaping the competitiveness of firms. Financial resources facilitate crucial investments in exploration, production, and innovation, while human capital contributes technical expertise and fosters innovation capabilities within the organization. The integration of technological innovation and digitalization further enhances internal resources, thereby augmenting competitiveness in the marketplace.

Dynamic capabilities emerge as a critical factor enabling firms to adapt and excel in rapidly changing market environments. These capabilities empower firms to elevate operational functions and enhance overall competitiveness by fostering agility and adaptability. Moreover, the game theory approach offers a structured framework for understanding strategic interactions, risk mitigation strategies, and resource allocation decisions, thereby facilitating effective navigation of dynamic market conditions.

Acknowledging the interplay between internal resources, dynamic capabilities, and external factors such as the competitive landscape and supplier relationships is essential. Collaborative relationships with suppliers and strategic alliances emerge as mechanisms to enhance operational efficiency and competitiveness, underscoring the significance of external partnerships in driving strategic success.

In conclusion, the proposed framework model offers a thorough and systematic approach to decision-making strategy in the oil and gas industry. By integrating internal portfolio resources, dynamic capabilities, along with the game theory method, firms can develop proactive strategies that enhance competitiveness, foster innovation, and drive sustainable growth. The integration equips firms with robust strategies to address competitive dynamics, mitigate risks, and optimize resource allocation effectively. Drawing upon perspectives from various theoretical frameworks, perspectives enables firms to enhance their long-term performance and enhancing competitiveness within the upstream oil and gas sector positions them for enduring success amidst market volatility and uncertainty. In an era of unprecedented change and uncertainty, adopting such a framework for companies aiming to navigate the intricacies of the industry's volatile landscape and secure their long-term success.

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CHAPTER 2

Influence of Organizational Structure, Work Design and Competency Toward Nurses Performance Satisfaction: Study Case in Jakarta Seaport Hospital

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ABSTRACT

Hospitals are vital institutions in communities, with nurses playing a crucial role in improving healthcare performance. Nurses as the largest health care team are required to improve nursing performance. This study purpose is to find out whether the organizational structure and competence influence the nurse's performance satisfaction at Jakarta Seaport Hospital. This research focused on the influence of organizational structure, and competency on the Nurse's Performance Satisfaction at Jakarta Seaport Hospital. The method in this research is the quantitative descriptive research, namely research on data collected and expressed in the form of numbers, although also in the form of qualitative data as its support, such as words or sentences arranged in questionnaires, sentences from consultation or interview results between researchers and informants. The target population in this research were nurses at the Jakarta Seaport Hospital as many as 200 nurses. As a result, the Organizational Structure and work design have a significant influence on the Nurse's Performance Satisfaction at Jakarta Seaport Hospital and for Competency does not influence Nurse's Performance Satisfaction. Recommendation for Jakarta Seaport Hospital must be reform Organization structure and work design while can be increase satisfaction nurses.

Keywords: Job design, Organizational Structure, Competence, Performance Satisfaction.

1. INTRODUCTION

Hospital is one of the public sector organizations engaged in the healthcare services having the task of performing a health effort in an efficient and effective way by prioritizing the efforts of healing and recovery efforts that have been carried out harmoniously and integratedly by the hospital in an attempt to improve and prevent disease and improvement efforts (Decree of the Minister of Health of the Republic of Indonesia No.983/Men.Kes/SK/XI/1992). Nurses are "The Caring Profession" which has an important position in delivering good health services in hospitals, because good services delivered for 24 hours and continuous are its own advantages compared to other types of services. Nurses as one of the health workers at hospitals play an important role in efforts to achieve the goal of development in health. A nurse's performance is the activity of nurses in implementing as best as possible of an authority, duty and responsibility in order to achieve the objectives of the profession's main tasks and the realization of the goals and objectives of the organizational units.

Nurses want their performance to be assessed based on objective standards that are open and can be communicated. Nurses should be encouraged to be self-motivated which help increase their Satisfaction. Nurse leaders must optimize nurses' opportunities for personal and professional growth by creating a learning environment that enables reflective practice and shared accountability, demonstrate confidence in others by delegating effectively, coach, mentor, and guide, provide both negative and positive feedback constructively and provide opportunities for the development of knowledge, skills, and judgment which increase job satisfaction (Al-Maabadi Rn¹, Salem^{2*} and Baddar,2018)

The Efforts to improve nursing performance are highly dependent on competence and organizational structure. Organization structure goes a long way to affect job satisfaction. However the effects differ according to the different dimensions of structures and job satisfaction. A highly decentralized organization where authority to commit people, money and materials is widely diffused throughout every level of the organization structure could lead to loss of control and organizational goals may be jeopardize as subsidiary units may be inclined to look more to their own needs than to those of colleagues and in fact the overall organization needs. Organizational structure here will only enhance realization of certain aspects of job satisfaction say value attainment. On the other hand over centralization of organizational structure which

is more in line with the classical school of thought that stressed a strictly defined hierarchy governed by clearly defined regulations and lines of authority would kill initiatives and subsequently loss in job satisfaction (Thomas,2015).

Ali and Zia-ur-Rehman (2014) found a positive correlation between job design and employee performance and Job satisfaction which had a positive influence on employee's performance .A good work should be able to reflect the job description and job specifications that are tailored to the requirements demanded of employees who will occupy these positions.

According to Wibowo (2011) competence is an ability to carry out a job / task based on skills and knowledge as well as work attitudes demanded by the job (Wibowo,2011). The current study gives more comprehensively described definition, domains, and levels of nursing students' competency in different academic and clinical settings than previous studies, but it is more obvious that more systematic reviews, concept analyses, and even meta-analysis are needed to scrutinize specifically nursing students' competency in academic and clinical settings. The current study was the first review study in the nursing competency scope to introduce seven new competency levels in nursing students. However, the concept strictly depends on the profession and country (Nehrir, Vanaki, Nouri, Khademolhosseini & Ebadi,2016).

Surveys conducted by the hospital's quality service development division on customer satisfaction surveys and nursing care documentation the results were obtained on customer satisfaction surveys, administrative, medical services, hospital facilities and nursing, the results showed that services that were not in line with people's expectations were nursing services ranked highest 36%, followed by 24% administrative services, 23% medical service and 22% hospital facilities. The results of the survey on the achievement of nursing documentation at Hospital in North Jakarta was 32%, which meant that it was included in the category of poor assessed from results of the implementation of nursing care standards covering: Nursing assessments, nursing diagnoses, nursing planning, nursing actions, nursing evaluations, and nursing records. Results of the survey above showed that the quality of nursing services was still low and nursing care has not been preformed according to standards.

Based on the results of interviews with doctors in charge of the hospital (Satisfaction Customer Survey (Port Medical Hospital), 2016) that nursing performance

was one of the problems in the hospital. Based on the results of interviews with hospital managers (Satisfaction Customer Survey (Port Medical Hospital), 2016) it can be seen that various efforts have been carried out by the hospital to improve the quality of nursing services at North Jakarta Hospitals.

From the case study, it can be seen that there was work design problem at hospitals in North Jakarta, especially the nursing teamwork. The problems that occurred include the uncaring attitude and blaming among the nurses, lack of desire and awareness to resolve conflicts, lack of awareness of the nurses about the importance of cooperation and communication.

This also has an impact on patient care so that the patients dissatisfied with the services provided by the hospital because nurses are the hospital resources that often interact with patients. And in carrying out their duties requires a cooperation among teams in order to be able to provide maximum service to patients. Based on the analysis of the above problems, the topic of this research is formulated into title: "INFLUENCE OF ORGANIZATIONAL STRUCTURE, WORK DESIGN AND COMPETENCY TOWARD NURSES PERFORMANCE SATISFACTION: STUDY CASE IN JAKARTA SEAPORT HOSPITAL”

2. LITERATURE REVIEW

This research is in line with the research conducted by Sahrul (2016) with the research title "Influence of Organizational Structure on Employee Performance at Makassar Utara Small Tax Service Office" The results of the analysis show that organizational structure variable has a significant and simultaneous influence on employee's performance at Small Tax Service Office (KPP) of Makassar Utara. Organizational structure variable has a positive regression coefficient (+) which shows a unidirectional relationship, in other words, the organizational structure will improve the performance of employees at the Small Tax Office (KPP) of Makassar Utara. Correlation or relationship between organizational structure and employee performance at the Small Tax Service Office (KPP) of Makassar Utara was very strong.

This research is in line with the research conducted by Purwandito Pujoraharjo (2015) with the research title "The Influence of Competency and Work Design on Employee Performance (Case Study at the Dental and Oral Division of RSUP Dr. Mohammad Hoesin Palembang)" The results show that competency (X1) and work design (X2) partially (t-test) have a positive influence on employee's performance (Y) at Dentistry Major of Dr. RSUP Mohammad Hoesin Palembang. This is indicated by the value of each $t_{count} > t_{table}$ and the probability value $<$ level of significance. Simultaneous test results (F test) show that

competency and work design simultaneously have a positive influence on the performance of the Dentistry Department of Dr. RSUP Mohammad Hoesin Palembang with a value of R 0.924 which means very strong. Independent variable that has a more dominant influence on performance, namely competency (X1). This shows that the better their competency, the better the performance produced by the Dentistry Department's employees of Dr. RSUP. Mohammad Hoesin Palembang.

This research is in line with research conducted by As'ad Syaifullah and Iwan Adhi Prasetyo (2018) with the research title "Influence of Compensation and Motivation toward Employee's Performance" The results of this study indicate that compensation, especially the amount of wages, partially has a positive influence on employee's work performance. Furthermore, motivation also partially provides a positive influence on employee work performance. The findings of this study indicate that the compensation provided by PT. Prima Bumi Pakuwon Jaya was comparable to the level of difficulty of the work based on the perspective of production's employees.

This research is in line with the research conducted by Herison Mangaratua (2013) with the research title "The Influence of Work Design and Competency toward the Performance of Employees of Production Division at PT. Rifansi Dwi Putra Duri." From the results of simultaneous test (F test), showing that all independent variables studied have a significant influence on variable of employee performance. Partial regression test (t test) shows that the more work design variables have an influence toward the performance significantly compared to competency at PT. Rifansi Dwi Putra Duri.

According Olajide Olubayo Thomas, PhD(2015) This study has been able to examine the relationship between organizational structures and job satisfaction. It was successful in establishing the existence of relationships and paving the way for further research in this area. Through quantitative research, this study determined that multi-divisional and virtual structures each shared a relationship with need for recognition, while network and matrix structures each correlated with optimum job satisfaction. Multi-divisional and virtual structures, respectively, consist of departments and employees that are dispersed geographically. Due to the fact that employees in these organizational structures do not work in a shared environment, this correlated with need for autonomy. The network structure and matrix structure both include groups that need to share effective communication in order to be successful, hence enhancing employees view in decision making. In the network structure, groups of businesses share ideas, whereas in the matrix structure employees are divided into groups based on their specialized skills. Both of these structures enhances optimum job satisfaction via need for achievement and accomplishment. The significance of this study

lie in the fact that it supports the idea that relationships do exist between organizational structures and job satisfaction (Olajide Olubayo Thomas, PhD,2015)

Generally, satisfied nurses tend to be more loyal to their organization. When nurses are satisfied with their jobs, they will have a positive attitude feeling about their jobs. Therefore, it is unlikely that they will change it. Nurses prefer to stay in their organization and work hard for a return. Moreover, if nurses feel that the organization treats them fairly and well; the workers will feel that they are responsible to keep working hard for their organization. Also, in order to maintain their current satisfied jobs, nurses will perform well and work effectively, which is beneficial for the organization. Therefore, in order to increase the employees' level of commitment, the manager can try to increase their nurses' level of job satisfaction (Olfat A. Salem, FatmaM. Baddar, Hind M. AL-Mugatti ,2016)

Job design has major effects on job satisfaction: either positive or negative. Organizations are paying a lot of attention lately to employees' job satisfaction as it became a major part in achieving organizations' goals. In Saudi Arabia, shortage of nurses is a huge issue. Turnovers that result from the absence of job satisfaction increase the shortage of nurses thus negatively affecting health organizations. In an attempt to solve this issue, researches have been done to highlight the relationship between job design and job satisfaction (Ahlam A. Al-Maabadi Rn, Olfat A. Salem and Fatma M. Baddar, 2018)

The current study highlights some personal and organizational factors that are affecting nurses' work motivation. The majority of study participants have a significantly higher positive perception as regards work shared values and their influence on work. Work motivation is a key to emerge and enhance the nurse's satisfaction and their work performance. Accordingly, the factors that affect the work motivation among nurses became essential instruments to modify and shape the work behaviors of the nurses and its consequences (Ibrahim Yahya Alhakami and Omar Ghazi Baker,2018).

3. RESEARCH METHOD

This research involved 4 variables and focused on the influence of organizational structure, work design and competency on the Nurse's Performance Satisfaction at Jakarta Seaport Hospital. Assessment of these factors was carried out through a specially designed instrument in the form of a questionnaire. Through the questionnaire, the significant on the influence of organizational structure, work design and competency on Nurse's Performance Satisfaction will be measured. Data from each factor obtained through measurement results were tested statistically before being analyzed.

Frame of Thinking

The framework of thinking is a description of the relationship between variables related to the problem being studied in accordance with the formulation of the problem. This research aims to determine how much the influence of organizational structure, work design and competency on Nurse's Performance Satisfaction. Illustrated as the influence of variables dependence as shown in Figure 1 below:

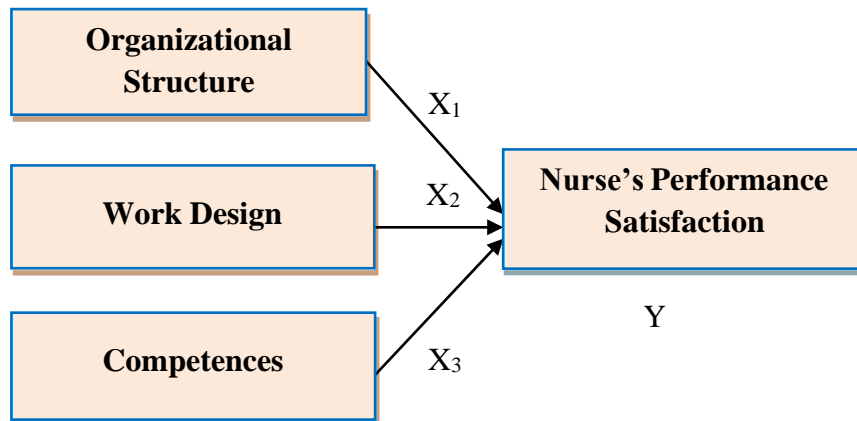


Figure 1. Frame of Thinking

Notes: X_1 = Organizational structure, X_2 = Work design, X_3 = Competency, Y = Nurse's Performance Satisfaction

Hyphotesis of Research

Hypothesis is temporary conclusion that must be proven and tested in its validity based on the data collected (Suhartono 2002), verification is conducted by a series of data test empirically. Referring to identification and formulation of the problem that have been raised, then the hypothesis proposed in this research are:

H_0 : Organizational structure, work design, competency have no significant influence toward Nurse Performance Satisfaction.

H_a : Organizational structure, work design, competency have significant influence toward Nurse Performance Satisfaction.

H1. Organizational structure has a significant influence on Nurse's Performance Satisfaction.

H2. Work design has a significant influence on Nurse's Performance Satisfaction.

H3. Competency has a significant influence on Nurse's Performance Satisfaction.

H4. Organizational structure, work design and competition together have a significant influence on Nurse's Performance Satisfaction.

Research Method

The research methodology used is quantitative approach, survey method and continued by using multiple linear regression analysis to describe and test the model of

influence among the variables in variable exogenous causal (independent variables) and endogenous variables (dependent variable). There are 4 variables studied in this research, namely: organizational structure, work design, competency and satisfaction on nurse's performance.

Data analysis techniques used include descriptive analysis and inferential statistics. Descriptive statistical analysis aims to get a description of each variables of the research.

Type of data used in this study is quantitative data. Quantitative data are data in the form of numbers, commenting from data collection, interpretation of the data, and the presentation of the results. According to Sugiyono quantitative data (2010) is a type of data that can be measured or calculated directly, in the form of information or explanations expressed in numbers or in the form of numbers.

Population collection using random sampling. The target population in this research were nurses at the Jakarta Seaport Hospital and we took sampling for 200 nurses in Jakarta Seaport Hospital.

4. RESULT AND DISCUSSION

Characteristics of Respondents

Characteristics of Jakarta Seaport Hospital's Respondents Based on Gender

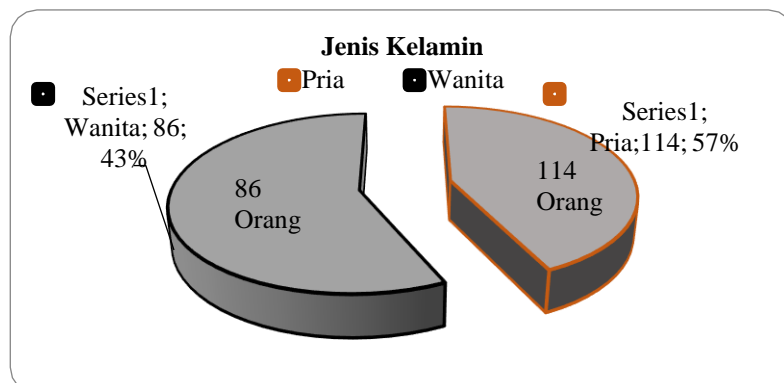


Figure 2: Characteristics of Respondents Based on Gender

From the data above, it is shown that the respondents in this study were male 114 or (57%), while female respondents were 86 or (43%). This shows that in this study more women were respondents.

Characteristics of Jakarta Seaport Hospital Respondents Based on Age

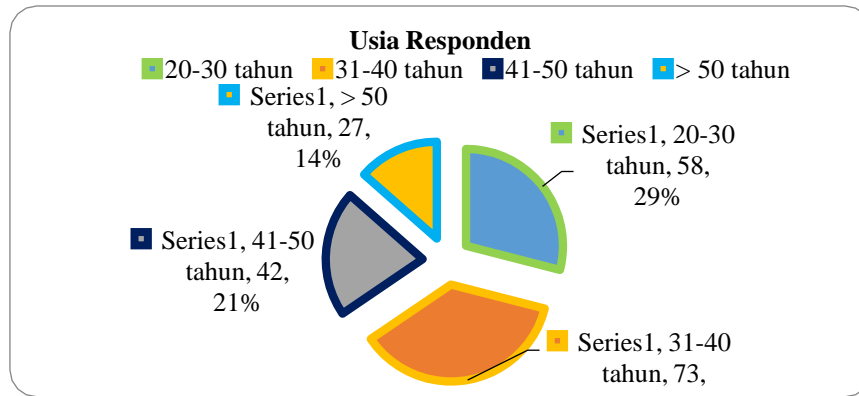


Figure 3: Characteristics of Respondents Based on Gender

From the data above, it is shown that the respondents in this study aged 20-30 years were 58 people or (29%), those aged 31-40 years were 73 people or (36%) and those aged 41-50 years were 42 people or (21%) and age > 50 years amounting to 27 (14%). It shows that this study majority respondents are aged 31-40 years.

Descriptive Statistic

Frequency of answers of respondents on the distribution of questionnaires amounted to 200 at the Jakarta Seaport Hospital is described in the following data description section:

Table 1: Descriptive Statistics

| | Mean | Std. Deviation | N |
|---|----------------|----------------|------------|
| Employee's Work Satisfaction (Y) | 73.6550 | 6.48353 | 200 |
| Organizational Structure (X1) | 61.4050 | 6.71090 | 200 |
| Work Design (X2) | 65.6150 | 7.83221 | 200 |
| Competency (X3) | 74.1600 | 8.61192 | 200 |

Seen from the table above, descriptive statistics describes the mean and Std. Deviation from dependent and independent variables. The Mean Value on variable the Organizational Structure (X₁) is 61.4050, Work Design (X₂) is 65.6150, Competency (X₃) is 74.1600 and Nurse's Performance Satisfaction (Y) is 73.6550. Std. Deviation Value in the variable Organizational Structure (X₁) is 6.71090, Work Design (X₂) is 7.83221, Competency (X₃) is 8.61192 and Nurse's Performance Satisfaction (Y) is 6.48353.

F test

Table 2: ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 1830.280 | 3 | 610.093 | 18.298 | .000 ^b |
| | Residual | 6534.915 | 196 | 33.341 | | |
| | Total | 8365.195 | 199 | | | |

a. Dependent Variable: Nurse's Performance Satisfaction (Y)

b. Predictors: (Constant), Competency (X3), Organizational Structure (X1), Work Design (X2)

From the results of the analysis in the table above, namely ANOVA test it is obtained F_{count} value of 18,298. While F_{table} (α 0.05) for $n = 200$ of 2.42. So $F_{\text{count}} >$ from F_{table} (α 0.05) or $18,298 > 2.42$ with a significant level of 0,000 because $0,000 < 0,05$, it can be said that Organizational Structure (X1), Work Design (X2) and Competency (X3) together have the positive influence on Nurse's Performance Satisfaction (Y).

Discussion

Based on the results of the research analysis using statistical methods, so that it can be known the meaning of the influence of the independent variables namely Organizational Structure, Work Design and Competency on the dependent variable, namely the Nurse's Performance Satisfaction at Jakarta Seaport Hospital in 2015-2016. This study involved respondents 200 employees and patients at the Jakarta Seaport Hospital in 2015-2016, the statistical calculations were performed using computer aids through the SPSS version 20 program for Windows.

From the results of the analysis in the table above, the ANOVA test it is obtained value of F_{count} of 18,298. While the F_{table} (α 0.05) for $n = 200$ of 2.42. So $F_{\text{count}} >$ from F_{table} (α 0.05) or $18,298 > 2.42$ with a significant level of 0,000 because $0,000 < 0,05$, it can be said that Organizational Structure (X₁), Work Design (X₂) and Competency (X₃) together have a positive influence on Nurse's Performance Satisfaction (Y). Based on the calculations in the table above, the relationship between the three variables is tested and based on the table of Model Summary, the value of R Square (R₂) is 0.219. This shows that 21.9% Organizational Structure (X1), Work Design (X2) and Competency (X3) simultaneously influence the Nurse's Performance Satisfaction (Y) while the remaining 78.1% is influenced by other factors not examined in this study.

5. CONCLUSION AND RECOMMENDATIONS

Based on the discussion in the previous chapters, then in this chapter the author provides conclusion and recommendation, while the conclusions are:

1. Organizational Structure and work design have a significant influence on the Nurse's Performance Satisfaction at Jakarta Seaport Hospital and for Competency does not influence Nurse's Performance Satisfaction .
2. For variable of competence Jakarta Port Hospital has no influence toward Satisfaction of Nurse Performance.

Recommendation

Based on the above matters, the recommendation to put forward are as follows:

- a. Jakarta Seaport Hospital must be reform Organization structure and work design while can be increase satisfaction nurses.
- b. Optimizing the function of the organizational structure so that there is a clarity to the attendants at work in accordance with the main tasks and functions. Nurses must further improve their performance and competence and pay more attention to complaints submitted by the patients. The hospital must monitor the performance of the nurses so that there is no complaint from both the patient and the patient's family. The hospital must be improve remuneration for performance nurses.

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CHAPTER 3

Exploring The Determinants of Human Resources Management Performance: The Interplay of Motivation, Self-Concept, and Competence

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ABSTRACT

Objectives: The objectives of this study are: 1) To determine the effect of learning motivation on lecturer competence. 2) To determine the effect of academic self-concept on lecturer competence. 3) To determine the effect of learning motivation on lecturer performance. 4) To determine the effect of academic self-concept on lecturer performance. 5) To determine the effect of lecturer competence on lecturer performance. 6) To determine the effect of learning motivation on lecturer performance with lecturer competence as an intervening. 7) To determine the effect of academic self-concept on the performance of lecturers with the competence of lecturers as an intervening for the Master of Management postgraduate program at Pamulang University.

Methods: The research method used is descriptive quantitative. The population in this study amounted to 158 Odd Semester Students for the 2019 Academic Year taken from 3 classes majoring in Human Resource Management, Postgraduate Management Master's Program, Pamulang University, Tangerang.

Results: The results of this study indicate that: 1) There is an influence between learning motivation on lecturer competence. 2) There is an influence between academic self-concept on lecturer competence.

3) There is an influence between learning motivation on lecturer performance. 4) There is an influence between academic self-concept on lecturer performance. 5) There is an influence between lecturer competence on lecturer performance. 6) There is an influence between learning motivation on lecturer performance and lecturer competence as an intervening. 7) There is an influence between the academic self-concept on the performance of the lecturer and the competence of the lecturer as an intervening.

Keywords: Keywords: Learning Motivation, Academic Self-Concept, Lecturer Competence, Lecturer Performance

1. INTRODUCTION

Republic of Indonesia Law Number 20 of 2003 talks about the National Education system chapter I article 1, Education is defined as a conscious and planned effort to create a learning atmosphere and learning process so that students develop their potential to have religious spiritual strength, self-control, personality, intelligence and skills needed by himself, society, nation and state. The role of lecturers is very important in the teaching and learning process, where lecturers act as educational figures with the main task of transforming, developing and disseminating science, technology and art through education to students.

As part of an organization in higher education, lecturers are required to have performance. As organizational workers (Manuel and Asuquo, 2010), lecturers are required to fulfill their duties and show positive performance. The number of permanent lecturers in the Postgraduate Masters in Management program at Pamulang University can be seen in the following table.

Table 1.
Number of Lecturers in the Master of Management Study Program at Pamulang University

| Jurusan | Jumlah Dosen |
|---------------------------|---------------------|
| Human Resource Management | 13 |
| Marketing Management | 10 |
| Financial management | 5 |
| Research methodology | 2 |
| English | 2 |
| Organizational culture | 4 |
| Total | 36 |

Source : Forlap Dikti

Lecturer performance is one of the factors that influences students' active learning in class. The work of lecturers in carrying out the Tridharma of Higher Education through teaching, research and community service can be seen in the following table.

Table 2.
Performance Achievements of Unpam Master of Management Lecturers

| Number of Master of Management Lecturers | Tri Darma of Higher Education | | | | | |
|---|----------------------------------|------|----------|-----|----------|-----|
| | Study | | Research | | Devotion | |
| | F | % | F | % | F | % |
| 36 | 36 | 100% | 17 | 47% | 10 | 27% |

Based on the data above, information was obtained that lecturers' performance in terms of teaching (education) has met optimal standards, namely that all Master of Management lecturers at Pamulang University do 100% of the teaching. While the performance of lecturers in terms of research is still low, it is proven that the data above shows that the average lecturer research is only 47% or only 17 lecturers conducted research in 2020 and even the performance of lecturers in terms of the aspect of community service is still far from what it should be, this can be seen that on average, only 10 lecturers do service in one year. Therefore, there needs to be a review and review of teaching staff/lecturers in order to improve their performance

as academic community members who carry out the Tri Darma of Higher Education in a synergistic and periodic manner in order to develop knowledge from theory to practice. So that its contribution is clear in order to advance the life of the nation.

Apart from the phenomena mentioned above, a lecturer also needs to pay attention to the teaching methods that will be used. Because every teaching method applied by a lecturer has an effect on learning motivation. Learning motivation here plays a very important role in encouraging students to achieve success in their learning

Apart from learning motivation, academic self-concept can also influence lecturer performance in educational institutions. Because academic self-concept is related to ability and interest in all subjects.

In essence, academic self-concept can be seen from self-confidence, self-acceptance responses to other people, feelings of self-worth, Things related to abilities and achievements in the academic field, the ability to practice and learn on campus by yourself, doing campus assignments, so that from this description indicators will be obtained in the preparation of the academic self-concept scale.

In addition to the above, efforts to improve lecturer performance need other factors such as commitment, organizational culture, individual characteristics, learning environment, emotional intelligence and so on, for this reason, this study is limited only to the variables that are studied, namely regarding student perception of lecturer competence reviewed from learning motivation and self-concept and its impact on the performance of lecturers of the Master of Management study program graduate program at Pamulang University, Therefore, both students and lecturers can make various efforts to grow and increase learning motivation to excel

The purpose of holding this study or based on the formulation of the problems in this study is as follows

1. To determine the influence of learning motivation on the competence of lecturers in the 2019 Pamulang University Master of Management postgraduate program.
2. To determine the influence of academic self-concept on the competence of lecturers in the 2019 Pamulang University Master of Management postgraduate program.
3. To determine the effect of learning motivation on the performance of lecturers in the 2019 Pamulang University Master of Management postgraduate program.
4. To determine the influence of academic self-concept on the performance of lecturers in the 2019 Pamulang University Master of Management postgraduate program.
5. To determine the influence of lecturer competency on the performance of lecturers in the 2019 Pamulang University Master of Management postgraduate program
6. To determine the effect of learning motivation on lecturer performance with lecturer competency as an intervening master's graduate program in management at Pamulang University in 2019.
7. To determine the influence of academic self-concept on lecturer performance with lecturer competence as an intervening master of management postgraduate program at Pamulang University in 2019

2. LITERATURE REVIEW

Lecturer Competencies

According to Sedarmayanti (2017:26), competence is a fundamental characteristic that a person possesses that directly affects or can predict excellent work performance. Competence is generally defined as proficiency, skills and abilities. The basic word is competent, meaning

capable, capable or skilled. Meanwhile, according to Emron, Yohny, Imas (2017:140) competence is the ability of individuals to carry out a job correctly and have advantages based on things related to knowledge, expertise and attitudes. The existence of competencies that must be possessed by every lecturer certainly has certain purposes and objectives that have an impact on various aspects of education.

Spencer and Spencer in Uno (2015:63), competence is a prominent characteristic for a person and becomes a way of behaving and thinking in all situations, and lasts for a long period of time. From this opinion, it can be understood that competence refers to a person's performance in a job which can be seen from thoughts, attitudes, and behaviors.

Professional Competence of Lecturers

According to Law No. 14 of 2005 concerning teachers and lecturers, professional competence is the ability to master subject matter broadly and deeply. What is meant by a broad and in-depth mastery of the material in this case includes the ability to guide students to meet the competency standards set out in the National Education Standards.

Surya (2013:138) in Rasto stated that professional competence is a variety of abilities needed to realize oneself as a professional lecturer, which includes expertise or expertise in their field, namely mastery of the material that must be taught and its methods, so that it can guide students to achieve predetermined competency standards.

From the various definitions above about the professional competence of lecturers, it can be concluded that professional competence is the ability to master subject matter broadly and deeply. So that it allows lecturers to guide students to meet competency standards in accordance with the National Education Standards

Learning Motivation

According to Suprijono (in Wibowo, 2015:3) "the essence of learning motivation is the internal and external encouragement in students who are learning to make behavior changes. Learning motivation is a process that gives enthusiasm for learning, direction, and persistence of behavior. That is, motivated behavior is one that is full of energy, directed and long-lasting.

Rumini (in Irham and Novan, 2013:56) motivation is a personal condition or condition in a student that encourages him to carry out certain activities with the aim of achieving what is the goal of the student concerned. Meanwhile, according to Siregar et al. (2015:49), motivation comes from the English word motivation which means encouragement, reasoning and motivation. The verb is to motivate which means to encourage, cause, and stimulate

Academic Self-Concept

Self-concept is an important thing in life because a person's understanding of their concept will determine and direct behavior in various situations. If a person's self-concept is negative, then a person's behavior will be negative while if a person's self-concept is positive, then the person's behavior is positive.

William Brooks in Jalaludin Rakhmat (2017:99) states that self-concept is our view and feeling about ourselves. This perception of ourselves can be psychological, social or physical. According to Berk & Dariyo (in Putra, 2017:5) Self-concept is a comprehensive self-image of a person's existence. This self-concept is multi-faceted, which includes 4 (four) aspects such as (1) physiological aspects, (2) psychological, (3) psychosociological, (4) psycho-ethical and moral. The description of self-concept comes from the interaction between oneself and

between oneself and others (the social environment). Therefore, self-concept is a person's perspective on themselves to understand their own existence and understand others.

Lecturer Performance

Law Number 14 of 2005 concerning Teachers and Lecturers, states that lecturers are professional educators and scientists with the main task of transforming, developing and disseminating science, technology, and art through education, research, and community service (Tri Dharma Higher Education)

Mangkunegara (2015:67), states that performance (work achievement) is: "Work results in quality and quantity can be achieved by an employee in carrying out his duties with the responsibilities given to him. Factors that affect the achievement of a person's performance are ability and motivation factors". Meanwhile, according to Kasmir (2016:120), in simple terms, the definition of performance is the result of work and work behavior achieved in completing the tasks and responsibilities assigned in a certain period. From the above understanding in performance, it is contained in the meaning that performance is the result of a person's work and work behavior in a period, usually 1 year.

Lecturer Performance Measurement

(Depdiknas Directorate General of Higher Education 2006) Lecturer performance is the result of the quality and quantity of work achieved by a lecturer in carrying out his duties in accordance with the responsibilities given to him, namely implementing the Tri Dharma of Higher Education. In this research, the performance of Bali State Polytechnic lecturers is measured by the lecturer's duties which are summarized in the Tri Dharma of Higher Education, namely:

1. Carrying out education and teaching.
2. Carrying out research and development.
3. Community service

Research Paradigm

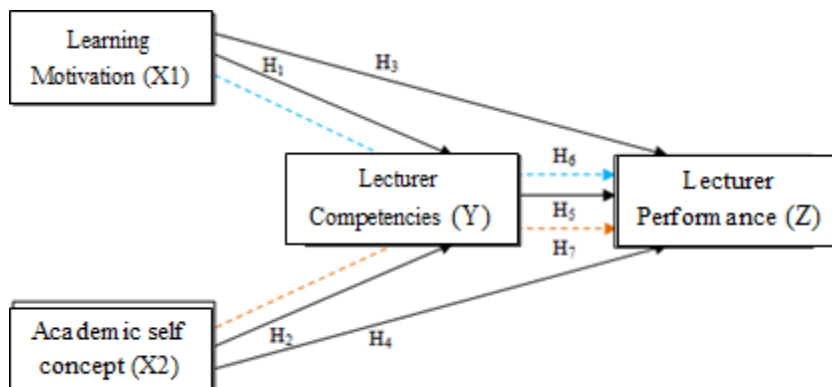


Figure 1. Research Paradigm

- Learning Motivation (X₁)* : Independent Variables
- Academic self concept (X₂)* : Independent Variables
- Lecturer Performance (Z)* : Mediation Variables
- Lecturer Competencies (Y)* : Dependent Variables

3. RESEARCH METHOD

The research method used in this research is a descriptive quantitative research method. The population in this study was 158 Odd Semester Students of the 2019 Academic Year, Postgraduate Management Masters Program, Pamulang University, South Tangerang. The sampling technique used in this research is a nonprobability sampling technique. According to Sugiyono (2016: 85) "nonprobability sampling is a sampling technique that does not provide an equal opportunity for each element or member of the population to be selected as a sample." The sampling technique used was total sampling/saturated sampling. "Saturated sampling is a sampling technique when all members of the population are used as samples." Sugiyono (2016:85) namely that the entire population was sampled as 158 respondents

The data collection methods carried out in this study are as follows: Observation, Questionnaire, Research Instruments. The data analysis technique in this study uses the Structural Equation Model (SEM) with the LISREL 8.80 program. In this study, data processing tested The Goodness of Fit Index (GFI), Chi Square (χ^2) and Normed χ^2 Tests, Root Mean Square Residual (RMSR), The Root Mean Square Error of Approximation (RMSEA), Normed Fit Index (NFI), The Comparative Fit Index (CFI) and Sobel Test.

Analysis Design and Hypothesis Testing

Structural Model Fit Test

After the estimation of the relationship paths between variables in the theoretical model structure is stated to have no offending estimation value, it can be continued to test the suitability of the theoretical model. In Lisrel, the theoretical model fit test is known as the Goodness of Fit test. The Goodness of Fit value can be seen in the printed Output Fit Indicates on the output of the analysis results of the Lisrel software. This conformity evaluation was

| Goodness of Fit Statistics | |
|---|------------------------|
| Degrees of Freedom | = 158 |
| Minimum Fit Function Chi-Square | = 136.45 (P = 0.00026) |
| Normal Theory Weighted Least Squares Chi-Square | = 120.61 (P = 0.0055) |
| Chi-Square Difference with 0 Degree of Freedom | = 64.464 (P = 0.3233) |
| Estimated Non-centrality Parameter (NCP) | = 38.61 |
| 90 Percent Confidence Interval for NCP | = (11.38 ; 69.85) |
| Minimum Fit Function Value | = 2.31 |
| Population Discrepancy Function Value (FO) | = 0.62 |
| 90 Percent Confidence Interval for FO | = (0.19 ; 1.18) |
| Root Mean Square Error of Approximation (RMSEA) | = 0.086 |
| 90 Percent Confidence Interval for RMSEA | = (0.048 ; 0.12) |
| P-Value for Test of Close Fit (RMSEA < 0.05) | = 0.058 |
| Expected Cross-Validation Index (ECVI) | = 3.26 |
| 90 Percent Confidence Interval for ECVI | = (2.84 ; 3.83) |
| ECVI for Saturated Model | = 4.07 |
| ECVI for Independence Model | = 19.08 |
| Chi-Square for Independence Model with 105 Degrees of Freedom | = 1095.86 |
| Normed Fit Index (NFI) | = 0.88 |
| Non-Normed Fit Index (NNFI) | = 0.93 |
| Parimony Normed Fit Index (PNFI) | = 0.70 |
| Comparative Fit Index (CFI) | = 0.95 |
| Incremental Fit Index (IFI) | = 0.95 |
| Relative Fit Index (RFI) | = 0.84 |
| Critical N (CN) | = 51.62 |
| Root Mean Square Residual (RMR) | = 0.052 |
| Standardized RMR | = 0.080 |
| Goodness of Fit Index (GFI) | = 0.79 |
| Adjusted Goodness of Fit Index (AGFI) | = 0.69 |
| Parimony Goodness of Fit Index (PGFI) | = 0.55 |

carried out by comparing the Output Fit Indicates on the results of the Lisrel analysis with the Goodness Of Fit test criteria. The following Output Fit Indicates from the results of Lisrel's calculation on the trimmed structural model.

Based on the Output Fit Indicates above, information was obtained that the theoretical model structure met the Goodness of Fit test criteria. For more details, the suitability test analysis between the theoretical model and empirical data can be seen from the following statistical figures.

1. The Chi-square value is 64.464 with a p value = 0.3233 > 0.05. These results indicate that the fit of the theoretical model is good because it meets the criteria $p > 0.05$.
2. Next is the analysis of the ECVI value, namely by comparing the ECVI value with the ECVI saturated model and the ECVI independent model. The lower the ECVI value, the better the model fit. The fit indicated output results show an ECVI value of 3.26; ECVI saturated model is 4.07; and ECVI independent model of 19.08. So it can be concluded that the $ECVI < ECVI \text{ sat.mod}$ and $ECVI < ECVI \text{ indep.mod}$ values are $3.26 < 4.07$ and $3.26 < 19.08$, which means that the suitability of the model based on the ECVI value is good (good fit).
3. The CFI value in the fit indicates output results is 0.95, which indicates good model fit because the CFI value meets the criteria, namely $CFI > 0.90$.
4. The NNFI value is 0.93, indicating that the model fit is good, because it meets the criteria, namely $NNFI > 0.90$.
5. The IFI value is 0.95 which indicates that the model fit is good, because it meets the CFI criteria > 0.9

Table 3.
Fit Output Fulfillment Table Indicates on Theoretical Model Structure with Goodness Of Fit Criteria

| Statistik Uji | Kriteria 'Fit' | Output | Keterangan |
|--------------------------------------|---|------------------------------|------------|
| χ^2 | $P > 0.05$ | 0,3233 > 0,05 | Baik |
| Expect Cross Validation Index (ECVI) | $ECVI < ECVI \text{ sat. Model dan indep. Model}$ | 3,26 < 4,07 Dan 3,26 < 19,08 | Baik |
| Comparative Fit Index (CFI) | > 0.9 | 0,95 | Baik |
| Non-Normed Fit Index (NNFI) | > 0.9 | 0,93 | Baik |
| Incremental Fit Index (IFI) | > 0.9 | 0,95 | Baik |
| Critical N (CN) | $< N$ | 51 | Baik |

Test the Direct or Indirect Influence of Learning Motivation, Academic Self-Concept, on Lecturer Competence Its Impact on Lecturer Performance

Output Fit Indicates from Lisrel's computational results on trimmed structural models

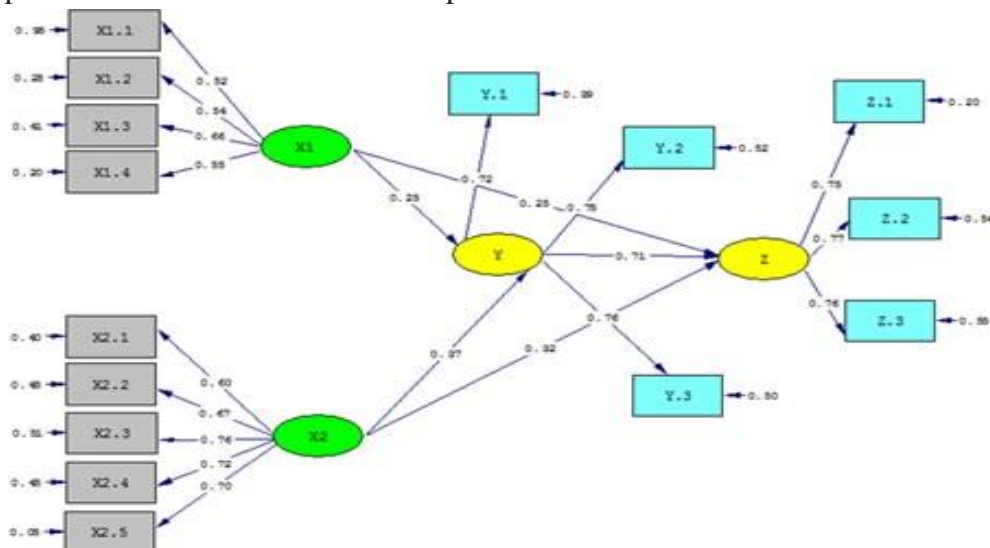


Figure 2. Output of Lisrel Structural Model with Standardized Solution Estimation

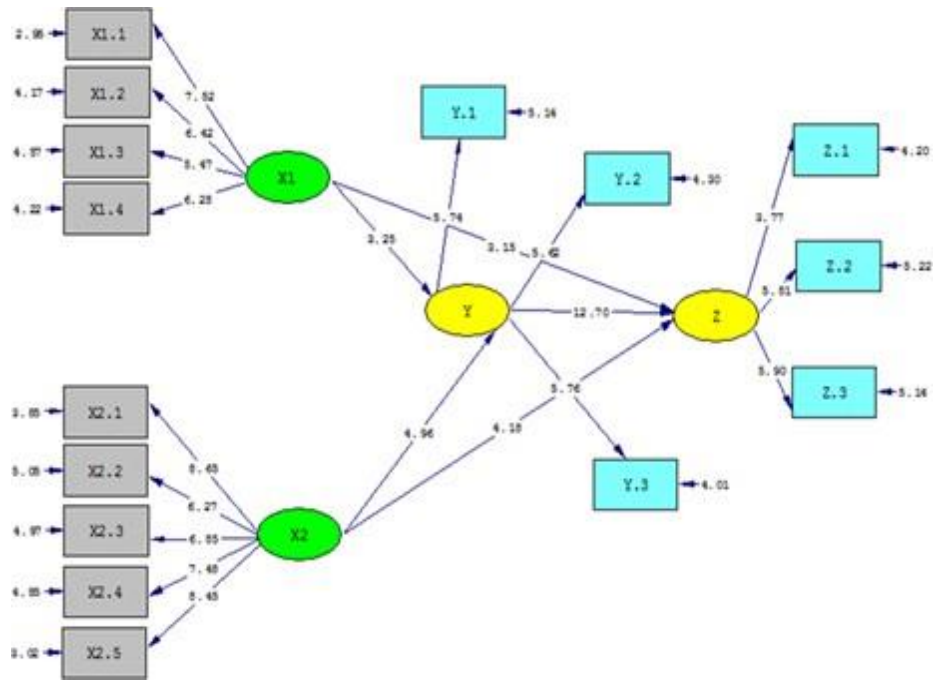


Figure 3. Output Lisrel Stuctural Model with T-value Estimation

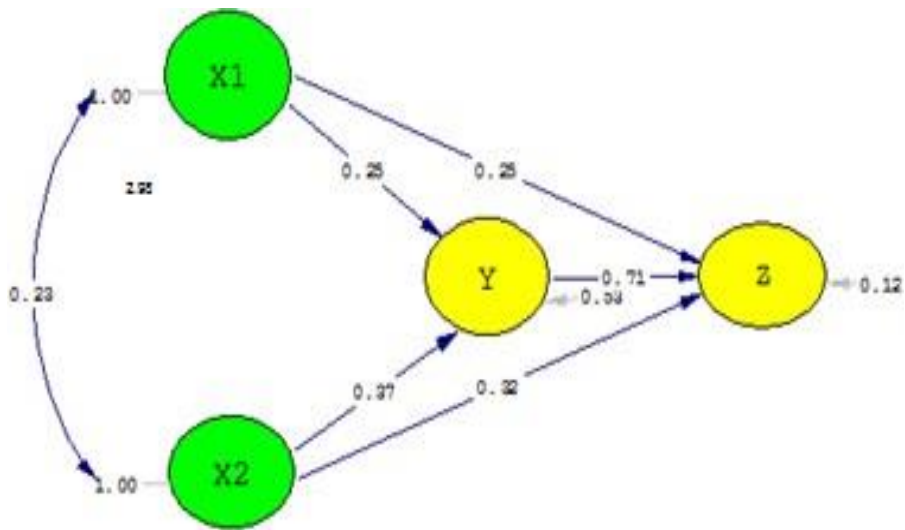


Figure 4. Lisrel Output of Theoretical Model Structure with Standardized Estimation

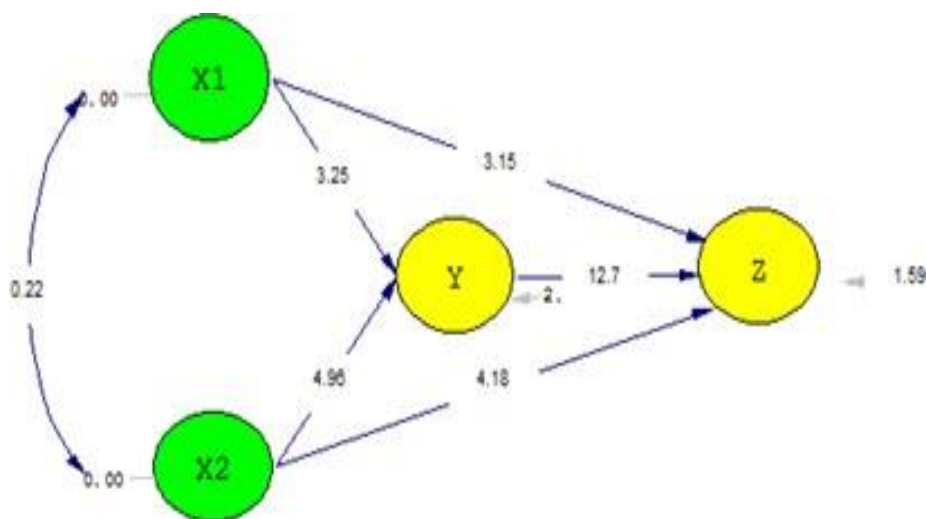


Figure 5. Lisrel Output of Theoretical Model Structure with t-value Estimation

4. RESULT AND DISCUSSION

Table 4.
Summary of Direct Hypothesis Test Results

| Influence | Path Coefficient | T Statistics | Prob |
|---|------------------|--------------|-------|
| <i>Learning Motivation</i> □ <i>Lecturer Competencies</i> | 0.25 | 3.25 | 0.011 |
| <i>Academic self concept</i> □ <i>Lecturer Competencies</i> | 0.37 | 4.96 | 0.000 |
| <i>Learning Motivation</i> □ <i>Lecturer Performance</i> | 0.25 | 3.15 | 0.019 |
| <i>Academic self concept</i> □ <i>Lecturer Performance</i> | 0.32 | 4.18 | 0.000 |
| <i>Lecturer Competencies</i> □ <i>Lecturer Performance</i> | 0.71 | 12.70 | 0.000 |

The Effect of Learning Motivation on Lecturer Competence

The t-value on the track is 3.25 (95% confidence level) ≥ 2.00 which means that there is a significant influence between the learning motivation variable on the lecturer's competence. Furthermore, the estimated value of the Standardized Loading Factor (SLF) of 0.25 shows that the learning motivation variable has a positive relationship with the lecturer competency variable with a correlation coefficient of 0.25

The influence of Academic Self-Concept on Lecturer Competence

The t-value on the trajectory is 4.96 (95% confidence level) ≥ 2.00 , which means that there is a significant influence between academic self-concept variables on lecturer competence. Furthermore, the estimated Standardized Loading Factor (SLF) value of 0.37 indicates that the hope variable has a positive relationship with the academic self-concept variable with a correlation coefficient of 0.37. So it can be concluded that the Academic Self Concept variable on Lecturer Competence has a significant positive influence.

