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## OPERATIONAL EFFICIENCY AND FINANCIAL PERFORMANCE OF MALAYSIAN FAMILY TAKAFUL: A CONCEPTUAL FRAMEWORK IN THE ERA OF DIGITAL TRANSFORMATION

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### Abstract:

The Family Takaful industry plays a significant role in the Islamic financial system in Malaysia by providing Shariah-compliant protection and long-term financial planning solutions for individuals and families. As the industry continues to expand amid increasing competition, regulatory developments and evolving operational practices, understanding the factors that support sustainable financial performance has become increasingly important. In particular, operational efficiency has emerged as a key organisational capability that influences how effectively Takaful operators utilise resources and manage operational costs to maintain financial stability. However, existing studies often examine financial performance and operational efficiency separately, while the potential role of digital transformation in shaping this relationship remains relatively underexplored. This study aims to develop a conceptual framework that explains the relationship between operational efficiency and financial performance within the Malaysian Family Takaful industry in the context of digital transformation. The study adopts a conceptual research approach by synthesising insights from existing academic literature, industry reports and regulatory publications. The framework is guided by several theoretical perspectives, including efficiency theory, the resource-based view (RBV) and dynamic capability theory, which explain how effective resource utilisation and organisational capabilities can support financial sustainability. The proposed framework conceptualises operational efficiency as a key organisational capability that contributes to improved financial performance through effective cost management,

resource utilisation and service delivery. Digital transformation is incorporated as a supporting factor that enhances operational processes through technological adoption, automation and improved data management. The paper concludes that integrating operational efficiency and digital transformation provides a more comprehensive perspective on financial performance dynamics in the Family Takaful industry and offers a conceptual foundation for future empirical research on the long-term sustainability of Takaful operators in Malaysia.

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Digital Transformation, Family Takaful, Financial Performance, Malaysia, Operational Efficiency,



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## Introduction

Family Takaful represents a vital component of the Islamic financial system in Malaysia that provides Shariah-compliant protection and long-term financial planning solutions for individuals and families. The Family Takaful sector has experienced steady growth over the past decade driven by increasing market competition, regulatory reforms and evolving operational practices. The industry's growth is supported by notable statistic as Malaysia's Family Takaful market growth rate of 16% in 2015 and global market projection approaching USD 50 billion by 2027 (Maduku & Mbeya, 2024; Salsabila & Nasution, 2022). As the industry continues to expand, it has become more crucial to understand how Family Takaful operators perform financially and manage their operations effectively to ensure their long-term sustainability.

Financial performance represents the ability of an operator to generate surplus, maintain solvency and meet participant requirements, while operational efficiency measures how efficiently all resources have been utilized to achieve these outcomes. Operational efficiency is particularly crucial in the context of Family Takaful because of the two primary goals of financial viability and Shariah compliance. Inefficient operations can lead to higher costs, lower surplus distribution and market competitiveness which may ultimately influence participants in the confidence of the system. Hence, examining the relationship between operational efficiency and financial performance offers a more comprehensive understanding of the overall performance of Family Takaful operators.

Despite the increasing literature on Takaful, existing studies discuss financial performance and operational efficiency separately. In addition, many studies focus primarily on empirical measurement without providing a strong theoretical explanation of how operational efficiency contributes to financial outcomes. As a result, there remains limited conceptual discussion on

the mechanisms that link operational efficiency to financial performance within the Family Takaful industry. At the same time, the rapid advancement of digital technologies has begun to reshape the operational landscape of the financial services industry including Takaful. Digital transformation can influence operational efficiency through the automation of administrative processes, improved data management and enhanced service delivery channels.

The period from 2013 to 2022 represents an important phase in the development of the Malaysian Family Takaful industry. This timeframe captures major regulatory developments including the implementation of the Islamic Financial Services Act 2013, operational practices changes and increased adoption of digital technologies. Long-term studies offer insights into how firms and industries evolve over time which suggest that the importance of heterogeneity and the significance of firm-specific factors in driving economic growth (Dosi et al., 2020; Jensen, 1997). By comparing performance and efficiency trends across this extended period provides a better perspective of how Family Takaful operators adapt to changes in the industry over time.

Addressing these gaps, this paper adopts a conceptual approach to examine the relationship between operational efficiency and financial performance in Malaysian Family Takaful operators within a longitudinal context. Instead of conducting empirical testing, the study synthesizes insights from previous academic studies, industry reports and regulatory publications that explain the potential relationship between these constructions. The framework also incorporates the role of digital transformation as an important contextual factor shaping operational practices in the industry.

The contribution of this paper lies in its integrative and longitudinal perspective. By conceptualizing financial performance and operational efficiency within a single theoretical framework, the study provides a clearer foundation for understanding performance dynamics in the Family Takaful sector. The discussion also offers insights for the industry practitioners, regulators and researchers by highlighting the importance of efficient operational management in sustaining financial stability within the evolving digital environment of the Takaful industry.

## **Literature Review**

This section reviews the existing literature review on the Family Takaful industry with particular emphasis on financial performance and operational efficiency. The discussion synthesizes prior studies and relevant theoretical perspectives to provide a conceptual foundation for understanding the relationship between operational efficiency and financial performance among Family Takaful operators in Malaysia.

### ***Family Takaful Industry in Malaysia***

Family Takaful is a key component of the Islamic insurance industry in Malaysia which provides Shariah-compliant protection and long-term financial planning based on the principles of mutual cooperation (*ta'awun*) and shared responsibility. Unlike conventional insurance, Family Takaful is based on risk-sharing contracts between contract holders whereby operators acting as fund managers rather than risk bearers (Ahmad et al., 2015). The risk is not transferred to the Takaful operator instead, it is shared mutually by all participants which are entirely different from conventional insurance in which the risks is transferred to insurer (Agusti, 2017).

This structure signifies the importance of good financial management and efficient operations for sustainability and compliance with Islamic principles.

Malaysia is well-known as one of the leading markets for Takaful development which supported by a comprehensive regulatory framework and proactive industry supervision. 30 studies found that Malaysia is the leading market in Family Takaful with steady market expansion and increasing penetration compared to others countries like Bangladesh and Turkey have shown slower growth due to regulatory and awareness challenges (Abdurasulov, 2024; Hussin et al., 2024). The growth of the Family Takaful market has been driven by increasing public awareness of Islamic financial products, product diversification and strong institutional support by regulators. As the industry becomes more mature, Family Takaful operators are experiencing growing expectations in achieving financial stability while operating efficiently in a highly competitive environment.

A major turning point in the development of the Takaful industry was the implementation of the Islamic Financial Services Act (IFSA) 2013. The Act introduced governance standards, enhanced risk management requirements and increased transparency in Takaful operations. A comparative study revealed that corporate governance