The Influence of Learning Motivation on Lecturer Performance

The t-value on the trajectory is 3.15 (95% confidence level) ≥ 2.00 , which means there is a significant influence between the learning motivation variable on lecturer competence. Furthermore, the estimated Standardized Loading Factor (SLF) value of 0.25 indicates that the

learning motivation variable has a positive influence on the lecturer performance variable with a correlation coefficient of 0.25. So it can be concluded that the Learning Motivation variable on Lecturer Performance has a significant positive influence.

The Influence of Academic Self-Concept on Lecturer Performance

The t-value on the trajectory is 4.18 (95% confidence level) ≥ 2.00 , which means that there is a significant influence between academic self-concept variables on lecturer performance. Furthermore, the estimated Standardized Loading Factor (SLF) value of 0.32 shows that the academic self-concept variable has a positive influence on the lecturer performance variable with a correlation coefficient of 0.32. So it can be concluded that the variable academic self-concept on lecturer performance has a significant positive influence

The Influence of Lecturer Competence on Lecturer Performance

The t-value on the trajectory is 12.70 (95% confidence level) ≥ 2.00 , which means that there is a significant influence between lecturer competency variables on lecturer performance. Furthermore, the estimated Standardized Loading Factor (SLF) value of 0.71 shows that the lecturer competency variable has a positive influence on the Lecturer Performance variable with a correlation coefficient of 0.71. So it can be concluded that the lecturer competency variable on lecturer performance has a significant positive influence

Testing the Indirect Effect Hypothesis

In this study, the exogenous latent variables are learning motivation and academic self-concept. Meanwhile, the intermediary endogenous variable is lecturer competence. And lecturer performance is an endogenous variable.

1. The relationship between learning motivation and lecturer performance through the lecturer competency variable (learning motivation \square lecturer performance \square lecturer competency) is $0.25 \times 0.71 = 0.17$.
2. The relationship between academic self-concept and lecturer performance through the lecturer competency variable (academic self-concept \square performance \square lecturer competence) is $0.32 \times 0.71 = 0.22$

Table 4. Summary of Direct and Indirect Hypothesis Test Results

| Variable relationships | Direct | Indirect | Total |
|---|---------------|-----------------|--------------|
| <i>Learning Motivation</i> \square <i>Lecturer Competencies</i> | 0.25 | 0 | 0,25 |
| <i>Academic self concept</i> \square <i>Lecturer Competencies</i> | 0.37 | 0 | 0,37 |
| <i>Learning Motivation</i> \square <i>Lecturer Performance</i> | 0.25 | 0,17 | 0,42 |
| Konsep Diri Akademik \square <i>Lecturer Performance</i> | 0.32 | 0,22 | 0,54 |
| <i>Lecturer Competencies</i> \square <i>Lecturer Performance</i> | 0.71 | 0 | 0,71 |

Source: Results of the research processed

Based on the table above, we have answered the hypothesis which states that there is a direct or indirect influence of lecturer competence, learning motivation, and academic self-concept on lecturer performance. From the exogenous variables, learning motivation and academic self-concept were found to have an influence on lecturer performance both directly and indirectly through the lecturer competency variable. The direct relationship from exogenous variables to endogenous variables is shown by the path of the relationship between academic self-concept variables and lecturer performance with a path coefficient value of 0.32. Meanwhile, the indirect influence is shown by the relationship path between the variables of learning motivation and academic self-concept and lecturer performance through the lecturer competency variable with each indirect relationship path coefficient of 0.17 and 0.22. So it can be concluded that the academic self-concept variable has a fairly large direct influence on the

lecturer performance variable. And the learning motivation variable has quite a big influence on lecturer performance through the lecturer competency variable

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the analysis and discussion results in the chapter, the author will draw conclusions from the results of this research. The conclusions from the results of this research are as follows:

1. There is an influence between learning motivation and lecturer competence.
2. There is an influence between academic self-concept on lecturer competence.
3. There is an influence between learning motivation on lecturer performance.
4. There is an influence between academic self-concept on lecturer performance.
5. There is an influence between lecturer competence and lecturer performance.
6. There is an influence between learning motivation on lecturer performance and lecturer competence as an intervening agent.
7. There is an influence between academic self-concept on lecturer performance and lecturer competence as an intervening agent

Suggestion

Based on this, the suggestions put forward are:

1. It is necessary for lecturers to deliver material using methods that make students understand quickly and get high GPA scores so that their desire and desire to succeed can be achieved.
2. To better guide students so that they achieve maximum results, such as before giving questions or course assignments, always provide examples of the work done first.
3. The need for students to provide input or constructive criticism to lecturers in order to improve their professional competence. Students can also provide input or constructive criticism to lecturers to improve their competencies

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CHAPTER 4

Exploring The Impact of Educational Management on Student Satisfaction and Achievement

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ABSTRACT

The quality management of educational institutions is strongly influenced by the input to the education management system, including students, lecturers, and facilities supporting the teaching and learning process. These three factors are interdependent and influence each other in creating a successful teaching and learning process. This study aims to investigate: 1) the influence of lecturer management performance on student satisfaction, 2) the impact of quality management of academic administrative services on student satisfaction, 3) the effect of lecturer performance on learning achievement, 4) the impact of the quality of academic administrative services on learning achievement, and 5) the influence of student satisfaction on learning achievement. A quantitative analysis technique using statistical programs SPSS and AMOS (Analysis of Moment Structures) version 20 was employed to analyze the data. The data collected in this study are primary, obtained through field studies using the questionnaire method. This method involves collecting data via a list of questions that respondents must fill out. The results indicate that lecturer management performance does not significantly influence student satisfaction. However, the quality management of academic administrative services has a significant effect on student satisfaction. Additionally, both lecturer management performance and the quality of academic administrative services significantly influence learning achievement. Lastly, student satisfaction also has a significant impact on learning achievement.

Keywords: lecturer management performance, academic administrative service quality, student satisfaction, learning achievement

1. INTRODUCTION

The main factor causing the low quality of education is the condition of the teachers, namely their qualifications are not suitable or teaching is not in accordance with their field of expertise. Challenges related to the quality of educators include personal challenges, personal competence and educators' skills in carrying out their duties. Lecturer performance is measured based on the lecturer's workload, including the main activities, namely planning learning, implementing the learning process, conducting learning evaluations, guiding and training, conducting research, doing community service and performing additional tasks. The lecturer's workload is equivalent to 12 semester credit units (SKS) and as many as 16 semester credit units (SKS)

One of the ways in which the quality of education in higher education can be seen is the quality of lecturers' performance in carrying out their duties. Lecturer performance varies greatly. The diversity of lecturer performance can be influenced by several factors, both internal and external factors.

Meanwhile, in private universities, students often complain that many lecturers do not have adequate competence when teaching. They do not master technology and are objective in providing value, so a gap is created. Apart from that, complaints also occurred regarding leadership policies that were not in line with student expectations and did not have initiative in campus development efforts.

Apart from that, the busyness of lecturers outside campus also causes many complaints to occur. Either because lecturers are also civil servants in government institutions, or because some work as lawyers and other independent institutions such as the KPU and Panwas, which causes the level of lecturer attendance to be low. Based on researchers' monitoring, the quantity of new students is decreasing from year to year. This is a strengthening indicator that the internal quality of private higher education institutions is experiencing serious problems.

So, if there are complaints related to student dissatisfaction, whether related to the leadership of higher education institutions, academic services, performance and competence of lecturers, facilities, or facilities and infrastructure, it is the responsibility of higher education institutions to try to answer these student complaints with real action. This will be a boomerang for universities when these complaints and dissatisfaction result in a decline in public interest in the universities concerned.

Thus, it must be acknowledged that lecturers are an important factor in the educational process. Even though the educational facilities are complete and sophisticated, if they are not supported by the presence of teachers, it will be impossible to create a maximum learning process. Lecturers as implementers of national education are the key to success in the world of education, therefore, to achieve this success, optimal lecturer performance is needed

The purpose of this study is to find out whether there is an influence of lecturer performance on student satisfaction. To find out if there is an influence on the quality of academic administration services on student satisfaction. To find out if there is an influence of lecturer performance on learning achievement. To find out if there is an influence on the quality of academic administration services on learning achievement. To find out if there is an effect of student satisfaction on learning achievement.

2. LITERATURE REVIEW

Lecturer Performance

Lecturer performance is the ability demonstrated by lecturers in carrying out their duties or work. Performance is said to be good and satisfactory if the results achieved are in accordance with established standards (Rachmawati & Daryanto, 2013). Individual performance will have an effect on the organization. If individual performance is low, it will

also lead to low organizational productivity, and vice versa. Then, according to Nanang Fattah (in Syarif Hidayat and Asroi, 2013: 128-129), performance or work performance is defined as an expression of ability based on knowledge, attitudes, skills and motivation in producing something.

Colin Marsh (2008) in Syarif Hidayat and Asroi (2013:134-135) states that lecturers' teaching performance must be based on five competencies, namely the competency to use and develop professional values and knowledge, the competency to communicate, interact and work with students and others, the competency to create planning and managing teaching and learning activities, competence in monitoring and assessing student and graduate learning outcomes, and competence in reflecting, evaluating and making plans for continuous improvement or development. Then according to Mulyasa (2013: 103) that lecturer performance in learning is related to the lecturer's ability to plan, implement and assess learning, both related to the process and results.

Barnawi and Mohamad Arifin (2012:13) state that performance is the level of success of a person or group in carrying out tasks in accordance with their responsibilities and authority based on work standards that have been set during a certain period in order to achieve organizational goals. The performance standard in question is a benchmark used to carry out accountability for everything that has been implemented. Meanwhile, Kowal and Hassel (2010: 7) group employee performance into two dimensions, namely what and how. What (what) relates to what concrete results are expected by employees to contribute to organizational goals and how (how) relates to the skills, knowledge and competencies that enable employees to achieve the desired results

When linked to education, the performance of lecturers is nothing but the result of lecturers' performance in the context of carrying out their duties. The main task of lecturers is to carry out teaching. The teaching concerns teaching planning, implementation and evaluation of learning outcomes (planning, actuating, evaluation). Thus, the performance of lecturers is the performance is the result of the work of employees within the scope of their responsibility (Doni Juni Priansa, 2014: 354

Quality of Academic Administration Services

Quality is a word that is commonly used, both in the academic life environment and in daily life. Although its meaning can generally be felt and understood by anyone, quality as a concept or understanding, has not been widely understood by people and in fact the meaning of quality itself is not the same for everyone. Each person or society will define quality according to their opinions and needs that may be different from others. (Pohan, 2013)

Parasuraman et al in (Suhaylide, 2017) stated that "Service quality can be devined as the extern of discrepancy between customer expectation or desires and their perception." This means that service quality can be defined as an external difference between customer expectations or desires and their perceptions. Meanwhile, Tjiptono (in Aditya, 2011:23). Service quality is something that is perceived by customers. Customers will judge the quality of a perceived service based on what they describe in their minds. Customers will switch to other providers who are better able to understand the customer's specific needs and provide better service.

Administration is the entire process of cooperation between two or more people based on certain rationality to achieve previously determined goals. In its development, administration has the same meaning as management, encouraging work productivity, utilizing human resources and other resources (money, materials, methods) in an integrated manner, achieving goals through other people, and the executive function of government. Based on the elements

contained in it, administration can be said to be one of the functions of the organization. Thus, educational institutions are included as organizers of administrative activities.

Every tertiary institution, whether university, institute, high school, polytechnic or academy, has an administrative implementation element. Administrative implementation units at universities provide technical and administrative services which include academic administration, financial administration, general administration, student affairs administration, planning administration and information systems. The quality of higher education administrative services can be seen from several aspects. Assessment can come from the aspects of form, reliability, responsiveness, certainty, and level of empathy. Administrative employees have good performance, are capable, reliable and willing to carry out their respective duties by paying attention to good and efficient procedures and methods. Carry out work consistently and accurately.

Student Satisfaction

Kotler and Keller in (Fitri, 2017) define consumer satisfaction as consumer feelings, whether in the form of pleasure or disappointment that arise from comparing the appearance of a product in relation to consumer expectations for that product.

According to Muin in (Bhakti & Rahmawati, 2017) customer satisfaction can be defined simply, namely as a condition when customer needs and expectations can be met through the products or services consumed. For companies that focus on customers, customer satisfaction is both a goal and a marketing tool.

According to Kotler & Armstrong in (Fitri, 2017), there are four methods that can be used to measure satisfaction, namely:

- a. Complaint and Suggestion System
- b. Consumer Satisfaction Survey
- c. Ghost Shopping

Learning Achievement

Learning achievement is a combination of two words, namely achievement and learning, each of which has its own meaning. In the Big Indonesian Dictionary, achievement is the result that has been achieved (from what has been done, done, and so on). Achievement can be interpreted as the results obtained due to the learning activities that have been carried out (Fathurrahman and Sulistyorini, 2012: 118).

Learning achievement is the maximum result achieved by someone after carrying out learning activities given based on certain measurements (Ilyas, 2008). According to Surya in (Pekik 2012:32), "learning achievement is the result of learning or changes in behavior regarding knowledge, skills and attitudes after going through a certain process, as a result of individual experience in interaction with the environment". Then according to Dimiyati and Mudjiono in (Elly Febriyani, 2013:11) learning achievement is an achievement of teaching goals which are determined by increasing students' mental abilities.

According to Syah (2013: 139), learning achievement is the result that has been achieved from an activity in the form of behavior experienced by the learning subject in an interaction with the environment. Meanwhile, according to Muhibbin (2010), learning achievement is the level of success of students in achieving the goals set in a program. So

learning achievement is a person's real ability as a result of carrying out certain activities and the results can be measured.

From the opinion above, it can be concluded that learning achievement is the result of student efforts which can be achieved in the form of mastery of knowledge, abilities, habits and skills and attitudes after following the learning process which can be proven by test results

According to Muhibbin Syah (2013: 148) there are several indicators to see student learning outcomes including:

- 1) Cognitive field, including: rote knowledge, understanding, application, analysis, synthesis, evaluation.
- 2) Affective field, including: receiving or attending, responding (answers), valuing (assessment), organization, value characteristics or internalization of values.
- 3) Psychomotor field, including: reflex movements, skills in basic movements, perceptual abilities, abilities in the physical field of movement skills as well as expressive and interpretive movements

Framework of Thought

From the description above, it is one way that the research carried out can be understood and easily understood. By providing guidelines for the steps taken in writing this is to provide a framework in writing a thesis known as a framework of thought as the framework of thought that is shown in the following image

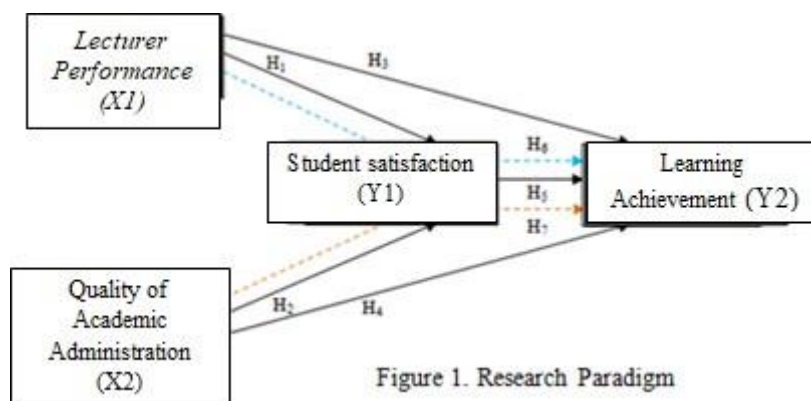


Figure 1. Research Paradigm

Figure 1. Research paradigma.

Hypothesis

A hypothesis is a temporary answer or guess of the problem being studied. Thus, the hypothesis in this research can be formulated as follows.

1. It is suspected that there is an influence of lecturer performance on student satisfaction.
2. It is suspected that there is an influence of the quality of academic administration services on student satisfaction.
3. It is suspected that there is an influence on lecturer performance on learning achievement.
4. It is suspected that there is an influence of the quality of academic administration services on learning achievement.
5. It is suspected that there is an influence of student satisfaction on learning achievement

3. RESEARCH METHOD

This research is a type of quantitative research and uses a field approach. This type of research is quantitative because it views that reality/phenomena can be classified, relatively fixed, concrete, observable, measurable and the relationship between symptoms is causal. This research was conducted on a certain representative population and sample. The research process

is deductive because to answer the problem formulation, concepts/theories are used so that hypotheses can be formulated. This hypothesis was then tested through data collection in the field.

This research data was analyzed using a structural equation model testing tool or what is known as SEM (Structural Equation Model) analysis using AMOS (Analysis of Moment Structures) version 20 software as an analysis tool. Kurniawan and Yamin (2011: 3) stated that the initial basis for SEM analysis is a theory that is clearly defined by researchers. The theoretical basis then becomes a concept of interrelationships between variables. The causal relationship between latent (unobserved) variables is not determined by SEM analysis, Structural Equation Modeling for Management Research Using AMOS 20.00 but is built by the theoretical basis that supports it. It can be said that SEM analysis is useful for confirming a model form based on existing empirical data.

Population, Sample and Sampling Method

Population

Population is a generalization area consisting of: objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn (Sugiyono, 2013: 80). The population is all research subjects (Suharsimi Arikunto, 2013:173). The population in this study were all active students in the second semester (2), totaling 188 students. The sample in this study was 25% of second semester students who attended lectures in the even semester of 2018/2019. In this research, the number of samples was 45 students. The data in this research is primary data, through field studies using a questionnaire method. The questionnaire method is a data collection method using a list of questions or statements that must be filled in by respondents.

Methods of Analysis and Hypothesis Testing

This research is a type of quantitative research and uses a field approach. This type of research is quantitative because it views that reality/phenomena can be classified, relatively fixed, concrete, observable, measurable and the relationship between symptoms is causal. This research was conducted on a certain representative population and sample. The research process is deductive because to answer the problem formulation, concepts/theories are used so that hypotheses can be formulated. This hypothesis was then tested through data collection in the field.

This research data was analyzed using a structural equation model test tool or what is known as SEM (Structural Equation Model) analysis using AMOS (Analysis of Moment Structures) version 20 and SPSS software as analysis tools. More specifically, according to Latan (2012: 7), that: Structural equation modeling (SEM), is a multivariate data analysis

method which aims to test measurement models and latent variable models, with three main characteristics of SEM, namely as follows:

SEM is a combination of interdependence and dependency multivariate data analysis techniques, namely confirmatory factor analysis and path analysis.

1. The variables analyzed are latent variables (Constructs), namely variables that cannot be directly observed (unobservable) but are measured through measurable indicators or manifest variables.
2. SEM aims not to produce models but rather to test or confirm theory-based models, namely measurement models and structural models.

4. RESULT AND DISCUSSION

Analysis of Exogenous Construct Confirmatory Factors

Regression Weights: (Group number 1 - Default model)

| | Estimate | S.E. | C.R. | P | Label |
|-----------|----------|------|-------|-----|-------|
| Y <--- X1 | ,214 | ,047 | 4,575 | *** | par_1 |
| Y <--- X2 | ,191 | ,057 | 3,341 | *** | par_2 |
| Z <--- X1 | ,163 | ,028 | 5,894 | *** | par_3 |
| Z <--- X2 | ,169 | ,031 | 5,362 | *** | par_4 |
| Z <--- Y | ,488 | ,068 | 7,132 | *** | par_5 |

Figure 2. Regression weight.

Hypothesis Test I

Hypothesis I in this research is that there is a positive and significant influence between lecturer performance on student satisfaction. From data processing it is known that the CR value for the relationship between the lecturer performance variable and student satisfaction as shown in the table is 4.575 with a P value of 0.000. These two values show a value above 2.004 for CR and above 0.05 for P value, thus it can be said that hypothesis I of this study is accepted

Hypothesis Test I

Hypothesis I in this research is that there is a positive and significant influence between lecturer performance on student satisfaction. From data processing it is known that the CR value for the relationship between the lecturer performance variable and student satisfaction as shown in the table is 4.575 with a P value of 0.000. These two values show a value above 2.004 for CR and above 0.05 for P value, thus it can be said that hypothesis I of this study is accepted.

Hypothesis Test II

Hypothesis II in this research is that there is a significant positive influence between the quality of academic administration services on student satisfaction. From data processing it is known that the CR value for the relationship between the quality of academic administration services variable and student satisfaction as shown in the table above is 3.341 with a P value of

0.000. These two values show a value above 2.004 for CR and below 0.05 for P value, thus it can be said that hypothesis II of this study is accepted.

Hypothesis Test III

Hypothesis III in this research is that there is a significant positive influence between lecturer performance on learning achievement. From data processing it is known that the CR value for the relationship between the lecturer performance variable and learning achievement as shown in the table is 5.894 with a P value of 0.000. These two values show a value above 2.004 for CR and below 0.05 for P value, thus it can be said that hypothesis III of this study is accepted.

Hypothesis Test IV

Hypothesis IV in this research is that there is a significant positive influence between the quality of academic administration services on learning achievement. From data processing it is known that the CR value of the relationship between solvency variables and company growth as shown in the table is 5.362 with a P value of 0.000. These two values show values below 2.004 for CR and above 0.05 for P value, thus it can be said that hypothesis IV of this study is accepted.

Hypothesis Test V

Hypothesis V in this research is that there is a significant positive influence between student satisfaction and learning achievement. From data processing it is known that the CR value for the relationship between student satisfaction variables and learning achievement as shown in the table is 7.132 with a P value of 0.000. These two values show a value above 2.004 for CR and below 0.05 for P value, thus it can be said that hypothesis V of this study can be accepted.

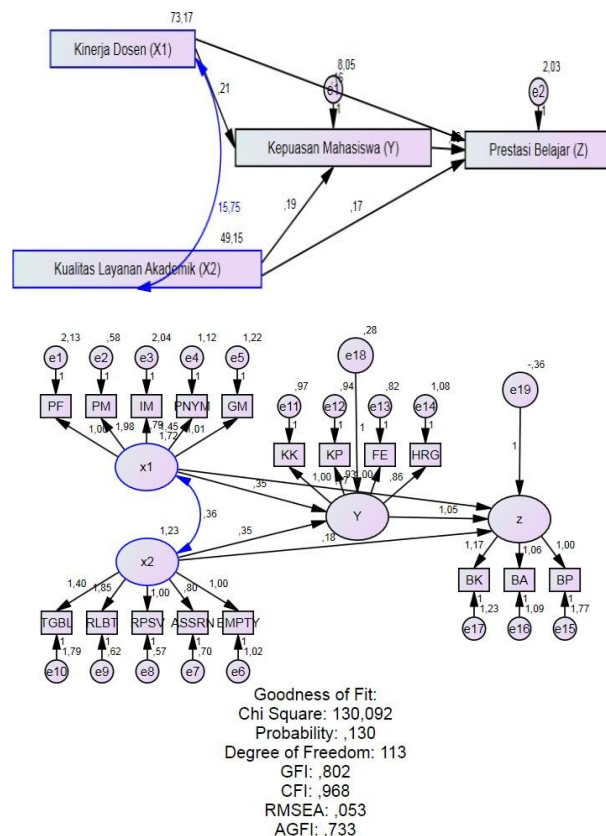


Figure 3. Hypotheses.

Where:

- X1 as an exogenous independent variable for lecturer performance
- X2 as an exogenous independent variable for the quality of academic administration services
- Y as the endogenous dependent variable for student satisfaction
- Z as the endogenous dependent variable for learning achievement

Based on the figure above, it can be seen the loading values of the variable relationship (lecturer performance, quality of academic administration services) with the construct of student satisfaction and learning achievement. From the relationship between the two indicators with latent investment decisions and solvency, 2 loading (λ) indicators were obtained, each < 0.05 , so it can be concluded that all research variables are significant in measuring latent student satisfaction and learning achievement

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

1. There is a positive influence between lecturer performance on student satisfaction.
2. There is a positive influence between the quality of academic administration services on student satisfaction.
3. There is a positive influence between lecturer performance on learning achievement.
4. There is a positive influence between the quality of academic administration services on learning achievement.
5. There is a positive influence between student satisfaction and learning achievement.

Suggestion

In the closing chapter, the author tries to provide suggestions that may be useful for companies. The suggestions are as follows:

1. In order to meet lecturer competency standards to support optimal performance, it is necessary to continue improving abilities and skills through various training, seminars or workshops.
2. Lecturers need to pay attention to aspects or attributes of services that actually influence student satisfaction, such as aspects of clarity of learning objectives, availability of handouts for students to use, timeliness of submitting test scores, and timeliness of announcement of test results.
3. To improve the quality of academic administration services and so that student satisfaction can be met, administrative staff are required to know and understand the five dimensions of service quality (SERVQUAL), namely tangibles, empathy, reliability, responsiveness, assurance.
4. The benefits of service quality are not only felt by students, but can also be felt by lecturers, administrative staff and universities.

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CHAPTER 5

Dynamic Beyond Interest Rates: Unveiling Parisian House Price Trends With Machine Learning Algorithms

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ABSTRACT

Real estate encompasses a wide range of activities, from managing commercial properties and developing land to buying and selling properties. Understanding the factors that influence the real estate business, particularly in urban locations such as Paris, is crucial for making informed decisions for stakeholders. These factors include historical trends, economic indicators, and urban dynamics. Despite substantial global research on home price dynamics, there is still a lack of understanding of the specific implementation of real estate price forecasts in France, notably in the Paris metropolitan area. Accurate real estate price forecasts significantly impact various stakeholders. Calculating property values accurately enables individuals to make informed decisions about buying, selling, or holding assets, leading to more market stability and less risk. Policymakers can use these insights to establish policies that encourage a sustainable housing market and forecast future housing requirements, ensuring infrastructure development aligns with demand. Thus, the ability to estimate real estate prices accurately promotes better decision-making throughout the industry, resulting in a more stable and efficient real estate market. Data analysis indicates that certain parameters, such as surface size and the number of rooms, have strong positive associations with property values, whereas access to public transportation shows a slight negative correlation. The study highlights the importance of evaluating the diversity of Parisian neighbourhoods and their impact on property values, providing stakeholders with insights into investment strategies and market trends. According to the study's findings, Ridge Regression is the most effective model, offering reliable predictions with lower error rates than other regression techniques.

Keywords: Paris Real Estate Industry, Price Prediction, Decision Making, Machine Learning, Price Fluctuation.

1. INTRODUCTION

The state of the real estate market is still unpredictable because of a number of economic reasons. Many investors have a cautious optimism over the market's resiliency in spite of the obstacles. Due to COVID-19, there has been a movement in job preferences toward remote work, which has affected housing preferences. The real estate industry has shown hints of resilience, particularly in France, where there is a noticeable demand for homes with outdoor areas and properties in the countryside. This trend highlights the value of comfort and flexibility in living spaces, reflecting a larger shift in lifestyle priorities.

Paris real estate trends have also been interesting, with an obvious rise in demand for premium apartments and homes in desirable areas. Both local and foreign purchasers are drawn to Paris due to its attraction, which is rooted in its rich history and cultural attractiveness. The housing crisis, which has resulted in a shortage of affordable homes, especially in urban areas, is one of France's biggest problems. The government is taking action to solve this problem and advance sustainable development principles. This makes real estate professionals look at innovative methods to make housing options that are more inclusive and environmentally conscious for all demographic groups as the sector changes to meet shifting demands.

As market conditions change, the significance of real estate price forecasts has grown. In a market that evolves quickly, accurate price forecasting is essential for buyers, sellers, and investors to make informed choices. One issue is the absence of prior research on the application of machine learning to forecast trends in real estate prices for certain areas or kinds of properties. Accurate price forecasting will become increasingly important as the market develops for individuals seeking to thrive in the competitive real estate market.

The primary goal of this study is to increase our understanding of the variables that affect the cost of real estate in the urban Paris environment. This study will examine a variety of criteria, such as accessibility to transportation, the amount of floors, location, number of rooms, and kind of property (home or apartment) all affect the property's worth. The study will shed light on a thorough comprehension of the processes influencing property values in Paris' urban environment. The goal of the research is to identify patterns and trends that can help stakeholders make well-informed decisions about real estate deals and investments through statistical estimation and thorough analysis.

Using Google Colab as the platform, machine learning techniques will be used for the data analysis. This method involves use of tests such as regression, correlation, and exploratory data analysis (EDA). The goal of the current study is to examine the variables that affect Paris real estate values. Customers with an interest in the French real estate market should benefit from the study's findings. It is anticipated that data enthusiasts and business developers will get insight from the investigation. The implications of the research's findings will have a big influence on how developers and investors build sustainable real estate markets. There are multiple applications for the organized data. By creating properties that can increase revenue, developers can use them for corporate development and expansion, and buyers can accurately estimate a home's value before making a purchase.

2. LITERATURE REVIEW

2.1 Real Estate Price Prediction

Ball (1973) conducted the first evaluation of the literature on comparative housing prices, examining six studies for the UK and five for the US. Other studies conducted by Yang et al. (2023) explore the complexities of housing price drivers using Rosen's Hedonic Price Model (HPM).

Factors influencing housing prices. In other studies on Paris house prices, Fack and Grenet (2011) examine at the way housing prices respond to the level of education provided by nearby public and private schools. Their findings support the expectations from general equilibrium models of school choice that private schools, by giving a beneficial outside option to parents, tend to reduce the effect of public school performance on the cost of housing.

The buyer's perspective. Egemen (2020) provides useful insights on homebuyers' perceptions of the selection variables that influence their property choice, as well as levels of post-occupancy residential happiness. The study, which surveyed 320 house-buyers in the North Cyprus house-building market, uncovered considerable variations in priorities among buyers from various categories.

The Seller's Perspective. Xiong and Cheung (2021) shed light on the unique agency connection between sellers and agents, namely sellers' agents, whose major goal is to facilitate property sales by lowering buyers' search expenses. Despite the inherent difficulties presented by the principal-agent problem, sellers' agents act as mediators, connecting vendors and possible purchasers.

2.2 Factors that Influence Price Rise in Paris Real Estate Market

Economic and financial. Essafi and Simon (2015) underline the importance of economic metrics such as total population and GDP in determining real estate values. Their fixed effect regressions on 94 French departments from 2000 to 2013 show that real estate prices are positively connected with total population and GDP, but negatively correlated with the old-age dependency ratio.

2.3 The Impact of Interest Rate Movement in Housing Market

The impact of interest rate changes on the housing market, as revealed by Arslan (2014) and detailed in the following discussion, is substantial and multifaceted. As interest rates rise, so do borrowing costs, resulting in increased interest rates for homebuyers. As a result, increased mortgage rates make owning a home more expensive, thereby decreasing demand for housing and lowering total market activity.

2.4 The Effect of The House Price Rising in Paris

Van Doorn et al., (2019) evaluated the impact of rising home prices on affordability of housing and socioeconomic trends in the city. Their research highlighted how rising property values worsen residential stress and lead to homelessness, particularly among vulnerable populations with moderate to low incomes. Additionally, Ogden and Schnoebelen (2005) investigated the demographic changes and urban transitions caused by growing house prices in Paris. They emphasized the phenomena of displacement and the gentrification of traditional neighborhoods as residents, particularly young professionals and families, pursued housing alternatives in outer districts or nearby suburbs owing to declining accessibility in the metropolitan area. Supported by other studies, Brigstocke, J. (2016) emphasized the larger economic consequences of rising housing prices in Paris. They emphasized how high housing costs inhibited worker mobility and retained skilled workers, resulting in lower growth in productivity and the economy.

3. RESEARCH METHOD

These studies provide valuable insights into the broader context of housing dynamics and the complex relationships between interest rates, housing prices, and socioeconomic factors in Paris. Understanding these fundamental characteristics is critical for developing successful policies that promote housing market stability and equity while also assuring the city's long-term economic development through a quantitative analysis. Quantitative research is frequently used to analyze housing markets, particularly the impact of interest rate fluctuations on house values. Previous research has used quantitative tools to analyze factors affecting home markets. Willcocks (2009) used time series analysis to investigate the property values in the United Kingdom.

This research integrates machine learning algorithms with established quantitative methodologies and provides numerous benefits for understanding housing market dynamics. Machine learning algorithms can represent complex situations. Recent research has shown that machine learning algorithms can accurately estimate home prices. Li et al. (2019) used algorithms like Random Forests and Support Vector Machines to estimate property values in China, with higher accuracy than typical regression models. Banerjee, D., & Dutta, S. (2017) used machine learning to anticipate home prices, demonstrating its effectiveness at capturing market dynamics and local patterns.

The housing data used in this academic research came from PAP.fr's "Paris Housing Price". This study uses a manual extraction method to collect data on Parisian home prices and the factors that influence them. This approach produced a dataset of 22 entries, each containing information about a distinct Parisian home. Seven variables were recorded for each property, total 154 observations:

- Surface (m²): Floor area of the property.

- Number of rooms: Total number of rooms in the property.
- Number of floors: Number of storeys the property occupies within the building.
- Code postal : Identifies the general area in Paris.
- Close to public transport (Yes/No): Indicates whether the property is located near public transportation options.
- Type: Categorizes the property as either an apartment or a house.
- Price (€): Asking price of the property.

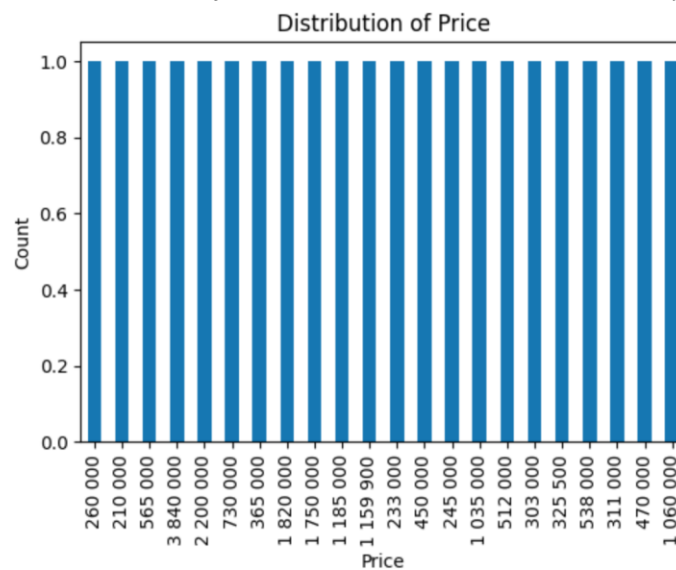
4. RESULT AND DISCUSSION

4.1. Description of The Price

Analysis of the available data reveals that property prices vary significantly, ranging from €210,000 to €3,840,000. Each price point represents a particular property, exhibiting a wide range of values across the dataset.

The price distribution illustrates the multifarious nature of the Paris real estate market, which includes properties at various price points to meet the diverse preferences and financial capacity of potential purchasers or investors. Lower-priced properties, such as those listed at €210,000 or €233,000, may appeal to first-time homeowners or those looking for more economical dwelling options. Higher-priced houses, such as those valued at €1,820,000 or €3,840,000, may appeal to wealthy purchasers or investors seeking luxury residences or profitable investment opportunities.

Figure 1: Distribution of the Real Estate Price in Paris (Secondary data)



Source: Google Collab

4.1.1 Relationship to The Price

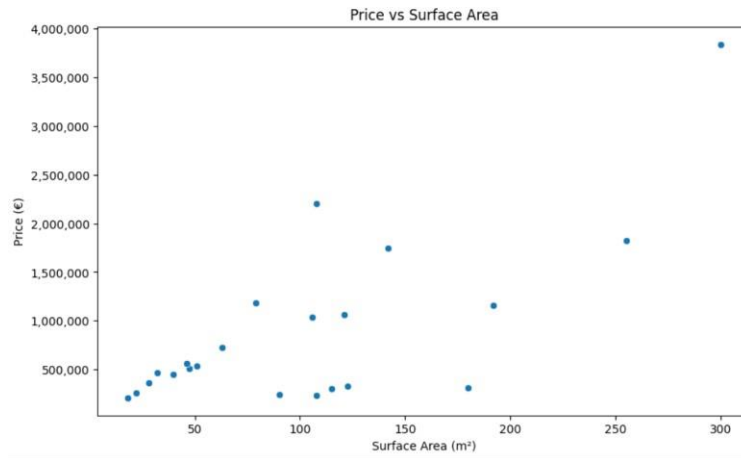
Understanding the complex relationship between real estate pricing and other factors is critical for anyone participating in the real estate market, whether they are buyers, sellers, investors, or analysts. Understanding these relationships is especially important in the context of Parisian real estate, given the market's particular characteristics. Among the numerous elements that influence property values, four main associations are discussed:

4.1.2 Relationship between Surface and Price

Starting with the connection among surface area and pricing provides important insights. A detailed investigation of scatter plots reveals an apparent correlation between these variables. Real estate with surface areas ranging from 50 to 100 square meters typically sells for between €500,000 and €1,200,000. However, outliers such as houses with 250 or 100 square meters depart from this pattern, fetching prices below €2,000,000 and

approximately €2,300,000. The highest value is almost €4,000,000 in the real estate that has 3000 meter cubic area . This emphasizes the positive and complex relationship between size and value in the Parisian real estate market.

Figure 2: Surface Area vs Price (Secondary data)

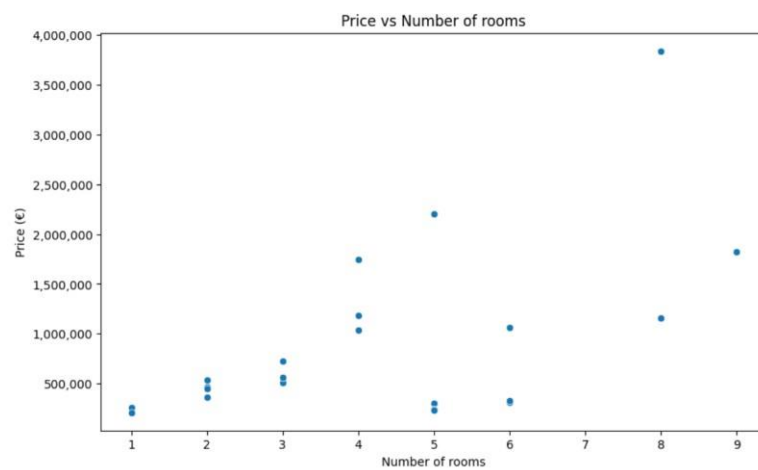


Sources: Google Colab

4.1.3 Relationship between Number of Rooms and Price

Second, a correlation between the number of rooms and the price reveals another intriguing tendency. Properties with more rooms command higher prices, indicating a positive connection. For example, residences with eight or five rooms attract prices close to €4,000,000 and €2,300,000, respectively, whilst those with less rooms are valued lower, ranging from €100,000 to €600,000. This emphasizes the importance of spatial arrangement on property valuation.

Figure 3: Number of Rooms vs Price (Secondary data)

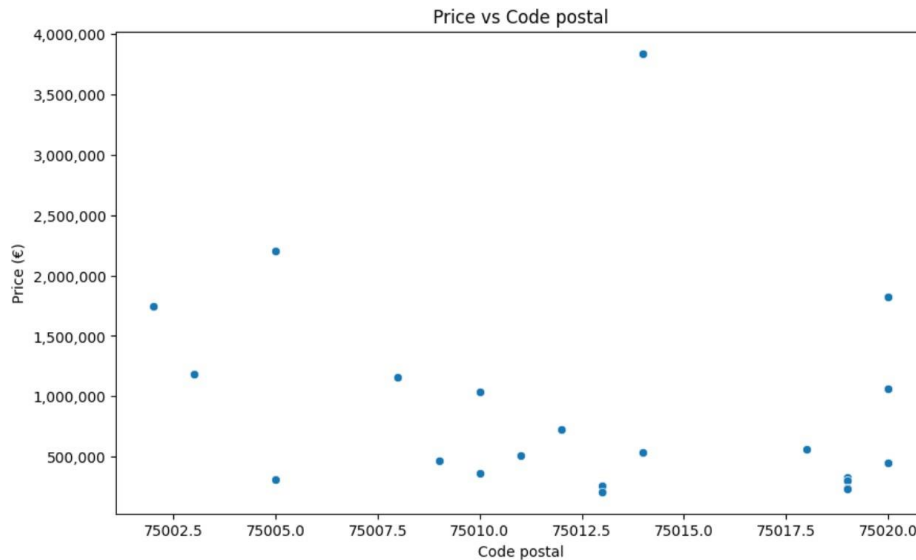


Sources: Google Colab

4.1.4 Relationship between Location (Code Postal) and Price

Moving ahead, the relationship between geography, specifically postal codes, and pricing becomes increasingly complex. A slight upward trend indicates a weak positive association, although several data points diverge from the trend line. This suggests that variables other than postal codes have a substantial influence on property values in Paris. Factors such as Paris' unique arrondissements, property type, and size have a greater impact on valuation. Thus, while postal codes provide a general indicator of location, other contextual elements are more important in influencing property prices.

Figure 4: Location (Code Postal) vs Price (Secondary data)

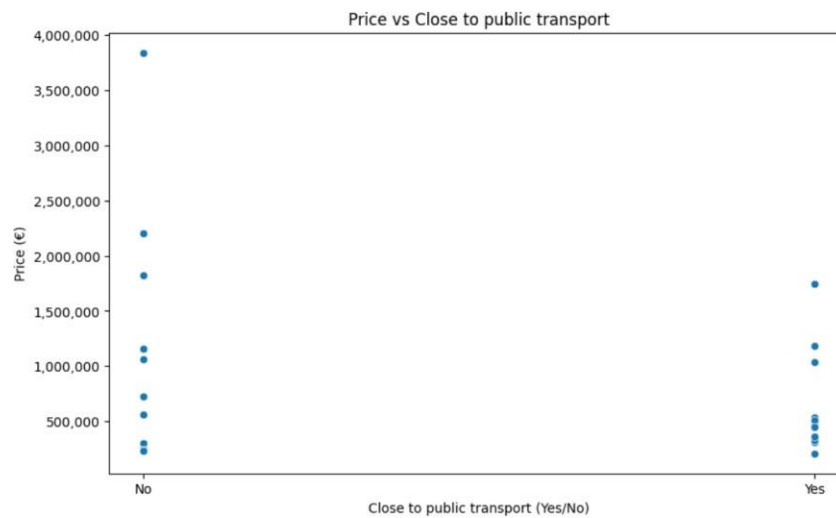


Sources: Google Colab

4.1.5 Relationship between Public Transport Accessibility and Price

In terms of accessibility, the relationship between public transport access and pricing is complex. While there is a general correlation between proximity to public transportation and greater property values, dispersed data points and outliers call this into question. Pricing varies depending on property attributes and the desirability of areas near public transportation hubs. Properties near public transportation may not necessarily attract higher prices, since other variables such as noise levels or safety issues may outweigh the convenience benefit.

Figure 5: Close to Public Transport vs Price (Secondary data)



Source: Google Colab

4.2. Exploratory Data Analysis (EDA)

EDA allows us to identify patterns and anomalies in a dataset, make assumptions based on what we see, and visualize data to better comprehend it. Previous study conducted by Naureen, A., & Gujar, D. (2024) explains that extensive exploratory data analysis ensures that their subsequent studies are founded on a strong grasp of the data at hand.

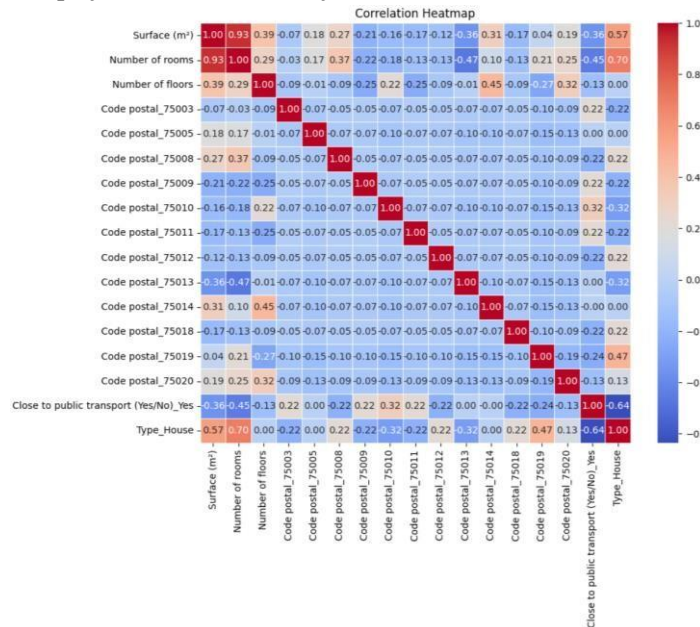
4.2.1 Correlation Plot for Numerical and Non-Numerical Variables

The correlation map of factors influencing real estate prices in Paris provides valuable insights into the relationships between various features associated with real estate listings. Each square in the heatmap represents the correlation coefficient between two features, ranging from -1 to 1, with color intensity indicating the strength of correlation.

Upon analysis, several notable correlations emerge. There appears to be a strong positive correlation between surface area and price, indicating that larger properties tend to command higher prices. Similarly, the number of rooms shows a moderate positive correlation with price, suggesting that properties with more rooms are typically priced higher.

In terms of location, postal codes exhibit varying correlations with price, with some showing weak positive correlations and others weak negative correlations. This suggests that the specific neighborhood or area within Paris may influence property prices differently. Interestingly, being close to public transport shows a weak negative correlation with price, implying that proximity to transportation hubs may not always correlate with higher property prices as well as the type of real estate (apartment or house).

Figure 6: Correlation Map of The Factors that Influence the Real Estate Price in Paris (Secondary data)



Sources: Google Colab

4.2.2. Bivariate Analysis of Categorical Variables

The box plot for apartments shows that the median price (Q2) is €1,035,000, suggesting that half of the apartment prices are lower and half are higher. The interquartile range (IQR), depicted by the box, ranges from the first quartile (Q1) at €311,000 to the third quartile (Q3) at €1,186,000, indicating the range in which the middle 50% of apartment prices fall. The whiskers of the box plot extend to the minimum and highest values of €260,000 and €2,200,000, respectively, covering the complete range of apartment prices. This distribution indicates that, while the majority of apartment prices are clustered around the median, prices vary greatly, with some flats priced significantly higher or lower.

In comparison, the box plot for homes shows a different distribution of pricing. The median price for homes (Q2) is €1,159,900, reflecting a somewhat greater central tendency than apartments. The interquartile range spans from Q1 at €1,035,000 to Q3 at €2,200,000, demonstrating a greater price range than apartments. However, the whiskers reach a maximum of €1,060,000. This implies that there are no outliers beyond this value. This distribution implies that, while home prices vary, they tend to cluster closer to the median than apartments.

Figure 7: Distribution of the Real Estate Price by Property Types (Secondary data)



Source: Google Colab

Figure 8: Table of Inter Quartile Range

| Property Type | Minimum | Q1 (25th Percentile) | Median (Q2) | Q3 (75th Percentile) | Maximum |
|---------------|---------|----------------------|-------------|----------------------|-----------|
| Appartement | 260 | 311 | 1,035,000 | 1,186,000 | 2,200,000 |
| House | 311 | 1,035,000 | 1,159,900 | 2,200,000 | 1,060,000 |

4.3. Model Tuning

According to Breiman et al. (2018), model tuning is critical for optimizing the performance of predictive models and is a fundamental step in data science. Moreover, hyperparameters are critical for fine-tuning machine learning models. They are critical for improving model performance and generalization to new data. In the context of risk prediction models, hyperparameters such as the regularization parameter in Ridge, Lasso, or Random Forest regression can have a considerable impact on the model's capacity to accurately forecast risks. Tuning hyperparameters is commonly used to improve the predictive performance of risk prediction models. This method necessitates a delicate balance of bias and variance, ensuring that the model can successfully capture underlying patterns in the data without overfitting.

Linear regression analysis aims to find a linear relationship between a dependent variable (y) and one or more independent variables (x). The linear regression test seeks to identify the best-fitting line that minimizes prediction error across all data points. A linear regression model's performance is evaluated using two essential metrics: coefficient of determination (R^2) and Root Mean Square Error (RMSE).

There is an equation in Linear Regression Test to find a line that reduces the prediction error of all the data points, namely:

$$R^2 = 1 - (\sum(y_i - \hat{y}_i)^2 / \sum(y_i - \bar{y})^2)$$

$$RMSE = \sqrt{(\sum(y_i - \hat{y}_i)^2 / n)}$$

The interpretation of the formula:

- R^2 is a measure of how much of the dependent variable's variance can be predicted by the independent variables. Based on the formula, y_i indicates the actual value of the dependent variable, \hat{y}_i denotes the

anticipated value, while \bar{y} represents the dependent variable's mean. A higher R^2 value implies a better match between the model and the data.

- RMSE quantifies the average difference between the anticipated and actual values of the dependent variable. From the formula, where n represents the number of observations. Lower RMSE values indicate that the model is more predictively accurate.

4.3.1 Ridge Regression

From the result above, Ridge Regression has a coefficient of determination (R^2) of around 0.62, suggesting that the independent variables explain around 62.02% of the dependent variable's variation. The Root Mean Square Error (RMSE) value of about 345,512.13 indicates that, on average, the forecasts are wrong by 345,512.13 units.

Figure 9: Result of Model Tuning Ridge Regression

- Regressor: Ridge R^2 :
0.6201592448186513
RMSE: 345512.12942952575
Sources: Google Colab

4.3.2 Lasso Regression

In contrast to Ridge Regression, Lasso Regression has a somewhat lower (R^2) value of around 0.56, indicating a worse fit. The RMSE value of roughly 371,850.31 indicates slightly bigger prediction errors than Ridge Regression.

Figure 10: Result of Model Tuning Lasso Regression

- Regressor: Lasso R^2 :
0.5600419645365644
RMSE: 371850.30742714374
Sources: Google Colab

4.3.3 Random Forest Regression

Finally, out of the three models, Random Forest Regression performs the worst, with an RMSE value of roughly 458,957.06 and a (R^2) value of roughly 0.33. This shows that, out of all the models examined, Random Forest Regression has the biggest prediction errors and only accounts for roughly 32.98% of the variance in the dependent variable.

Figure 11: Result of Model Tuning Lasso Regression

- Regressor: RandomForestRegressor R^2 :
0.3297773813481988
RMSE: 458957.06327019306
Sources: Google Colab

5. CONCLUSION AND RECOMMENDATIONS

The study's findings highlight the complexities of the elements that influence real estate prices in Paris, as well as the effectiveness of machine learning approaches in predicting these values. In particular, the correlation heatmap shows large positive relationships between property size and the number of rooms with prices, however no significant relationship was observed between real estate type and accessibility to public transit. Ridge Regression was the most effective model, with a coefficient of determination (R^2) of 0.62 and the lowest Root Mean Square Error (RMSE) of 345,512.13. This shows that Ridge Regression can properly capture fluctuations in real estate prices. Looking forward, stakeholders should prioritize investments in bigger properties with more rooms for the greatest return on investment, while also acknowledging the tangled relationship between location and property value. Furthermore, the suggestion to use Ridge Regression for price forecasting emphasizes the

significance of ongoing model development and validation to ensure accuracy and effectiveness in navigating the unpredictable Parisian real estate sector.

The real estate sector is affected by price prediction in a variety of ways. While it has possible drawbacks and implications for the dynamics of the market and future changes, it also offers significant advantages to shareholders. Price prediction models offer investors, developers, and customers significant insights. Those that use machine learning approaches, such as Ridge Regression, as observed in the study, are very beneficial. Accurate real estate price forecasting enables stakeholders to maximize returns on their investments by enabling them to make better-informed decisions about investments, sales, and property acquisitions. This improved decision-making process is especially helpful in markets like Paris, where property values are impacted by a wide range of factors and can vary significantly across districts.

Although price prediction algorithms provide many advantages for the real estate sector, they are not entirely without downsides. Real estate markets are inherently complicated, which is one of their main limitations. To be able to predict prices in the future, predictive models depend on statistical trends and past data while systems may find it difficult to take into consideration unforeseen circumstances or unexpected shifts in the market environment. Economic downturns, policy changes, and unforeseen events such as natural catastrophes can have a substantial impact on property values that may not be fully reflected by historical data only. Models for prediction may also be influenced by the accessibility and quality of data. Real estate markets differ in terms of property forms, locations, and trends, making them dynamic and heterogeneous. The accuracy of price forecasts might be affected by insufficient or biased datasets, which can produce predictions that are not accurate. Furthermore, qualitative elements that affect buyer preferences, market conduct, and cultural influences may be difficult for predictive models to include. Consequently, even while price prediction models have the potential to enhance real estate market decision-making, it is critical to understand their limitations and combine statistical analysis with human perception and qualitative observations.

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CHAPTER 6

The Effect of Profitability and Ownership Structure Mediated by Csr Disclosures in Manufacturing Companies

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ABSTRACT

This study aims to test the effect of Profitability and Ownership Structure on Corporate Value Mediated by Corporate Social Responsibility Disclosure. Sample used in this study is a company that is flat on the Indonesia Stock Exchange for the period 2019. The sample selection method uses purposive sampling so that sampling is in accordance with the researcher's criteria. The analytical tool used to test hypotheses is Partial Least Square. The results of this study found that Profitability, Institutional Ownership has a positive effect on the value of the company, Public influences the value of the company, Corporate Social Responsibility has no positive effect on the value of the company, Profitability, Public Ownership has a positive effect on the disclosure of Corporate Social Responsibility. Profitability to the value of the company through mediation Corporate social responsibility does not have a positive and significant effect on the value of the company, Institutional ownership of the value of the company through mediation Corporate social responsibility has no positive and significant effect on the value of the company, Public ownership of the company's value through corporate mediating does not have a positive and significant effect on the value of the company.

Keywords: Profitability of Ownership Structure, Company Value, and Disclosure of Corporate Social Responsibility

1. INTRODUCTION

Company value is investors' perception of the company, because investors use company value as a measure of a company, which is often linked to share prices (Rodoni & Setiawan, 2016). Indonesia's manufacturing sector has long been the center and main pillar of Indonesia's economic expansion, a significant contributor to the country's gross domestic product through exports of goods and services in the manufacturing industry and continuing to absorb domestic workers as investment increases. This is one of the chain effects of industrialization activities which also helps encourage national economic growth. Manufacturing also opens up many job opportunities in Indonesia.

One of the sectors experiencing an increase in share prices is the manufacturing sector. The following is an image showing the stock price movements of manufacturing industry companies in 2019. JCI Movement Throughout the Year.



Figure 1.1 Manufacturing Share Prices 2019 (Source: <https://www.idx.co.id>)

Figure 1.1 shows that the stock prices of manufacturing companies in 2019 had an increasing trend but there were also decreases, fluctuations in the stock price index of manufacturing companies, but in the long term the trend was visible in 2019. According to the Minister of Industry Airlangga Hartarto said that in the manufacturing sector in 2018 absorbing a workforce of 18.25 million people. So this amount contributes 14.72 percent of the national workforce. In 2019 the manufacturing industry was able to contribute to the national gross domestic product (GDP) by 20 percent and in this case it will have a big impact on company value. From this 20 percent achievement, Indonesia is ranked fifth among the G20 countries (Indonesiabaik.id, 2019). Based on the records of the Ministry of Industry, over the last four year period, labor absorption in the industrial sector has continued to increase. In 2015, the industry created employment opportunities for 15.54 million people, then increased in 2016 to 15.97 million people. The value of exports of goods and services has continued to increase since the fourth quarter of 2017 in line with the improving global economy and improving world commodity

prices. The increase in food industry growth in 2017 is closely related to the increase in exports of this industrial group, which in 2017 rose by 20.72% of the export value in 2016. This is one of the bases for researchers to examine the manufacturing sector starting from 2017. To assess the company's ability to seek profits from an investor's perspective, profitability is important for assessing the company's future prospects and can also see the growth in profitability of the company concerned. Profitability has goals and benefits for business owners, management and for parties outside the company, especially parties who have relationships with the company (Ivon Nurmas Ruroh, 2018), (Sairin, 2018). The purpose and benefits of using profitability ratios for the company, as well as for parties outside the company.

The ownership structure is a form of commitment from shareholders to delegate a certain level of control to managers. The ownership structure is a separation between company owners and company managers. The owner or shareholder is the party who invests capital in the company, while the manager is the party appointed by the owner and given the authority to make decisions in managing the company, with the hope that the manager will act in accordance with their interests (Sudana (2011). Public ownership is ownership of company shares by the general public or by outside parties (Andika & Wijayanti, 2016) ownership of the company by outside parties has great power in the company, because it can influence the company through mass media in the form of criticism and comments, all of which are considered the voice of the public or society. Large amounts of public ownership can put pressure on management to present information in a timely manner because the timeliness of financial reporting can influence economic decision making (Harits Yowansyah Pandayu Putra et al., 2021; Rivandi, 2021). in a certain period. According to (Pada et.al., 2005) profitability is the company's ability to generate profits (profit) which will be the basis for the company's dividend distribution. Profitability is a description of management's performance in managing the company ((Fitriana, 2019). The size of profitability can be various, such as: operating profit, net profit, rate of return on investments or assets, and rate of return on owner's equity. Profitability ratios measure management effectiveness based on the returns obtained from sales and investments. Profitability also has an important meaning in the ability of a business to maintain its survival in the long term, because profitability shows whether the business entity has good prospects in the future (Hermuningsih, 2012). Social responsibility as a logical consequence of a company's existence in a community environment encourages companies to be more proactive in taking initiatives in terms of social responsibility. (Mutia et al., 2011). The phenomenon of developing corporate social responsibility (CSR) issues has become quite popular in Indonesia in recent years. In the business world that operates in the field of utilizing natural resources, both directly and indirectly, it certainly has an impact on the

surrounding environment. According to (Karina & Setiadi, 2020), Dzikir (2020) and (Nahda & Harjito, 2011) prove the same thing, namely that corporate social responsibility has a significantly positive effect on company value, which means that the better corporate social responsibility disclosure is, the company value will increase. . Apart from examining the influence of profitability, ownership structure and CSR disclosure on company value, this research also aims to analyze the mediating role of CSR disclosure on the relationship between profitability and ownership structure and company value. This mediation analysis was carried out to find out whether profitability and ownership structure have an indirect impact on company value through CSR disclosures made.

Based on the background description above, it appears that previous research regarding the influence of profitability and ownership structure (institutional ownership and public ownership) on company value is still different so it cannot be concluded. Apart from that, research examining the mediating effect of CSR on the relationship between profitability and ownership structure on company value is still relatively limited. Thus, this research needs to be carried out to strengthen and enrich existing literature, using a sample of manufacturing companies in the 2019 period. So this research was conducted with the title "The Influence of Profitability and Ownership Structure mediated by Corporate Social Responsibility disclosures."

2. LITERATURE REVIEW

Agency Theory (Agency Theory)

Agency problems arise because of a conflict of interest between shareholders and managers, because they do not meet the maximum utility between them. As agents, managers are morally responsible for optimizing the profits of the owners (principals), but on the other hand, managers also have an interest in maximizing their welfare. So there is a big possibility that the agent will not always act in the best interests of the principal (Jensen, 1976).

Agency problems arise as a result of the separation of duties between company management and shareholders, because there is a separation between the decision maker and the company owner, managers may make decisions that are not at all in accordance with the aim of maximizing the welfare of shareholders (Wilkinson et al., 2005).

In the description of agency theory above, it is stated that the behavior of managers or agents to act only to benefit themselves at the expense of the interests of other parties or owners, can occur because managers have complete information about the company, while this information is not owned by the company owner so that asymmetric information arises. Because agency theory is a contract where one or more people (principals). Both parties have the same goal of maximizing company value, so it is believed that the agent will act in a way that is in accordance with the

interests of the principal. Agency Theory or agency theory is the design of appropriate contracts to align the interests of the principal and agent in the event of a conflict of interest. According to agency theory, one way that is expected to align the goals of the principal and agent is through a reporting mechanism (Luayyi, 2010)

Signal Theory (Signalling Theory)

Brigham and Houston (2013) use Modigliani and Miller's theory to explain that investors and managers have the same information about a company's prospects. Signal theory can be concluded as a theory that can influence company value, because this theory provides information about the condition of the company through financial reports to reduce differences in information. Information received by investors is first interpreted as a good signal (good news) or a bad signal (bad news). If the financial performance reported by the company increases then the information can be categorized as a good signal because it indicates the company's condition is good. On the other hand, if the reported financial performance decreases then the company is in bad condition so it is considered a bad signal (Wilkinson et al., 2005).

Company Value (firm value)

According to Hery (2017: 5), the definition of company value is as follows. Company value is investors' perception of the level of success of managers in managing company resources entrusted to them which is often linked to share prices.

According to Keown et al (2001), company value is an investor's view of the percentage of company success which is always linked to the share price. According to Brigham and Houston (2013), company value is the value given by the market to company performance. This value indicates the market's desire and belief in the company's intrinsic value. Market appreciation is indicated by stock prices above book value, and market depreciation is indicated by stock prices below book value. If the market gives more value, it means the market thinks the company has good prospects and vice versa. Company value can be measured by a ratio called the valuation ratio. Company value is measured by price book value (PBV), namely the ratio of the share price to the company's book value or price book value which shows the level of the company's ability to create value relative to the amount of capital invested. According to I Made (Sudana 2011:23) that the assessment ratio is a ratio related to the assessment of the performance of company shares that have been traded on the capital market (go public). The valuation ratio provides information on how much the public values the company, so that the public is interested in buying shares at a price higher than its book value.

Several ratios created to measure company value are the Price Earning Ratio (PER). Where the PER ratio reflects many influences that sometimes cancel each other out which makes its

interpretation difficult. The higher the risk, the higher the discount factor and the lower the PER ratio. This ratio describes the market's appreciation of the company's ability to generate profits. Another ratio to measure company value is Price to Book Value (PBV), this ratio describes how much the market appreciates the book value of a company's shares. The higher PBV means the market believes in the company's prospects. And finally, the Tobin's Q ratio is a valuable concept because it shows the current financial market estimate of the return value of each dollar of incremental investment. (Sari et al., 2013) In this research, PBV is used because this ratio describes the value of a company's shares (Weston and Copeland (2008:224). The formula for PBV is as follows:

$$PBV = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

Source: Weston and Copeland (2008)

Information:

Price to Book Value (PBV) = Share Price/Book Value.

The share price is a sign of a person or organization's ownership in a company, which is reflected in investment, financing and asset management decisions.

Book value is the value or assessment of a company when it has to be liquidated (sold because it is bankrupt).

Ownership Structure

Ownership structure or insiders ownership is the composition, portion, comparison or percentage between capital, equity including shares owned by people inside the company (insider shareholders) and investors (outside shareholders). States that the rise and fall of company value is influenced by ownership structure, including share ownership by management, share ownership by institutions, share ownership by foreign investors, share ownership by the government and concentrated ownership. Several researchers believe that ownership structure is able to influence the running of the company which ultimately influences on company performance in achieving company goals, namely maximizing company value (Zulvina, 2017). According to Sudana (2011), ownership structure is a separation between company owners and company managers. The owner or shareholder is the party who invests capital in the company, while the manager is the party appointed by the owner and given the authority to make decisions in managing the company, with the hope that the manager will act in accordance with the owner's interests.

Institutional Ownership

According to Bernandhi (2013), institutional ownership is ownership of shares in a company by institutions or institutions such as insurance companies, banks, investment companies and other institutional ownership. Institutional ownership has a very important role in minimizing agency conflicts that occur between managers and shareholders. The existence of institutional investors is considered capable of being an effective monitoring mechanism in every decision taken by managers. Sabrina (2010) stated that the strict supervision carried out by institutional investors really depends on the size of the investment made. The greater the ownership by financial institutions, the greater the voting power and encouragement of financial institutions to supervise management and as a result will provide greater encouragement to optimize company value. The existence of institutional investors is considered capable of being an effective monitoring mechanism in every decision taken by managers. Institutional ownership is measured using the indicator of the percentage of share ownership owned by institutions out of the total amount of share capital in circulation (Riduwan and Sari (2013).

$$KI = \frac{\text{Total shares owned by the institution}}{\text{Total Shares Outstanding}}$$

(Riduwan and Sari (2013).

3. RESEARCH METHOD

Research Object

The objects in this research are all manufacturing companies listed on the Indonesia Stock Exchange in the 2019 period. The sample selection criteria are based on purposive sampling.

Data Type

The type of data used in this research is secondary data, namely data obtained by researchers indirectly through intermediary media whose data source comes from the Indonesia Stock Exchange (BEI) website.

Sampling Technique

The sample selection in this study used a purposive sampling method. The sample criteria used are manufacturing companies listed on the Indonesia Stock Exchange for the 2019 period.

Data collection technique

The type of data used is secondary data, quantitative data obtained from the 2019 financial reports. By accessing the Indonesian Stock Exchange (BEI) database, based on the results of sample research using a purposive sampling technique, 154 companies were obtained.

Operational Definition of Research Variables

1. Dependent Variable

The value of the company

The dependent variable in this research is company value. This variable is measured using Price to Book Value (PBV). PBV can be calculated using the following formula:

$$PBV = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

2. Independent Variable

Profitability

Ownership structure is a measure of the distribution of power in decision making, either for owners or for managers. Profitability measurement in this research uses the following formula:

$$ROA = \frac{\text{Net profit}}{\text{Total Assets}}$$

Institutional Ownership

In this study, institutional ownership is proxied by ownership institutional. The institutional ownership ratio can be measured by

$$KI = \frac{\text{Total Shares Owned}}{\text{Total Shares Outstanding}}$$

Public Ownership

The public ownership ratio can be measured by:

$$KP = \frac{\text{Number of Public Shares}}{\text{Number of Shares Outstanding}}$$

3. Mediation Variables

Corporate Social Responsibility

In this research, CSR is proxied using the CSRIj ratio. The formula used is:

$$CSRIj = \frac{\sum Xij}{nj} \times 100\%$$

RESULTS AND DISCUSSION

1. Quality Test and Data Instruments

Instrument and data quality testing was carried out using classical assumptions.

a. Convergent Validity Test

The convergent validity value is the factor loading value on the latent variable with its indicators. The convergent validity value is used to determine the validity of a construct. According to the general rule (rule of thumb), an indicator factor loading value ≥ 0.7 is said to be valid. However, in developing new models or indicators, factor loading values between 0.5 - 0.6 are still acceptable (Yamin and Kurniawan, 2011 in Haryono, 2017:405). In this study, a limit of 0.5 was used so indicators whose factor loading values were above 0.5 were declared valid. The following are the results of the validity test:

Table 4.1 Convergent Validity Test Results

Outer Loadings

| Matrix | Corporate Social Responsibility | Kepemilikan Institusional | Kepemilikan Publik | Nilai Perusahaan | Profitability |
|--------|---------------------------------|---------------------------|--------------------|------------------|---------------|
| CSR | 1.000 | | | | |
| KI | | 1.000 | | | |
| KP | | | 1.000 | | |
| PBV | | | | 1.000 | |
| ROA | | | | | 1.000 |

b. Reliability Test (Composite Reliability and Cronbach Alpha) and Average Variance Extracted (AVE) Test

Reliability Test Results and AVE Values.

Table 4.2 Reliability Test

Construct Reliability and Validity

| Matrix | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|---------------------------------|------------------|-------|-----------------------|----------------------------------|
| Corporate Social Responsibility | 1.000 | 1.000 | 1.000 | 1.000 |
| Kepemilikan Institusional | 1.000 | 1.000 | 1.000 | 1.000 |
| Kepemilikan Publik | 1.000 | 1.000 | 1.000 | 1.000 |
| Nilai Perusahaan | 1.000 | 1.000 | 1.000 | 1.000 |
| Profitability | 1.000 | 1.000 | 1.000 | 1.000 |

C. Uji Validitas Diskriminan

Tabel 4.3 Hasil Nilai Cross Loading

Discriminant Validity

| | Corporate Social Responsibility | Kepemilikan Instusional | Kepemilikan Publik | Nilai Perusahaan | Profitability |
|-----|---------------------------------|-------------------------|--------------------|------------------|---------------|
| CSR | 1.000 | 0.493 | 0.925 | 0.799 | 0.903 |
| KI | 0.493 | 1.000 | 0.749 | 0.615 | 0.551 |
| KP | 0.925 | 0.749 | 1.000 | 0.772 | 0.850 |
| PBV | 0.799 | 0.615 | 0.772 | 1.000 | 0.918 |
| ROA | 0.903 | 0.551 | 0.850 | 0.918 | 1.000 |

D. Uji Hipotesis berdasarkan Koefisien Jalur

Tabel 4.4 Uji Koefisien Jalur Hipotesis

Path Coefficients

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O /STDEV) | P Values |
|--|---------------------|-----------------|----------------------------|--------------------------|--------------|
| Corporate Social Responsibility -> Nilai Perusahaan | 0.715 | 0.721 | 0.394 | 1.814 | 0.070 |
| Kepemilikan Instusional -> Corporate Social Responsibility | -0.397 | -0.330 | 0.224 | 1.775 | 0.076 |
| Kepemilikan Instusional -> Nilai Perusahaan | 0.570 | 0.642 | 0.260 | 2.196 | 0.029 |
| Kepemilikan Publik -> Corporate Social Responsibility | 0.971 | 0.971 | 0.162 | 5.980 | 0.000 |
| Kepemilikan Publik -> Nilai Perusahaan | -1.016 | -1.023 | 0.476 | 2.136 | 0.033 |
| Profitability -> Corporate Social Responsibility | 0.296 | 0.274 | 0.080 | 3.709 | 0.000 |
| Profitability -> Nilai Perusahaan | 0.823 | 0.719 | 0.158 | 5.197 | 0.000 |

2. Hypothesis Results

a. R Square Analysis

This analysis is to determine the percentage of endogenous construct variability that can be explained by exogenous construct variability. This analysis is also to determine the goodness of the structural equation model. The larger the R-square number shows that the greater the exogenous variable can explain the endogenous variable, so the better the structural equation. The output results of the R Square value are as follows:

R Square Value Results

Based on the table above, the following results can be seen:

- The R-square value of the Corporate Social Responsibility variable is 0.969. This R-square value means that the variability of the Corporate Social Responsibility construct which can be explained by the variability in Institutional Ownership, Public Ownership and Profitability is 96.9% while the rest is explained by other variables outside those studied. According to Chin (1998) in Ghozali and Latan (2015: 81), the R2 values are 0.67, 0.33 and 0.19, it can be concluded that the model is strong, moderate and weak. With this it can be said that the influence is high.
- The R-square value of the Company Value variable is 0.893. This R-square value means that the variability of the construct of Company Value which can be explained

by the variability of the constructs of Institutional Ownership, Public Ownership, Profitability and Corporate Social Responsibility is 89.3% while the rest is explained by other variables outside those studied.

5. CONCLUSION AND RECOMMENDATIONS

Profitability has a positive effect on company value, institutional ownership has a negative effect on company value, public ownership has a negative effect on company value, Corporate Social Responsibility has no positive effect on company value. Profitability has a positive effect on disclosure of Corporate Social Responsibility. Institutional Ownership has no significant effect on disclosure of Corporate Social Responsibility. Public Ownership has a significant effect on Disclosure of Corporate Social Responsibility. Profitability on company value through mediation of Corporate Social Responsibility has no positive and significant effect on company value. Institutional ownership of company value through corporate social responsibility mediation has no significant effect on company value. Public ownership of company value through corporate social responsibility mediation has no significant effect on company value.

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CHAPTER 7

Intellectual Capital, Competitive Advantage, Financial Performance and Company Value Among Banking Industries in Indonesia by Generalized Structured Component Analysis (GSCA)

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ABSTRACT

Using Generalized Structured Component Analysis (GSCA), the study of intellectual capital, competitive advantage, financial performance, and company value in the Indonesian banking industry reveals that intellectual capital comprising human, structural, and relational assets play a crucial role in achieving competitive advantage through innovation and customer service. This competitive edge enhances financial performance, as measured by Return on Assets (ROA), which in turn boosts company value by increasing market capitalization and investor confidence. The relationships among these factors are shaped by the regulatory environment, economic conditions, technological adoption, and intense market competition, highlighting the importance of effective intellectual capital management for sustainable growth and success in Indonesia's banking sector. The intellectual capital will be measured using the VAIC method, then company value measured by price book value (PBV). The study employs a quantitative research design using secondary data from the financial statements of banks listed on the Indonesia Stock Exchange (IDX) from 2018 to 2023. The analysis, conducted through Generalized Structured Component Analysis (GSCA) using SmartPLS, reveals that intellectual capital significantly influences financial performance, which in turn positively affects company value. While competitive advantage was found to indirectly impact company value through financial performance, it did not mediate the relationship between intellectual capital and company value as hypothesized. The results indicate that intellectual capital enhances financial performance, which subsequently leads to higher company valuation. This finding underscores the importance of managing intellectual capital as a strategic asset to sustain growth and competitiveness in the Indonesian banking sector. The study highlights that continuous investment in human capital, the adoption of advanced technologies, and the building of strong customer relationships are essential for banks to improve financial performance and achieve long-term success. The study also provides recommendations for stakeholders to focus on these areas to effectively harness intellectual capital for enhancing company value.

Keyword: Intellectual capital, competitive advantage, financial performance, company value, banking, GSCA models.

1. INTRODUCTION

In the rapidly evolving financial landscape of Indonesia, the banking sector plays a pivotal role in driving economic growth and stability. The competitive environment necessitates banks to leverage various intangible assets, such as intellectual capital, to gain a competitive edge and enhance their financial performance and overall company value. The banking industry in Indonesia plays a crucial role in the country's economic development, providing essential financial services that support various sectors. Company value, often measured by metrics such as Price-to-Book Value (PBV) and Return on Assets (ROA), is a key indicator of a bank's financial health and performance. This value is influenced by several factors, including intellectual capital, competitive advantage, financial performance, and other external factors. Intellectual capital (IC) encompasses the knowledge, experience, and intellectual property possessed by a company's workforce. It is generally categorized into three components: human capital, structural capital, and relational capital. Human Capital Refers to the skills, knowledge, and competencies of the employees. In the banking sector, this includes the expertise of financial analysts, customer service personnel, and management staff. Structural Capital Comprises the internal processes, databases, and intellectual property that support the workforce's productivity. For banks, this includes information systems, software, and organizational culture. Relational Capital Encompasses the relationships and networks that a bank has with its customers, partners, and regulators. Competitive advantage refers to the attributes that allow a company to outperform its rivals. In the context of banking, competitive advantage can stem from superior customer service, innovative financial products, strong brand reputation, and efficient technological infrastructure. Intellectual capital is a critical driver of competitive advantage as it enhances a bank's ability to innovate and adapt to market changes. Financial performance is a measure of a company's profitability, stability, and efficiency. Common indicators of financial performance in the banking sector include Return on Assets (ROA). ROA Indicates how efficiently a bank is utilizing its assets to generate profits. Company value in the banking sector is often assessed through market capitalization and other valuation metrics like Price-to-Book (P/B) ratio.



Source: IDX, 2024

Company value in banking companies experienced a very significant increase compared to 2019, with a rise of 55% compared to several companies. The banking companies also experienced a very significant decrease in 2022, with a drop of 35% compared to several companies. The increase and decrease from the above data indicate instability in the PBV (Price Book Value) values. Higher financial performance typically leads to a higher company value as it signals strong management and robust future prospects to investors. The banking industry in Indonesia demonstrates a complex interplay between intellectual capital, competitive advantage, financial performance, and company value. Investing in intellectual capital not only enhances competitive advantage but also positively impacts financial performance, ultimately

leading to higher company valuation. This study underscores the importance for banks to strategically manage their intangible assets to sustain growth and competitiveness in the dynamic financial market of Indonesia.

2. LITERATURE REVIEW

Company value is one of the most important performance indicators in the business world. In the banking industry, company value not only reflects financial strength but also the trust of shareholders and investors in the bank's ability to manage risk and create long-term profits. Several factors, such as financial performance, intellectual capital, and competitive advantage, can influence company value.

Intellectual Capital in Banking

Intellectual capital (IC) is increasingly recognized as a crucial determinant of competitive advantage and financial performance in the banking sector. IC encompasses human capital, structural capital, and relational capital, which together create value for organizations. In the context of Indonesian banking, research by Firer and Williams (2003) and Chen et al. (2005) has shown that banks with higher levels of intellectual capital tend to perform better financially.

1. **Human Capital:** Refers to the knowledge, skills, and expertise of employees. Banks investing in training and development of their workforce often see improvements in service quality and innovation (Edvinsson & Malone, 1997).
2. **Structural Capital:** Includes databases, organizational charts, process manuals, strategies, routines, and anything that supports employees' productivity. Banks with strong structural capital can leverage their processes and systems to enhance efficiency (Bontis et al., 2000).
3. **Relational Capital:** Encompasses relationships with customers, suppliers, and partners. In the banking industry, maintaining strong customer relationships is vital for sustaining competitive advantage (Youndt et al., 2004).

Competitive Advantage in Banking

Competitive advantage in banking can be achieved through differentiation, cost leadership, and focusing on niche markets. Porter (1985) suggests that banks must develop unique strategies to outperform competitors. In Indonesia, banks that leverage technology and innovation often secure a competitive edge. Research by Barney (1991) and Dierickx and Cool (1989) highlights that resources and capabilities that are valuable, rare, inimitable, and non-substitutable (VRIN) are essential for sustaining competitive advantage. Offering unique products and services that meet specific customer needs. Indonesian banks that have introduced mobile banking and digital payment solutions have gained a significant market share (Porter, 1985). Achieving the lowest operational costs to offer competitive pricing. Banks focusing on operational efficiency and cost-cutting measures often achieve better financial performance (Porter, 1985). Targeting specific market segments with tailored services. Smaller banks in Indonesia often adopt this strategy to compete with larger banks (Porter, 1985).

Financial Performance in Banking

Financial performance is a key indicator of a bank's health and its ability to create value. Return on Assets (ROA) and Return on Equity (ROE) are commonly used metrics. Studies by Flamini et al. (2009) and Athanasoglou et al. (2008) suggest that factors such as asset quality, management efficiency, and market conditions significantly impact financial performance in the banking sector. Return on Assets (ROA) Measures how efficiently a bank uses its assets to generate profits. Higher ROA indicates better financial performance (Athanasoglou et al.,

2008). Return on Equity (ROE) Indicates the return generated on shareholders' equity. It reflects the bank's ability to generate profits from its equity base (Flamini et al., 2009).

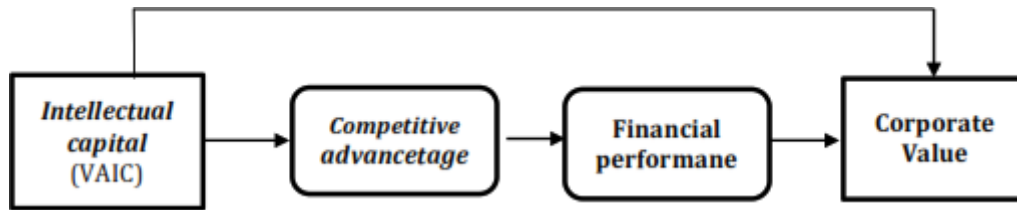
Company Value in Banking

Company value, often assessed through market-based measures such as Price-to-Book Value (PBV), is influenced by financial performance, intellectual capital, and competitive advantage. Higher PBV indicates that the market values the bank more than its book value, often due to strong future growth prospects (Penman, 1996). Price-to-Book Value (PBV): A ratio used to compare a company's market value to its book value. A higher PBV suggests that investors expect high future growth (Penman, 1996). Market Capitalization is the total market value of a bank's outstanding shares. It reflects the market's perception of the bank's future performance (Penman, 1996).

3. RESEARCH METHOD

This study adopts a quantitative research design to examine the relationships between intellectual capital, competitive advantage, financial performance, and company value among banking industries in Indonesia. The study utilizes secondary data obtained from the financial statements and annual reports of banks listed on the Indonesia Stock Exchange (IDX) from 2018 to 2023. Data will be collected from the financial statements, annual reports, and other relevant documents of the banks listed on the IDX. Additional data will be sourced from databases such as Bloomberg, Thomson Reuters, and the IDX website. The study covers a period of six years, from 2018 to 2023. The variables and measurement in this study are Intellectual Capital Measured using the Value Added Intellectual Coefficient (VAIC) method, which includes components such as human capital efficiency (HCE), structural capital efficiency (SCE), and capital employed efficiency (CEE). Competitive Advantage Assessed through indicators such as market share, differentiation, cost leadership, and innovation capabilities. Financial Performance Measured by Return on Assets (ROA), representing the efficiency of a bank in generating profit from its assets, and Company Value measured using Price-to-Book Value (PBV) and other relevant market valuation metrics. This study employs Generalized Structured Component Analysis (GSCA) to test the proposed hypotheses and model relationships. GSCA is a component-based approach that is suitable for complex models with multiple constructs and indicators. SmartPLS will be used for data analysis. SmartPLS is a software application for variance-based structural equation modeling (SEM) using partial least squares (PLS) path modeling. The population on this study are 47 banking listed on the IDX for the period of 2018-2024 with purposive sampling technique in the following criteria: banking companies listed on Indonesia Stock Exchange during 2018-2024, publishes financial statement, and has positive earnings in the period of 2018-2024 there 31 banking selected to be analyzed. The model will be analysed by path analysis using GSCA Models. There are 5 hypotheses on this study, H1: Intellectual capital has a positive effect on the company value of banks listed on the IDX, H2: Competitive advantage positively influences the company value of banks listed on the IDX, H3: Financial performance (ROA) positively affects the company value of banks listed on the IDX, H4: Competitive advantage mediates the relationship between intellectual capital and company value, and H5: Financial performance mediates the relationship between intellectual capital and company value. The conceptual framework can be seen on the following figure.

Framework of study



Then, the research model in this study are:

$$PBV = \alpha + \beta_1VAIC + \beta_2R\&D + \beta_3ROA + \varepsilon$$

PBV : Price book value

VAIC : Value added intellectual capital

R&D : Research and Development expenses

ROA : Return on assets

4. RESULT AND DISCUSSION

The test results on the study data showed that the company value variable had a minimum value of 0.3, a maximum value of 3, and an average of 0.995. Financial performance, measured by the Return on Assets (ROA) ratio, had a minimum value of 0.06 and a maximum value of 3.95. The average ROA was 1.51 with a standard deviation of 0.95. The Intellectual Capital variable, indicated by VAIC, had a minimum value of 2 and a maximum value of 5. The average VAIC was 3.86 with a standard deviation of 0.736. The mediation variables, measured by the log of R&D expenses, had a minimum value of 10. The maximum value of the log of R&D expenses was 270. The average log of R&D expenses was 64,78, with a standard deviation of 55.45.

Table 1
Descriptive Statistics

| | Minimum | Maximum | Average | Standard Deviation |
|-----|---------|---------|---------|--------------------|
| CV | 0,300 | 3,000 | 0,995 | 0,505 |
| FP | 0,001 | 0,040 | 0,015 | 0,009 |
| IC | 2,000 | 5,000 | 3,860 | 0,737 |
| R&D | 10,000 | 270,000 | 64,785 | 55,453 |

Based on the hypothesis testing, the intellectual capital influence the company value. The F-test value indicated significant results with the signification of 0.000 and F table 10.327 implying that regression model 1 was robust. The test results revealed that Intellectual Capital and competitive advantage did not impact company value. However, financial performance positively influenced company value. The results demonstrated that the effect of Intellectual Capital on company value was mediated by other variables. Similarly, competitive advantage also indirectly influenced company value. The regression equation test 1 indicated that the R² value was 0.34, meaning that 34% of the variation in company value could be explained by the variables of financial performance, Intellectual Capital, and competitive advantage and the rest is influenced by other variables.

The mediation test was conducted using path analysis. The test results confirmed the existence of a mediating effect on the relationship between Intellectual Capital and company value. This study considered competitive advantage and financial performance as mediating variables in this relationship. The results of the path analysis test results of this study demonstrated the mediating effect on the relationship between intellectual capital and company value. The direct effect of intellectual capital on company value was 0.065, while the indirect effect through financial performance was 0.554, indicating that financial performance mediated the relationship between intellectual capital and company value.

The study also hypothesized that competitive advantage mediates the relationship between intellectual capital and company value. Path analysis results showed that the direct effect of intellectual capital on company value was 0.776, and the indirect effect through competitive advantage was 0.0405. Therefore, competitive advantage was not proven to mediate the relationship between intellectual capital and company value. Additionally, the study hypothesized that financial performance mediates the relationship between competitive advantage and company value. Path analysis found that the direct effect of competitive advantage on company value was 0.154, which was lower than the indirect effect through financial performance at 0.302.

Overall, the study proved that intellectual capital impacts financial performance and company value. The study demonstrated that intellectual capital significantly impacts both financial performance and company value. It was observed that intellectual capital, which encompasses the knowledge, skills, and innovative capabilities of employees, plays a critical role in enhancing a company's financial health. The management and effective utilization of intellectual capital lead to improved financial metrics, such as Return on Assets (ROA), which in turn elevate the overall company value. Furthermore, the study highlighted that financial performance serves as a mediating variable in this relationship. This means that the positive effects of intellectual capital on company value are partly channeled through its enhancement of financial performance. Therefore, companies that invest in and effectively manage their intellectual capital are more likely to achieve superior financial results and, consequently, higher company value. This finding underscores the importance of intellectual capital as a strategic asset in the banking industry, where knowledge and expertise are key drivers of competitive advantage and long-term success.

Competitive advantage, meanwhile, can improve financial performance and boost company value in the banking sector. Competitive advantage plays a crucial role in enhancing financial performance and, consequently, boosting company value in the banking sector. When a bank develops a competitive advantage, it is able to differentiate itself from competitors through unique services, advanced technologies, superior customer service, or innovative financial products. These differentiating factors attract more customers, increase market share, and enable the bank to achieve higher profitability. Improved financial performance is reflected in key metrics such as increased revenues, higher Return on Assets (ROA), and greater overall profitability. The enhanced financial performance, driven by the bank's competitive advantage, directly contributes to an increase in company value. Investors and shareholders perceive banks with strong competitive advantages as more capable of sustaining long-term growth and profitability, leading to higher stock prices and market valuations.

Moreover, the study suggests that competitive advantage indirectly affects company value through its positive impact on financial performance. Banks that consistently leverage their competitive strengths to outperform competitors not only achieve immediate financial gains but

also build a solid foundation for long-term value creation. Therefore, in the banking sector, fostering and maintaining a competitive advantage is essential for achieving superior financial performance and enhancing overall company value.

The analysis revealed that publicly traded banking companies in Indonesia have successfully created added value, generating higher profits through effective utilization of capital employed. These banking companies leverage their employees' knowledge to create company wealth. By harnessing the expertise and knowledge of their employees, companies can develop optimal solutions that enhance company value. Indonesian banking companies utilize their intellectual capital to perform routine activities and establish strong structures that support employees' efforts to achieve optimal performance.

By tapping into the intellectual capital within the organization, these banks have managed to create innovative and efficient processes that drive profitability and growth. Employees' expertise and knowledge are pivotal in identifying opportunities, mitigating risks, and implementing best practices that lead to superior financial outcomes. The focus on intellectual capital allows banks to adapt to changing market conditions, meet customer demands more effectively, and stay ahead of competitors.

Furthermore, the strong organizational structures built around intellectual capital ensure that employees have the necessary resources and support to maximize their potential. These structures facilitate knowledge sharing, continuous learning, and collaboration, fostering an environment where innovative ideas can thrive. As a result, the overall performance of the banking companies improves, contributing to increased company value and shareholder confidence. The analysis highlights the importance of intellectual capital in driving the success of publicly traded banking companies in Indonesia. By effectively utilizing the knowledge and expertise of their employees and establishing robust support structures, these banks are able to create significant value, achieve higher profits, and enhance their overall company value.

This study builds on the foundational work of Firer and Williams (2003), Chen et al. (2005), Mavridis (2004), Kamath (2007), Ulum (2008), Mulyasari and Murwaningsari (2019), Ulum (2013), and Wijayanto, et al (2019) that is explored the relationship between intellectual capital and various aspects of corporate performance. These prior studies established that a company's intellectual capital—encompassing knowledge, expertise, and intangible asset plays a critical role in enhancing financial performance and increasing company value.

The present study extends this line of inquiry by investigating how intellectual capital affects company value through the mediating role of financial performance. The research findings align with previous literature, reaffirming that a greater stock of intellectual capital enhances a company's potential for generating value. Specifically, the study's path analysis test revealed that financial performance serves as a significant mediator in the relationship between intellectual capital and company value. In other words, the more intellectual capital a company possesses, the better its financial performance, which in turn positively impacts its overall value.

Furthermore, the study found that financial performance also mediates the relationship between competitive advantage and company value. This suggests that a firm's ability to leverage its competitive advantage translates into improved financial performance, which subsequently contributes to increased company value.

In summary, this research supports the concept that intellectual capital and competitive advantage are crucial drivers of financial performance, which, through a mediating effect, enhances the value of a company. These insights reinforce and expand upon the conclusions of previous studies, providing a comprehensive understanding of how intangible assets and strategic advantages contribute to corporate success.

5. CONCLUSION AND RECOMMENDATIONS

The findings of this study offer significant insights into the roles of intellectual capital, competitive advantage, and financial performance in determining company value, particularly within the Indonesian banking sector. The study confirms that intellectual capital has a substantial impact on financial performance, which in turn significantly influences company value. This mediation effect demonstrates that while intellectual capital alone does not directly affect company value, it enhances financial performance, which then drives up the company's overall value. Additionally, the study reveals that competitive advantage does not mediate the relationship between intellectual capital and company value directly but does have an indirect effect through financial performance. This implies that competitive advantage improves financial performance, which then contributes to an increase in company value.

The results show that the regression model was robust, with an F-test value of 0.000 significantly above the critical F table value of 10.327, and an R² value of 0.34 indicating that 34% of the variation in company value can be explained by the variables of financial performance, intellectual capital, and competitive advantage. The path analysis further illustrated that financial performance mediates the relationship between intellectual capital and company value, with an indirect effect of 0.554 compared to a direct effect of 0.065. Conversely, competitive advantage's mediating role was less pronounced, with an indirect effect of 0.0405 compared to a direct effect of 0.776 on company value. Overall, the study reinforces that intellectual capital and financial performance are key determinants of company value, while competitive advantage, although important, does not directly mediate this relationship as hypothesized.

This study underscores the importance for banks to strategically manage their intangible assets to sustain growth and competitiveness in the dynamic financial market of Indonesia. Thus the stakeholders must Enhancing Human Capital in order to Continuous investment in employee development programs to foster a knowledgeable and skilled workforce. Leveraging Structural Capital by Adopting of advanced technologies and efficient internal processes to improve operational efficiency. Strengthening Relational Capital in order to Build strong customer relationships and brand loyalty through exceptional service and innovative products. Monitoring Financial Metrics in the Regular analysis of financial performance indicators to ensure alignment with strategic goals and market expectations. By focusing on these areas, banks in Indonesia can enhance their intellectual capital, achieve competitive advantage, improve financial performance, and ultimately increase their company value.

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CHAPTER 8

The Concept of Islamic Management within Alawiyyin Non Governmental Organization (NGOs) in Preserving Diversity Values in Indonesia

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ABSTRACT

This study explores the concept of Islamic management within Alawiyyin non-profit organizations (NGOs) in preserving diversity values in Indonesia, utilizing qualitative methods such as surveys, observations, and participation. Rabithah Alawiyah, an Islamic organization focused on social and socio-religious activities, is primarily composed of Arab descendants directly linked to the Prophet Muhammad. The organization excels in maintaining and preserving the genealogical chain of the Prophet Muhammad SAW and upholds the duty and tradition of fostering akhlaq alkarimah (noble character) among its members and those they interact with. Their mission is to cultivate a generation that embodies nobility and virtue, a legacy passed down from their ancestors. This research, centered in Indonesia, aims to understand the organizational management and development strategies of Rabithah Alawiyah. Notably, this organization operates in Jakarta, an urban area where traditional values are increasingly challenged by the influence of Western and metropolitan cultures. The study employs descriptive qualitative research methods, including observation, interviews, and documentation, with data analysis based on triangulation theory. This approach allows for comprehensive exploration and analysis of management programs, structural planning, and organizational outcomes. Findings indicate that Rabithah Alawiyah effectively organizes and preserves the purity of the Prophet Muhammad's lineage while implementing key management functions such as planning, organizing, mobilizing, and supervising its missionary activities. These efforts ensure that the organization's goals are achieved more efficiently and effectively, as evidenced by the growing number of pilgrims and the enhanced understanding of religious and moral knowledge.

Keywords: Islamic Management, Organizational Management, Rabithah Alawiyah, Alawiyyin.

1. INTRODUCTION

This research will explain about “The Concept of Islamic Management in Alawiyin Government Organization (NGO) in Maintaining Diversity Values in Indonesia”. In this chapter, the research consists of Background of Study, Problem Statement, Research Objective, Research Question, Significant of Study, Scope of The Study, Definition of Key Term, and the last Summary.

2. LITERATURE REVIEW

Briefly review the pertinent literature.

- A. Organization : NGO, History of Ba'alawi
- B. Islamic Management at Rabithah Alawiyah use Thariqah Alawiyin.
- C. Maintaining Diversity Values in Management : is the Object

3. RESEARCH METHOD

The research methodology is knowledge that examines the provisions regarding the methods used in the study. David H. Penny in Narbuko and Achmadi mentioned that research is "systematic thinking about various types of problems whose solutions require the collection and interpretation of facts".(Ahmadi Abu, 1997). This chapter to be explained first is on the definition of the research methodology in Islamic perspective. which includes, a research process, research philosophy will explain the ontology, epistemology and al-fuad in Islamic perspective, and after that the data collection, observation data, interview questions, methods used for data analysis, contributions of the study, limitations of the study and future research, ethical considerations, and summary.

A research design determines the framework for the collection and analysis of data, with Easterby-Smith et al. (2012) states that it focuses on the organisation of research activity and data collection to achieve the research aim and objectives in the most effective manner. In addition, Bryman (2012) notes that the choice of research design reflects the priority accorded to various dimensions of the research process. Design forms a constant, standard arrangement of research methods and conditions, employing rationality, coherence and logic (i.e. “What kind of research design are you adopting?”) (Campbell and Stanley, 1967).

Research designs include: (1) qualitative interview and observation studies; (2) case studies; and (3) ethnographies. Maxwell (1998, p.214) noted that “a qualitative method lacks any such elaborate typology into which studies can be pigeonholed”. Moreover, typologies tend to be based on a limited number of research features, and thus little can be done to justify and clarify the actual interrelationship and functioning of the component aspects of a particular design (Maxwell, 1998). Further approaches and models present research design as a logical progression of different functions or stages, which formulate problems, issues and generation of conclusions or theories necessary to the planning and undertaking of research (Creswell, 1997; Marshall and Rossman, 1999).

In a qualitative study, it is important that “research design should be a reflexive process operating through every stage of a project” (Hammersley and Atkinson, 1995, p.24); i.e. there is a need for the simultaneous gathering and analysis of data, along with adjusting and developing theories and refocusing the research objectives and questions. Moreover, researchers are able to modify and review design decisions during the research process, taking into account any new developments. Qualitative research is a research that intends to understand the phenomenon of what is experienced by the research subject, for example, behavior, perception, motivation, actions, and others, as a whole and by way of description in the form of words and language, in a special natural context and by utilizing various scientific methods (Moleong, 2006: 6). Arguing that research requires a flexible and non-sequential approach.

4. RESULT AND DISCUSSION

NGO development is rapidly growth at Indonesia as time goes by and population increases in Indonesia, which can be predicted in 2030 Indonesia will experience a demographic bonus. Various problems occurred, in terms of the clash of thoughts on the economic plan even political friction occurred in Indonesia.

The Role of Alawiyin in Indonesia is very influential, many of which are NGO's that develop psychiatry such as Majelis, majlis ta'lim such as Zadul Muslim, Majelis Rasulullah, Nurul Mustofa, etc. which are led by Alawiyin. Each has a role in maintaining the values of togetherness for the creation of a harmonious Indonesia and accepting various differences. Alawiyin in Indonesia is gathered by Rabithah Alawiyah.

Rabithah Alawiyah As the first Indonesian NGO Alawiyin organization that carries the mission of spreading goodness, welfare of people's lives, especially among ba'alawi, NGO's seek that the state is obliged to protect the sovereignty of the Republic of Indonesia based on Pancasila and the 1945 Constitution of the Republic of Indonesia; which reads "that violations of the principles and objectives of social organizations based on Pancasila and the State Constitution of the Republic of Indonesia in 1945 are very despicable acts in the view of morality of the nations regardless of the ethnic, religious and national background of the perpetrators".

From this research thought the interviews conducted as well from the observation and information from the organisation, it can be summarized that The Concept of Islamic Management within Alawiyin Non Governmental Organization (NGOs) in preserving Diversity Values in Indonesia

4.1 Overview of Development of Islamic organizations in Indonesia

The overview of the dev are based during earlier stage of Indonesia independence situation and current situation.

A. Period of Independence Indonesia

Since before independence, Islam has become an important force in the struggle for Indonesian independence. Various kinds of religious organizations have emerged which aim to elevate the Indonesian people and expel invaders from the homeland. In the early 20th century, the development of Islam was marked by the emergence of anti-colonialism and religious renewal movements. The movements continued to develop, partly influenced by the influence of modern education models that threatened Islamic education. Uniquely, the initiators of the Islamic movement in Indonesia in the era before independence and post-independence came from two different educational models, pesantren (madrasa) and modern education (Dutch). They have the same awareness to strengthen Islamic identity and at the same time build a nation (Rickief, 1994: 189).

After Indonesia enjoyed independence, Islam continued to show its role in 'influencing the process of formation because the Republic of Indonesia was well manifested in political struggles and struggles in the social, educational and da'wah fields. The long term role in politics continues with the emergence of Islamic figures in the national political stage. This shows that in Islamic history in Indonesia politics can never be separated from Islam. KH

Wahab Hasbullah, an NU figure, once said that Islam and politics are always related and cannot be separated like the sweetness that cannot be separated from sugar, the political role of Muslims in Indonesia is as dynamic and evolving as possible. (Machmudi Yon, 2013).

B. Islam Today

The development of Islamic da'wah in the middle class which continues and has increased in the 1990s has increased the quality of Muslim resources and opened their opportunities to contribute to the nation through development in the fields of economy, education, culture, technology and politics (democracy). (Machmudi Yon, 2013).

4.2 General description of Rabithah Alawiyah management

A. Background to the History and Establishment of Rabithah Alawiyah

History From the name alone, you can describe this organization. Rabithah can be interpreted linguistically, connected, or related. Alawiyyin is a family of Alawi descendants namely Alawi (Alwi) bin Ubaidillah ibn Ahmad (Al-Muhajir) ibn Isa bin Muhammad ibn Ali Al-Uraidhi bin Ja'far bin Muhammad Al-Baqir ibn Ali Zainal Abidin bin Husayn ibn Ali in Abi and Fatima ra bint Rasulullah SAW. Alawiyyin is not only devoted to the descendants of the Prophet directly but also includes followers of the Alawiyyin order (supporters of Ali bin Abi Talib). So in a nutshell, this Rabithah Alawiyah organization is an organization that brings together Alawiyyin in Indonesia. Rabithah's formation was inseparable from the struggle of social-political ideology in the colonial period in the Dutch East Indies (Indonesia now). Among the Arabs who migrated to the Indies, there was a classification between the descendants of the prophet Muhammad (Sayid) and those who were not descendants of the prophet Muhammad. This difference then made the Arabs in the Indies form their own container and Rabithah was an organization of the Sayid group. The Rabithah Alawiyah organization was officially formed on December 27, 1928 (1346 AH).

B. The Foundation of the Nature and Purpose of the Rabithah Alawiyah Organization

Like other Islamic organizations, Rabithah Alawiyah also has a foundation that underlies their movements and programs. There are five basic foundations of Rabithah Alawiyah, namely: the Qur'an, the Sunnah of the Prophet Muhammad, AD & ART, advice from Alawiyyin figures, and other provisions related to Rabithah Alawiyah. In addition to the basic foundation, Rabithah Alawiyah also has an input side and an output side. Some of these inputs include: human resources (this is the core), then input funds such as zakat, infaq,

permanent donors, donations, grants, endowments, iqbaal, and others. While the results of these inputs, namely output (which is expected) are: making Rabithah Alawiyah as a vehicle for mobilizing and unifying Alawiyyin in Indonesia to foster ukhuwah Islamiyah, increasing awareness and participation of Alawiyyin in social life, and improving the welfare of Muslims in Indonesia including Alawiyyin In addition to the basic foundation, Rabithah Alawiyah also has the vision, mission and purpose of their movement.

C. Vision of the Rabithah Alawiyah Organization Mission

Rabithah Alawiyah's vision is to become a vehicle for the mobilization and unification of Alawiyyin in Indonesia in order to improve the welfare of the wider community, birth and spirit, according to Islamic teachings based on the Qur'an and the Sunnah of the Prophet SAW. Those who are based on Islam Ahlus Sunnah wal Jamaah beraqidah Ash-'ariyyah. The mission of Rabithah alawiyah is to uphold, continue and disseminate the message of the Prophet Muhammad, fostering Ukhuwah Islamiyah, increasing awareness and participation of Alawiyyin in community life, creating cadres and exemplary leaders who are virtuous, encouraging kindness and preventing munkar. (rabithahalawiyah.org)

D. Forms of Rabithah Alawiyah Organizational Structure

Consists of the board:

| Field | Name |
|-------------------------------|-----------------------|
| Chairman | Zen Umar bin Smith |
| Deputy General Chairperson I | Muchsin Idrus Alhamid |
| Deputy General Chairperson II | Ahmad Fahmi Assegaf |
| General Secretary | Kadzim Salim Alhiyed |

| | |
|---|----------------------------|
| Deputy General Secretary | Muhammad Ghazi Alaidrus |
| General Treasurer | Ahmad Riyad Alhiyed |
| Deputy General Treasurer | Mustafa Mauladawilah |
| Chairperson of Business / Youth | Ahmad Umar Mulachelah |
| Chairperson of Da'wah Division | Ust. Ali Hasan Albahar |
| Chair of Education | DR. Muhammad Idrus Alhamid |
| Chairperson of Welfare & Social Affairs | Ismet Abdullah Alhabsyi |
| Chairperson of the Organization | Anas Yahya Mulachelah |
| Chairperson of the Maktab Daimi | Ust. Ahmad Muhammad Alatas |

***Organisation Rabithah Alawiyah structure 2017-2021**

Advisory Board:

| | |
|---|--|
| Hb. Abdurrahman bin Syech Alatas (Chairperson of the Advisory Board). | <ul style="list-style-type: none">• Hb. M. Rizieq Shahab• Hb. DR. Salim Segaf Aljufri, MA.• Hb. DR. Fadhil Muhammad Alhaddar• Hb. Ali bin Abdurahman Assegaf• Hb. Muhamad Assegaf, SH.• Hb. Abdulkadir Abdullah Assegaf |
|---|--|

*Dewan Sura dan Dewan Mustasyar Rabithah Alawiyah 2017-2021

E. History of Habaib Education in Rabithah Alawiyah Organization

In general the Rabithah Alawiyah organization has many figures represented by the habaib who spread throughout Indonesia. They usually become members of rabithah and have pengajian with a relatively large mass. The tendency of Indonesian Muslims who are religious in Syafii opens space for the development of habib figures in the regions. Some of the well-known habib are Habib Munzir Al-Musawwa (Jakarta), Habib Luthf (Pekalongan), Habib Syekh As-Segaf (Solo) and many habib-habib who have zikr and ratib assemblies. Some of the administrators were people who were known to Habib Zen bin Umar Sumait as Chairperson of Rabithah Alawiyah and Tanfidziyah NU, Professor of IPB Prof. Dr. Husen al Attas as General Secretary at Rabithah Alawiyah, Invitation Lecturer IIUM Dr. Alwi Al Attas as administrator, Jakarta Polytechnic Director Associet Prof Dr. Abdillah Alwi Al Haddad, Chancellor of the University of Indonesia Prof. Dr. Muhammad Anis Syahab, Chancellor of Sriwijaya University Prof. Dr. Muhammad Anis Assegaf, Dr. Salim as Al Jufri advisor and former minister of social Republic of Indonesia, Fadhel Muhammad said adviser Rabithah alawiyah, former maritime minister and former Gorontalo governor.

4.3 DIVERSITY VALUE

In maintaining the diversity of Islamic values, Tariqah Alawiyah is very influential to increase and maintain the stability of diversity values such as opinion in organization its self (Habib Lutfi bin Yahya). This part is maintaining in the values of togetherness for the creation of a harmonious Indonesia and accepting various differences. Alawiyyin in Indonesia is gathered by Rabithah Alawiyah (Habib Abdillah).

TARIQAH ALAWIYAH

The five pillar is called the whole Tariqah Alawiyyah:

- **Knowledge**

Knowledge is meant here is a science that can bring a human self to God Almighty. Knowing the knowledge of a human being can sort out good and bad, halal and haram in this case Allah SWT. said:

"Say," Are there those who know with those who know not? Verily, those who have a deed receive lessons. "(Surah Az-Zumar: 9).

- **Charity**

The quotation of the sentence is written in the book of thariqah alawiyyah which explains the meaning of charity, namely "The meaning of practicing science is to practice from it that he is able to practice it, and learn from it that he is able to learn it, and teach from it that it is possible for him to teach it.

- **Wara (guarding of the faint)**

According to al-Imam Idrus bin Umar al-Habsyi, said "The third is wara ', which is the act of guarding against all ugliness and twistedness syar'i, or a harmful (doubt) how to stop at the boundaries of science without the need for more convictions.

- **Khuf min Allah (fear of Allah)**

One sentence that contains the meaning of fear reads "Fear is a requirement to get a useful science If there is science without fear, then the owner of science is not among people who have useful knowledge Idrus bin Umar al-Habsy

- **Ikhlas**

One quote in the book of thariqah alawiyyah concerning sincerity, it says "Ikhlas is making the true God the only one directed in obedience and purpose, that is wanting closeness to Allah Almighty in obedience, not others."

5. CONCLUSION AND RECOMMENDATIONS

Rabithah Alawiyah can be released from the values of the Tariqah Alawiyah because Rabithah Alawiyah is an implementation of the Tariqah alawiyah. Rabithah Alawiyah is in charge of accommodating Alawiyyin in planning, socializing, maintaining, preserving, and supervising all aspects in the development of the values of Tariqah alawiyah.

After conducting in-depth research on the management of Rabithah Alawiyah organization, it can be concluded that the management of Rabithah Alawiyah organization is good enough, as

evidenced by the four elements of management within the organization, namely Planning, Organizing, Mobilizing and Supervision based on the Thariqah Alawiyah which is very influential organizational system and individual each member.

Planning in the Rabithah Alawiyah Organization is good enough and achieves effective efficiency. It is shown that there is a purpose conveyed to the subject of da'wah well by using planning time, budget, filtration, and use of 5W 1H before the commencement of activities.

Organizing within the Alawiyah Rabithah Organization is also good because the conditions in organizing are fulfilled by the coordination and communication between members, leaders, and worshipers so that every program and activity will be carried out. acceptable and get good feedback.

Mobilizing in Rabithah Alawiyah organization uses a personal motivation based on religion, that is to get Blessings from elders and get the blessing of Allah SWT, with internal motivation being fed every external internal component.

Organizations can be held accountable by themselves because it is God who gives everything to God. The oversight process in the Rabithah Alawiyah organization is reviewed from every activity and is jointly evaluated by members and leaders, input and direction are always promoted for joint development of the organization. And every *RAUHAH* is held in weekly, monthly and yearly. *Rauhah* is Islamic method to sharing or discussion about knowledge development regarding organization of rabithah alawiyah.

5.1 Recommendations of the Study

1. For academics, it is expected to be able to add to the treasures of management science, especially those relating to management in the Rabithah Alawiyah organization.
2. For institutions, it is expected to conduct research that can improve the organizational management process within it.
3. The need for a maturation program and improvement in the quality of human resources in the managerial field within the institution so that the objectives set by the institution can be effective and efficient.

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CHAPTER 9

Exploring The Influence of Digital Marketing Strategy on Increasing Brand Image and its Impact on Purchase Intention at Depok's Beauty Salon Industry

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ABSTRACT

With the rapid development of technology, companies, especially in the marketing sector, must adapt to these changes to remain competitive. Utilizing digital marketing has become essential for businesses to offer products or services easily and with high quality, creating significant opportunities for consumers. However, this has also led to increased competition, particularly in service industries. This study focuses on beauty salons and aims to analyze the influence of digital marketing strategies on brand image and purchase intention at Beauty Salon Depok.

The research examines how digital marketing tactics, including social media advertising, search engine optimization, and email marketing, shape consumers' perceptions and drive their purchasing decisions. The population for this study comprises beauty salon consumers in Depok, with a sample size of 100 respondents selected using accidental sampling. Data were collected through surveys distributed to the respondents.

The analysis method used is Partial Least Square (PLS), a statistical technique that allows the modeling of complex relationships between observed and latent variables. The results indicate that digital marketing strategies positively impact brand image, enhancing the perceived value and attractiveness of the beauty salon. Furthermore, these strategies significantly increase purchase intention among beauty salon consumers in Depok, suggesting that effective digital marketing can lead to higher consumer engagement and sales.

The findings of this study highlight the critical role of digital marketing in the service industry and provide valuable insights for beauty salon managers looking to enhance their marketing efforts. By leveraging digital platforms, beauty salons can improve their brand image and attract more customers, ultimately boosting their competitive edge in the market.

Keywords: digital marketing, brand image, purchase intention, beauty salon, Depok, service industry

1. INTRODUCTION

Business competition in this digital era is very tight, where companies are required to be able to meet consumer needs and provide quality products or services that are superior to competitors (Pada et al., 2022). For service companies, in this case beauty salons, appearance is one of the human needs that must be met (Sagita et al., 2020). This has an impact on the development of the beauty industry, namely beauty salons. The beauty industry is also at the forefront of employment, especially MSMEs. There are more than 100,000 salons in Indonesia, of which 75% are MSMEs. The beauty salon is part of the creative industry which will later support other industries such as the beauty industry, fashion, performing arts and others which have a positive contribution to the Indonesia's economy. Consumers use beauty salons as a place to relax their bodies and minds with body treatments.

With the great existence of the beauty salon business, especially in areas that have quite high levels of modernization such as Depok City, this industry will have a positive impact on consumers because there will be more choices of places to get beauty treatments (Mukarromah & Suyono, 2021). However, for companies, the presence of a lot of competition can pose a threat. Companies must be able to manage their business in order to survive in this competition. Companies can develop marketing strategies effectively and efficiently (Wahdi, 2021). Since the pandemic, MSMEs in Indonesia have begun to transform into digitalization. Based on data of MSME Empowerment Report 2022, the survey shows that 99.1% of MSMEs succeeded in increasing their business productivity, while 0.1% of MSMEs failed to increase productivity. Even though digitalization brings benefits to MSMEs, MSMEs still experience several obstacles in developing their businesses. One of them is that as many as 70% of MSMEs have difficulty marketing their products (MSME Empowerment Report, 2022). Currently, MSME players are more focused on the production process, so they experience problems in the marketing process due to a lack of balance with marketing activities.

One of the challenges faced by MSMEs in product marketing is building a strong brand image so they can compete with competitors. If the brand is not well-known, MSMEs will have difficulty attracting and retaining customers because their products are inferior to more well-known brands (Fauzan et al., 2023). Having a strong marketing strategy can help MSMEs to improve brand image, target potential targets, grow customer loyalty and ultimately increase sales (Abir et al., 2020).

There are various factors that reflect consumer buying interest in a product or service, including the marketing strategy. Companies can take advantage of digital-based marketing. Digital marketing is one of the marketing strategies in the current digital era that can enhance demand

by business people to support their marketing activities (Ridwan et al., 2019). The existence of digital marketing is a great opportunity for business people to facilitate sales promotions so that companies can compete. Digital marketing strategies are important for companies to build a brand image. Where currently almost the entire population in Indonesia uses social media for their activities (Mulyani & Hermina, 2023). Purchase intention is a particularly important issue for companies due to that has big impact on sales. Buying interest requires creativity from company management in communicating its products or services.

Based on this background, the problem formulation in this research includes:

1. How does digital marketing strategy influence the brand image of Depok beauty salons?
2. How does brand image influence purchasing interest at Depok beauty salons?
3. How does digital marketing strategy influence purchasing interest through brand image in Depok beauty salons?

2. LITERATURE REVIEW

Purchase Intention

Purchase intention refers to consumer's desire to make a purchase which represents the will of a potential customer in making a product purchase (Novianti & Saputra, 2023). Purchase intention can be measured with several indicators including: 1). Transactional Interest, 2). Referential Interest, 3). Exploratory Interest (Widjaja & Firdausy, 2023). Purchase intention can change a person's attitude to become interested in doing something to own a product and make a purchase transaction. Moreover, purchase intention is a feeling of wanting to buy a product or service which is affected by internal and external factors. If consumers increasingly believe in a product, this will give rise to greater consumer purchase intention, while if consumers increasingly distrust a product, that will make consumers' purchase intention weaken (Santoso et al., 2023).

Digital Marketing

Digital marketing is included in the promotional strategies implemented by many business people (Sudari & Pambreni, 2024) . The strategy is operating of internet networks and technology to build two-way interactions between companies and consumers since this strategy makes it easier for business entities to promote the products in order to increase reach and engage the consumers easily. Digital marketing can also create virtual private interactions with consumers and share a lot of information related to products and companies. Saputra et al., (2020) states that there are indicators to measure digital marketing, including Website, Search

Engine Marketing, Social Media Marketing. The aim of digital marketing is to be able to promote, want to build preferences and increase sales with digital marketing techniques (Zuhdi et al., 2021).

Brand Image

Brand image is a consumer's perception of a brand which is reflected and measured from brand associations that have been stored in the consumer's mind, and if the perception of a brand has a positive value then it is more likely for consumers to make purchases (Abir et al., 2020). According to Santoso et al., (2023) states that the indicators that can be used to measure brand image are Company Image, Product or Consumer Image, User Image. Brand image will be formed if information reaches the wider community. Marketing communications plays a big role in forming the image of a particular product brand. Brand image is a certain characteristic regarding the depiction of trust in a product brand so that it can be the reason and cause of purchase intention of consumers and potential consumers.

3. RESEARCH METHOD

This research uses a quantitative approach using primary data as a research instrument where data is obtained from questionnaires distributed and filled out by consumers of beauty salons in Depok. The population in this study is all consumers of beauty salons in Depok. The sampling design uses an accidental sample. The sample size is 100 consumers. Furthermore, this research uses digital marketing strategy as an independent variable, brand image as a mediating variable, and purchase interest as a dependent variable. The research instrument used a questionnaire with a 1-5 Likert scale measurement. Data testing takes the form of description analysis, classical assumption testing, hypothesis testing and path analysis. Data analysis and hypothesis testing used the SEM-PLS method using SmartPLS3.0 software. Testing with PLS is applied to obtain processing results that are able to achieve research objectives with the following steps: 1. Drawing a path diagram 2. Analysis of the outer model 3. Analysis of the inner model 4. Hypothesis testing. Then here is the conceptual framework of this research:

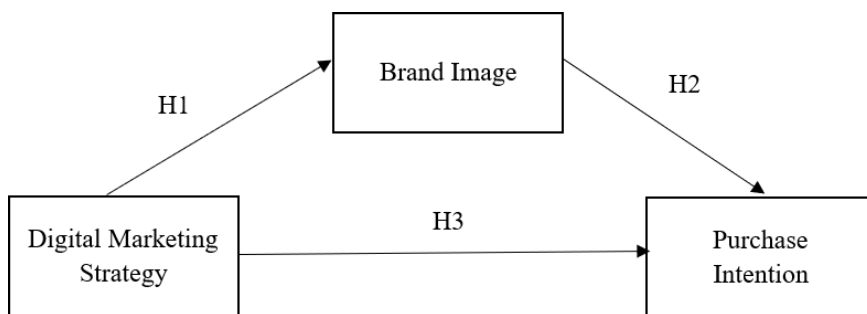


Figure 1. Conceptual Framework

Source: developed in this research, 2024

Based on figure above, there are hypotheses development in this research as follows:

H1 : Digital marketing strategy has influence on Brand Image at Depok’s Beauty Salon Industry

H2 : Brand Image has influence on purchase intention at Depok’s Beauty Salon Industry

H3 : Digital marketing strategy has influence on purchase intention through brand image at Depok’s Beauty Salon Industry

4. RESULT AND DISCUSSION

Finding

Outer Model

In this research, data is processed by using Smart PLS. The data need to have validity and reliability test. Outer model testing is done to measure the validity and reliability on this research. According to Ghozali (2008) another test to see Average Variance Extracted (AVE) value of each construct worths 0.50. AVE Table describes that all variables in the estimated model meet the criteria of discriminant validity

Table 1. Value of AVE (Average Variance Extracted) Square Root

| | AVE |
|----|--------------|
| DM | 0.745 |
| BI | 0.634 |
| PI | 0.677 |

Source: primary data processed, 2024

In additional, in testing reliability of the instrument. This research uses Cronbachs alpha value. The result shows that all variables have exceeded 0.50 so that all variables have good reliability and are qualified.

Table 2. Cronbach's Alpha

| | Cronbach's Alpha |
|----|------------------|
| DM | 0.931 |
| BI | 0.887 |
| PI | 0.904 |

Source: primary data processed, 2024

Structural Model Testing (Inner Model)

Table 3. Adjusted R Square

| | Adjusted R Square |
|----|-------------------|
| BI | 0.156 |
| PI | 0.899 |

The table above shows that digital marketing has a contribution to brand image of 15.6% and the rest is influenced by other variables outside the research model. Furthermore, digital marketing and brand image contribute to purchase intention by 89.9% and the rest is influenced by other variables outside the research model.

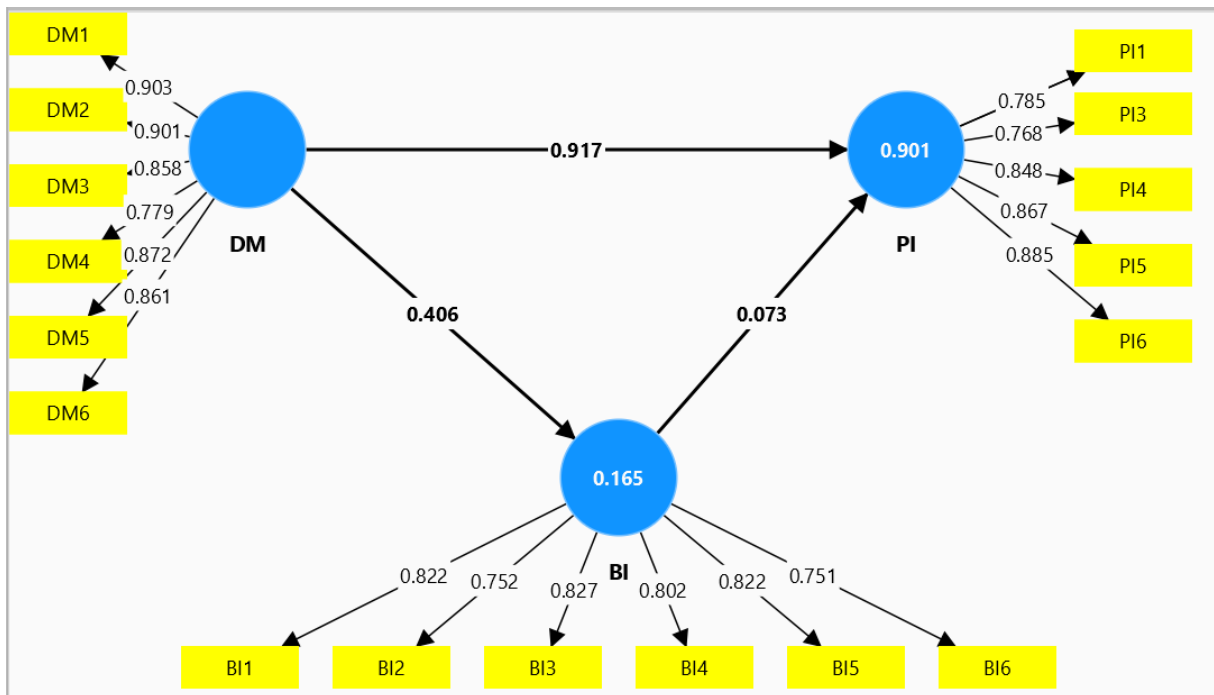


Figure 1. Path Diagram of Model Fit PLS Output

Table 4. Path Coefficients (Mean, STDEV, T-Values)

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STERR) | P Values | Result |
|----------------|------------------------------------|----------------------------|---|-------------------------------------|---------------------|--------------------|
| DM -> BI | 0.406 | 0.420 | 0.061 | 6.627 | 0.033 | H1 accepted |
| BI -> PI | 0.073 | 0.072 | 0.034 | 2.136 | 0.000 | H2 accepted |
| DM -> BI -> PI | 0.030 | 0.030 | 0.015 | 2.016 | 0.044 | H3 accepted |

Based on the table above, the result showed as follows:

1. The influence of digital marketing strategy on brand image has p value of 0.033 (< 0.05), which means that H1 is accepted, then there is an influence of digital marketing on brand image.
2. The influence of brand image on purchase intention has p value of 0.000 (< 0.05), which means that H2 is accepted, then there is an influence of brand image on purchase intention.
3. The indirect influence of digital marketing strategy on purchase intention through brand image has p value of 0.044 (< 0.05), which means that H3 is accepted, then there is an influence of digital marketing on purchase intention through brand image.

DISCUSSION

Based on the results of the data processing above, digital marketing strategy has an influence on brand image where the results of the hypothesis test show that p value ($0.033 < 0.05$). The results of this research are in line with research conducted by Chatchawanchanajakij and Arpornpisal (2024) which states that digital marketing influences the brand image of processed agricultural products in Thailand. This research also has results that are in line with research by Mulyani & Hermina, (2023) which revealed that digital marketing has an influence on purchasing decisions. Referring to the research results, the beauty salon industry in Depok should also remain focused on its marketing activities, especially in the utilize of technology. By implementing digital marketing, companies can increase a positive brand image from consumers. The company actively carries out marketing through social media and websites, then registers the company's website for Search Engine Marketing (SEM). This will make it easier for consumers to find the beauty salon that consumers want. Moreover, effective digital marketing strategies, such as the use of social media, interesting marketing content, and consistent interaction with customers, have a significant positive influence on improving the

brand image of beauty salons in Depok. This shows that a strong digital presence can increase customers' positive perceptions of the brand.

The results of this research show that brand image has an influence on purchase intention which has a p value $(0.000) < 0.05$ so the hypothesis is accepted. These results are supported by previous research including research from (Tarigan et al., 2023), (Afandi et al., 2024), (Santoso et al., 2023), (Widjaja & Firdausy, 2023), (Mulyani & Hermina, 2023), (Zulfikar et al., 2022) which shows that brand image has a significant influence on purchase intention. In connection with these results, the beauty salon industry in Depok can improve its brand image so that there is an increase in consumer purchase intention. Companies can improve their company image by utilizing technology to show the image of a modern and up-to-date beauty salon. Furthermore, the company can improve the quality of its services so that the image obtained from consumers is positive. A positive image will direct consumers who have never been to a salon to be interested in trying treatment at the salon and customers tend to be more interested in purchasing products or services from beauty salons that have a positive and trustworthy brand image.

Furthermore, the results of indirect hypothesis testing show that digital marketing has an influence on purchase intention through brand image. These results are in line with research conducted by Mulyani & Hermina, (2023) so that beauty salons in Depok need to be more active in marketing products via digital platforms in order to provide a good brand image to consumers. This will certainly increase consumer purchase intention to use the services at the salon.

5. CONCLUSION AND RECOMMENDATIONS

The finding is digital marketing has an influence on brand image, brand image has an influence on purchase intention. Furthermore, digital marketing has an influence on purchase intention through brand image in the beauty salon industry in Depok. The research has limitations including lack of time and access in distributing questionnaires. And the variables studied are still limited. It is hoped that this research will be useful both theoretically and practically. Theoretically, this research is expected to provide insight and literature for researchers. Practically, it is hoped that this research can help the service industry, especially beauty salons, to improve their marketing performance. Based on the results of this research, beauty salons in Depok should be more active in conducting digital marketing, enhance brand image, and purchase intention so that companies can compete with their competitors.

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CHAPTER 10

Human Resource Development on MSME Performance in Cilodong, Depok through Competitive Advantage mediation to support Sustainability Development Goals

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ABSTRACT

In the current era of development of science, technology, economics and globalization, competition between businesses is very tight. As a country that has many MSMEs, Indonesia needs to increase its competitive advantage and MSME performance in various ways. one of them is by implementing human resource development which is expected to be able to increase the competitive advantage and performance of MSMEs, which is also an effort to support the SDG program. This research aims to analyze the influence of human resource development on the performance of MSMEs in Cilodong, Depok with competitive advantage as mediation. The population in this study were MSMEs in Cilodong District, Depok City, and the sample taken was 100 MSMEs. The sampling technique used is non-probability sampling with accidental sampling. The research instrument used was a questionnaire with a likert scale 1-5. The method used is path analysis using Partial Least Square (PLS). The results of this research show that human resource development has a positive effect on the competitive advantage and performance of MSMEs in Cilodong, Depok.

Keywords: Human_Resource_Development; Competitive_Advantage; Performance

1. INTRODUCTION

Human Resource Development has a crucial role in improving the performance of Micro, Small and Medium Enterprises (MSMEs) (Marlapa et al., 2023), especially in Cilodong, Depok as Depok is one of the metropolitan buffer cities. MSMEs in this area face significant challenges in facing global competition and achieving the Sustainable Development Goals (SDGs). In particular, human resource development can play a role in increasing the competitive advantage (Jatmika et al., 2021). According to data from the Ministry of Cooperatives and SMEs, the number of MSMEs in Cilodong, Depok, has continued to grow in recent years, reaching more than 5,000 units in 2023. Although this growth is encouraging, MSMEs are still faced with challenges in terms of market access, skilled human resources, and the ability to adapt to rapidly developing technology (Naradda gamage et al., 2020; Indrawati., 2020; Mukherjee., 2018).

Previous research shows that effective human resource development can increase productivity and innovation in MSMEs (Misra et al., 2021; Putra & Hartono, 2020). In addition, competitive advantage mediation has been proven to be an important factor in linking HR development efforts with better performance outcomes in the MSME context (Rahman et al., 2022; Sánchez et al., 2023). In the current global context, supporting the SDGs has become the main focus of many organizations and governments. Sustainable and SDGs-oriented human resource development can help MSMEs in Cilodong to achieve the desired economic, social and environmental sustainability. By considering this context, this research aims to investigate how human resource development influences the performance of MSMEs in Cilodong, Depok, through the mediation of competitive advantage, with a focus on supporting the achievement of the SDGs.

2. LITERATURE REVIEW

Human Resource Development

Development is an effort to improve employees' technical, theoretical, conceptual and moral abilities in accordance with job/position requirements through education and training (Hasibuan, 2007). In a broader sense, human resource development seeks to develop knowledge, experience, skills, productivity and employee satisfaction, with the indicators training and development, career development, and organization development (Werner and DeSimone, 2011)

Competitive Advantage

Competitive advantage is a group of factors that differentiating small business of competitors and giving unique position and advantage for small business in the market (Scarborough.,

2012). Competitive advantage can be defined as the aggregation of various items which differentiates SMEs from their competitors and provides a unique and superior position in the market with the dimensions innovation, differentiation, and low-cost leadership (Afsharhasemi et al., 2013).

MSME Performance

Micro, Small and Medium Enterprises Performance is the performance of MSMEs is the achievement of work results from the tasks that have been carried out by employees according to the responsibilities and tasks they have received and this performance must meet the results in quantity and quality so that the results achieved can be of great benefit to their business (Deviana, 2020). According to Cahyaningtyas (2015) indicators of MSME performance consist of sales value, sales growth, and market portion.

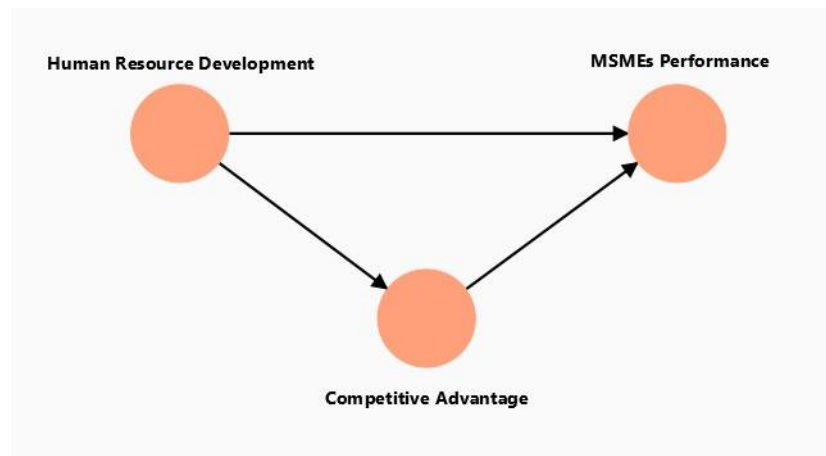
Several previous studies have stated that human resource development has a positive influence on competitive advantage. Effective human resource development can increase productivity, innovation and organizational adaptability, which in turn supports the achievement of long-term competitive advantage (Guest., 2017). Good HR development practices, such as employee development and organizational learning, positively influence organizational innovation and the ability to achieve competitive advantage (Jiang et al., 2019). In addition, HR development that focuses on developing employee competencies and capabilities can help organizations achieve sustainable competitive advantage (Aslam et al., 2021). Human resource development that is integrated with organizational strategy can be an important resource in achieving and maintaining competitive advantage in a competitive market (Paré et al., 2022).

Several studies highlight how competitive advantage influences MSMEs performance. Where sustainable competitive advantage can improve the long-term performance of MSMEs, by enabling them to maintain market share and competitiveness in competitive markets (Barney., 2019) and can experience significant growth in their market share (Chukwunonso et al., 2021) and ready to face the market and competition (Al-Mubarak et al., 2019). Competitive advantage has a positive influence on MSMEs performance both overall (Udriyah., 2019) and specifically for MSMEs marketing performance (Udriyah., 2023).

In relation to the influence of human resource development on MSMEs performance, both directly and mediated by competitive advantage, several studies state that human resource development in the form of employee training and development contributes significantly to improving MSMEs performance, with competitive advantage acting as a mediator in this relationship (Almaçık,., et al, 2019; Saridakis et al., 2020) especially in developing employee digital competencies in the digital era (Adomako et al., 2021).

Based on the literature study and previous research above, the research framework in this research is as shown in the image below:

Figure 1. Research Framework



Source: SMART PLS, 2024

Based on the research framework above, the research hypothesis can be written as follows:

H1: Human Resource Management has a positive and significant effect on the competitive advantage of MSMEs in Cilandong, Depok.

H2: Competitive Advantage has a positive and significant effect on the performance of MSMEs in Cilandong, Depok.

H3: Human Resource Management has a positive and significant effect on the performance of MSMEs in Cilandong, Depok.

H4: Human Resource Management indirectly has a positive and significant effect on the performance of MSMEs in Cilandong, Depok, mediated by competitive advantage.

3. RESEARCH METHOD

This research uses a deductive approach. The data used in this research is primary and quantitative data, which will be obtained from a questionnaire that will be distributed to MSMEs in Cilandong District, Depok City as the population. This research consists of the exogenous (independent) variable human resource development, the intervening (mediation) variable competitive advantage, and the endogenous (dependent) variable MSME performance. The sampling design used is non-probability sampling using convenience sampling. The number of samples was calculated and determined using the Slovin formula, where with a sample error rate of 10%, the respondents in this study were 100 MSMEs in Cilandong District, Depok City.

The research instrument used in this research is a questionnaire with a Likert scale with a range of 1 – 5. Testing the research instrument or feasibility test of the questionnaire is carried out using validity and reliability tests which will show that this research questionnaire is valid or suitable for use. Data Analysis Method in this research was analyzed using path analysis with covariance-based components known as Partial Least Square (PLS) (Ghozali, 2012).

4. RESULT AND DISCUSSION

Validity Test

The results of the convergent validity test by looking at the outer loading value for each question item for each construct of this research variable can be seen as follows:

Table 1. Convergent Validity Test Results of Variables

| Variable | Question Items | Loading Factor | AVE |
|----------------------------|----------------|----------------|-------|
| Human Resource Development | HR1 | 0.903 | 0.743 |
| | HR2 | 0.902 | |
| | HR3 | 0.858 | |
| | HR4 | 0.770 | |
| | HR5 | 0.870 | |
| | HR6 | 0.861 | |
| Competitive Advantage | CA1 | 0.817 | 0.641 |
| | CA2 | 0.743 | |
| | CA3 | 0.834 | |
| | CA4 | 0.811 | |
| | CA5 | 0.829 | |
| | CA6 | 0.767 | |
| MSMEs Performance | MP1 | 0.780 | 0.685 |
| | MP2 | 0.809 | |
| | MP3 | 0.757 | |
| | MP4 | 0.837 | |
| | MP5 | 0.883 | |
| | MP6 | 0.890 | |

Source: Processed data, 2024

The convergent validity test is valid using standard factor loading values greater than 0.70. In addition, the communality value must be greater than 0.50 and the Average Variance Extracted

(AVE) value must be above 0.50 (Ghozali, 2012). Judging from the results of the validity test above, with the outer loading factor values all being more than 0.7 and the AVE values for all variables being more than 0.5, it can be concluded that all the variables in this study are valid.

Reliability Test

The criteria for a reliability test with a reliability indicator are seen from the Cronbach's Alpha value which must be more than 0.7, which is the amount of variance of the indicator or item to explain the latent construct (Ghozali & Latan, 2014). Reliability testing is also carried out using internal consistency reliability criteria which can be seen from composite reliability. The results of the reliability test are as follows:

Table 2. Reliability Test Results

| Variable | Cronbach's Alpha | Composite Reliability | Result |
|----------------------------|------------------|-----------------------|----------|
| Human Resource Development | 0.930 | 0.915 | Reliable |
| Competitive Advantage | 0.890 | 0.935 | Reliable |
| MSMEs Performance | 0.907 | 0.914 | Reliable |

Source: Processed data, 2024

Based on the reliability testing data in the table above, it can be seen that the Cronbach's Alpha and Composite Reliability values of all variables are more than 0.7, so it can be concluded that all variables in this study are valid.

Structural Model Testing (Inner Model)

Determination Coefficient Test

The results of the determination coefficient test can be seen as follows.

Table 3. Determination Coefficient Test Results

| Structure | R-Square | R-Square Adjusted |
|-----------------------|----------|-------------------|
| Competitive Advantage | 0.148 | 0.140 |
| MSMEs Performance | 0.899 | 0.897 |

Source: Processed data, 2024

Based on the data in the table above, seen from the determination coefficient test results, the results show that Human resource development influences competitive advantage by 14.1%. Furthermore, Human resource development and competitive advantage influence MSMEs Performance by 89.7%.

Hypothesis test

The results of hypothesis test with bootstrapping from PLS analysis can be seen as follows:

Table 4. Hypothesis Test Results

| Influence | Path Coefficient | T Statistics | P Values |
|--|------------------|--------------|----------|
| Direct | | | |
| Human Resource Development □ Competitive Advantage | 0.385 | 6.175 | 0.000 |
| Competitive Advantage □ MSMEs Performance | 0.059 | 1.790 | 0.037 |
| Human Resource Development □ MSMEs Performance | 0.924 | 52.612 | 0.000 |
| Indirect | | | |
| Human Resource Development □ Competitive Advantage □ MSMEs Performance | 0.023 | 1.661 | 0.048 |

Source: Processed data, 2024

From the table above, the results of hypothesis test can be seen as follows:

1. Human Resource Development to Competitive Advantage

The coefficient value obtained was 0.385 with t-statistics of 6.175 and P value of 0.000. These results show that the t statistic is greater than the t table (1.660) or the P value is smaller than 0.05. Thus, it can be interpreted that human resource development has a significant positive effect on competitive advantage. The results are in line with the previous research that effective human resource development can increase productivity, innovation and organizational adaptability, which in turn supports the achievement of long-term competitive advantage (Guest., 2017; Jiang et al., 2019; Aslam et al., 2021; Paré et al., 2022).

2. Competitive Advantage to MSMEs Performance

The coefficient value obtained was 0.059 with t-statistics of 1.790 and P value of 0.037. These results show that the t statistic is greater than the t table (1.660) or the P value is smaller than 0.05. Thus, it can be interpreted that competitive advantage has a significant positive effect on MSMEs Performance. Even though the results show that the value is not very significant, this can still support the results of previous research on competitive advantage can improve the long-term performance of MSMEs, by enabling them to

maintain market share and competitiveness in competitive markets (Barney., 2019; Chukwunonso et al., 2021; Al-Mubarak et al., 2019; Udriyah., 2019).

3. Human Resource Development to MSMEs Performance

The coefficient value obtained was 0.924 with t-statistics of 52.612 and P value of 0.000. These results show that the t statistic is greater than the t table (1.660) or the P value is smaller than 0.05. Thus, it can be interpreted that human resource development has a significant positive effect on MSMEs Performance. The results are in line with the previous research that human resource development in the form of employee training and development contributes significantly to improving MSMEs performance, with competitive advantage acting as a mediator in this relationship (Almıaçık., et al, 2019; Saridakis et al., 2020) especially in developing employee digital competencies in the digital era (Adomako et al., 2021).

4. Human Resource Development to Competitive Advantage and to MSMEs Performance

The coefficient value obtained was 0.023 with t-statistics of 1.661 and P value of 0.048. These results show that the t statistic is greater than the t table (1.660) or the P value is smaller than 0.05. Thus, it can be interpreted that human resource development has a significant positive effect on MSMEs Performance through the mediation of competitive advantage. In this indirect influence, the value of the influence is very small and the figure is very close to an almost insignificant value. This may happen because human resource development itself has had a direct influence on the performance of MSMEs.

5. CONCLUSION AND RECOMMENDATIONS

This research is answered what is asked in research objectives and hypothesis about the Human Resource Development on MSME Performance in Cilodong, Depok through Competitive Advantage mediation. The MSMEs owner can optimize and improve the development of human resource by continuing to improve training and development for its employees, especially those related to digital marketing, because it will have a big impact on employee skills which will ultimately increase the competitive advantage and performance of MSMEs. This research may not be perfect, therefore further research needs to be carried out to further explore the role of human resource development on the competitive advantage and performance of MSMEs, especially in Cilodong, Depok. It is hoped that this research can provide valuable insights for practitioners, academics and policymakers to improve human resource development efforts and support the sustainability of MSMEs in Indonesia.

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CHAPTER 11

Influence of Organizational Structure, Work Design and Competency Toward Nurses Performance Satisfaction: Study Case in Omni Hospital Pulomas Jakarta

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ABSTRACT

Hospitals are vital institutions in communities, with nurses playing a crucial role in improving healthcare performance. Nurses as the largest health care team are required to improve nursing performance. This study purpose is to find out whether the organizational structure and competence influence the nurse's performance satisfaction at Omni Hospital Pulomas Jakarta. This research focused on the influence of organizational structure, and competency on the Nurse's Performance Satisfaction at Omni Hospital Pulomas Jakarta. The method in this research is the quantitative descriptive research, namely research on data collected and expressed in the form of numbers, although also in the form of qualitative data as its support, such as words or sentences arranged in questionnaires, sentences from consultation or interview results between researchers and informants. The target population in this research were nurses at Omni Hospital Pulomas Jakarta as many as 200 nurses. As a result, the Organizational Structure, work design and competency have a significant influence on the on Nurse's Performance Satisfaction at Omni Pulomas Hospital. Recommendation for Omni Hsopital Pulomas Jakarta must be optimalization organisazation structure, work design and competency nurses for higher performance nurses

Keywords: Job design, Organizational Structure, Competence, Performance Satisfaction.

1. INTRODUCTION

Hospital is one of the public sector organizations engaged in the healthcare services having the task of performing a health effort in an efficient and effective way by prioritizing the efforts of healing and recovery efforts that have been carried out harmoniously and integratedly by the hospital in an attempt to improve and prevent disease and improvement efforts (Decree of the Minister of Health of the Republic of Indonesia No.983/Men.Kes/SK/XI/1992). Nurses are "The Caring Profession" which has an important position in delivering good health services in hospitals, because good services delivered for 24 hours and continuous are its own advantages compared to other types of services. Nurses as one of the health workers at hospitals play an important role in efforts to achieve the goal of development in health. A nurse's performance is the activity of nurses in implementing as best as possible of an authority, duty and responsibility in order to achieve the objectives of the profession's main tasks and the realization of the goals and objectives of the organizational units.

Nurses want their performance to be assessed based on objective standards that are open and can be communicated. Nurses should be encouraged to be self-motivated which help increase their Satisfaction. Nurse leaders must optimize nurses' opportunities for personal and professional growth by creating a learning environment that enables reflective practice and shared accountability, demonstrate confidence in others by delegating effectively, coach, mentor, and guide, provide both negative and positive feedback constructively and provide opportunities for the development of knowledge, skills, and judgment which increase job satisfaction (Al-Maabadi Rn¹, Salem^{2*} and Baddar,2018)

The Efforts to improve nursing performance are highly dependent on competence and organizational structure. Organization structure goes a long way to affect job satisfaction. However the effects differ according to the different dimensions of structures and job satisfaction. A highly decentralized organization where authority to commit people, money and materials is widely diffused throughout every level of the organization structure could lead to loss of control and organizational goals may be jeopardize as subsidiary units may be inclined to look more to their own needs than to those of colleagues and in fact the overall organization needs. Organizational structure here will only enhance realization of certain aspects of job satisfaction say value attainment. On the other hand over centralization of organizational structure which is more in line with the classical school of thought that stressed a strictly defined

hierarchy governed by clearly defined regulations and lines of authority would kill initiatives and subsequently loss in job satisfaction (Thomas,2015).

Ali and Zia-ur-Rehman (2014) found a positive correlation between job design and employee performance and Job satisfaction which had a positive influence on employee's performance .A good work should be able to reflect the job description and job specifications that are tailored to the requirements demanded of employees who will occupy these positions.

According to Wibowo (2011) competence is an ability to carry out a job / task based on skills and knowledge as well as work attitudes demanded by the job (Wibowo,2011). The current study gives more comprehensively described definition, domains, and levels of nursing students' competency in different academic and clinical settings than previous studies, but it is more obvious that more systematic reviews, concept analyses, and even meta-analysis are needed to scrutinize specifically nursing students' competency in academic and clinical settings. The current study was the first review study in the nursing competency scope to introduce seven new competency levels in nursing students. However, the concept strictly depends on the profession and country (Nehrir, Vanaki, Nouri, Khademolhosseini & Ebadi,2016).

Surveys conducted by the hospital's quality service development division on customer satisfaction surveys and nursing care documentation the results were obtained on customer satisfaction surveys, administrative, medical services, hospital facilities and nursing, the results showed that services that were not in line with people's expectations were nursing services ranked highest 36%, followed by 24% administrative services, 23% medical service and 22% hospital facilities. The results of the survey on the achievement of nursing documentation at Hospital in North Jakarta was 32%, which meant that it was included in the category of poor assessed from results of the implementation of nursing care standards covering: Nursing assessments, nursing diagnoses, nursing planning, nursing actions, nursing evaluations, and nursing records. Results of the survey above showed that the quality of nursing services was still low and nursing care has not been preformed according to standards.

Based on the results of interviews with doctors in charge of the hospital (Satisfaction Customer Survey (Port Medical Hospital), 2016) that nursing performance was one of the problems in the hospital. Based on the results of interviews with hospital

managers (Satisfaction Customer Survey (Port Medical Hospital), 2016) it can be seen that various efforts have been carried out by the hospital to improve the quality of nursing services at North Jakarta Hospitals.

From the case study, it can be seen that there was work design problem at hospitals in North Jakarta, especially the nursing teamwork. The problems that occurred include the uncaring attitude and blaming among the nurses, lack of desire and awareness to resolve conflicts, lack of awareness of the nurses about the importance of cooperation and communication.

This also has an impact on patient care so that the patients dissatisfied with the services provided by the hospital because nurses are the hospital resources that often interact with patients. And in carrying out their duties requires a cooperation among teams in order to be able to provide maximum service to patients. Based on the analysis of the above problems, the topic of this research is formulated into title: "Influence Of Organizational Structure, Work Design And Competency Toward Nurses Performance Satisfaction: Study Case In Omni Hospital Pulomas Jakarta"

2. LITERATURE REVIEW

This research is in line with the research conducted by Sahrul (2016) with the research title "Influence of Organizational Structure on Employee Performance at Makassar Utara Small Tax Service Office" The results of the analysis show that organizational structure variable has a significant and simultaneous influence on employee's performance at Small Tax Service Office (KPP) of Makassar Utara. Organizational structure variable has a positive regression coefficient (+) which shows a unidirectional relationship, in other words, the organizational structure will improve the performance of employees at the Small Tax Office (KPP) of Makassar Utara. Correlation or relationship between organizational structure and employee performance at the Small Tax Service Office (KPP) of Makassar Utara was very strong.

This research is in line with the research conducted by Purwandito Pujoraharjo (2015) with the research title "The Influence of Competency and Work Design on Employee Performance (Case Study at the Dental and Oral Division of RSUP Dr. Mohammad Hoesin Palembang)" The results show that competency (X1) and work design (X2) partially (t-test) have a positive influence on employee's performance (Y) at Dentistry Major of Dr. RSUP Mohammad Hoesin Palembang. This is indicated by the value of each $t_{count} > t_{table}$ and the probability value $<$ level of significance. Simultaneous test results (F test) show that competency and work design simultaneously have a positive influence on the performance of the Dentistry Department of Dr. RSUP Mohammad Hoesin Palembang with a value of R 0.924 which means very strong. Independent variable that has a more dominant influence on

performance, namely competency (X1). This shows that the better their competency, the better the performance produced by the Denstry Department's employees of Dr. RSUP. Mohammad Hoesin Palembang.

This research is in line with research conducted by As'ad Syaifullah and Iwan Adhi Prasetyo (2018) with the research title "Influence of Compensation and Motivation toward Employee's Performance" The results of this study indicate that compensation, especially the amount of wages, partially has a positive influence on employee's work performance. Furthermore, motivation also partially provides a positive influence on employee work performance. The findings of this study indicate that the compensation provided by PT.

Prima Bumi Pakuwon Jaya was comparable to the level of difficulty of the work based on the perspective of production's employees.

This research is in line with the research conducted by Herison Mangaratua (2013) with the research title "The Influence of Work Design and Competency toward the Performance of Employees of Production Division at PT. Rifansi Dwi Putra Duri." From the results of simultaneous test (F test), showing that all independent variables studied have a significant influence on variable of employee performance. Partial regression test (ttest) shows that the more work design variables have an influence toward the performancesignificantly compared to competency at PT. Rifansi Dwi Putra Duri.

According Olajide Olubayo Thomas, PhD(2015) This study has been able to examine the relationship between organizational structures and job satisfaction. It was successful in establishing the existence of relationships and paving the way for further research in this area. Through quantitative research, this study determined that multi- divisional and virtual structures each shared a relationship with need for recognition, while network and matrix structures each correlated with optimum job satisfaction. Multi-divisional and virtual structures, respectively, consist of departments and employees that are dispersed geographically. Due to the fact that employees in these organizational structures do not work in a shared environment, this correlated with need for autonomy. The network structure and matrix structure both include groups that need to share effective communication in order to be successful, hence enhancing employees view in decision making. In the network structure, groups of businessesshare ideas, whereas in the matrix structure employees are divided into groups basedon their specialized skills. Both of these structures enhances optimum job satisfaction via need for achievement and accomplishment. The significance of this study lie in the fact that it supports the idea that relationships do exist between organizational structures and job satisfaction (Olajide Olubayo Thomas, PhD,2015)

Generally, satisfied nurses tend to be more loyal to their organization. When nurses are satisfied with their jobs, they will have a positive attitude feeling about their jobs.

Therefore, it is unlikely that they will change it. Nurses prefer to stay in their organization and work hard for a return. Moreover, if nurses feel that the organization treats them fairly and well; the workers will feel that they are responsible to keep working hard for their organization. Also, in order to maintain their current satisfied jobs, nurses will perform well and work effectively, which is beneficial for the organization. Therefore, in order to increase the employees' level of commitment, the manager can try to increase their nurses' level of job satisfaction (Olfat A. Salem, Fatma M. Baddar, Hind M. AL- Mugatti ,2016)

Job design has major effects on job satisfaction: either positive or negative. Organizations are paying a lot of attention lately to employees' job satisfaction as it became a major part in achieving organizations' goals. In Saudi Arabia, shortage of nurses is a huge issue. Turnovers that result from the absence of job satisfaction increase the shortage of nurses thus negatively affecting health organizations. In an attempt to solve this issue, researches have been done to highlight the relationship between job design and job satisfaction (Ahlam A. Al-Maabadi Rn, Olfat A. Salem and Fatma M. Baddar, 2018)

The current study highlights some personal and organizational factors that are affecting nurses' work motivation. The majority of study participants have a significantly higher positive perception as regards work shared values and their influence on work. Work motivation is a key to emerge and enhance the nurse's satisfaction and their work performance. Accordingly, the factors that affect the work motivation among nurses became essential instruments to modify and shape the work behaviors of the nurses and its consequences (Ibrahim Yahya Alhakami and Omar Ghazi Baker,2018).

3. RESEARCH METHOD

Based on the results of primary and secondary data collection, a description on the results of the study was obtained. Data is processed based on data that have been collected through a data collection tool. According to the number of respondents previously determined, the number of questionnaires distributed to respondents at Omni Hospital Pulomas Jakarta were 200 questionnaires and returned in their entirety.

After the questionnaire data were sorted out, it turned out that overall they met the requirements and were feasible for analysis. Then by using a computer tool SPSS 20 for Windows, the data is analyzed and interpreted to solve the problems that previously formulated.

The description of research results from each research variables, namely Organizational Structure (X1), Work Design (X2) Competency (X3) and Nurse's Performance Satisfaction (Y) at Pulomas Hospital Jakarta 2016-2017.

Frame of Thinking

The framework of thinking is a description of the relationship between variables related to the problem being studied in accordance with the formulation of the problem. This research aims to determine how much the influence of organizational structure, work design and competency on Nurse's Performance Satisfaction. Illustrated as the influence of variables dependence as shown in Figure 3 below:

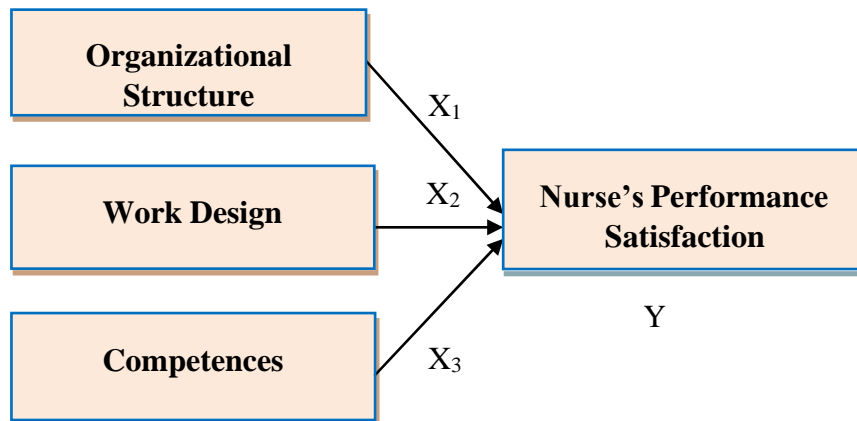


Figure 1. Frame of Thinking

Notes: X₁ = Organizational structure, X₂ = Work design, X₃ = Competency, Y = Nurse's Performance Satisfaction

Hyphotesis of Research

Hypothesis is temporary conclusion that must be proven and tested in its validity based on the data collected (Suhartono 2002), verification is conducted by a series of data test empirically. Referring to identification and formulation of the problem that have been raised, then the hypothesis proposed in this research are:

Ho : Organizational structure, work design, competency have no significant influence toward Nurse Performance Satisfaction.

Ha : Organizational structure, work design, competency have significant influence toward Nurse Performance Satisfaction.

H1.Organizational structure has a significant influence on Nurse's Performance Satisfaction.

H2. Work design has a significant influence on Nurse's Performance Satisfaction.

H3. Competency has a significant influence on Nurse's Performance Satisfaction.

H4. Organizational structure, work design and competition together have a significant influence on Nurse's Performance Satisfaction.

Research Method

The research methodology used is quantitative approach, survey method and continued by using multiple linear regression analysis to describe and test the model of influence among the variables in variable exogenous causal (independent variables) and endogenous variables (dependent variable). There are 4 variables studied in this research, namely: organizational structure, work design, competency and satisfaction on nurse's performance.

Data analysis techniques used include descriptive analysis and inferential statistics. Descriptive statistical analysis aims to get a description of each variables of the research. Type of data used in this study is quantitative data. Quantitative data are data in the form of numbers, commenting from data collection, interpretation of the data, and the presentation of the results. According to Sugiyono quantitative data (2010) is a type of data that can be measured or calculated directly, in the form of information or explanations expressed in numbers or in the form of numbers.

Population collection using random sampling. The target population in this research were nurses at the Omni Hospital Pulomas Jakarta and we took sampling for 200 nurses in Omni Hospital Pulomas Jakarta.

4. RESULT AND DISCUSSION

Characteristics of Respondents

Characteristics of Omni Hospital Pulomas Jakarta Respondents Based on Gender

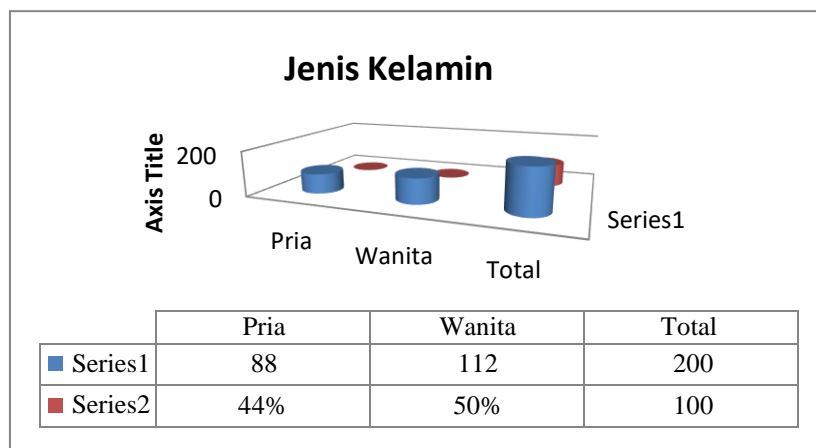


Figure 2. Characteristics of Respondents Based on Gender

From the data above, it is shown that the respondents in this study were male 88 people (44%), while female respondents were 112 or (56%). This shows that in this study more women were respondents.

Characteristics of Omni Hospital Pulomas Respondents Based on Age

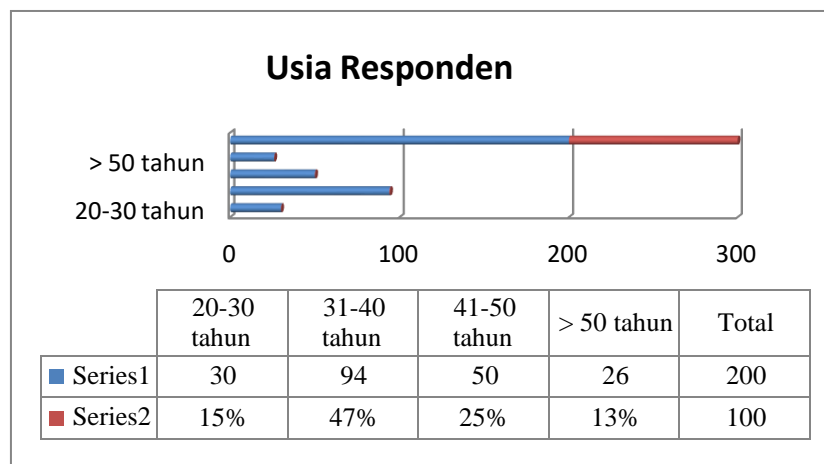


Figure 3: Characteristics of Respondents Based on Age

From the data above, it is shown that the respondents in this study aged 20-30 years were 30 people or (15%), those aged 31-40 years were 94 people or (47%) and those aged 41- 50 years were 50 people or (25%) and age > 50 years totaling 26 (13%). This shows that in this study more respondents aged 31-40 years.

Discussion

Frequency of answers of respondents on the distribution of questionnaires amounted to 200 at Omni Hospital Pulomas Jakarta is described in the following data description section:

Table 1: Descriptive Statistics

| | Mean | Std. Deviation | N |
|--------------------------------------|---------|----------------|-----|
| Nurse's Performance Satisfaction (Y) | 74,1700 | 4.75121 | 200 |
| Organizational Structure (X1) | 62,5000 | 4.87945 | 200 |
| Work Design (X2) | 64,4050 | 5.35484 | 200 |
| Competency (X3) | 72,9400 | 5.36941 | 200 |

Seen from the table above, descriptive statistics describes the Mean and Std. Deviation from dependent and independent variables. The Mean Value on variable the Organizational Structure (X1) is 62,5000, Work Design (X2) is 64,4050, Competency (X3) is 72,9400 and Nurse's Performance Satisfaction (Y) is 74,1700. Std. Deviation Value in variable the Organizational Structure (X1) is 4.87945, Work Design (X2) is 5.35484, Competency (X3) is 5.36941 and Nurse's Performance Satisfaction (Y) is 4.75121.

F test

Table 2: ANOVA^b

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|----------------|-----|-------------|--------|-------------------|
| 1 Regression | 1041.204 | 3 | 347.068 | 19.712 | .000 ^a |
| Residual | 3451.016 | 196 | 17.607 | | |
| Total | 4492.220 | 199 | | | |

a. Predictors: (Constant), Competency (X3), Organizational Structure (X1), Work Design(X2)

b. Dependent Variable: Nurse's Performance Satisfaction (Y)

From the results of the analysis in the table above namely the ANOVA test is obtained the value of F_{count} of 19.712. While F_{table} (α 0.05) for $n = 200$ of 1.97. So $F_{count} >$ from F_{table} (α 0.05) or $19.712 > 1.97$ with a significant level of 0,000 because $0,000 < 0.05$, it can be said that the Organizational Structure (X_1), Work Design (X_2) and Competency (X_3) together have a positive and significant influence on the Nurse's Performance Satisfaction (Y).

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the discussion in the previous chapters, then in this chapter the author provides conclusion and recommendation, while the conclusions is Organizational Structure , work design and competency have a significant influence on the on Nurse's Performance Satisfaction at Omni Hospital Pulomas Jakarta.

Recommendation

Based on the above matters, the recommendation to put forward are as follows:

1. Omni Pulomas Hospital must be optimization organisazation structure, work design and competency nurses for higher performance nurses.
2. Optimizing the function of the organizational structure so that there is a clarity to the attendants at work in accordance with the main tasks and functions. Nurses must further improve their performance and competence and pay more attention to complaints submitted by the patients. The hospital must monitor the performance of the nurses so that there is no complaint from both the patient and the patient's family. The hospital must be improve remuneration for performance nurses.

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CHAPTER 12

Strategic Decision-Making in The Oil and Gas Sector: The Influence of Real-Time Digital Information

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ABSTRACT

Theoretically, real-time digital information enhances production performance and mitigates risk dynamics. Decision-making speed is significantly influenced by the dynamic environment. This dissertation aims to investigate the detailed mechanisms through which real-time digital information and fluctuating environmental conditions (dynamism) affect the ability of leaders and operational personnel to make swift strategic decisions. The objective is to determine the impact on oil and gas operations management, with a focus on increasing agility and reducing risks. The research is directed at leaders and operational staff in the oil and gas sector, including both offshore and onshore platform installations. Participants will include managers, superintendents, supervisors, team leaders, and field personnel. Their roles are vital in maintaining safe and efficient oil and gas production operations, ensuring consistent and improved production performance. This study will explore the influence of digital information, environmental dynamism, and organizational characteristics on decision-making speed, as well as the subsequent effects on safety and production performance.

Keywords: Strategic Decision Making, Real-Time Digital Information, Dynamics Capacity, Risk Dynamics, Safety and Production Performance.

1. INTRODUCTION

Nearly five decades after the emergence of seminal work on how individuals process information and make decisions in an organization that was conceived by (Cyert & March, 1963; Simon, 1957), no new perspective has yet emerged. This concept is known as bounded rationality, where they argue that in making rational decisions, individuals have limitations in processing information and analyzing information (De Dreu, Nijstad, & van Knippenberg, 2008; Ocasio, 2011; Tversky & Kahneman, 1974).

In addition, the rapid development of information as a result of the development of IT to the emergence of digital information (digital information), makes the information exposed by individuals/organizations and the ability to process information to be multiplied from the conditions when the concept was issued. This rapid development of information is not matched by the development of the theoretical framework used in the developmental model of rational decision making (George, Haas, & Pentland, 2014; Hilbert & L'opez, 2011).

The information that develops provides opportunities such as learning, creativity and innovation which in turn has an influence on performance. However, it also presents challenges such as competition in individual attention to information, difficulties in filtering valid and relevant information from biased information, and causes the cost of obtaining and storing that information to be more expensive. Therefore, a study is needed so that in this information age it is able to add wealth to the organization and make the organization more productive.

The digital information era began with the digital revolution with the shift to become a knowledge-based society within a global economic framework. This is driven by the discovery of several tools or ways that allow anyone to generate digital data, store and process information in a larger way through an IT. In this era of knowledge based economy, a capability is needed to effectively and efficiently allocate and process various information. Even in subsequent developments, with an era of a more open system, where people have greater access to information, from various sources across organizations and even across countries. This condition requires a readiness on how this information age can provide added value for companies that use it.

However, as Bourgeois and Eisenhardt (1988) note, there is pressure for fast and high-quality decision-making processes, especially in high-speed environments. Is the brief decision-making process described by the existential view realistic? These questions suggest that the lingering view may misrepresent how executives make quick decisions. Based on what has been stated above, coupled with the limited specific research based on rapid strategic decision making, is the reason for conducting research that will be carried out inductively in this proposal.

The context of this research is in the oil and gas sector, because the oil and gas sector still plays an important role in state revenues, which can grow the national economy (Beck, Levine, Loayza, 2000; O'Hara, 1983; Levine, Loayza, Beck; 2002) . Site Leaders' decisions must align with the risky nature of the operation. This study selects one of the largest local oil companies in Indonesia, and will examine the cognitive field leadership in the decision-making process and determine its impact on decision-making speed and oil field operating performance.

This research is planned to be carried out in two main fields; installation of offshore platforms and installation of onshore platforms with a total of 15-20 oil and gas fields involving 500-1000 respondents, categorized as site leadership teams including managers, superintendents, supervisors, team leaders and implementers as key respondents and the possibility of using third party employees (outsources) as support respondents. Field leaders and their teams were chosen because they have autonomy in decision-making. These field leaders have an important responsibility for the performance of the field unit and support the goals and targets of the head office with concrete actions. The proposition of the results of this study is to examine the effect of Digital Information, Dynamics (dynamism), Capacity (munificence) and Intuition (Intuition) on the speed of decision making, as well as the effect of the level of safety and production performance.

1.2. Problem Statement

Researchers have conducted individual explorations in the decision-making process for managers in the field, but there is no specific way that that decision is taken when operating conditions experience uncertain conditions, especially when actual digital information data (digital information real-time data) is in a very difficult environment. very dynamic (dynamism) and when environmental conditions are disturbed (disturbance), so it takes capacity (munificence) and sometimes intuition (intuition) of field leaders and implementers in making decisions quickly and precisely, including if they have to interrupt decisions when the actual digital information system is having problems. We will see the extent of the skills, competence in the dynamics of the process when the digital system is in trouble so that decisions can be made quickly, accurately and responsibly. The main problem in decision making lies not in the availability of the amount of information, but in the attention to information processing capability.

Organizations need a tool that can be used to facilitate the search and collection of information, and analyze it. All of these things can be done with a digital information system (Big data) and data analysis (Data Analytic) in order to provide accurate information, so that decision makers are more responsive in providing and integrated so that decisions are made more effective.

However, challenges also occur at several organizational levels: the micro level regarding disruption of information, the meso level regarding information priorities; macro level on how to make investments efficient, and not quickly out of date. The main problem of bounded rationality has not yet been resolved. Organizations must be able to create a system that can efficiently be able to carry out the process of searching for information and sharing within the organization.

Many researchers have not carried out empirical exploration, the study of the rapid decision-making process in the field leadership setting by considering cognitive functions simultaneously and taking into account these cognitive factors. Therefore, this matter can be identified as a problem so that it becomes a theoretical gap that needs to be investigated further, especially in the oil sector. Another thing that is interesting to study further is the lack of literature that examines the impact of intuition in influencing the decision-making process quickly.

Furthermore, the context of research in the oil field has not specifically discussed the relationship between the influence of digital information as a cognitive factor that is influenced by the ability of field leaders to make decisions quickly as a strategy that can affect the performance of their respective oil fields. Dissertation proposal This study will examine these 3 factors as well as need to look at the intuition effect of each field leader when digital information does not work well, so it needs to be investigated further.

The explanation above shows a complex relationship between cognitive data that requires intuition. Lycett (2013) argues that currently available analytical tools can help field leaders and implementers understand existing phenomena by applying a digital information sense making process, known as "datafication". These tools can show patterns and trends, but understanding what the underlying reasons for the patterns are is an important thing that cannot be done with machines. Even though we have succeeded in making sophisticated machine learning with artificial intelligence, human involvement is still very important. How intuition can improve the accuracy of decisions made especially when digital information is interrupted.

2. LITERATURE REVIEW

An organization requires more structured information in improving the decision-making process. To achieve structured information, the data to be used must be collected, stored, analyzed and transformed the results into accurate information that is more perfect and valuable. To ensure a good analysis and transformation process, an integrated systems approach is needed so that the data can be more secure.

The concept of digital information (digital information) and its application is how to combine the volume of depreciated data in a large database (big data) in four aspects: volume, velocity (velocity), variation (variety), and value (value).

Although the conditions at that time were not as massive as the amount of information available, Simon (1957) in his seminal paper, has said that the main problem for individuals in making decisions is not in the amount of information that is lacking, but in the ability to process and pay attention to something. information. Therefore, the existence of information that can be large enough (volume), accurately measurable, fast (velocity) and varied can overcome the classic problems that have occurred so far.

2.1 Decision Making Strategy (Decision Making Strategy)

A fast and strategic decision-making process (Speed of Strategic Decision Making Process) is indispensable when facing high environmental dynamics. According to this perspective, consideration of several alternatives, input from several sources, and appropriate analysis will result in quick decisions (Mintzberg, 1973; Nutt, 1976). Fredrickson and Mitchell (1984) argue that a process that is less comprehensive will affect the speed of decision making. Similarly, Schweiger, Sand-berg, and Ragan (1986) note that analysis that is too lengthy due to competence in a process tends to slow down the pace of decision making. Janis (1982) suggests that, although rational processes may be superior, they prolong decision making. Vroom and Yetton (1973) advocate autocratic decision making when speed is critical. Strong leaders can make quick and one-sided choices. Similarly, March and Olsen (1976) argue that the involvement of multiple decision makers prolongs a decision process.

2.2 Decision Making Speed

An appropriate strategy is really needed by decision makers in dealing with rapidly changing environmental conditions, especially when information is limited. Second, how do decision makers determine the quality of decisions while moving fast? The existing view relies on the assumption that quick decisions are reached through a less comprehensive strategic decision-making process involving information, analysis, participation, and capability.

Organizational agility is seen as part of organizational dynamic capability (Blome, Schoenheer & Rexhause, 2013). Teece (2007) defines agility as a higher-order dynamic capability that can appear excessively. Agility is the ability to identify and respond to environmental threats and opportunities quickly by making behavioral adjustments quickly (Goldman, Nagel & Preiss, 1995; Sambamurthy, Bhawadwaj & Grover, 2003). This concept also includes operational flexibility of organizational processes and information technology systems to support structured

and unstructured change. However, the BDA tool does not automatically improve agility. In fact, under some conditions it inhibits agility (Chen et al, 2014). It is therefore important to understand how BDA can create agility.

2.3 Environmental factor

Bourgeois (1980) argues that the business-level strategist is closely related to the task environment, while the corporate-level strategy focuses on the general environment. Strategic management focuses on a strong competitive environment (Castrogiovanni, 1991; Child, 1972; D'Aveni, 1994; Porter, 1980). Duncan (1972) and Chakravarthy (1982, 1997) both argue that organizations need to adapt creatively to their environment, because one of the main issues in this environment is dealing with uncertainty and turbulence.

Centralized municipality is the most natural response to highly uncertain situations such as high-speed environments (Staw, Sandelands, and Dutton (1981)). Mintzberg, Raisinghani, and Theoret (1976) found that disagreement creates decision interference, which in turn delays the decision-making process in a study of 25 major decisions. As George (1980) points out, many individuals find it difficult to make major decisions in the face of high uncertainty. However, in the midst of such uncertainty, it is a hallmark of the need for strategic decisions, especially in an environment of very high change.

Dynamics (dynamism) is known as an unstable condition or gets disturbed (turbulence), described as a state that is very varied, always changing and has an uncertain level (level of uncertainty) beyond individual control (Aldrich, 1979; Dess and Beard). (1984). This highly dynamic environment is somewhat similar but not the same as a high-velocity environment (Eisenhardt, 1989; Judge and Miller, 1991).

2.3.1 Dynamics (Dynamism)

The first determinant of strategic decision making by each leader is the dynamics of environmental factors (Papadakis, Lioukas, & Chambers, 1998). Individual decisions are based on the belief that a person has possible responses to influence the environment (Thomson, 1981). The organizational environment is conceptualized as forces that lie beyond the boundaries of the organization. They provide organizations with raw materials, other resources (inputs) on the one hand; And absorb its products and services (output) on the other. Organizations face uncertainty about what the environment demands and deal with the dependence on the many resources that their environment provides (Hatch, 2006).

Furthermore, dynamics means the rate of change and innovation in an industry. It reflects the level of volatility or environmental uncertainty of the actions of competitors and customers (Miller and Friesen, 1983). The measure of dynamism in Dess and Beard (1984) is similar to that of stability/dynamism by Thompson (1967). This is also consistent with Duncan's (1972) dynamic static elements, and Child's (1972) variability component. Miles, Snow & Pfeffer (1974) & Jurkovich (1974) state that it is important to distinguish between the degree of environmental change and the uncertainty of environmental change.

This concept is rooted in RBV (resource based view) and KBV (knowledge based view), where DC (dynamic capability) argues that dynamic capability enables companies to modify resources to adapt to rapidly changing conditions, so that they can maintain its competitive advantage (Helfat & Peteraf, 2009; Teece, Pisano & Shuen, 1997). Dynamic capability is the capacity to (1) sense and sharpen opportunities as well as challenges (2) seize opportunities and (3) maintain competitiveness by increasing, combining, protecting and if necessary reconfiguring both tangible and intangible business enterprises.

2.3.2 Stability (Munificence)

Munificence refers to the availability of resources, and is negatively related to uncertainty (Boyd & Gove, 2006). The main indicator is the rate of sales growth (Dess and Beard, 1984; Aldrich, 1979). The municipal environment is resource rich, with sufficient capabilities to support organizational growth.

On the other hand, a hostile environment is characterized by an uncertain industrial setting, intense competition, an extraordinary business climate, and a lack of exploitable opportunities (Covin & Slevin, 1989). Therefore, munificence makes organizations have abundant resources. Complexity refers to the variety of forces in an industry that are considered difficult to clearly identify. This refers to the complex level of knowledge that banks must capture some understanding of environmental pressures (Sharfman & Dean, 1991).

In developing the concept of executive policy related to the environment, researchers used perception (Lukas, Tan & Hult, 2001; Tan and Litschert, 1994) and file size (Boyd, 1990; Boyd, Dess and Rasheed, 1993; Dess and Beard, 1984; Yasai-Ardekani, 1989) environmental uncertainty.

2.4 Organization Character

Dess and Beard (1984) focused on variations in the transactions of organizational resources with their environment, the operational specifications for carrying out transactions as well as

for overcoming their threats or obstacles. They proposed a comprehensive three-dimensional organizational task environment, which was based on a synthesis of earlier work by Child (1972) namely dynamism, real-time data information, and capacity.

The direct influence of organizational structure on the speed of strategic decisions taken because there is a relationship between performance and speed of decision making. The study of centralization was carried out because it is an important fundamental of every company's performance (Slevin and Covin, 1995).

Centralization is perceived as a top management character for strategic interests, not operationally related matters and about a decision. Eisenhardt labels it as a centralized self-criticism decision making. Decentralization is described by involving many employees in participating in decision making. In general, decentralization is analogous to low operational centralization, associated with self-managing teams. The advantages of decentralization can inspire and motivate employees, loyal and creative.

2.5 Digital Information

In recent years, academic researchers have shown an interest in studying the potential use of digital information and business analytics associated with transformations in the competitive landscape and improving company performance, such as several studies conducted by Davenport & Harris (2007); Davenport et al (2010); Wixom et al (2013); Anderson Lehman, et al (2004). Digital information (digital information) and business analysis (business analytics) are buzz words in the literature on management and information systems (IS). The same thing happened when the boom in data warehousing and data-mining technologies matured (Wixom & Watson, 2001; Goodhue et al, 2002; Anderson-Lehman et al, 2004) examining the operational and strategic benefits of integrating organizational data from multiple sources. internal and external data sources in a data warehouse, and also look at the factors that affect the success of the data warehouse application. Zuboff (1985; 1988) asserts that new information can be used to create new knowledge that is different, more in-depth and comprehensive.

In the end, it can be a catalyst for significant improvement and innovation in production and better service to consumers. In the classical management literature, many refer to the seminal work of Simon (1947; 1956) as a theoretical foundation that looks at the impact of decision-support technology on managerial decision-making, organizational decision-making processes and organizational performance.

It takes a deep understanding of organizational behavior in understanding the effect of digital information on improving organizational performance. In particular, no one has seen how the

resource allocation process might need to be changed in order to capture the value of using this digital analysis. The focus of analysis is to understand how managers can make better decisions when they have better data and analytical tools. Most argue that advanced technology is considered as a new resource, which when applied in the company will automatically improve its performance.

However, several different opinions see that a critical process occurs in the process of making changes to structures and processes so that they can target the potential benefits of using the new IT (Markus & Tanis, 2000; Markus, 2004). The same condition occurs when implementing knowledge management, where some researchers say that knowledge management can improve organizational performance (Kankanhalli, et al, 2005), but later it was clarified that without changes to processes and structures, it is impossible to get performance with the application of knowledge management. .

Based on this opinion, we see that transformation is needed especially in organizations to make decisions and allocate resources in order to get results from the investment process for the business analytic application. The process of acquiring knowledge should involve many parties from various positions and parts of the organization. How to make a composition in the decision-making team is part of the decisions taken from the routine process of the organization. This team can be a motivating factor as well as an obstacle to produce knowledge. The explanation above shows how there is a need to understand more clearly how the current organizational structure, routines and decision-making processes affect the ability of managers to analyze and generate knowledge from the use of business analysis.

This is an important area of research considering that modification of the insight generation process will significantly increase the value of business analysis to organizations. The next important thing is how to make the insight generation process more effective. Davenport, et al (2010) suggested forming a business unit analytic competency center that will provide data services to all units. However, it is not only the unit problem that is important, because if the unit is not connected to the user, the insight generating process will also not run well. What is important, however, is to establish a clear organizational structure and decision-making process.

Knowledge for a decision is needed to transform that knowledge into a decision to create value, which is developed by manager analysis in strategic and operational decision making (Sharma et al, 2010; Lycett, 2013). There are two problems that need to be explored: (1) there is no one-on-one relationship between knowledge and a certain action to exploit knowledge. Referring to

Simon's seminal work where there are 3 stages in decision making, namely: intelligence, design, choice. Insight is used to perform an alternative design to be selected.

Some alternatives may be easy to create, but decision making still requires approval from a higher level. (2) Some companies that are judged to be wrong or late in making decisions (e.g. IBM, Microsoft, and Kodak), have basically gained knowledge of what is happening outside that could threaten the development of their business. However, in reality decision-making involves many parties and many interesting factors so that they cannot make proper decisions. Simon's seminal work which was later developed by behavioral theory (March, 1994) and heuristic and decision bias (Hogarth, 1987) ultimately resulted in the concept of satisficing decision making because of bounded rationality. On the other hand, decision makers are starting to use analytics and IT tools to assist in complex decision-making processes, such as decision support system applications in banks and other manufacturing companies.

Value decisions, if believed, business analytics can increase value, but the question is in what way or how business analytics can increase value creation. Can be seen from 2 perspectives. First, look at the uncertainty that can be overcome with business analytics. Where there are two uncertainties: the uncertainty of not being able to apply the decision correctly and the uncertainty of not taking the right action. Second, the influence of business analytics in making good decisions, which is measured by two things: quality of decision and acceptance of decision.

Regarding the quality of decision, it has been proven in many previous studies. However, acceptance is still a question because often the analysis process carried out does not involve all stakeholders, especially stakeholders who have resources with an interest in making these decisions. So it could be, the resulting analysis is good, but the actions taken are not good so that a good output is not produced either.

Regarding the framework of dynamic capabilities, there are 2 things involved: capability for research and selection and capability for resource orchestration (considering that assets and resources of the company are administered in a structured and unstructured manner. Implementation of decisions requires support from sources obtained from outside the organization. In this case, managers experience uncertainty related to the availability of important resources that can support decisions to be taken.

The view related to the resource orchestration framework positions the company to carry out a governance restructuring related to the implementation of business analytics in decision making. There must be adjustments in the governance structure in order to be able to apply business analysis properly in supporting decision making. For example, doing the regulation of

information governance (not just the structure of the IT governance unit. The next ambiguity is related to the results obtained by applying decision making with business analysis. Where the actual results are determined by many factors involved in decision making.

There have been many studies linking business analysis with performance and value. However, it is not clearly explained how business analysis can create value, what mechanisms occur, and how the processes that occur in the organization so that business analysis investments can be converted into value. The main rule of business analysis is to create clear choices, to explain phenomena and provide alternative solutions that managers can choose from.

Organizations need to carry out transformations in their decision-making processes to get decisions that have value in business analytic applications. If it is related to performance, where quality decisions also need to be supported by an allocation of resources, then it is also necessary to improve resource allocation processes to accommodate the implementation of the decisions taken.

2.6 Operation Performance

2.6.1. Digital Information as a Trigger for Competitive Advantage

Digital Information is currently believed to be one of the tools that can increase the company's competitive advantage, because of its ability to provide data that can improve the efficiency and effectiveness of the company's business in terms of operational and strategic potential. Actual Digital Information (Digital Information Real-time) is defined as input operational parameters that do not have a pause during an event without waiting for reporting that needs to be verified.

Quantitatively, this digital information can be analyzed, tracked as analysis for further decisions based on previous historical data. Digitization in the operational system will provide real time information about existing changes, which can support the decision-making process quickly.

The performance measured in the proposed model consists of: 1) Agility, 2) Safety & Risk, 4) Production.

2.6.2. Organizational Agility

Organizational agility is believed to be an important capability to respond to the challenges of this turbulent environmental change. Organizational agility is a capability that allows organizations to be able to sense changes in the environment and take action to capitalize on existing opportunities (Sambamurthy et al, 2003). Although it is considered an important construct, not many studies have looked at how the process of organizational agility is formed. Some literature links this agility ability to occur with the adoption of IT in an enterprise system.

In the view of information processing, agility can be formed through two strategies, namely: information processing network (Ahuja & Carley, 1999; Knon et al, 2007) and organization control (Leifer & Mills, 1996; Turner & Makhija, 2006). Then this paper also explains about 3 characteristics of information processing capability: sensitivity, synergy and fluidity. The research method is carried out with a qualitative approach in manufacturing companies.

Operational agility refers to the ability of a company's business processes to perform speed, accuracy and economic costs in exploiting opportunities for process innovation and responding to competitive challenges (Sambamurthy et al, 2003, p. 245).

Big data is currently believed to be one of the tools that can increase a company's competitive advantage, because of its ability to provide data that can increase the efficiency and effectiveness of the company's business in terms of operational and strategic potential. BDA with the distinction between low-performing and superior-performing companies.

2.6.3 Safety & Risk

Real-time digital information in theory can improve operating stability and reduce risk dynamics. With this cognitive process study, it is hoped that we can see to what extent it can affect the level of safety in work safety operations and reduce the dynamics of risk.

2.6.4 Production Performance

Real-time digital information can theoretically improve production performance. Their role is very important when running oil and gas production operations with uninterrupted and improved production performance. Digital Information, Dynamics (dynamism), Capacity (munificence) and Intuition (Intuition) on production performance.

3. RESEARCH METHOD

This section will describe the conceptual model along with a comprehensive explanation of the logic of the proposed model based on the previously explained theory. Furthermore, the proposition will be reviewed along with critical opinions to support the proposition, along with its theoretical support.

3.1. Conceptual Model

The concept of the proposed model is built into 3 parts of analysis: 1) environmental factors that affect the speed of decision-making processes, 2) the influence of organizational character such as centralization and decentralization of the highest leadership, and 3) operational digitization related to infrastructure and capabilities in it.

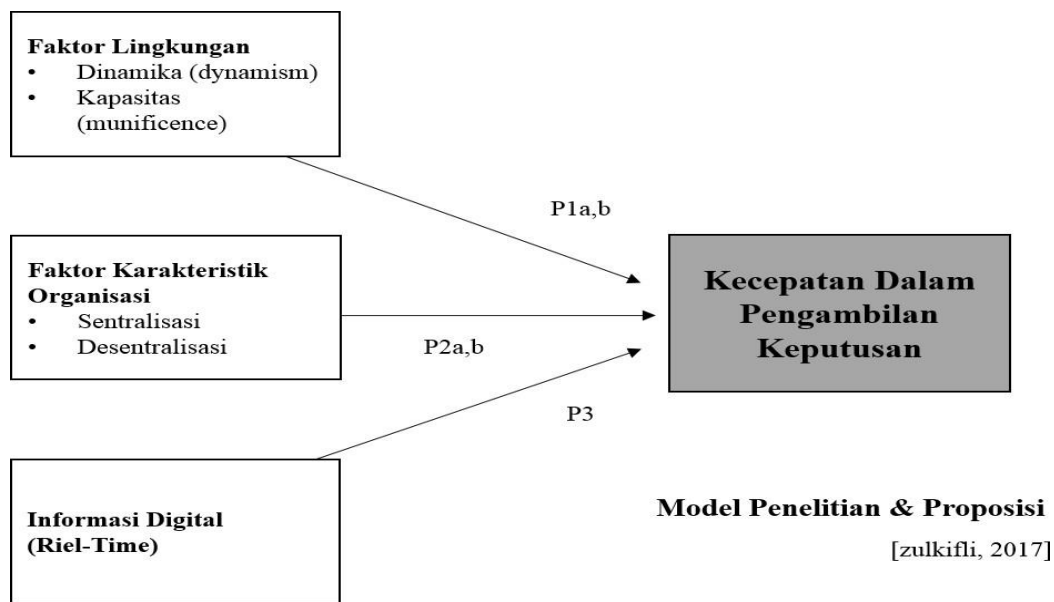


Figure 1. Research Model & Proposition

3.2 Proposition

3.2.1. Environment and Speed of Decision Making

Dynamics (dynamism) or environmental conditions that tend to be unstable or the occurrence of disturbances which are unpredictable conditions are conditions that are very varied and uncertain (uncertainty) is a condition beyond the control (beyond the control) of an individual in a business (Aldrich, 1979; Dess and Beard, 1984). Similar to a dynamic environment but not the same as a high-velocity environment (Eisenhard, 1989; Judge and Miller, 1991).

Dynamics (dynamism) has a very high challenge, is difficult to predict and moves very quickly, which if made a wrong decision will result in disruption of the production process. Meanwhile, the municipality condition is a more stable condition, less challenging, so that there is still time for field managers to analyze before making a decision.

P1: The dynamic external environment (P1a) will encourage managers to make decisions quickly, so that the company can respond to all the challenges of these dynamic changes. On the other hand, a munificence environment (P1b), which is characterized by a stable environmental condition, does not encourage managers to make decisions quickly, on the contrary, managers will carry out an in-depth analysis and gather sufficient resources before finally taking a strategic decision that is needed.

3.2.2. Organizational Characteristics and Speed in Decision Making

In organizational theory, the characteristics of an organization can influence organizational behavior (Fredrickson, 1986; Sheppard, Lewicki, and Minton, 1993; Sutcliffe and McNamara, 2001). A decision-making strategy by the top management is likely to promote quicker decisions because decisions can be made directly centered on top management in the field. Decentralization focuses more on how decision-making authority is delegated to lower leaders. Decision decentralization has a negative effect because it will be slower and full of negotiations although there is a positive impact as well because it will make subordinates more motivated to be given authority.

P2: The more centralized (P2a), the management process within a company, which is characterized by low negotiation and communication processes, will be advantageous for systems that require fast decision-making processes. On the other hand, with a decentralized system (P2b), where management divides its authority to lower levels, it will actually hinder the decision-making process, because more and more negotiation and communication processes are carried out.

3.2.3. Digitization of Operational Systems and Speed of Decision Making

Actual Digital Information (Digital Information Real-time) is defined as input operational parameters that do not have a pause during an event without waiting for reporting that needs to be verified. Quantitatively, this digital information can be analyzed, tracked as analysis for further decisions based on previous historical data.

P3: Digitization in the operational system will provide real time information about existing changes, which can support the decision-making process quickly.

3.2.4. Research design

This research methodology was designed and structured to answer the research questions and some of the proposed propositions.

Case Study Analysis Design

The design of this research is Case Study Analysis, which is an analysis to understand deeper than one or a small number of T-shirts in a more real context (Bromley, 1986; Yin, 1994). to the phenomenon under study, which will produce valuable insight. Case studies can also facilitate the creation of a new learning about real behavior and the meanings attached to that behavior.

The determination of this case study design is based on three considerations. (1) based on the research question posed in the introduction, namely "How to build Speed Decision Making through a digitalization process that is adapted to a different environmental condition", which

can be grouped as exploratory research, for that qualitative method is the most appropriate to answer questions the. (2) closer to the phenomenon under study, and exists directly between these phenomena, so that it can provide a deeper understanding Yin, 1994 (3) in the realm of strategic management research, the use of case studies is quite a lot, and produces great concepts that widely cited in relevant strategic management research, particularly in the topic of strategic decision making (eg: (Eisenhardt, 1988).

The case study model in this research is single-cases, namely a case study design involving two companies, namely Medco Energy and ConocoPhillips Indonesia.

3.3 Qualitative Design

In general, case studies are part of qualitative analysis, but as part of the triangulation process, this research is a combination of 2 methods, namely mix-research methods, which combines quantitative and qualitative methods. The design of this quantitative method was made to obtain incident or frequency on several phenomena/variables/themes obtained from the data exploration process.

The design of the quantitative method will be carried out after the stages of the data analysis process from the qualitative method have been completed, or the design is carried out sequentially. Regarding the mix research method, other than time based: sequential vs. concurrent, it can also be seen as its dominance: equal status vs. dominant status, so that it can be drawn in a 2 x 2 matrix (Johnson and Onwugbuzie, 2004) (see Figure 5). In the picture, capital letters describe the 'dominant method' and vice versa.

Table 1. Combined Research Methods (Mix Research Methods).

| | | | Concurrent | Sequential |
|----------------------|----------|-----------------|----------------------------|--|
| Paradigm Decision | Emphasis | Equal Status | QUAL + QUAN | QUAL + QUAN QUAN + QUAL |
| | | Dominant Status | QUAL + quan QUAN + qual | QUAL + quan Qual + QUAN QUAN + qual Quan + QUAL |

Source: Johnson and Onwugbuzie, 2004 p. 22

The design of this research is in quadrant 4, where the qualitative approach is the dominant model used but needs to be equipped with quantitative data so that stronger and more accurate interpretations and conclusions can be drawn.

4. RESULT AND DISCUSSION

The integration of real-time digital information into the oil and gas industry promises to significantly boost production performance and reduce associated risks. Real-time data enables operational teams and leaders to make swift, informed decisions, which is particularly essential in the ever-changing environment of oil and gas operations. The ability to quickly adapt to fluctuating conditions can enhance safety, increase efficiency, and ensure consistent production levels. This dissertation aims to explore the specific mechanisms through which real-time digital information and dynamic environmental conditions impact the decision-making process of leaders and operational staff. By examining these mechanisms, the study seeks to provide insights into improving agility and minimizing risks within the industry.

Environmental dynamism is crucial to the decision-making speed in the oil and gas sector. The constantly evolving conditions in this industry require leaders and operational personnel to be highly agile and responsive. This dissertation examines how these changing conditions, in conjunction with real-time digital information, affect the strategic decision-making capabilities of managers, superintendents, supervisors, team leaders, and field personnel. These roles are vital for maintaining the safety and efficiency of both offshore and onshore platform operations. The research will explore the relationship between digital information, environmental changes, and organizational characteristics, aiming to identify the factors that most significantly influence decision-making speed and the resulting effects on production performance and safety.

The anticipated result of this research is a thorough understanding of how real-time digital information and environmental dynamism interact to influence decision-making speed in the oil and gas industry. By analyzing the viewpoints and experiences of leaders and operational staff, the study aims to identify specific strategies and organizational traits that can improve agility and reduce risks. This knowledge can then be used to develop best practices and technological solutions that support faster, more informed decision-making processes. Ultimately, the findings could lead to enhancements in production performance, operational safety, and risk management, benefiting the entire oil and gas sector.

5. CONCLUSION AND RECOMMENDATIONS

The incorporation of real-time digital information in the oil and gas industry offers considerable potential for boosting production performance and mitigating associated risks. In a sector characterized by its dynamic and often unpredictable operational environment, the ability to make swift and informed decisions is paramount. Real-time data integration allows for more

agile and responsive decision-making processes, enabling industry professionals to react promptly to changing conditions and emerging challenges. This capability not only enhances operational efficiency but also significantly improves safety standards by allowing for the early identification and resolution of potential hazards.

This research underscores the vital importance of agility and responsiveness in decision-making within the oil and gas industry. By examining the effects of real-time data and environmental dynamism on the strategic decision-making capabilities of various operational roles, the study sheds light on the critical factors that influence decision-making speed. These factors include the availability and quality of data, the technological infrastructure in place, and the training and experience of the personnel involved. Understanding these elements is essential for optimizing decision-making processes, ensuring that operations run smoothly and safely.

The study identifies several key factors that influence decision-making speed and their impacts on safety and efficiency. These factors range from the immediate accessibility of accurate and comprehensive data to the implementation of advanced technological solutions such as predictive analytics and machine learning. By leveraging these technologies, the industry can not only enhance the speed and accuracy of decision-making but also anticipate and mitigate risks before they escalate into more significant issues. This proactive approach to risk management is crucial for maintaining high levels of safety and operational integrity.

In conclusion, the integration of real-time digital information into the oil and gas industry represents a significant advancement in enhancing production performance and ensuring operational safety. The ability to make quick and informed decisions in response to rapidly changing conditions is a critical factor in maintaining efficient and safe operations. This research highlights the importance of adopting advanced technological solutions and emphasizes the need for continuous improvement in data quality and accessibility.

To maximize the benefits of real-time data integration, it is recommended that the industry invest in cutting-edge technologies and robust training programs for personnel. Enhancing the technological infrastructure and ensuring that all staff are well-versed in the use of real-time data and decision-making tools will be essential. Additionally, developing best practices based on the insights gained from this research can help standardize and improve decision-making processes across the industry. By focusing on these areas, the oil and gas sector can achieve greater operational efficiency, safety, and risk management, ultimately leading to more sustainable and profitable operations.

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CHAPTER 13

Adapting Human Resources Management to the Digital Age: The Role of Gamification and E-Recruitment

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ABSTRACT

The advancement of information technology has significantly impacted various sectors, including human resource management (HRM). A prominent innovation in this field is the adoption of web-based e-recruitment systems, which allow convenient access from any location. Within HRM, this technology is utilized not only for employee training and development but also for the recruitment process. Gamification is becoming an increasingly popular method for conducting recruitment tests. The incorporation of gamification in e-recruitment seeks to improve candidate interaction and engagement. This approach utilizes Marczewski's Gamification Framework, renowned for its ability to enhance user motivation and participation through game-like elements such as points, levels, and challenges. Integrating gamification, the recruitment process becomes more dynamic and competitive, enabling companies to evaluate job candidates more precisely. The use of gamification in e-recruitment offers additional advantages for companies, such as improved efficiency in the selection process and lower costs compared to traditional recruitment methods. Furthermore, the data gathered through the gamification system provides valuable insights into candidates' skills and behaviors, allowing companies to make more informed, data-driven hiring decisions. In summary, the integration of information technology via e-recruitment and gamification in HRM, particularly in the recruitment process, not only streamlines the selection of top candidates but also enhances the overall effectiveness and efficiency of HRM. This innovation equips companies to better tackle the challenges of the digital era, ensuring they attract the best talent to support their business growth and sustainability.

Keywords: Human Resource Management, E-Recruitment, Gamification, Digital Age, Data-Driven Recruitment.

1. INTRODUCTION

The advancement of information technology has significantly impacted everyday life, particularly in the field of recruitment (Shah, M. A., & Choirunnisa, Z., 2024). In human resource management (HRM), one of the most notable innovations is the adoption of web-based e-recruitment systems, which allow for convenient access from any location. Gamification has become an increasingly popular method for conducting recruitment tests (Georgiou, K. Et al., 2019). The use of gamification in e-recruitment aims to enhance candidate interaction and engagement in various selection processes, such as academic reasoning tests and figural tests. This system employs Marczewski's Gamification Framework, renowned for its ability to boost user motivation and participation through elements such as points, levels, and challenges, particularly targeting prospective employees (Kamat, S., 2022).

Integrating gamification makes the recruitment process more dynamic and competitive, enabling companies to evaluate candidates more accurately. The use of gamification in e-recruitment offers additional benefits for companies, including increased efficiency in the selection process and reduced costs compared to traditional recruitment methods (Obaid, I. Et al., 2020). Furthermore, the data collected through the gamification system provides valuable insights into candidates' skills and behaviors, allowing companies to make more informed, data-driven hiring decisions (Chittimineni, S. et al., 2024).

Overall, the integration of information technology through e-recruitment and gamification in HRM, particularly in the recruitment process, not only streamlines the selection of the best candidates but also enhances the overall effectiveness and efficiency of HRM (Holm, A. B., & Haahr, L., 2018). This innovation prepares companies to better tackle the challenges of the digital era, ensuring they attract the best talent to support their growth and sustainability. The use of gamification can make the recruitment process more efficient and engaging for candidates, preventing boredom. This integration demonstrates that, with the proper application, information technology can bring about significant positive changes in various aspects of human life.

2. LITERATURE REVIEW

2.1. Recruitment System in the Company

Modern companies often utilize information technology to enhance the efficiency and effectiveness of their employee recruitment systems (Torres, K. M., & Statti, A., 2021). One widely adopted innovation is e-recruitment, a web-based recruitment system that allows access from anywhere at any time. E-recruitment features include online applications, CV uploads,

and initial internet-based testing (Baykal, E., 2020). Additionally, gamification in e-recruitment is becoming popular, employing game elements like points, levels, and challenges to boost candidate interaction and engagement. This approach not only makes the recruitment process more dynamic and appealing but also provides more comprehensive data on candidates' skills and behaviors. Integrating technology in recruitment helps companies accurately and swiftly select the best candidates while reducing operational costs (Vrontis, D. et al., 2023). This system ensures that companies secure top talent to support their growth and sustainability in the digital era.

2.2. Gamification

Gamification is the use of game design metaphors to create more game-like and engaging experiences (Gallego-Durán, F. J. et al., 2019). The gamification method is currently widely developed in various platforms, especially in the field of recruitment (Obaid, I. et al., 2020). The following game elements are generally applied to the field to be gamified, among others (Marczewski, A., 2013):

a. Badges

Badges, medals, trophies, and other concepts are used to identify and reward individual user achievements. Some users enjoy the sudden surprise or pleasure when unexpected badges appear in the game (Chou, Y. K., 2019). This is expected to attract users to be interested in continuing to play.

b. Leaderboards

Leaderboards dynamically show the progression of a user's rank compared to other users. Leaderboards give users a view of how well they are using the app compared to other users.

c. Points and levels

A points and levels system is implemented to inform the user of their progression from entry level through skills and knowledge. It is also important to know the involvement of the user, as a new user or an experienced one as evidenced by the amount of points and levels they have.

d. Relationships

Relationships are experienced when users connect with other users by allowing the sharing of data and information through social media platforms (Ham, C. D., 2019). The integration between the system and social networks is very interesting to strengthen motivation towards users.

e. Achievements/Rewards

A tangible or intangible reward, presented after the occurrence of an action (i.e., behavior) with the intent to cause the behavior to occur again.

3. RESEARCH METHOD

3.1. Research Design Method

In this study, the gamification method developed by Marczewski's Gamification Framework is applied. Marczewski's framework is renowned for its effectiveness in enhancing user engagement and motivation through game-like elements such as points, levels, and challenges (Govender, T., & Arnedo-Moreno, J., 2021). By integrating this framework into the recruitment system, the process becomes more interactive and engaging for candidates. This approach not only makes the recruitment process more appealing but also provides companies with valuable insights into candidates' skills and behaviors. The comprehensive data collected through gamification allows for more informed, data-driven hiring decisions. Overall, the use of Marczewski's Gamification Framework in e-recruitment systems aims to improve the efficiency and accuracy of selecting the best candidates while reducing operational costs, ultimately supporting the company's growth and sustainability in the digital era.

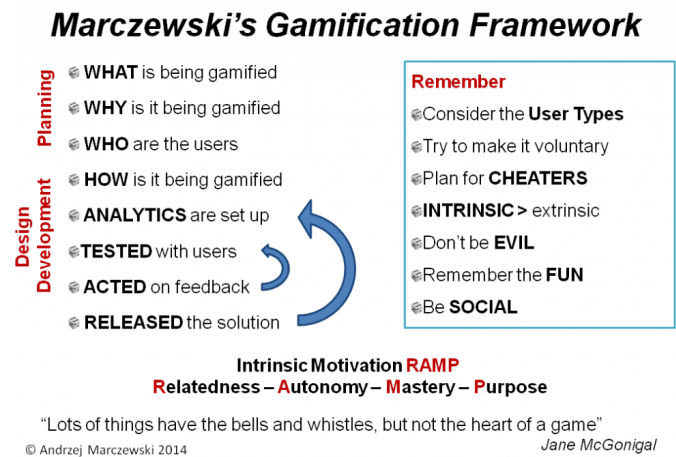


Figure 1. Marczewski's Gamification Framework.

In developing gamification in e-recruitment, researchers determine the type of user, namely the achiever type. The achiever type is a type of user who has high motivation to complete all the challenges [14]. By completing the challenges, users will get the opportunity to enter the next process if they get the top rank from prospective employee participants.

3.2. Elements of the Game

In the game element, the researcher implemented the following design:

- a. Points or experience points (XP), is the main element in e-recruitment. For novice users (prospective employees) will be given XP of 0. The XP will increase as the user completes each selection stage carried out by HRM.
- b. Level, is the level obtained by the user in completing the selection. This level is obtained based on the amount of XP collected by the user. E-recruitment, there are 5 levels, namely level 1 (administrative selection), level 2 (written selection), level 3 (interview selection), level 4 (medical examination selection), and level 5 (orientation of new employee candidates). To increase the level the user must collect XP with the following conditions:

Table 1. XP to collect at each level.

| <i>vel</i> | P |
|------------|----------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

- c. Leaderboard/ranking board, in this element users can see the acquisition of levels that have been achieved. In addition, users can see the levels of other users. The purpose of displaying the leaderboard is to motivate users to pursue the highest level.

4. RESULT AND DISCUSSION

4.1. Analysis of Marczewski Gamification Framework Results

From the analysis of implementing gamification method in e-recruitment, focusing on the four fundamental aspects of gamification design, the following are the resulting stages:

a. Planning

- What will be gamified?

In this study, the process of recruiting new employees is designed within an e-recruitment website.

- Why choose gamification?

E-recruitment is the process of hiring new employees into the company. The use of gamification in e-recruitment is chosen to enhance candidate interaction and motivation through game elements such as points, levels, and challenges. This approach aims to

make the selection process more engaging, effective, and provide deeper insights into the skills and behaviors of potential employees.

- Who are the users of the gamification system?

Users in this employee selection system are divided into two categories: admin (HRM) and users (potential employees).

b. Design

- How to gamify the system?

The design of e-recruitment will utilize two out of the four elements from Marczewski's Gamification Framework: Motivation and Feedback & Game Mechanics. Motivation will determine User Types in the gamification system. Meanwhile, Feedback & Game Mechanics will analyze game mechanics and their components.

- User Types

The Achiever is the user type for this gamified e-recruitment system. The goal of this user type is to assess and evaluate the knowledge of potential employees as they progress through each stage of the recruitment process.

- Game Mechanics

- E-recruitment using gamification will involve four out of the five game mechanics (Level/Progression, Quest/Challenge, Achievements/Rewards, Leaderboards, Competition).

4.1.1. Level/Progression

The determination of levels in this gamification is based on a selection process divided into 5 stages. Each stage includes questions and tasks designed to assess the user's understanding of the selection topics. Additionally, each stage has a passing grade set by HRM based on company criteria. According to the rules, if a prospective employee scores <70% cumulatively, they cannot proceed to the next stage; if >70%, they advance to the next selection stage. XP is also used to track the percentage of questions completed by the user in each selection stage.

4.1.2. Achievements/Rewards

Points and badges serve as rewards in e-recruitment.

a. Points

Each selection stage has its scoring criteria. For instance, in the administrative selection stage, points are awarded based on the completeness of submitted documents, which are then converted into XP.

b. Badges

There are 6 badges distributed across each selection stage.

4.1.3. Quest/Challenge

After successfully completing the first stage at level 1, the user progresses to level 2. If level 2 does not meet the requirements, the user cannot proceed to level 3 or beyond. Upon completing levels 1 to 5 successfully, the user earns a badge as an official candidate for employment. Once the orientation process is completed successfully, the user's badge transitions to an employee badge.

4.1.4. Leaderboards

In this leaderboard, all users can see who has earned the highest scores and how far they have progressed in the selection stages.

4.2. Gamification Page View on E-Recruitment

The following is a display of the selection process at stage 2 of the written test.

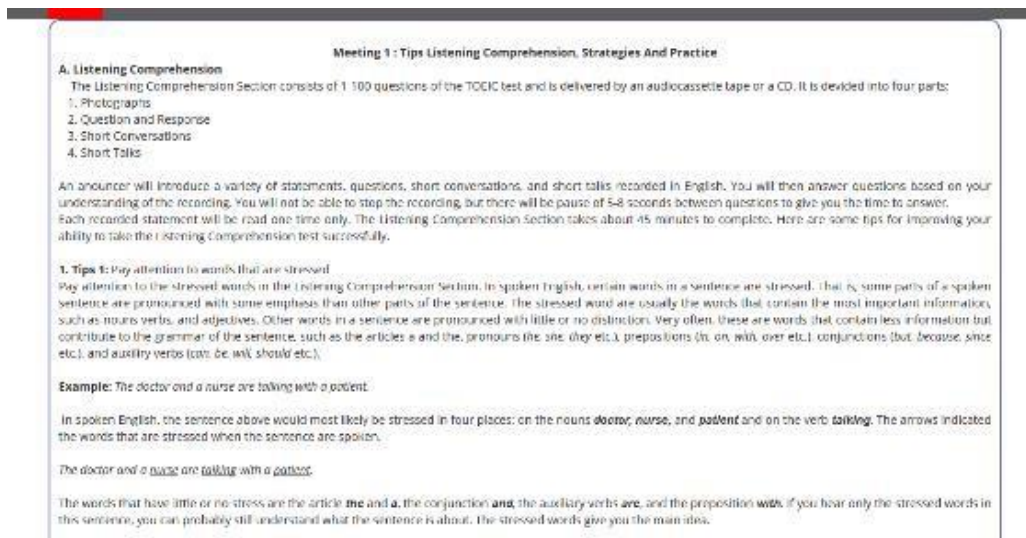


Figure 2. Display of stage 2 written test in the English language proficiency area

The display of Stage 2 written tests in English language proficiency showcases a comprehensive assessment focusing on reading, writing, and comprehension skills. This stage evaluates candidates' ability to communicate effectively and understand complex texts. The evaluation criteria are designed to gauge candidates' proficiency levels accurately, ensuring that those progressing to subsequent stages possess the necessary language skills for the role. This stage aims to select candidates who can articulate ideas fluently and accurately in English, essential for roles requiring strong language proficiency. Thus, HRM will be more empowered in selecting the best prospective employees for the company.

4.3. Discussion

Adapting Human Resources Management (HRM) to the digital era involves integrating gamification and e-recruitment, which plays a pivotal role in transforming conventional methods to address contemporary challenges and opportunities. This discussion examines the ramifications, advantages, obstacles, and resolutions linked to employing gamification and e-recruitment in HRM.

4.3.1. Implications of Gamification and E-Recruitment

Gamification, the application of gaming principles in non-game contexts, has revolutionized HRM by enhancing engagement and interactivity in processes. In recruitment, it converts routine tasks into stimulating challenges, thereby boosting candidate involvement and retention. E-recruitment utilizes web-based platforms to streamline hiring procedures, providing flexibility and accessibility to recruiters and candidates alike. These innovations collectively enhance efficiency, bolster accuracy in candidate assessment, and reduce costs associated with traditional recruitment methods.

4.3.2. Advantages of Integration

The fusion of gamification and e-recruitment yields numerous benefits for HRM. Firstly, it enriches the candidate experience by making the recruitment process more interactive and transparent, fostering positive perceptions of the organization. Secondly, gamification enables HRM to gather comprehensive data on candidates' competencies and behaviors, facilitating well-informed hiring decisions. Furthermore, e-recruitment platforms extend HRM's reach to a wider global talent pool, transcending geographical constraints.

4.3.3. Challenges Encountered

Despite its advantages, incorporating gamification and e-recruitment in HRM presents challenges. A primary concern is designing gamified systems that align with organizational objectives and values while ensuring fairness and inclusivity. It is crucial to maintain the focus on evaluating essential skills and competencies amidst the gamification process. Additionally, substantial investments in developing gamified platforms and training HR personnel in utilizing these technologies are necessary. Moreover, safeguarding sensitive candidate information in e-recruitment platforms requires robust data privacy and security measures.

4.3.4. Resolutions

To address these challenges, HRM can implement several strategies. Firstly, meticulous planning and collaboration between HR professionals and gamification experts are crucial to align gamified systems with strategic HR goals. Clear communication of expectations ensures that gamification enhances rather than detracts from the recruitment process. Secondly,

continuous evaluation and refinement of gamified platforms based on candidate feedback and performance analytics optimize their effectiveness. Thirdly, investments in cybersecurity measures and adherence to data protection regulations safeguard candidate information and uphold trust in e-recruitment practices.

5. CONCLUSION AND RECOMMENDATIONS

The impact of information technology on various sectors, notably human resource management (HRM), has been profound. Web-based e-recruitment systems have revolutionized HRM by offering accessible recruitment processes from any location. These systems are integral not only for training and development but also for enhancing recruitment efficiency. Gamification has emerged as a popular strategy within e-recruitment, utilizing Marczewski's Gamification Framework to enhance candidate engagement through points, levels, and challenges. This integration makes the recruitment process dynamic and competitive, enabling precise evaluation of candidates while reducing costs compared to traditional methods. Moreover, gamification yields comprehensive data on candidate skills and behaviors, empowering informed hiring decisions. Overall, the integration of e-recruitment and gamification in HRM streamlines candidate selection, enhances operational efficiency and extends recruitment reach globally. However, challenges such as aligning gamified systems with organizational goals, investing in technology adoption, and ensuring data security require strategic planning and continuous evaluation. Implementing these strategies ensures that HRM optimizes gamification benefits while addressing inherent challenges, thereby supporting sustainable business growth in the digital era.

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CHAPTER 14

Unveiling the Dynamics of Organizational Structure and Strategy: Insights for Enhancing Corporate Performance

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ABSTRACT

This review offers a comprehensive exploration of the complex connection between organizational setup and strategy to enhance corporate performance. Through a synthesis of various theoretical models and practical studies, it illuminates the evolving character of this correlation and its ramifications for business triumph. Through formulating a conceptual framework and scrutinizing pertinent literature, this review endeavors to conduct a comprehensive analysis of the theoretical landscape underpinnings of organizational structure and control. Specifically, the review delves into the concept and theories of modular organizational systems, offering valuable insights into areas such as organizational reconfiguration, dynamic capability theories, modular system theories, and strategy-structure theories. By amalgamating perspectives from various angles, it provides a nuanced comprehension of how organizational structure and strategy interact to shape corporate performance. Furthermore, the review investigates the impact of these theories on corporate performance, highlighting the importance of strategic alignment and effective organizational change management. It underscores the need for companies to carefully consider essential factors when evaluating the outcomes of organizational restructuring, emphasizing the significance of managing organizational changes within the strategic context of the corporation. In conclusion, this review provides valuable insights into the theoretical foundations of strategy, organizational structure, and control dynamics, offering practical implications for enhancing corporate performance. By unlocking the insights, organizations can navigate the complexities of organizational dynamics more effectively, driving innovation, agility, and the enduring viability within the contemporary and ever-changing business environment.

Keywords: Organizational Structure, Modular Organizational Systems, Organizational Reconfiguration, Dynamic Capability, Strategy-structure, Corporate Performance.

1. INTRODUCTION

Strategic management scholars and practitioners have engaged in extensive discourse regarding the pivotal role of organizational structure and control as strategic components influencing firm performance, encompassing both efficiency and effectiveness (Chandler 1962, Hitt et al., 2016, Oracha, 2022, Tawse et al., 2021). This debate underscores the fundamental importance of aligning the organizational architecture with strategic objectives to achieve desired outcomes. However, despite concerted efforts by firms to synchronize strategy and structure, research indicates prevalent disparities between the two, often stemming from challenges associated with managing organizational changes and confronting organizational inertia (Teofilus, et al., 2022).

Hitt et al. (2016) shed light on the primary challenge encountered in crafting organizational structures that effectively support the firm's strategy. They attribute this difficulty to the uncertainties and unpredictable variations inherent in cause-effect relationships within rapidly changing markets. This acknowledgment underscores the dynamic nature of modern business environments, where traditional approaches to organizational design may prove insufficient in responding to evolving market dynamics and competitive pressures.

Consequently, firms are increasingly cognizant of the strategic imperative to transform their organizational structures in response to environmental changes (Kortus & Gutmann, 2023; Witschel, Baumann, Voigt, 2022). In today's rapidly evolving markets, where disruptive forces and technological advancements constantly reshape industry landscapes, the ability to adapt swiftly and effectively is paramount to sustaining competitive advantage. Therefore, organizations are compelled to reassess and recalibrate their structural configurations to enhance agility, resilience, and responsiveness in navigating turbulent market conditions (Pinho 2023). Ozuem et al (2022) addressing the challenge of aligning strategy and structure requires a nuanced understanding of the interplay between organizational design, market dynamics, and strategic intent. It entails striking a delicate balance between achieving structural stability to maintain operational coherence and fostering structural flexibility to facilitate adaptability and innovation. This necessitates a proactive approach to organizational design, characterized by continual experimentation, learning, and adjustment in response to shifting environmental exigencies.

Moreover, the quest for alignment between strategy and structure underscores the significance of strategic foresight and proactive anticipation of market trends and disruptions. Organizations must develop robust mechanisms for scanning the external environment, identifying emerging opportunities and threats, and aligning internal capabilities and resources accordingly. This

entails fostering a culture of strategic agility and adaptability, where organizational structures are designed to facilitate rapid decision-making, resource allocation, and course correction in response to changing market dynamics.(Joseph et al., 2020).

In summary, the alignment of organizational structure with strategic imperatives represents a critical challenge and opportunity for contemporary firms functioning within fluctuating and unpredictable business environments. By adopting strategic flexibility, adaptability, and anticipation, organizations can improve their ability to maneuver through intricacies, seize emerging prospects, and maintain competitive edge in today's rapidly evolving markets.

While organizational structure and control are widely acknowledged as strategic tools for maintaining competitive advantage, the inertia often associated with organizational changes poses a significant obstacle to enacting structural transformations. This inertia manifests when firms and employees adhere to existing structures due to familiarity with established working relationships, delaying change until performance reaches a critical threshold necessitating action (Hitt et al., 2016).

Reacting to the obstacles presented by organizational stagnation and the imperative for change, strategic management scholars have conducted extensive analyses and case studies to explore issues related to organizational change, reconfiguration, and strategic leadership. These scholarly endeavors have yielded valuable insights into various facets of organizational dynamics and effectiveness. For instance, research on modularity in organizational structure, as elucidated by Karim (2006), provides valuable perspectives on how organizations can adapt their structures to enhance agility and responsiveness to market changes.

Moreover, investigations into alternative organizational forms for multinational corporations, as examined by Ghoshal & Nohria (1993), offer insights into how firms can configure their structures to effectively manage the complexities of operating across diverse geographic and cultural contexts. By understanding the nuances of different organizational forms, firms can optimize their structures to capitalize on opportunities and mitigate risks associated with global operations.

Furthermore, scholarly inquiry into the role of strategic leadership in fostering innovation, as explored by Elenkov et al. (2005), sheds light on the significance of leadership actions and methodologies in propelling organizational transformation and adjustment. Competent strategic leadership is vital for expressing a compelling vision, rallying resources, and cultivating an atmosphere of innovation and ongoing enhancement.

Karim's (2006) exploration of dynamic capability perspectives offers valuable insights into how organizations can develop the capacity to perceive, capture, and metamorphose in reaction to

evolving market conditions. By cultivating dynamic capabilities, firms can enhance their ability to adapt and innovate, thus maintaining competitiveness in rapidly evolving industries.

Similarly, Ghoshal & Nohria's (1993) examination of alternative organizational forms provides a framework for understanding the trade-offs and considerations involved in designing multinational corporations' structures. By strategically aligning their structures with their strategic objectives and environmental contexts, firms can enhance their global competitiveness and resilience.

Elenkov et al.'s (2005) research on strategic leadership underscores the critical role of leaders in driving organizational change and innovation. Effective strategic leaders inspire and empower employees, foster a culture of creativity and experimentation, and navigate the complexities of organizational transformation with vision and agility.

The authors embarked on a comprehensive review of selected journals and books to elucidate the current state of strategy-structure dynamics. This endeavor involved delving into seminal works like Chandler's (1962) seminal work, which offers profound insights into organizational form, laying the groundwork for subsequent research in the field. Additionally, the review encompassed studies exploring the impact of divisional reorganization on firm performance, as investigated by scholars such as Hoskisson & Galbraith (1985), Hoskisson (1987), and Keats & Hitt (1988). By synthesizing insights from these diverse sources, the authors aimed to provide a detailed comprehension of the complex interplay between strategy and organizational framework.

In order to comprehensively address both central and regional organizational structures, the study leveraged data from various sources. Furthermore, Through these interviews, the researchers gained a deeper understanding of critical aspects such as the origins of the organizational structure, the rationale behind reorganization efforts, and the functionality of different divisions and sub-divisions. Moreover, the interviews shed light on the complexities of authority dynamics within the organization and how competency measurements informed decision-making at the regional level.

By triangulating data from multiple sources, this multifaceted approach enabled the researchers to capture the complexity and nuances of the firm's structure, providing a holistic view of its strategic alignment and operational effectiveness.

Moreover, the utilization of diverse data sources allowed for a robust validation of findings, enhancing the credibility and rigor of the study. By corroborating insights gleaned from annual reports with qualitative data obtained through interviews, the authors were able to triangulate their findings, mitigating the risk of bias and ensuring the reliability of their conclusions.

Overall, the study's methodological approach exemplifies a commitment to thoroughness and rigor in research, underscoring the importance of leveraging diverse data sources to gain a comprehensive understanding of complex organizational phenomena. Through meticulous data collection and analysis, the authors sought to contribute valuable insights to the scholarly discourse on strategy-structure dynamics, offering actionable recommendations for firms navigating organizational change and strategic realignment.

2. LITERATURE REVIEW

The concept of modular organizational systems, particularly in the context of product modularity, holds significant implications for organizational structures. Drawing on seminal research conducted by Henderson & Clark (1990), Langlois & Robertson (1992), and Garud & Kumaraswamy (1995), along with other scholars, illuminates how modular product systems frequently lead to modular organizational structures. These pioneering studies provide valuable insights into the interplay between product design and organizational architecture, highlighting the inherent linkages between the two domains.

Schilling's (2000) general modular system theory offers a comprehensive framework for understanding the evolution of modularity within organizational systems. By examining how the degree of modularity changes as components develop synergistic specificity, the theory provides valuable visions into the dynamic nature of modular structures. This perspective underscores the need for organizations to constantly adjust and develop their frameworks in reaction to evolving environmental conditions and strategic imperatives.

The article delves into concepts such as decomposability and loose coupling, as explored by Simon (1916), Alexander (1964), and Weick (1976). These ideas provide a nuanced understanding of the interdependence and independence within modular systems, elucidating how various components interact and influence one another. By unpacking these fundamental concepts, the article deepens our understanding of the underlying mechanisms driving modular organizational structures.

Moreover, the article underscores the adaptability and flexibility inherent in organizational structures, drawing from insights by Orton & Weick (1990) and Ciborra (1996). These scholars argue that organizations actively experiment with their organizations, leveraging available resources to achieve strategic objectives. This dynamic approach to organizational design allows firms to stay flexible and adaptable when confronted with shifting market circumstances and competitive demands.

In the synthesizing insights from these diverse sources, the article offers a thorough overview of the implications of modular organizational systems. It highlights the dynamic nature of organizational structures, highlighting the necessity for companies to consistently innovate and adjust their designs to sustain competitiveness within the rapidly evolving business landscape of today. This multifaceted perspective enriches our understanding of organizational dynamics, providing valuable insights for both scholars and practitioners alike.

Furthermore, the article explores the practical implications of modular organizational systems for firms operating in various industries. By examining real-world examples and case studies, it illustrates how companies across different sectors have leveraged modular structures to enhance their agility and performance. These empirical insights offer tangible evidence of the benefits of modular design, providing actionable guidance for organizations seeking to optimize their organizational structures.

In conclusion, the concept of modular organizational systems represents a paradigm shift in our understanding of structural design. By exploring the theoretical underpinnings and practical implications of modularity, this article offers valuable understanding how companies can adjust and flourish within an increasingly intricate and ever-changing business environment.

These role of dynamic capabilities in enabling firms to navigate turbulent markets effectively cannot be overstated. Research conducted by scholars such as Amit & Schoemaker (1993), Corner & Prahalad (1996), and Galunic & Eisenhardt (1996, 2001) sheds light on how firms by dynamic capabilities possess the agility and resilience to adapt to rapidly changing market conditions. These studies underscore the crucial importance of dynamic capabilities in propelling organizational success amidst uncertainty and volatility.

Central to dynamic capabilities involve the efficient administration of resources through divisional responsibilities. Galunic & Eisenhardt (1996, 2001) argue that firms must decentralize decision-making and empower divisional units to respond swiftly to market changes. By distributing authority and accountability across various divisions, organizations can enhance their responsiveness and agility, thereby gaining a competitive edge in dynamic environments.

Moreover, the article explores the concept of organizational modularity and its implications for resource management. Helfat & Eisenhardt (2004) propose that organizations can achieve greater flexibility and adaptability by modularizing their structures and processes. Through breaking down complex systems into modular components, firms can facilitate resource reuse and reallocation, empowering them to react more efficiently to evolving market requirements.

Furthermore, the article delves into the specific mechanisms through which corporations can leverage organizational modularity to enhance their strategic agility. It examines how modular structures allow organizations can swiftly and effectively restructure their resources to adapt to changing market dynamics. This strategic adaptability empowers companies to seize emerging opportunities and mitigate potential threats, thereby improving their overall performance and resilience (Hunt et al., 2020).

In addition to resource orchestration, dynamic capabilities also act a crucial contribution to promoting innovation and nurturing organizational knowledge. Scholars like Teece et al. (1997), Eisenhardt & Brown (1999), and Eisenhardt & Martin (2000) underscore the significance of ongoing experimentation and adjustment in turbulent settings. Through fostering an innovative culture and viewing failure as a chance for learning, companies can boost their innovation capabilities and maintain a competitive edge.

Additionally, the paper emphasizes the significance of strategic leadership in empowering companies to cultivate and utilize dynamic capabilities efficiently. Eisenhardt & Martin (2000) contend that forward-thinking leaders have a pivotal influence on molding organizational culture and propelling strategic change. By championing innovation and empowering employees to take calculated risks, leaders can foster a dynamic and adaptive organizational culture that is well-positioned to thrive in turbulent markets.

Overall, the concept of dynamic capabilities offers valuable insights into how firms can navigate uncertainty and volatility in today's rapidly changing business landscape. By effectively managing resources, embracing organizational modularity, fostering innovation, and cultivating strategic leadership, organizations can enhance their resilience and competitiveness in turbulent markets. Through a holistic approach to dynamic capabilities, firms can adapt and thrive in an increasingly unpredictable and competitive environment.

2.1. Modular Product and Organizational Systems and Processes

The theory of modular product and organizational systems and processes encompasses several key concepts and theories that provide insights into the dynamics of modular systems and their evolution. One such theory is the general modular system theory proposed by Schilling (2000), which suggests that the degree of modularity within a system decreases as its components gain "synergistic specificity." This theory implies that as components become more specialized and interconnected, the overall modularity of the system diminishes, affecting its adaptability and flexibility.

The notions of decomposability and loose coupling are pivotal in this context in understanding modular systems. Originally proposed explored by Simon (1916), Alexander (1964), and Weick (1976), these ideas underscore the differentiation between interconnected and separate components within a system. Decomposability pertains to the degree to which a system can be divided into smaller parts, more manageable components, while loose coupling refers to the degree of independence between these components. Understanding these concepts is essential for designing modular systems that can effectively respond to changing needs and requirements. Moreover, the flexibility and adaptability of organizational structures are central to the theory of modular systems. Orton and Weick (1990) argue that organizational structures are inherently malleable, capable of adapting and flexing in response to internal and external pressures. This inherent flexibility enables organizations to navigate changing environments, seize new opportunities, and overcome challenges effectively. By embracing flexible organizational structures, companies can boost their resilience and adaptability amid unpredictability and volatility.

Furthermore, the structural evolution of high-tech firms provides valuable insights into the dynamics of modular systems. Researchers such as Ciborra (1996) have observed that high-tech firms actively experiment with their structures via the "skillful reassembly of available resources." This iterative method of experimentation allows firms to optimize their structures and processes continuously, driving innovation and performance improvement.

Additionally, studies on dynamic capabilities highlight the role of organizational structures in enabling firms to adapt to turbulent markets effectively. Scholars such as Amit & Schoemaker (1993) and Galunic & Eisenhardt (1996, 2001) emphasize the importance of managing resources through divisional responsibilities, which allows firms to allocate resources strategically and respond quickly to changing market conditions.

Moreover, the concept of reusing resources, as referred to by Helfat & Eisenhardt (2004), underscores the importance of organizational modularity in enhancing strategic agility. By reusing existing resources and leveraging modular organizational structures, firms can achieve greater efficiency and effectiveness in their operations.

In summary, the theory of modular product and organizational systems and processes includes a wide range of ideas and theories that offer valuable perspectives on the workings of modular systems. By understanding these theories and concepts, firms can design and manage modular systems that are flexible, adaptable, and responsive to changing needs and requirements, thereby enhancing their competitive advantage and performance in dynamic environments.

The structural evolution of high-tech firms, as observed by Ciborra (1996), involves a dynamic process of experimentation and adaptation. High-tech firms are known for their innovative and fast-paced nature, constantly seeking ways to stay ahead of technological advancements and market trends. As such, they engage in active experimentation with their organizational structures. This process entails continuously evolving and refining organizational structures to meet the evolving needs of the industry.

This iterative process of structural evolution is driven due to the ever-changing environment of the high-tech sector, marked by swift technological progressions and fluctuating market conditions. High-tech firms must constantly adapt and innovate to remain competitive in such a volatile environment. As a result, they embrace experimentation as a fundamental aspect of their organizational culture, continuously seeking new ways to optimize their structures and processes (Thomke, 2020). The structural evolution of high-tech firms reflects the broader trend towards organizational agility and flexibility in today's business landscape. In an era marked by uncertainty and disruption, organizations across industries are recognizing the need to adapt quickly to changing circumstances. High-tech firms, with their emphasis on innovation and agility, serve as exemplars of this trend, constantly evolving their structures and strategies to stay in the lead of the curvature (Addy et al., 2024).

Furthermore, the structural evolution within high-tech enterprises highlights the significance of flexibility and endurance in organizational structure. By adopting trial and adaptability, these businesses are more adept at maneuvering through the intricacies of contemporary business landscapes. They can promptly address emerging chances and risks, positioning themselves for sustained success in a swiftly changing environment.

In summary, the structural evolution of high technological firms exemplifies the principles of adaptability, flexibility, and experimentation in organizational design. By continuously refining their structures and processes, these firms are able to stay ahead of technological advancements and market trends, positioning themselves as leaders in their respective industries. As organizations across sectors seek to emulate their success, the lessons learned from high-tech firms' structural evolution become increasingly relevant in today's fast-paced business world.

2.2. Dynamic capabilities (DC) and Strategy-Structure

Dynamic capability plays a pivotal role in organizational adaptation and performance, particularly in the face of turbulent markets. Scholars such as Amit & Schoemaker (1993), Corner & Prahalad (1996), and Galunic & Eisenhardt (1996, 2001) have extensively studied how companies with dynamic capabilities effectively navigate unpredictable market conditions.

These capabilities enable organizations to detect alterations in their surroundings, seize emerging prospects, and reorganize resources to uphold or elevate their competitive edge.

By continuously scanning the external landscape and rapidly adjusting their strategies and structures, firms with dynamic capabilities can remain agile and resilient in turbulent markets. Effective resource management through divisional responsibilities is another key aspect of organizational adaptation and performance. According to Galunic & Eisenhardt (1996, 2001), allocating resources strategically across divisions allows organizations to enhance their responsiveness to market dynamics and improve overall performance. By decentralizing decision-making and empowering divisional leaders, firms can capitalize on local market insights and tailor their strategies and tactics to meet limited customer needs. This decentralized approach to resource management fosters agility and responsiveness, enabling Organizations must swiftly adjust in response to evolving market conditions.

Organizational modularity offers another avenue for enhancing organizational adaptability and performance through resource reuse. Helfat & Eisenhardt (2004) explore how organizations can leverage modularity to design flexible structures that facilitate the efficient reuse of resources across different functions or divisions. By standardizing processes and interfaces, organizations can create modular components that can be easily reconfigured and repurposed as needed. This modular approach to resource management Enabling organizations to promptly address shifting demands is crucial. This capability allows them to seize emerging opportunities effectively without incurring significant costs or disruptions.

Furthermore, the concept of reusing resources within an organizational context underscores the importance of efficiency and sustainability in resource allocation. By adopting a modular mindset, associations can streamline their operations and minimize waste, thereby maximizing the value derived from existing resources. Taking a proactive stance toward resource management offers more than just bolstering organizational agility. It also plays a pivotal role in fostering long-term resilience and maintaining competitiveness within the industry in dynamic markets (Do et al, 2022).

In summary, dynamic capabilities, effective resource management through divisional responsibilities, and organizational modularity are all critical components of organizational adaptation and performance in turbulent markets. By leveraging these principles, organizations can enhance their agility, responsiveness, and sustainability, positioning themselves for long-term success in an increasingly volatile business environment. As markets continue to evolve and become more unpredictable, the ability to adapt and innovate will remain essential for organizations seeking to thrive amidst uncertainty.

Strategy-Structure dynamics are central to understanding how organizations align their strategic objectives with their organizational structures to optimize performance. Chandler (1962) is credited with laying the foundation for this research, which explores how firms strategically design their structures to support their goals. This line of inquiry investigates the factors influencing firms' choices to adopt more or less divisionalized structures and how these choices impact performance. Scholars such as Hoskisson and Galbraith (1985) introduced their findings, followed by Hoskisson's work in 1987. In 1988, Keats and Hitt presented their research, and in 1990, Brickley and Van Drunen contributed their have delved into these factors, shedding light on the complexities of organizational design.

Furthermore, research on restructuring and refocusing efforts within diversified and multidivisional firms provides valuable insights into the interplay between structural changes and shifts in business scope. Porter (1987), Bowman & Singh (1990), Hoskisson & Johnson (1992), and Johnson (1996) have explored the strategies employed by firms to adapt to changing market conditions and improve organizational performance through restructuring initiatives. These studies emphasize the importance of aligning structural changes with strategic objectives to enhance competitiveness and agility.

Resource redeployment and reconfiguration are also acute components of strategy-structure dynamics, as firms seek to optimize their resource allocation and utilization. Scholars such as In 1998, Capron and colleagues delved into the strategic reallocation of resources within firms. Meanwhile, Karim and Mitchell, in 2004, explored how companies adjust their resource allocation, including targets and acquirers, to align with changing market dynamics and seize emerging prospects. By redeploying with reconfiguring resources, organizations can enhance their competitive positioning and achieve sustainable growth.

Moreover, the recombination of organizational units plays a crucial role in resource optimization and strategic alignment within organizations. Barney (1991) has explored how the recombination of units leads to the realignment of resources with strategic objectives, enabling firms to respond effectively to market dynamics and changing business environments. This process of recombination allows organizations to leverage their internal capabilities and assets more effectively, driving innovation and enhancing competitiveness.

Overall, these theories underscore dynamic capabilities hold significant importance in today's business landscape strategic alignment in enabling organizations to adapt to turbulent environments, manage resources effectively, and achieve superior performance. By interpretation the complex interplay between strategy and structure, firms can develop more

agile and resilient organizations capable of Arokodare and colleagues (2021) emphasized the necessity of thriving amidst the swiftly evolving business environment.

3. RESEARCH METHOD

3.1. Conceptual Framework

The conceptual framework to develop the strategy-structure dynamics and corporate performance. The framework include to examine dynamic relationship between strategy and structure within organizations extensive research and debate within the field have revolved around this subject strategic management. This relationship traces its roots back to seminal work by Chandler (1962), who pioneered research on strategy-structure dynamics and laid the groundwork for subsequent studies in this area. Chandler's insights shed light on how firms' strategies shape their organizational structures and vice versa, highlighting the interdependence between these two elements.

Building upon Chandler's foundational work, scholars have delved deeper into understanding the factors influencing the alignment between strategy and structure within organizations. Studies by Hoskisson & Galbraith (1985), Keats & Hitt (1988), and others have explored the complexities of divisionalization levels and the implications of divisional reorganization on firm performance. These studies offer valuable insights into the strategic considerations that drive organizational restructuring efforts and their impact on overall effectiveness.

The strategic framework proposed to the intricate interplay between structure and resources within organizations. Karim (2006) emphasizes the importance of this interaction, highlighting how firms strategically deploy and reconfigure their resources to adapt to changing business environments. By aligning their structures with their resource portfolios, In confronting evolving market conditions, organizations have the opportunity to bolster both their agility and resilience.

In addition to resource management, this framework discusses the recombination of organizational units as a mechanism for facilitating resource optimization within organizations. Drawing on insights from Barney (1991), it explores how reconfigurations of organizational units can lead to more efficient resource allocation and utilization. This recombination process enables organizations to streamline their operations and maximize the value derived from their resources. Moving beyond the internal dynamics of organizations, the article also delves into the multifaceted nature of mergers and acquisitions (M&A) studies. Hitt et al. (2009) provide a comprehensive overview of key variables that drive organizations to undertake restructuring initiatives.

External factors encompass a spectrum of influences emanating from the broader business environment, exerting considerable pressure on organizational strategies and restructuring initiatives. Customer satisfaction and evolving expectations serve as critical drivers, influencing firms to adapt their structures to better meet consumer demands and preferences. Concurrently, market conditions play a pivotal role, necessitating organizational agility to navigate shifts in demand, supply dynamics, and industry trends effectively (Pinho, 2023).

Government policies and regulations further shape the landscape within which organizations operate, imposing constraints and opportunities that influence restructuring decisions. By complying with regulatory requirements and aligning with governmental mandates, firms can mitigate risks and capitalize on emerging opportunities in the market. Moreover, the structure of competition and the advent of disruptive technologies introduce additional complexities, prompting firms to reevaluate their structures to maintain competitiveness and capitalize on innovation (Del Giudice et al, 2021). Internally, organizations are driven by intrinsic factors that shape their restructuring endeavors and strategic direction. At the core of these factors lie the corporate vision and mission, serving as guiding principles that inform strategic decisions, including restructuring initiatives. Concurrently, considerations of cost and process efficiency weigh heavily, compelling organizations to optimize resource allocation and streamline operations to enhance profitability and sustainability (Johnson, 2023).

Furthermore on the framework, the pursuit of organizational effectiveness and innovation serves as a catalyst for reorganization efforts, as firms seek to enhance their agility, adaptability, and responsiveness to internal and external challenges. Organizations can position themselves for enduring success in dynamic market environments by cultivating a culture centered on innovation and continual enhancement. This fosters transformative change, driving them towards long-term prosperity.

In the summary, the comprehensive conceptual framework will illuminate the complex interplay between external environmental factors with internal organizational dynamics that underpin restructuring decisions in mergers and acquisitions. This framework of multifaceted nature of organizational dynamics is unveiled through the valuable insights provided restructuring, highlighting the need for firms to navigate a diverse array of influences to achieve tactical objectives effectively, the motives behind organizational restructuring in the context of mergers and acquisitions are shaped by a grouping of external and internal issues (Tarba et al, 2020). By understanding and navigating these factors, firms can develop strategic restructuring initiatives that enhance their competitive positioning, drive innovation, and foster long-term sustainability in an ever-evolving business landscape.

4. RESULT AND DISCUSSION

The analysis of the proposed strategic framework aimed at developing strategy-structure dynamics and organizational performance delves into the intricate association between strategy and structure within organizations, a topic that has been a central focus of research and discourse. Kretschmer and colleagues (2022) have contributed significantly within the realm of strategic management. The proposed framework seeks to scrutinize how strategies devised by organizations intersect with their internal structures, a nexus that has garnered significant scholarly attention over the years. This exploration is underpinned by the recognition that the interplay between strategy and structure is fundamental to understanding how organizations function and perform in complex environments (Reike et al, 2023).

The proposed framework model traces its conceptual roots back to the seminal work of Chandler (1962), a pioneering figure whose research laid the foundational groundwork for subsequent studies in this domain. Chandler's seminal insights provided early illumination on the reciprocal relationship between firms' strategies and their organizational structures. His work underscored the dynamic interdependence between these two elements, highlighting how strategic decisions shape organizational structures and vice versa. This foundational understanding forms the basis upon which the proposed framework seeks to build a more comprehensive understanding of strategy-structure dynamics and organizational performance. Central to the proposed framework is the recognition of the nuanced and multifaceted nature of the relationship between strategy and structure within organizations. It acknowledges that this relationship is not one-dimensional but rather characterized by a complex interplay of factors and dynamics. By delving into this complexity, the framework aims to uncover deeper insights into how organizations can strategically align their structures with their overarching objectives and goals (Mizrak, 2023)

Moreover, the proposed framework adopts a holistic approach, recognizing that Strategy-Structure Dynamics and Structural Performance are influenced by a myriad of internal and external factors. It acknowledges the significance of various contextual factors, including industry dynamics, competitive pressures, technological advancements, and regulatory frameworks, can significantly influence the strategic landscape frameworks in shaping the strategic decisions and structural configurations of organizations (Egwuonwu et al, 2023).

By considering these broader contextual elements, the framework seeks the aim is to offer a deeper and more comprehensive comprehension of the intricate dynamics in motion.

Furthermore, the proposed framework adopts an integrative perspective, recognizing the interconnectedness of strategy, structure, and performance within organizations. It seeks to

bridge the gap between theoretical insights and practical implications by offering actionable insights that organizations can leverage to enhance their strategic decision-making and performance outcomes. By integrating hypothetical perspectives with empirical evidence and practical applications, the framework aims to provide a robust analytical tool for Organizations aiming to traverse the intricate landscape of Strategy-Structure Dynamics and Organizational Performance.

In essence, the analysis of the proposed strategic framework represents a significant step forward in advancing our understanding of the complex relationship between strategy and structure within organizations. By examining this relationship through a multidimensional lens and considering the broader contextual factors at play, the framework offers valuable insights that can inform strategic decision-making and organizational performance enhancement efforts. The idea of the framework also expanding upon Chandler's foundational work, when scholars have conducted in-depth analyses to understand the factors shaping the alignment between strategy and structure within organizations. These studies offer valuable insights into the strategic considerations that drive organizational restructuring efforts and their impact on overall effectiveness.

The strategic framework further examines the intricate interplay between organizational structure and resources. Karim (2006) underscores the significance of this interaction, highlighting how firms strategically deploy also reconfigure their resources to adapt to evolving business environments. By aligning their structures with their resource portfolios, In the midst of shifting market conditions, organizations have the opportunity to bolster both their agility and resilience.

The analytical provided offers a comprehensive overview of the resource management, it has to know how the recombination of organizational units as a mechanism for facilitating resource optimization within organizations. Drawing on insights from Barney (1991), it explores how reconfigurations of organizational units can lead to more efficient resource allocation and utilization. This recombination process enables organizations to streamline their operations and maximize the value derived from their resources.

External factors play a crucial role in shaping organizational strategies and restructuring initiatives. Customer satisfaction, market conditions, government policies, regulations, competition, and disruptive technologies exert considerable influence, necessitating organizational agility to navigate effectively through shifts in demand, supply dynamics, and industry trends (Miceli et al, 2021). The analysis highlights of organizations internally, are driven by intrinsic factors such as corporate vision and mission, cost and process efficiency,

and the pursuit of organizational effectiveness and innovation. These factors shape restructuring endeavors and strategic direction, compelling organizations to optimize resource allocation and streamline operations to enhance profitability and sustainability (Wu, 2024). In summary, the comprehensive framework illuminates the complex interplay between external environmental factors and internal organizational dynamics that underpin restructuring decisions in mergers and acquisitions.

The analysis underscores the interconnected and multifaceted nature of organizational restructuring, recognizing that it involves a complex interplay of various internal and external factors. This acknowledgment highlights the recognition that organizational restructuring is not a one-dimensional process but rather a dynamic and intricate undertaking that requires a nuanced understanding of its diverse influences (Thangarasu, 2024). By acknowledging the multifaceted nature of organizational restructuring, the analysis emphasizes the need for firms to adopt a comprehensive approach to navigate the complexities inherent in the process. This entails recognizing and addressing a diverse array of influences, ranging from internal organizational dynamics to external environmental factors. Such a holistic perspective enables firms to develop a more informed and effective approach to strategic decision-making in the context of restructuring initiatives.

Moreover, the analysis underscores the importance of understanding and navigating these factors effectively to achieve strategic objectives. It highlights the critical role of strategic restructuring initiatives in enhancing firms' competitive positioning, driving innovation, and fostering long-term sustainability in the acknowledgment of a continuously changing business environment highlights the strategic importance of organizational restructuring. This strategic move serves as a method to adjust to evolving market conditions, seize emerging opportunities, and alleviate potential risks.

Furthermore, by emphasizing the need for firms to navigate a diverse array of effects, the analysis underscores the importance of strategic agility and adaptability. It recognizes that the business landscape is marked by perpetual flux and unpredictability, necessitating firms to exhibit agility and responsiveness in their approach to organizational restructuring. This agility enables firms to effectively respond to evolving market dynamics, emerging trends, and competitive pressures, thereby enhancing their ability to achieve strategic objectives.

In addition, the analysis highlights the potential benefits of strategic restructuring initiatives beyond merely addressing immediate challenges. It recognizes that well-executed restructuring efforts can serve as catalysts for driving innovation and organizational renewal, positioning firms for long-term success and sustainability. By leveraging restructuring as an opportunity to

rethink and reconfigure their business models, processes, and capabilities, firms can enhance their resilience and competitiveness in the face of evolving market conditions (Mokhtar et al, 2023).

Overall, the analysis Offering a detailed and intricate comprehension, it sheds light on the interconnected aspects and multifaceted nature of organizational restructuring. By recognizing the diverse array of influences at play and emphasizing the importance of strategic agility and adaptability, the analysis offers valuable insights that can inform firms' approach to restructuring initiative (Ishak et al, 2023). Ultimately, by understanding and navigating these factors effectively, firms can enhance their competitive positioning, drive innovation, and foster long-term sustainability in an ever-evolving business landscape (Da Silva, 2023).

5. CONCLUSION AND RECOMMENDATIONS

In conclusion, the provided conceptual framework offers a comprehensive exploration of the intricate relationship between organizational structure and strategy, drawing on various theoretical frameworks and empirical studies to enhance our understanding of this dynamic interplay. By tracing the conceptual roots of this relationship back to Chandler's seminal work in 1962, the framework acknowledges its historical significance and highlights the reciprocal influence between firms' strategies and their organizational structures. Through a thorough analysis of modular organizational systems and their implications for organizational reconfiguration, dynamic capability theories, modular system theories, and the framework of strategy-structure theories strives to provide valuable insights into the processes of strategic decision-making. It acknowledges the intricate and multifaceted connection between strategy and structure, highlighting the significance of strategic coherence. Moreover, it takes into account broader contextual factors like industry dynamics, competitive pressures, and regulatory environments.

This conceptual framework underscores recognizing the significance of strategic agility and adaptability is crucial when addressing dynamic business environments, highlighting the potential benefits of strategic restructuring initiatives in driving innovation and organizational renewal. By understanding and navigating these factors effectively, firms can enhance their competitive positioning, drive innovation, and foster long-term sustainability.

Moreover, the investigation extends to the impact of these theories on corporate performance, emphasizing the need for companies to carefully evaluate the outcomes of organizational restructuring efforts. By effectively managing organizational changes within strategic business units, firms can maximize the benefits of restructuring initiatives and enhance overall

performance. In summary, the comprehensive analytical review of conceptual framework provides valuable insights into the complexities of organizational restructuring, offering practical guidance for firms seeking to navigate strategic decision-making processes and improve their competitive advantage in today's dynamic business landscape.

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CHAPTER 15

Navigating The Paradigm-War: Advancing Management Science Through Paragrammatic and Dialectical Approaches: An Article Review

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ABSTRACT

The epistemological debate within management and organizational science appears perpetual, often likened to a "paradigm-war." This ongoing discourse, though contradictory, holds significant potential for advancing the field of management. The concept of "reality" in observation and research revolves around assumptions regarding the truthfulness of conveyed ideas and aims to validate these concepts. However, research often falls short of truly capturing existing reality, leading to generalized interpretations and a loss of descriptive relevance. Introducing the concept of "paragrammatic" offers a method to bridge theory and practice, facilitating a deeper understanding of the dynamic processes within management and organizational science. This approach underscores the importance of dialectical processes between paradigms, fostering the emergence of new paradigms and driving the evolution of management science. In essence, navigating the paradigm-war stimulates critical thought and innovation, ultimately propelling the field towards continual improvement and advancement.

Keywords: Epistemological, Paradigm-war, Reality, Assumptions, Validation, Paragrammatic, Dialectical processes, Innovation.

1. INTRODUCTION

The concept of "truth" traces its origins back to Aristotle's theory of metaphysical truth, which posits that stating "whether it is or whether it is not that" is erroneous, whereas stating "whether it is or whether it is not that it is not that" is correct. This implies that a statement is deemed true if it is grounded in underlying facts or serves as a basis. Over time, truth has been understood as being rooted in factual evidence, with falsehoods lacking such substantiation, although the presence of evidence isn't always necessary to validate a truth (Kaspers, 2023; Moore, 1990; Russell, 1912). Philosophers such as Socrates, Aristotle, and Plato advocated for the pursuit of truth through Philosophy, leading to the notion of "absolute truth," which remains dynamic and subject to evolution. Scholars employ the method of "Dialectic" as a means to attain an "academic truth," recognizing that truth is subject to change and refinement.

Referring to Firmanzah's (2004) article on the "Paradigm Debate in Management and Organizational Science," it highlights the prevalence of the realist (positive) approach in management science research. The epistemological debate within this field stems from the examination of reality in observation and research, focusing on assumptions about the truthfulness of conveyed concepts and the endeavor to establish their veracity (Johnson & Duberley, 2005).

The debate surrounding truth arises from differing perspectives on its nature. Many assert that the realist (positive) approach predominates research in management and organization (Godfrey & Hill, 1995). Within the realist framework, there exist various interpretations, with Kwan and Tsang (2001) categorizing realist perspectives into two main classifications: (1) dogmatic realism, and (2) critical realism. Both perspectives posit that theories can be either correct or incorrect, and rigorous research methodologies within management and organizational science can lead to realistic conclusions regarding a phenomenon.

While the realist perspective dominates, there are dissenting views within the field. For instance, postmodernist scholars challenge the notion of an objective reality, advocating instead for multiple interpretations and acknowledging the influence of subjective perceptions (Alvesson & Deetz, 2000). Additionally, constructivist approaches emphasize the co-creation of reality through social interactions and cognitive processes, questioning the objectivity of reality and truth (Berger & Luckmann, 1966). These diverse perspectives contribute to the richness of the epistemological debate within management and organizational science, fostering critical inquiry and ongoing theoretical development.

In navigating the paradigm war, scholars grapple with reconciling differing ontological and epistemological assumptions (Kimmons, R., & Johnstun, K., 2019). This involves interrogating the nature of reality and truth, recognizing the complexities inherent in human perception and interpretation. Moreover, the integration of diverse perspectives enriches scholarly discourse, offering multifaceted insights into the complexities of organizational phenomena. Through dialectical engagement and critical reflection, scholars continue to refine their understanding of truth and reality, contributing to the ongoing advancement of management and organizational science.

Dogmatic realism posits that existing theories closely reflect reality, leaving minimal room for observation and analysis errors. Conversely, critical realism acknowledges the potential for theories to be incorrect, emphasizing the need for constant theory testing to verify or falsify assumptions (Kuhn, 1970). This perspective underscores the independent operation of reality, irrespective of human conceptions.

The realist (positivist) approach differs from the Postmodern approach, which draws from social and humanities sciences, including psychology, philosophy, and cultural studies, and is also prevalent in management science. Postmodernists critique the assumptions, meanings, and relationships employed by contemporary management scholars, consistently questioning the validity of emerging concepts (Alvesson & Deetz, 1996).

Mbengue (2001) further categorizes positive approaches into logical positivism and logical empiricism. Logical positivism traces its roots back to 18th-century thinkers like Locke, Berkeley, and Hume, with the Vienna Circle contributing to its development through notable figures such as physicist Moritz Schlick, mathematician Rudolf Carnap, and sociologist Otto Neurath.

The principal disparity between these approaches lies in their stance on verification and testing. Logical positivism adheres to the principle of universal truth, requiring theories to hold true across all contexts and time periods. However, critical realism and logical empiricism prioritize the verification and justification of theories based on empirical evidence (McKelvey, 1999).

Auguste Comte's positivism concept has undergone significant evolution and variation over time, rendering its original form obsolete in modern science, as noted by McKelvey (1999). Consequently, the concept of "scientific" realism, encompassing critical realism or logical empiricism, remains prevalent and relevant in contemporary scientific inquiry.

Truth in management science is dynamic, influenced by various factors. Firstly, perceptual differences among researchers, stemming from diverse scholarly backgrounds, contribute to varying interpretations of truth (Shin, D., Vaccari, S., & Zeevi, A., 2023). Researchers may compromise on truth to align with accepted meanings and contexts, yet academic articles often reflect the researcher's subjective perception of concepts and realities.

Secondly, the immaturity of management science, unlike more established fields like physics, hinders the establishment of a definitive form. Emerging from diverse scientific perspectives, including social and hard sciences, management science continues to evolve, resulting in a plethora of conceptual frameworks analyzed from different viewpoints (Van Veldhoven, Z., & Vanthienen, J., 2022).

Thirdly, the irreversibility of time poses a challenge in management research (Teece, D. J., 2019). Studies capture phenomena at a specific time, limiting the ability to predict future events accurately. Thus, truth in management science cannot be conclusively confirmed until events unfold, rendering theories subject to revision based on new data.

Fourthly, managerial implications may be overlooked in the early stages of theory development, rendering theories impractical and poorly perceived. This oversight impedes the testing of theory validity, complicating efforts to ascertain truthfulness.

Fifthly, truth in management science is expounded through various theoretical approaches, including correspondence theory, coherence theory, and pragmatism theory (Timonen, V., Foley, G., & Conlon, C., 2018). Correspondence theory posits truth if a statement or concept aligns with reality. Coherence theory deems a statement true if it aligns with previously accepted concepts, regardless of its correspondence to reality. Pragmatism theory, on the other hand, prioritizes usefulness and practical applicability over alignment with reality.

Sixthly, truth in management science is not absolute, as no single party can unequivocally define it. Various stakeholders, including academics, consultants, teachers, practitioners, and the public, possess different backgrounds and interests that shape their perspectives on the truth of management concepts (Starkey, K., & Madan, P., 2001). Each stakeholder brings unique

insights and biases, contributing to a multifaceted understanding of truth in management science.

Academics, with their scholarly rigor and research-driven focus, may emphasize empirical evidence and theoretical frameworks in their pursuit of truth. Consultants, on the other hand, often prioritize practical applicability and real-world solutions, viewing truth through the lens of effectiveness and efficiency in organizational settings.

Teachers, responsible for imparting knowledge to future generations, may emphasize the importance of foundational concepts and critical thinking skills in discerning truth in management science. Practitioners, immersed in the daily challenges of organizational management, may prioritize pragmatic solutions and experiential knowledge, shaping their interpretation of truth based on practical outcomes.

Furthermore, the public, comprising stakeholders with varying levels of exposure to management science, may perceive truth through the lens of societal values, cultural norms, and personal experiences. These diverse perspectives enrich the discourse on truth in management science, reflecting the complexity of organizational dynamics and societal contexts (Schad, J. et al., 2016).

In navigating these diverse perspectives, interdisciplinary collaboration becomes essential for advancing the understanding of truth in management science (Carayannis, E. G., & Morawska-Jancelewicz, J., 2022). By integrating insights from various stakeholders, researchers can develop more comprehensive and contextually relevant theories that address the multifaceted nature of organizational phenomena.

Moreover, ongoing dialogue and debate among stakeholders facilitate the refinement and evolution of management theories, ensuring their continued relevance and applicability in an ever-changing world. Through open discourse and critical engagement, stakeholders can collectively contribute to the pursuit of truth in management science, fostering innovation and progress in the field.

Ultimately, while differing perspectives may exist on what constitutes truth in management science, the collective efforts of academics, consultants, teachers, practitioners, and the public contribute to a more nuanced and holistic understanding of organizational dynamics and management principles (Bridgman, T., 2019). Embracing diversity of thought and engaging in collaborative inquiry are key to advancing knowledge and driving positive change in management practice.

2. LITERATURE REVIEW

2.1. The Dynamic Nature of Truth in Management Science: Continual Evolution, Innovation, and Collaboration

According to Gribbins and Hunt (1978), management science exhibits characteristics akin to those of traditional sciences. These intrinsic traits define the field and contribute to the dynamic nature of truth within it. The perpetual evolution of management science underscores its fundamental nature, distinguishing it from transient phenomena influenced by external factors. The dynamic nature of truth in management science reflects ongoing advancements and refinements within the discipline. Unlike static truths found in certain domains, the truths in management science are subject to continual reassessment and modification. This dynamism allows management theories and practices to adapt to evolving organizational contexts and

societal dynamics.

Furthermore, the continuous evolution of management science is not merely a response to external changes but is integral to its nature. As scholars and practitioners engage in research, experimentation, and application, they contribute to the ongoing development of theories and methodologies. This iterative process ensures that management science remains relevant and responsive to contemporary challenges and opportunities.

Moreover, the dynamic nature of truth in management science fosters innovation and creativity within the field. By challenging established paradigms and exploring new ideas, researchers and practitioners push the boundaries of knowledge and practice. This spirit of innovation fuels the development of novel approaches and solutions to complex organizational problems.

Additionally, the dynamic nature of truth in management science encourages interdisciplinary collaboration and cross-fertilization of ideas. As scholars and practitioners draw insights from diverse fields such as psychology, sociology, economics, and engineering, they enrich the discourse and expand the horizons of management theory and practice.

Furthermore, the dynamic nature of truth in management science underscores the importance of lifelong learning and professional development. In a rapidly changing world, staying abreast of new research findings, emerging trends, and innovative practices is essential for professionals in the field. Continuous learning enables practitioners to adapt to evolving circumstances and remain effective in their roles.

Moreover, the dynamic nature of truth in management science necessitates a mindset of humility and open-mindedness among scholars and practitioners. Recognizing the limitations of existing knowledge and remaining receptive to new ideas are crucial for driving progress and innovation in the field. This willingness to question assumptions and explore alternative perspectives fosters intellectual curiosity and stimulates intellectual growth.

Ultimately, the dynamic nature of truth in management science reflects its vitality and relevance in addressing contemporary challenges and driving organizational excellence. By embracing change and uncertainty, scholars and practitioners can harness the transformative power of management science to create positive impact and foster sustainable growth in organizations and society.

Researchers in management science must remain abreast of the latest developments in journals and scientific publications. Assumptions that underpinned management concepts a decade ago may no longer hold relevance in the current context. Therefore, staying updated is essential as new researchers persistently critique the assumptions, methods, and relationships developed by their predecessors. Even esteemed scholars from renowned universities face criticism from peers, prompting the emergence of new theories to address contemporary challenges.

The evolving nature of management science necessitates a culture of continuous learning and adaptation. Scholars must engage in rigorous examination and critique of existing theories to drive innovation and develop novel approaches. This iterative process ensures that management science remains responsive to the evolving needs and complexities of organizational contexts. Additionally, scholars must cultivate intellectual curiosity and explore alternative perspectives to expand the boundaries of knowledge and uncover new insights.

Critically appraising existing theories and methodologies in management science serves as a catalyst for interdisciplinary collaboration. Scholars from diverse fields collaborate to integrate insights from psychology, sociology, economics, and other disciplines into management research. This interdisciplinary approach enriches the field by offering multifaceted

perspectives and innovative solutions to complex organizational challenges. Moreover, the continuous evolution of management science underscores the importance of reflexivity, adaptability, and resilience among researchers.

Flexibility and adaptability are crucial attributes for researchers in management science, enabling them to navigate the dynamic landscape effectively. Embracing uncertainty and complexity fosters resilience and perseverance in the face of intellectual challenges. Furthermore, scholars must be receptive to feedback and open to revising their theories and methodologies in light of new evidence and insights. This iterative process of refinement and revision drives intellectual progress and ensures the relevance of management research in addressing real-world problems.

In addition, scholars must actively engage with practitioners and industry professionals to ensure the practical relevance of their research. Collaborative efforts between academia and industry facilitate the translation of theoretical insights into actionable strategies and best practices. By bridging the gap between theory and practice, researchers contribute to the advancement of both academia and industry. Moreover, researchers should strive to disseminate their findings through various channels, including academic journals, conferences, and professional networks, to maximize their impact and reach a broader audience.

2.2. The Theory Jungle in Management Science: Navigating Paradigmatic Diversity and Complexity

Koontz (1961) introduced the Theory of the Jungle of Theory in management science, also known as "The Management Theory Jungle." This concept emerged from the recognition that developing a single theory to explain all management phenomena was deemed impractical by many scholars. Consequently, numerous paradigms and theories have emerged within management science to address diverse phenomena. Drawing from various disciplines such as psychology, sociology, cultural studies, and mathematics, management science seeks to provide comprehensive explanations for evolving phenomena.

In his work, Koontz depicted the landscape of management theories as akin to a dense jungle, teeming with a multitude of species. To navigate this complexity, he categorized the emerging paradigms into six distinct schools of thought: the social system school, the experience or case study school, the human behavior school, the decision theory school, and the mathematical school. Each school offers unique perspectives and approaches to understanding and analyzing management phenomena.

The social system school emphasizes the interconnectedness of individuals within organizations and examines how social structures and dynamics influence managerial practices. Meanwhile, the experience or case study school relies on empirical observations and real-world examples to derive insights into managerial behavior and organizational dynamics. The human behavior school focuses on understanding individual and group behavior in organizational settings, drawing from principles of psychology and sociology.

In contrast, the decision theory school explores the rational decision-making processes undertaken by managers and the factors influencing their choices. The mathematical school employs quantitative methods and models to analyze management problems and derive optimal solutions based on mathematical principles. Each school offers valuable perspectives on management phenomena, contributing to the richness and diversity of management theory.

Navigating the jungle of management theories requires scholars to critically evaluate and integrate insights from multiple schools of thought. By synthesizing diverse perspectives,

researchers can develop holistic frameworks that offer comprehensive explanations for complex managerial phenomena. Moreover, interdisciplinary collaboration enables scholars to leverage insights from adjacent fields and enrich the theoretical foundations of management science.

Despite the diversity of theories, scholars must strive for coherence and integration within the field of management science. By identifying commonalities and synergies among different paradigms, researchers can develop unified frameworks that transcend disciplinary boundaries. This integrative approach fosters cross-fertilization of ideas and facilitates the emergence of innovative theories and methodologies.

Furthermore, scholars should remain open to new paradigms and methodologies that challenge existing frameworks and push the boundaries of knowledge. Embracing intellectual diversity and innovation enables management science to evolve and adapt to changing societal and organizational contexts. By fostering a culture of intellectual curiosity and exploration, scholars can unlock new insights and propel the field forward.

In summary, the Theory of the Jungle of Theory provides a metaphorical framework for understanding the diverse landscape of management theories. By categorizing emerging paradigms into distinct schools of thought, scholars can navigate the complexity of management science and develop comprehensive explanations for organizational phenomena. Through interdisciplinary collaboration, critical evaluation, and openness to innovation, researchers can advance the field and address contemporary challenges in management theory and practice.

In 1980, Koontz observed the ongoing evolution of management science, leading to the emergence of 11 distinct schools of thought: empirical case approach, interpersonal approach, group behavior approach, cooperative social system approach, sociotechnical system approach, decision theory approach, system approach, mathematical or management science approach, contingency or situational approach, managerial role approach, and operational theory approach.

According to Lewis and Frime (1999), a paradigm represents the practical applications, assumptions, and agreements shared among scientists who possess a comprehensive understanding of techniques, characteristics, and goals within their field. Paradigms serve as institutional frameworks across various disciplines (Wiebe, 1984). The proliferation of concepts, theories, and paradigms in management science can be attributed to several factors. Firstly, management science encompasses a broad spectrum of activities within businesses, spanning strategic management, marketing, operations, finance, human resources, accounting, and more.

Additionally, the dynamic nature of organizational environments necessitates the development of diverse perspectives and methodologies to address multifaceted challenges. The complexity and interconnectedness of modern organizations require scholars to adopt interdisciplinary approaches, drawing insights from fields such as psychology, sociology, economics, and computer science.

Furthermore, advancements in technology and globalization have reshaped organizational dynamics, prompting scholars to explore new paradigms and theories that reflect contemporary realities. The emergence of digital technologies, big data analytics, and artificial intelligence has revolutionized traditional management practices and spurred the development of novel theoretical frameworks.

Moreover, shifts in societal values and norms influence the conceptualization of management

theories, leading to the exploration of topics such as corporate social responsibility, sustainability, and ethical leadership. Scholars increasingly recognize the importance of addressing ethical and social considerations in organizational decision-making processes.

The ongoing dialogue and exchange of ideas among scholars from diverse backgrounds enrich the theoretical landscape of management science, fostering innovation and intellectual growth. Collaborative research initiatives and interdisciplinary conferences provide platforms for scholars to engage in meaningful discussions and explore new avenues of inquiry.

Despite the proliferation of paradigms and theories, scholars strive to integrate insights from disparate perspectives to develop comprehensive frameworks that capture the complexity of organizational phenomena. Interdisciplinary collaboration and cross-fertilization of ideas enable researchers to bridge gaps between theoretical concepts and practical applications, driving advancements in management theory and practice.

In conclusion, the diverse array of paradigms and theories in management science reflects the multifaceted nature of organizational phenomena and the dynamic nature of contemporary business environments. By embracing interdisciplinary approaches, scholars can navigate the complexity of management challenges and contribute to the advancement of knowledge in the field.

The field of management science encompasses a broad spectrum of elements, including people, systems, machinery, organizations, and physical and non-physical environments. Given this complexity, diverse approaches are required to address specific phenomena or problems within the field. These varied approaches give rise to a multitude of paradigms, reflecting the multifaceted nature of management science.

One source of complexity in management science arises from the potential for confusion surrounding concepts or theories, necessitating detailed and nuanced interpretation methods. Two primary approaches to interpretation include the functionalist paradigm and the interpretative paradigm. The functionalist paradigm operates under the assumption that individuals' actions are rational and can be understood through hypothesis testing, focusing on the rational considerations guiding behavior within organizations. In contrast, the interpretative paradigm seeks to elucidate behavior by examining individuals' perspectives and understanding the ongoing processes that shape their actions.

Furthermore, the praxis domain presents researchers with complex phenomena that require exploration through various paradigms employing diverse methodologies. This diversity reflects the multifaceted nature of management science and underscores the need for flexible and adaptive approaches to understanding and addressing organizational phenomena.

Moreover, researchers' differing interests and concerns can lead to the development of distinct concepts for solving the same phenomenon. Even within the same researcher, varying interpretations of a concept may emerge, highlighting the subjective nature of knowledge construction within management science.

In addition to conceptual complexity, the dynamic nature of organizational environments poses challenges for researchers seeking to elucidate underlying mechanisms and processes. Organizational phenomena are influenced by a myriad of factors, including technological advancements, shifting market dynamics, and evolving societal norms, necessitating agile and responsive research methodologies.

Furthermore, the interdisciplinary nature of management science requires scholars to draw insights from diverse fields such as psychology, sociology, economics, and engineering. This

interdisciplinary approach enables researchers to gain a comprehensive understanding of organizational phenomena and develop innovative solutions to complex challenges. Collaboration and dialogue among researchers from different backgrounds foster creativity and innovation within management science. By leveraging diverse perspectives and methodologies, scholars can generate new insights and push the boundaries of knowledge in the field. Overall, the complexity of management science necessitates a nuanced and multifaceted approach to research and theory development. By embracing diversity and engaging in interdisciplinary collaboration, scholars can advance our understanding of organizational phenomena and contribute to the ongoing evolution of management theory and practice.

3. RESEARCH METHOD

To advance management science through paragrammatic and dialectical approaches, various models are utilized, one of which involves navigating the paradigm-war. This method involves addressing issues from multiple perspectives and examining cases from various countries. To prepare a comprehensive literature review, researchers rely on various electronic sources, including search engine databases such as IEEE, ScienceDirect, and Web of Science. These sources help in gathering relevant reviews. In selecting suitable discussion topics for the simulation of urban growth models, researchers adhere to the guidelines for systematic meta-analysis and the PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) standards (Nugroho, F., & Al-Sanjary, O. I., 2018). Figure 1 illustrates the filtering steps according to PRISMA standards, followed by a duplicate removal process to eliminate redundant scripts. The screening process then involves collecting reference data pertinent to the review. After these stages, the manuscripts relevant to the discussion on navigating the paradigm-war and their theoretical or application-based components are retained for further analysis.

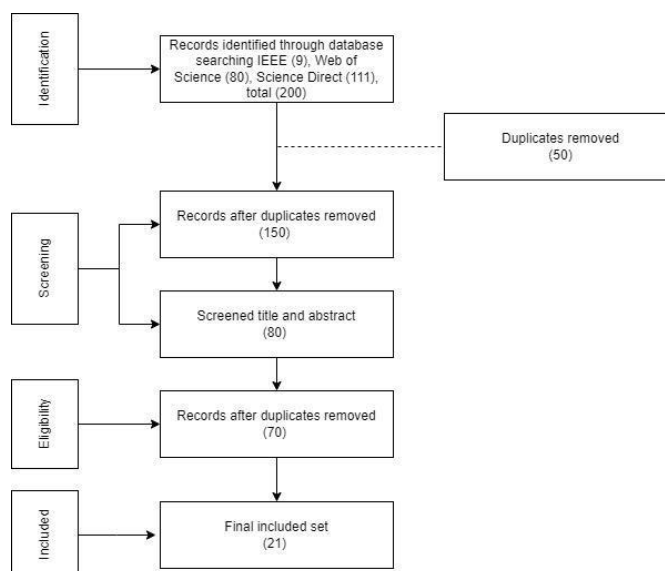


Figure 1. PRISMA article selection flowchar.

4. RESULT AND DISCUSSION

4.1. The Paradigm Struggle: Unveiling the Wars in Management Science

Scholars are often expected to align consistently within a single paradigm. However,

encountering limitations in explaining a phenomenon within a particular paradigm should be viewed as an opportunity for deeper exploration. According to Kuhn (1970), a paradigm encompasses four elements: Symbolic generalization, which represents the scholarly community; Metaphysics, guiding what is considered a logical explanation; Value, justifying research topics; and Ideal examples, offering solutions to problems. Paradigms can also shed light on the essence of science itself.

Building on Filstead's (1979) insights, paradigms serve as guides for issue determination, the development of explanatory frameworks, the selection of tools, and the epistemological direction in academic communities. They embody assumptions, applications, and agreements among scholars, offering a comprehensive understanding of concepts' characteristics, techniques, and objectives.

Paradigms play a pivotal role in institutionalizing theories within academic disciplines. The concept, drawn from Kuhn (1962, 1970) and expanded by Morgan (2007), encompasses several definitions: a worldview, an epistemological stance, shared beliefs, and a model for research. However, no paradigm is immune to contradictions, leading to what can be termed as a Paradigm-War. This intellectual conflict propels scientific fields, including management science, toward improvement and refinement. Critiques of paradigms spur the emergence of diverse proofs, arguments, and ideas aimed at fortifying one's paradigm.

Moreover, paradigms provide a framework for organizing knowledge and guiding research efforts within a field. They offer a lens through which scholars interpret phenomena, formulate hypotheses, and advance theoretical frameworks. By adhering to a paradigm, researchers establish a common language and set of principles, facilitating communication and collaboration within the academic community.

However, paradigms are not static entities; they evolve over time in response to changing theoretical perspectives, empirical findings, and societal trends. As paradigms shift, new research avenues emerge, challenging existing assumptions and fostering innovation within the discipline.

Furthermore, the existence of multiple paradigms within a field fosters diversity of thought and encourages interdisciplinary dialogue. Scholars from different paradigms can engage in constructive debates, exchange ideas, and draw insights from complementary approaches, enriching the overall discourse within management science.

In conclusion, paradigms serve as foundational frameworks that shape the direction of research, theory development, and scholarly discourse within management science. While they offer structure and coherence to the field, paradigms are not without limitations and contradictions. Embracing the diversity of paradigms and engaging in critical dialogue can lead to a deeper understanding of organizational phenomena and drive continued progress in management science.

Different paradigms, despite their opposing nature, can often complement each other. For instance, the well-known paradigm war in strategic management between the "resource-based view" and "market-based view" has led to the development of complementary concepts that elucidate the drivers of a company's competitive advantage. Thus, the Paradigm-War can be viewed as a constructive force propelling scientific advancement.

However, scholarly conflicts can sometimes arise in a rather contentious manner, with scholars aligning into distinct clusters and isolating themselves from interaction with other groups. Regarding change and objectivity, paradigms can be categorized into four types: Functionalist,

Interpretative, Radical Humanist, and Radical Structuralist. The Functionalist Paradigm presents an objective view of phenomena or theories, focusing on stability and maintaining the status quo.

In contrast, the Interpretative Paradigm offers a more subjective perspective, emphasizing adherence to regulations rather than advocating for radical change, while still maintaining the status quo. The Radical Humanist Paradigm takes a subjectivist view but is ideologically inclined toward radically altering constructs of reality. On the other hand, the Radical Structuralist Paradigm adopts an objective stance, seeking to radically transform the structure of reality.

Moreover, it's essential to recognize that paradigms serve as lenses through which scholars interpret and understand phenomena within their respective fields. Each paradigm offers unique insights and approaches to problem-solving, enriching the overall discourse in management science. By embracing diversity in paradigms, scholars can foster interdisciplinary collaboration and stimulate innovation.

Furthermore, the coexistence of multiple paradigms encourages intellectual pluralism and stimulates debate, leading to deeper insights and more comprehensive understanding of complex phenomena. Engaging in constructive dialogue across paradigms facilitates the exchange of ideas and promotes the development of integrative frameworks that transcend disciplinary boundaries.

In conclusion, while paradigms may differ in their perspectives and methodologies, they collectively contribute to the advancement of knowledge in management science. By appreciating the nuances of each paradigm and fostering an environment of open discourse, scholars can harness the full potential of diverse perspectives to address contemporary challenges and drive progress in the field.

4.2. Navigating the Complexity of Reality: Bridging Theory and Practice in Management and Organizational Science

In his article titled "Interdependence of Academics-Practitioners in Management and Organizational Science," Firmanzah specifically elucidates the "complexity of reality" arising from the gap between theory and practice, often failing to capture the diversity and intricacy that exist.

Generally, reality is defined as a condition that truly exists, not merely in imagination; it encompasses everything observable or not, visible and invisible. Reality is often juxtaposed with shadows, imagination, daydreams, and fantasies that solely exist within the mind, being fictional and abstract. According to Mitoff & Mason (1982) and Shrivastava & Mitroff (1984), the concept of reality can be delineated in terms of ontology, epistemology, and ethics.

Ontologically, it refers to the assumptions made about the components of reality that constitute the fundamental phenomena of an object.

This includes considerations such as the selection of material for an object, individuals, organizations, thoughts, and the quantity and facts to be considered. Epistemology pertains to the means by which we acquire knowledge and the boundaries of that knowledge itself. It involves the fundamental principles guiding the acquisition of information in knowledge-building processes. Meanwhile, ethics concerns the foundational assumptions regarding the values employed, standards of behavior, and moral judgments concerning actions taken.

Understanding the interplay between theory and practice is essential for effectively navigating the complexities of management and organizational science. Firmanzah's exploration of the "complexity of reality" underscores the importance of bridging the gap between theoretical frameworks and practical applications in this field.

Moreover, the ontological, epistemological, and ethical dimensions of reality elucidated by Mitoff & Mason (1982) and Shrivastava & Mitroff (1984) provide valuable insights into the multifaceted nature of reality. These dimensions inform our understanding of the underlying assumptions, knowledge acquisition processes, and ethical considerations inherent in the study of management and organizational science. By grounding research and studies in a reality-based approach, practitioners can develop more nuanced perspectives and solutions to real-world challenges. This approach enables a deeper appreciation of the diverse and dynamic nature of organizational environments, facilitating more effective decision-making and problem-solving. Incorporating a reality-based approach into strategic management practices can lead to more practical and actionable insights. This approach encourages practitioners to consider the tangible implications of theoretical frameworks and to tailor strategies to suit the unique contexts of their organizations.

In conclusion, Firmanzah's insights highlight the need for a nuanced understanding of reality in management and organizational science. By acknowledging the complexities inherent in organizational environments and adopting a reality-based approach, practitioners can enhance their ability to navigate and address the challenges they encounter effectively.

Academics and practitioners represent distinct social structures, each governed by unique procedures and rationalities, as noted by Mohrman et al. (2020). Theoretical frameworks and models encapsulate academics' abstract interpretations of reality, while managerial practices embody the thoughts and actions undertaken by practitioners in their engagement with organizational realities.

Echoing sentiments expressed by Hekimian (1969) and Thomas and Tymon (1982), much of the research in management and organizational science, encompassing fields such as organizational behavior and strategic management, often fails to capture organizational reality. This shortfall stems from an overgeneralization of reality, leading to a loss of "descriptive relevance" in research outcomes.

Practitioners require theories that address the daily challenges they encounter. However, many theories in management literature tend to be methodologically positivist, offering universal and generalized frameworks. Mitroff & Mason (1982) suggest that practitioners need approaches more attuned to the nuances of business reality.

Moreover, research on management and organizational behavior is increasingly perceived as susceptible to biases, including observer bias and researchers' perspective biases, which can distance the findings from reality (Mitroff, 1980). As a practitioner aiming to bridge theory and practice, understanding and addressing these biases becomes paramount.

In navigating the complexities of management and organizational science, acknowledging and bridging the gap between theory and practice becomes imperative. Firmanzah's exploration of this gap sheds light on the challenges faced by both academics and practitioners in reconciling theoretical frameworks with real-world application.

Therefore, scholarly endeavors are guided by the recognition of this gap and the quest to develop theories and frameworks that are not only rigorous but also relevant and applicable in organizational settings. By integrating insights from academic research with practical

experiences, I aim to contribute to the advancement of management science while addressing the needs and challenges encountered by practitioners in the field.

4.3. Paragrams: Bridging Theory and Practice in Management Innovation

In the realm of management, practitioners often grapple with complex challenges that require innovative solutions. One approach gaining traction in this domain is the concept of Paragrams, which serve as flexible frameworks derived from various management theories. These Paragrams offer practitioners valuable insights and inspiration to tackle real-world problems effectively.

Paragrams stand apart from traditional programs and paradigms in management. While paradigms are abstract and often detached from practical application, Paragrams bridge the gap between theory and practice. They provide a method for practitioners to translate theoretical concepts into actionable strategies, fostering adaptation and improvisation in dynamic organizational environments. The term "Paragrammatic" originates from "Paragramme," highlighting the dynamic nature of these approaches. Unlike programs, which prescribe specific relationships and solutions, Paragrams accommodate the complexities of real-world contexts. They recognize that management challenges are multifaceted and require adaptable frameworks that can evolve alongside organizational needs.

Paragrams offer practitioners a flexible toolkit for navigating ambiguity and uncertainty. Instead of adhering to rigid models, Paragrams encourage experimentation and creative problem-solving. They empower practitioners to explore innovative approaches tailored to their unique circumstances, rather than relying on one-size-fits-all solutions.

In essence, Paragrams serve as guides for practitioners seeking to address management challenges holistically. By drawing insights from diverse management theories, Paragrams provide a nuanced understanding of organizational dynamics. This allows practitioners to develop contextually relevant strategies that align with their organizational objectives.

Furthermore, Paragrams foster collaboration and knowledge-sharing within organizations. By embracing flexible frameworks, practitioners can engage in collective sensemaking and co-creation of solutions. This collaborative approach enables organizations to harness the collective intelligence of their workforce and drive innovation effectively.

Ultimately, Paragrams represent a paradigm shift in how management challenges are approached and addressed. They emphasize agility, adaptability, and creativity, enabling practitioners to navigate the complexities of modern organizational environments successfully. As organizations continue to evolve and adapt to changing circumstances, Paragrams offer a versatile toolkit for driving sustainable growth and innovation.

The Paragrammatic perspective holds appeal not only for management practitioners but also for academics who view theories as Paragrams rather than paradigms. Consequently, this perspective finds application in research design, leading to several consequential shifts.

Firstly, research design makers deviate from existing theories, particularly those that remain overly generalized. Concepts are tested to reevaluate these theories in diverse contexts and identify the most suitable theories for specific contexts.

Secondly, research concepts involve a synthesis of multiple existing approaches, extending beyond the mere combination of different theoretical elements. This approach seeks to identify phenomena or laws from various theories and relate them to the concepts under study. For instance, the theory of evolution from biology is often employed in strategic management to

explain economic evolution, shedding light on lifecycle phenomena in industries, companies, or products. This approach adopts assumptions from the theory of evolution, conceptualizing organizations as complex adaptive systems subject to continuous change due to internal and external factors. By integrating diverse scientific approaches and theories, researchers not only enrich their study concepts but also leverage interdisciplinary synergy.

Thirdly, a Paragrammatic approach necessitates considering the temporal dimension of research. Research topics must align with the evolving context at the time of study to ensure that research findings offer practical managerial insights relevant to contemporary challenges. Fourthly, researchers employing a Paragrammatic approach actively seek and maximize available resources, ideas, and materials while working within constraints. Research design development must address existing limitations, particularly in sample selection and data analysis methods, common constraints in academic research. For instance, doctoral research, constrained by completion time, may opt for shorter data collection periods unless secondary data sources are available.

Lastly, researchers prioritize pragmatism over perfection, recognizing the need for realistic research concepts. The primary objective is to yield research outcomes that offer viable solutions for practical management challenges. In practical applications, Gabriel (2002) observes that models and theories are utilized paragrammatically. Their utilization is characterized by creativity, opportunism, and individuality, leading to diverse outputs through various methods and approaches.

4.4. Cross-Disciplinary Collaboration: Advancing Management Science Through Diverse Perspectives.

Management science thrives on interdisciplinary communication, drawing insights from a multitude of disciplines to enrich its understanding and applicability. This communication extends beyond the realms of social sciences to encompass exact or hard sciences, fostering a holistic approach to problem-solving and innovation. For instance, concepts rooted in biology, such as the evolution of living beings, find resonance in strategic management science, where they elucidate the dynamics of economic evolution within industries. Similarly, principles from disciplines like Chemical Engineering, including thermodynamics and entropy, offer valuable frameworks for modeling the behavior of productive systems in management contexts.

In the realm of marketing research, where precision is paramount in creating measurement instruments, collaborations with fields like neuroscience yield innovative tools for studying consumer behavior. For example, tools capable of detecting changes in brain activity in response to stimuli provide nuanced insights into consumer perception, complementing traditional questionnaire-based approaches.

The inclusive nature of management education, welcoming students from diverse academic backgrounds for postgraduate studies, fosters the synthesis of interdisciplinary knowledge in management concepts. Drawing upon their prior experiences in different fields, students have the opportunity to forge connections between management and other foundational sciences, enriching the field with fresh perspectives and approaches.

This interdisciplinary approach not only broadens the scope of management science but also fosters dynamic development within the discipline. By integrating insights and methodologies from various disciplines, management scholars are better equipped to tackle complex real-world challenges and drive innovation in organizational practices. Moreover, interdisciplinary

collaboration encourages the exploration of unconventional ideas and methodologies, paving the way for groundbreaking discoveries and advancements in management science. By transcending disciplinary boundaries, researchers can leverage diverse perspectives to tackle multifaceted problems and uncover novel solutions.

The synergistic exchange of ideas between management science and other disciplines promotes continuous learning and adaptation, propelling the field forward in response to evolving societal and organizational needs. This collaborative ethos fosters a culture of innovation and creativity, driving ongoing progress and evolution within management science.

4.5. Progressive Paradigms: Advancing Management Science Through Epistemic Utility

Niiniluoto (1984) introduced indicators to gauge progress in various fields of study, proposing normative measurements. Among the rapidly evolving disciplines, management science stands out for its rapid advancement. Several key indicators can guide the progress of management science: economic factors, which involve increased funding for research; professional factors, where management concepts must effectively address diverse business challenges; methodological factors, requiring the continual development of research methods; and cognitive factors, emphasizing deepening understanding and knowledge among researchers. The notion of "Epistemic Utility," as elucidated by Levi (1967), Popper (1959), Hempel (1965), and Kuhn (1977), underscores the importance of research focusing on emerging phenomena and practical gaps in business. Management research should yield concepts capable of explaining and exerting influence, while also being relevant, consistent, and inspiring for practitioners. From the standpoint of "Traditional Ontology," the evolution of management science hinges on concepts that are increasingly aligned with truth and reality, addressing tangible real-world challenges.

In summary, the progress of management science is multifaceted, influenced by economic, professional, methodological, and cognitive factors. The concept of "Epistemic Utility" serves as a guiding principle, emphasizing the pursuit of truth and relevance in research. Grounded in practical applications, management research must continuously refine and innovate its concepts to remain pertinent and effective. As management concepts converge with truth and reality, the discipline will continue to evolve, offering meaningful solutions to the evolving complexities of the business landscape. Through interdisciplinary collaboration and a commitment to practical relevance, management science is poised to make significant contributions to societal progress and development.

4.6. Dialectics in Management Science: Navigating Change and Conflict for Innovation and Progress

Dialectic, rooted in the concept of 'dialogue,' denotes two-way communication. Its origins trace back to ancient Greek philosophers like Aristotle and Plato, who used dialectics to illustrate the idea of constant change (*panta rei*). Hegel later refined this concept, framing it as a trilogy of thesis, antithesis, and synthesis, suggesting that absolute truth doesn't exist due to the law of dialectics, wherein change emerges from conflict.

Van de Van characterizes dialectics as a theory acknowledging the organizational entity's existence in a pluralistic world of conflicting events, forces, or values. This view entails four fundamental assumptions: (1) The world is inherently unstable and constantly changing; (2) Power struggles are ubiquitous; (3) Rationality and irrationality coexist within different

constructs; (4) Stability arises from diversity and is perpetually evolving.

Dialectics offer a framework for understanding the evolving nature of thoughts, contributing to the advancement of science. The dialectical cycle—Thesis, Antithesis, Synthesis (New Thesis)—underscores the idea that every phenomenon harbors contradictions, which can, in turn, become phenomena within specific timeframes. Competing interest groups perpetuate this cycle, with one group upholding the status quo while another, the Antithesis group, resists, seeking to assert its own views and interests.

In this dynamic, conflicting groups vie for dominance, with the status quo faction striving to preserve existing views. Conversely, the Antithesis group, driven by alternative perspectives and interests, opposes the status quo, leveraging its own strengths in the pursuit of change. This tension between opposing forces propels the dialectical process forward, fostering continuous evolution and adaptation.

Applying dialectics to organizational contexts acknowledges the inherent complexities and contradictions within systems. By recognizing and embracing these tensions, organizations can navigate change more effectively, leveraging diversity and conflict as catalysts for growth and innovation.

Moreover, dialectics promote a nuanced understanding of organizational dynamics, highlighting the interconnectedness of various elements and the fluidity of power relations. This perspective encourages leaders and practitioners to adopt a more adaptive and responsive approach to managing change and conflict within their organizations.

Overall, dialectics offer a valuable lens through which to interpret and navigate the complexities of organizational life, facilitating greater resilience, agility, and innovation in the face of constant change and uncertainty. Through dialectical inquiry and engagement, organizations can harness the transformative potential of conflict and contradiction, driving progress and evolution in both theory and practice.

If the Antithesis group successfully influences change in the Thesis, a new Synthesis emerges. This Synthesis, distinct from both the original Thesis and Antithesis, marks a transformative step in the dialectical process. However, it's important to note that this process doesn't guarantee the production of a superior Synthesis. Karl Marx's concept of Dialectical Materialism, famous in economic development, exemplifies this dialectical progression. Marx critiqued capitalist economics (Thesis) for neglecting laborers (Antithesis) and proposed a socialist future economy (Synthesis) as an alternative.

Dialectics unfold within contexts involving multiple entities and interactions, rather than in isolated situations like an individual with their environment or an organization with its surroundings. In management science, which primarily examines the relationships between organizations or individuals within them and other entities, dialectics find application in understanding complex dynamics and driving progress.

Strategic management, a key domain within management science, extensively employs dialectical processes. Scholars grapple with questions such as "why do some companies excel and outperform others?" This inquiry fuels advancements in strategic management, illustrating the dynamic nature of management and organizational science and the need for dialectical engagement.

The evolving landscape of management science necessitates dialectical interactions between paradigms, such as positivism, interpretivism, and constructivism. These paradigms engage in dialogue and exchange to navigate the absence of absolute truth in management science.

Contextual and historical factors profoundly influence the analytical process and outcomes.

Thus, the dialectical process serves not only to provide a comprehensive understanding of organizations but also to foster the ongoing evolution of management science. Continuous dialectical engagement propels the discipline forward, paving the way for the emergence of new paradigms and perspectives. Through this iterative process, management science remains responsive to changing contexts and challenges, driving innovation and progress.

5. CONCLUSION AND RECOMMENDATIONS

The progress of management science is multifaceted, influenced by economic, professional, methodological, and cognitive factors. The discipline is guided by the concept of "Epistemic Utility," which emphasizes the pursuit of truth and relevance in research. This principle underscores the importance of aligning management theories and practices with practical applications, ensuring they remain pertinent and effective in addressing real-world challenges. As management concepts evolve to better reflect truth and reality, the field continues to develop, offering meaningful solutions to the increasingly complex business landscape.

Researchers in management science prioritize pragmatism over perfection, recognizing the necessity of realistic and applicable research concepts. The primary objective is to produce research outcomes that provide viable solutions to practical management problems. According to Gabriel (2002), models and theories in practical applications are utilized paragrammatically, characterized by creativity, opportunism, and individuality. This approach leads to diverse outputs through various methods and approaches, reflecting the dynamic and adaptable nature of the discipline.

The evolving landscape of management science necessitates dialectical interactions between paradigms such as positivism, interpretivism, and constructivism. These paradigms engage in dialogue and exchange to navigate the absence of absolute truth in management science. Contextual and historical factors profoundly influence the analytical process and outcomes. This dialectical process not only provides a comprehensive understanding of organizations but also fosters the ongoing evolution of management science. Continuous dialectical engagement propels the discipline forward, paving the way for the emergence of new paradigms and perspectives.

In conclusion, the advancement of management science is deeply rooted in its ability to adapt and innovate in response to changing economic, professional, methodological, and cognitive factors. The guiding principle of "Epistemic Utility" ensures that research remains focused on truth and practical relevance. By grounding theories in practical applications and maintaining a pragmatic approach, management science can effectively address the complex challenges faced by modern businesses. This adaptability is crucial for the discipline's continued evolution and its capacity to offer meaningful solutions.

To further enhance the impact of management science, it is recommended that researchers continue to prioritize interdisciplinary collaboration and practical relevance in their work. Engaging with diverse paradigms and fostering dialectical interactions will be essential for navigating the complexities of the field. Additionally, researchers should embrace creativity and opportunism in their methodologies, recognizing the value of diverse approaches in producing innovative solutions. By maintaining a commitment to these principles, management science can continue to contribute significantly to societal progress and development, driving innovation and offering robust solutions to contemporary business challenges.

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CHAPTER 16

Investigating The Direct and Indirect Effects of Knowledge Management and Attitude Behavior on The Performance

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ABSTRACT

The objectives of this study are to determine the effect of knowledge management on work experience. This is to determine the effect of knowledge management on the performance of the teaching staff. This is to determine the effect of attitude on work experience. This is to determine the effect of attitude-behavior on teaching staff performance. This is to determine the effect of work experience on teaching staff performance. This is to determine the effect of knowledge management on the performance of teaching staff mediated by work experience. To determine the effect of attitude-behavior on teaching staff performance mediated by work experience. This research uses a quantitative approach. The population in this study was 40 teachers at SMA Muhammadiyah 25 Pamulang. The technique of taking the respondents used in this study is total sampling. With the total sampling technique, 40 teachers at 25 Pamulang Muhammadiyah Senior High School were taken as respondents in this study. The research hypothesis testing was carried out using the Structural Equation Model (SEM) approach based on Partial Least Square (PLS). The conclusion from the results of this discussion is as follows: There is an influence of knowledge on work experience. There is an influence of knowledge management on the performance of teaching staff. There is an influence on attitude-behavior towards work experience. There is an effect of attitude-behavior on teaching staff performance. There is no effect of work experience on teaching staff performance. There is no influence of knowledge management on the performance of teaching staff mediated by work experience. There is no effect of attitude-behavior on teaching staff performance mediated by work experience.

Keywords: Knowledge Management, Attitude Behavior, Performance, Work Experience

1. INTRODUCTION

Performance is a result of work that a person achieves in carrying out the tasks assigned to him based on skill, experience, and seriousness and time (Hasibuan, 2012:94). Haryanti and Ardana (2014:517) stated that the level of performance of teaching staff is highly dependent on two factors, namely the ability of the teaching staff themselves, such as the level of education, knowledge, experience, where with a higher level of ability, they will have higher performance.

The performance of the teaching staff here will achieve maximum results if supported by the knowledge they have. Knowledge has become something important, therefore its acquisition and utilization need to be managed properly. Knowledge is currently seen as an important resource as a condition for creating competitive advantage for individuals, units and even institutions or organizations. Knowledge is a part of modern human social life.

Another factor that can affect the performance of teaching staff is attitude, basically attitude is closely related to a person's skills, according to Aniek (in Umam, 2010:184), explaining that work attitude is a tendency to be satisfied or dissatisfied with work. An indication that teaching staff who are satisfied with their work will work hard, be honest, not be lazy, and participate in advancing the organization. On the other hand, teaching staff who are not satisfied with their work will work arbitrarily, work if there is supervision, be dishonest and ultimately harm the organization.

Work experience is related to the ability and proficiency of employees in carrying out the tasks that have been given to them. Work experience is not only seen from the skills, expertise and abilities possessed, but work experience can be seen from the experience of a person who has worked or has worked for a long time in an organization. The more experience he has, the more skilled he will be in carrying out his work. To measure the level of experience available, it can be known by looking at the level of knowledge possessed and the mastery of skills that are increasing.

The formulation of the problem is: Is there an influence of knowledge on work experience. Is there an influence of knowledge on the performance of teaching staff? Is there an influence of attitude on work experience? Is there an influence of attitude on the performance of teaching staff? Is there an influence of work experience on the performance of teaching staff? Is there an influence of knowledge on the performance of teaching staff mediated by work experience? Is there an influence of attitude on the performance of teaching staff mediated by work experience.

The purpose of this study is: To determine the influence of knowledge on work experience. To find out the influence of knowledge on the performance of teaching staff. To find out the influence of attitude on work experience. To find out the influence of attitude on the performance of teaching staff. To find out the influence of work experience on the performance of teaching staff. To find out the influence of knowledge on the performance of teaching staff mediated by work experience. To find out the influence of attitude on the performance of teaching staff mediated by work experience.

2. LITERATURE REVIEW

Teaching Staff Performance

Employee performance is the result of work, both quality and quantity produced by employees or real behavior displayed in accordance with the responsibilities given to them (Murty and Hudiwinarsih, 2012). Boxall et al (in Mokaya and Gitari, 2012) the performance of teaching staff is a function of ability, motivation and opportunity or abbreviated as AMO. These three things are the basics of the productivity of a teaching staff.

Sinambela, et al. (2011:136), stated that employee performance is defined as the ability of employees to do a certain skill. Employee performance is very necessary, because with this

performance it will be known how far the employee's ability to carry out the tasks charged to him will be. For this reason, it is necessary to determine clear and measurable criteria and set together which are used as a reference.

Meanwhile, according to Harsuko (2011) performance is the extent to which a person has played for him in implementing organizational strategies, either in achieving specific goals related to individual roles and/or by demonstrating competencies that are declared relevant to the organization. From the definition above, it can be concluded that the performance of teaching staff is the result of the work of teaching staff in terms of quality and quantity that helps the organization in achieving its goals.

Work Experience

Hasibuan (2014:109) said that experience is the length of work experience of employees working in the company. According to Sudarmanto (2014:55), work experience is an important element in shaping one's mastery of competence towards tasks. A person with a certain amount of experience in organizing people in a complex organization will have a different mastery of managerial competencies compared to someone who has no experience. The accumulation of knowledge and experience that is integrated in people will make a person have competencies that are not realized in him, or will be formed in a person's attitude and behavior.

From the definition above, it can be concluded that work experience is the level of mastery of a person's knowledge and skills in his or her job which can be measured from the length of work and from the level of knowledge and skills he has.

Knowledge

Knowledge in Kusumadmo (2013), is the full use of information and data that is equipped with the potential skills, competencies, ideas, intuition, commitment, and work experience of the people involved. While James in Kusumadmo (2013), said that knowledge originates and is applied in the minds of individuals, while in organizations knowledge can only be inherent in organizational routines, processes, practices, and norms.

Knowledge is the result of knowing, and this happens after people make a wish for a certain object. This sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Drucker in Tobing (2007:16) defines knowledge as information that changes something or a person, it occurs when the information becomes the basis for action, or when the information enables a person or institution to take a different action or an action that is more effective than the previous one. Meanwhile, according to Taufik (2007) knowledge is human sensing, or the result of a person's knowledge of objects through their senses (eyes, nose, ears, and so on).

From the above definition, it can be concluded that knowledge is the result of knowing, and this happens after people sense a certain object. This sensing occurs through the five human senses, namely the senses of sight, hearing and taste.

Attitude

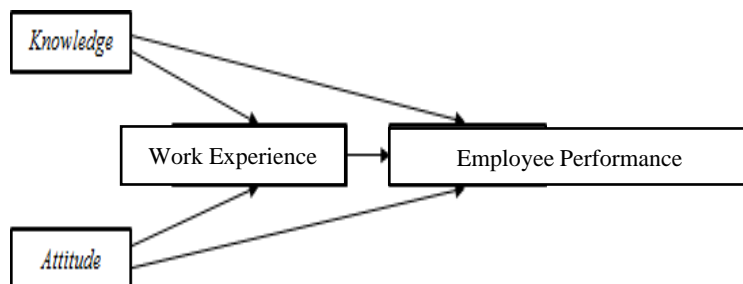
Attitude is the evaluation or reaction of feelings. A person's attitude towards an object is a feeling of support or partiality or a feeling of disapproval or impartiality towards the object (Berkowitz in Azwar, 2013). Meanwhile, according to Maramis (2006:254) attitude is a form of response or action that has positive and negative values towards an object or person accompanied by emotions.

Jazen in Arumsari (2014) states that attitudes can be learned, attitudes define our preposition towards aspects that occur in the world, attitudes provide the basis for feelings for

the relationship between our individuals and others, and attitudes are evaluative statements, whether favorable or unfavorable about objects, people, or events

From the above definition, it can be concluded that attitude is a reaction or response in the form of an assessment that arises from an individual towards an object. Attitude can also be said to be a manifestation of awareness of the environment

Framework of Thought



Knowledge (X_1) : Independent Variables

Attitude (X_2) : Independent Variables

Work Experience (Z) : Mediation Variables

Employee Performance (Y) : Dependent Variables

Hypothesis

A hypothesis is a proposition that has been formulated in such a way and is temporarily accepted to be tested for truth. So it can be concluded that the hypothesis is a provisional answer or conjecture of the problem being researched. Thus, the hypothesis in this study can be formulated as follows

1. It is suspected that there is an influence of knowledge on work experience
2. It is suspected that there is an influence of knowledge on the performance of teaching staff
3. It is suspected that there is an influence of attitude on work experience.
4. It is suspected that there is an influence of attitude on the performance of teaching staff.
5. It is suspected that there is an influence of work experience on the performance of teaching staff.
6. It is suspected that there is an influence of knowledge on the performance of teaching staff which is mediated by work experience.
7. It is suspected that there is an influence of attitude on the performance of teaching staff which is mediated by work experience

3. RESEARCH METHOD

In this study, a quantitative approach is used. The quantitative approach emphasizes on the meaning, reasoning, definition of a certain situation (in a certain context), more researching things related to daily life.

This type of research uses associative research methods. Associative research is research that aims to determine the relationship between two or more variables. This method aims to provide a fairly clear picture of the problem being studied. In this research, the author obtained data using a closed questionnaire that had been given a score, where the data would later be calculated statistically

Population and Sample

According to Narimawati (2008:161) population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to

be studied and then conclusions drawn. From this understanding, the population in this study was 40 teaching staff at SMA Muhammadiyah 25 Pamulang.

The respondent collection technique used in this research was Total Sampling. Total sampling is a sampling technique where the number of samples is the same as the population (Sugiyono, 2007). The reason for taking total sampling is because according to Sugiyono (2007) the total population is less than 100, the entire population is used as the entire research sample. Using the Total Sampling technique, 40 teaching staff at SMA Muhammadiyah 25 Pamulang were taken as respondents in this research.

Operational Research Variables

The independent variable in this case is the knowledge variable. According to Fitriani (in Yuliana, 2017) knowledge indicators include:

- Education
- Mass media
- Environment
- Experience
- Age

The independent variable in this case is the attitude variable. According to Notoadmodjo in Wawan and Dewi (2010), attitude indicators include:

- Respond
- Value
- Responsible

The dependent variable in this case is the performance of the teaching staff. According to Mangkunegara (2011:67) performance indicators for teaching staff include:

- Work Quantity
- Quality of results
- Cooperation
- Initiative

The mediating variable in this case is work experience. According to Handoko (2011:241) work experience indicators include:

- Personal background
- Talents and interests
- Attitudes and needs
- Ability
- Skills

Analysis Design and Hypothesis Testing

This analysis and hypothesis testing design is intended to outline step by step in analyzing data with certain methods that will be used to answer the problem formulation followed by testing the research hypothesis. According to Sugiyono (2016:238) regarding data analysis methods, including: "activities in data analysis are the activities of grouping data and tabulating data based on variables, presenting data from each variable studied, carrying out calculations to answer the problem formulation, and carrying out calculations to test hypothesis that has been put forward".

Research hypothesis testing was carried out using a Structural Equation Model (SEM) approach based on Partial Least Square (PLS). PLS is a component or variant-based structural equation model (SEM). Structural Equation Model (SEM) is a field of statistical study that can test a series of relationships that are relatively difficult to measure simultaneously.

To be able to measure "The Influence of Knowledge and Attitude of Teaching Staff on the Performance of Teaching Staff with the moderating variable Work Experience at SMA

Muhammadiyah 25 Pamulang". The analysis method in this research was carried out using the Structural Equation Model (SEM). The model used is path analysis. According to Latan and Ghazali (2012), PLS is an alternative approach that shifts from a covariance-based SEM approach to a variance-based one. Covariance-based SEM generally tests causality or theory while PLS is more of a predictive model. However, there is a difference between covariance based SEM and component based PLS in the use of structural equation models to test theory or develop theory for prediction purposes.

This path analysis model uses the following model and structural equations

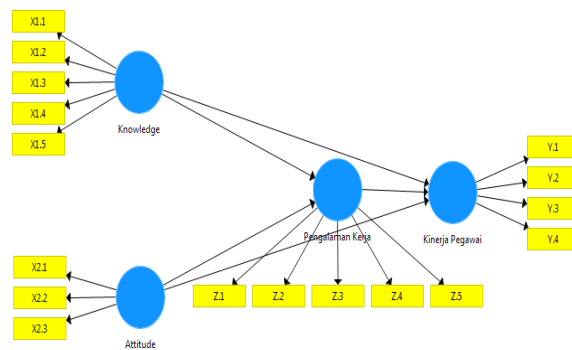


Figure 1. Schematic model of relationships between variables
Source: Self Processed (2019)

Table 1. Model equations

| | |
|-----------------------------|---|
| Measurement model equations | Variabel manifest eksogen Function of exogenous latent variable + Error |
| | Variabel manifest endogen Function of endogenous latent variables + Error |
| Structural model equations | Variabel laten endogen Function of exogenous latent variables + Other endogenous latent variables + Error |

According to Siswoyo (2017), parameter estimation in PLS includes 3 (three) stages, namely:

- 1) Create a latent variable score from the weight estimate.
- 2) Estimating the path coefficient that connects the latent variables and estimating the loading factor (measurement model coefficient) that connects the latent variable and its indicators.
- 3) Assess location parameters. The analysis at this stage is in the form of a PLS algorithm which contains literacy procedures that produce latent variable scores.

Model evaluation in PLS consists of two stages, namely evaluation of the outer model or measurement model (measurement model) and evaluation of the inner model or structural model (structural measurement)

Evaluation of the Reflective Outer Model

The outer model is often also called (outer relation or measurement model) which defines the characteristics of latent variables with indicators or manifest variables (Wiyono, 2011).

Testing data quality in PLS is known as evaluating the outer model measurement model. According to Siswoyo (2017) evaluation of the reflective indicator model includes examining:

- 1) Individual item reliability
- 2) Internal consistency or construct reliability
- 3) Average variance extracted
- 4) Discriminant validity

This evaluation was carried out to determine the validity and reliability of connecting the

indicators with the latent variables.

1) Convergent Validity

Data obtained or collected through research is empirical data that has certain criteria, namely valid. According to Sugiyono (2017), validity shows the degree of accuracy between the data that actually occurs on the object and the data that can be collected by the author. Validity test is a test to find out whether the research measuring instrument used can measure what it should measure and how well the measuring instrument does it. A valid measuring instrument is a measuring instrument that measures precisely the condition being measured (Hair, 2006)

Construct validity shows how well the results obtained are valid in measuring the construct it forms. In empirical research experience, a loading factor value ≥ 0.6 is still acceptable. Some experts even tolerate the number 0.5. Thus, loading factor values ≤ 0.5 must be removed from the model. The square value of the loading factor value is called communalities. This value shows the percentage of the construct that is able to explain the variations in the indicator.

Another measure of convergent validity is the Average Variance Extracted (AVE) value. The AVE value describes the large variance or diversity of manifest variables that a latent construct can have. Thus, the greater the variance or diversity of the manifest variables that a latent construct can contain, the greater the representation of the manifest variables in the latent construct. An AVE value of at least 0.5 indicates a good measure of convergent validity. This means that the latent variable can explain on average more than half of the variance of the indicators. The AVE value is obtained from the sum of the squares of the loading factors divided by the error.

2) Discriminant Validity (Descriminant Validity)

The discriminant validity of the reflective model is evaluated through cross-loading, then comparing the AVE value with the square of the correlation value between constructs (or comparing the square root of AVE with the correlation between constructs). The cross loading measure is comparing the correlation of indicators with their constructs and constructs from other blocks. This shows that these constructs predict the size of their blocks better than other blocks. For more details, see the following table.

Tabel 2. Rule of Thumbs Uji Validitas

| Validity | Parameter | Rule of Thumbs |
|--------------|--------------------------------------|--|
| Convergent | Loading factor | $>0,6$ |
| | Average variance extracted (AVE) | $> 0,5$ |
| Discriminant | Akar AVE dan korelasi variabel laten | Akar AVE > Korelasi variabel laten |
| | Cross loading | Cross loading indikator variabel > cross loading indikator lainnya |

Sumber: Widarjono (2015)

3) Internal Consistency Reliability

The instruments used in research, apart from having to be valid, must also be reliable, because if the instrument is not reliable it will not provide any information related to the research. According to Sugiyono (2017), a reliable instrument is an instrument that, when used several times to measure the same object, will produce the same data

The reliability test that will be used in this study is to look at the internal consistency reliability of Cronbach's Coefficient Alpha and Composite Reliability (CR) values. Composite Reliability (CR) is better at measuring internal consistency compared to Cronbach's Coefficient Alpha in SEM because CR does not assume the similarity of the boot of each indicator. Cronbach's

Coefficient Alpha tends to underestimate construct reliability compared to Composite Reliability (CR). The interpretation of Composite Reliability (CR) is the same as Cronbach's Coefficient Alpha. The limit value of ≥ 0.7 is acceptable, and the \geq value of 0.8 is very satisfactory (Siswoyo, 2017) as listed in the following.

Tabel 3. Klasifikasi Cronbach's Coefficient Alpha

| <i>Cronbach's</i> | <i>Klasifikasi</i> |
|-------------------|------------------------|
| -0.2 | <i>Kurang Reliable</i> |
| >0.20 – 0.40 | <i>Agak Reliable</i> |
| >0.40 – 0.60 | <i>Cukup Reliable</i> |
| >0.60 – 0.80 | <i>Reliable</i> |
| >0.80 – 1.00 | <i>Sangat Reliable</i> |

Sumber: Siswoyo (2017)

Structural Model Evaluation or Hypothesis Testing

The next stage after evaluating the construct or variable measurement model is evaluating the structural model or inner model or hypothesis testing. Hypothesis testing means carrying out a significance test, which means the author must determine whether to accept or reject the hypothesis. The steps for evaluating the structural model according to Siswoyo (2017), are:

- 1) Evaluate the structural model by looking at the significance of the relationship between constructs or variables. This can be seen from the path coefficient which describes the strength of the relationship between variable constructs. The sign or direction in the path (path coefficient) must be in accordance with the hypothesized theory, its significance can be seen in the t-test or C.R. (critical ratio) obtained from the bootstrapping process or resampling method.
- 2) Evaluate the R2 value. Interpretation of the R2 value of linear regression, namely the amount of variability of the endogenous variable that can be explained by the exogenous variable. Changes in R2 can be used to see whether the influence of exogenous latent variables on endogenous latent variables has a substantive influence.

The coefficient of determination (R2) is used with the aim of measuring the truth and goodness of the relationship between variables in the model created because the coefficient of determination (R2) reflects the magnitude of the influence of changes in the independent (free) variables in carrying out changes in the dependent (dependent) variables together. The value of the determination coefficient is between zero and one ($0 < R^2 < 1$). An R2 value that is close to one means that the independent (free) variable provides all the information needed to predict the dependent (bound) variable or shows the stronger the influence of the independent variable on the dependent variable. Meanwhile, a small R2 value (close to zero) means that the ability of an independent (free) variable to provide the information needed to predict the dependent (dependent) variable is very limited.

- 3) Changes in the R2 value can be used to see whether the influence of exogenous latent variables on endogenous latent variables has a substantive influence. This can be measured by the effect size f^2 . The formulation of the effect size f^2 is

$$Effect\ size\ f^2 = \frac{R^2\ include - R^2\ exclude}{1 - R^2\ include}$$

Where R include and R exclude are R2 of the endogenous latent variable obtained when the exogenous variable is entered or removed from the model. According to Chin (1998) and Siswoyo (2017), the recommended effect size f^2 is 0.02, 0.15 and 0.35 with exogenous latent variables having a small, moderate and large influence at the structural level.

- 4) Validate the overall structural model using the Goodness of Fit Index (GoF). The GoF index is a single measure to validate the combined performance of the measurement model and the

structural model. This GoF value is obtained from the average communalities index multiplied by the R2 model value. GoF index formula.

$$\text{GoF} = \sqrt{\text{Com} \times R^2}$$

Where the striped Com above is the average communalities and the striped R2 above is the average value of the R2 model. The GoF value ranges between 0 to 1 with interpretation of the values: 0.1 (small GoF), 0.25 (moderate GoF) and 0.36 (large GoF).

5) Predictive Relevance Testing (Q2) which functions to validate the model. This measurement is suitable if the endogenous latent variable has a reflective measurement model. Predictive Relevance (Q2) results are said to be good if the value is > 0 which indicates that the exogenous latent variable is good (suitable) as an explanatory variable that is able to predict the endogenous variable and vice versa if the Predictive Relevance (Q2) result < 0 proves that the model lacks predictive relevance

4. RESULT AND DISCUSSION

1. Hypothesis Testing Results

The goodness of fit model is used to determine the extent of the ability of exogenous variables to explain the diversity of endogenous variables, or in other words to determine the magnitude of the contribution of exogenous variables to endogenous variables. Goodness of fit model in PLS analysis is carried out using the coefficient of determination (R-Square) and Q-Square predictive relevance (Q2)

Tabel 4.
Hasil Goodness of fit Model

| Variabel | R Square |
|-------------------------------|-----------------|
| Performance of teaching staff | 0,865 |
| Work experience | 0,801 |

Structural capital in PLS is evaluated using R2, namely the value in the variable image of teaching staff performance and work experience. The R2 value for the performance of teaching staff is 0.865, which means that 86.5% of the variance in the performance of teaching staff is influenced by independent variables, and 13.5% of the variance in the dependent variable is explained by other factors, then R2 for work experience is 0.801, which means 80.1% of the variance. of work experience is influenced by the independent variable, namely work experience, this means that 19.9% of the dependent variable is explained by other factors not measured in this study.

2. Direct Hypothesis Testing

Direct influence hypothesis testing is used to test whether there is a direct influence of exogenous variables on endogenous variables. The test criteria state that if the path coefficient is positive and the p value (one way) ≤ level of significance (alpha = 5%) then it is stated that there is a positive and significant influence of the exogenous variable on the endogenous variable. The hypothesis testing can be seen in the table below

Table 5.
Direct Hypothesis Testing Results

| | B | T | P |
|---|--------|-------|-------|
| KNOWLEDGE → WORK EXPERIENCE | 0.402 | 2.683 | 0.008 |
| KNOWLEDGE → PERFORMANCE OF TEACHING STAFF | 0.402 | 2.281 | 0.023 |
| ATTITUDE → WORK EXPERIENCE | 0.521 | 3.399 | 0.001 |
| ATTITUDE → PERFORMANCE OF TEACHING STAFF | 0.762 | 4.559 | 0.000 |
| WORK EXPERIENCE → PERFORMANCE OF TEACHING STAFF | -0.231 | 1.195 | 0.233 |

Based on the hypothesis testing summary table above, the results can be explained as follows:

a. The Influence of Knowledge on Work Experience

The influence of knowledge on work experience produces a path coefficient of 0.402 with a p value of 0.008. The test results show that the path coefficient and p value < level of significance (alpha = 5%). This means that there is a significant and influence of knowledge on work experience.

b. The Influence of Knowledge on the Performance of Teaching Staff

The influence of knowledge on the performance of teaching staff produces a path coefficient of 0.402 with a p value of 0.023. The test results show that the path coefficient and p value < level of significance (alpha = 5%). This means that knowledge has a significant influence on the performance of teaching staff.

c. The Influence of Attitude on Work Experience

The influence of attitude on work experience produces a path coefficient of 0.521 with a p value of 0.001. The test results show that the path coefficient and p value < level of significance (alpha = 5%). This means that there is a significant and influential influence on work experience.

d. The Influence of Attitude on the Performance of Teaching Staff

The influence of attitude on the performance of teaching staff produces a path coefficient of 0.762 with a p value of 0.000. The test results show that the path coefficient and p value < level of significance (alpha = 5%). This means that Attitude has a significant influence on the performance of teaching staff.

e. The Influence of Work Experience on the Performance of Teaching Staff

The influence of work experience on the performance of teaching staff produces a path coefficient of -0.231 with a p value of 0.233. The test results show that the path coefficient and p value > level of significance (alpha = 5%). This means that there is no and insignificant influence of work experience on the performance of teaching staff.

3. Indirect Hypothesis Testing

Indirect influence hypothesis testing is carried out with the aim of testing whether there is an indirect influence of exogenous variables on endogenous variables through mediating variables. The test criteria state that if the path coefficient is positive and the p value (one way) ≤ level of significance (alpha = 5%) then it is stated that there is a positive and significant influence of the exogenous variable on the endogenous variable through the mediating variable. The hypothesis testing can be seen in the table below.

Table 6.
Indirect Hypothesis Testing Results

| | Indirect Coef. | T | P |
|--|-------------------|---|---|
| | | | |

| | | | |
|--|--------|-------|-------|
| KNOWLEDGE → WORK EXPERIENCE → PERFORMANCE OF TEACHING STAFF | -0.093 | 1.020 | 0.308 |
| KNOWLEDGE → WORK EXPERIENCE → PERFORMANCE OF TEACHING STAFF | 0.402 | 2.281 | 0.023 |

Based on the tests listed in the table above, it can be explained as follows:

a. The influence of knowledge on the performance of teaching staff mediated by work experience

The influence of knowledge on the performance of teaching staff mediated by work experience produces a path coefficient of -0.093 with a p value of 0.308. The test results show that the path coefficient and p value > level of significance (alpha = 5%). This means that there is no influence and no significance of knowledge on the performance of teaching staff which is mediated by work experience.

b. The Influence of Attitude on the Performance of Teaching Staff Mediated by Work Experience

The influence of attitude on the performance of teaching staff mediated by work experience produces a path coefficient of -0.093 with a p value of 0.285. The test results show that the path coefficient and p value > level of significance (alpha = 5%). This means that there is no influence and no significant attitude on the performance of teaching staff which is mediated by work experience

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

1. There is an influence of knowledge on work experience.
2. There is an influence of knowledge on the performance of teaching staff.
3. There is an influence of attitude on work experience.
4. There is an influence of attitude on the performance of teaching staff.
5. There is no influence of work experience on the performance of teaching staff.
6. There is no influence of knowledge on the performance of teaching staff which is mediated by work experience.
7. There is no influence of attitude on the performance of teaching staff which is mediated by work experience.

Suggestion

In the closing chapter, the author tries to provide suggestions that may be useful for organizations. The suggestions are as follows:

1. It is best for leaders to provide encouragement so that teaching staff are willing to share their knowledge with their colleagues by providing direction, then leaders also need to provide encouragement and direction to teaching staff so that teaching staff are willing to document and share their knowledge and experiences with other colleagues. .
2. Leaders should often monitor the attitudes of teaching staff in working and socializing with other teaching staff. Apart from that, SMA Muhammadiyah 25 Pamulang must also make stricter rules, especially regarding the attitude of teaching staff so that the attitude of teaching staff in working and socializing with other teaching staff is better maintained.
3. Rewards need to be given in accordance with the achievements of teaching staff towards the organization. The forms of appreciation do not have to be in the form of money, but also in the

form of proportional praise and providing opportunities to develop themselves so that teaching staff continue to develop, which ultimately can improve the performance of teaching staff.

4. The work experience of teaching staff at SMA Muhammadiyah 25 Pamulang needs to be improved, especially regarding skills. This can be done by conducting training and development for teaching staff who still lack skills

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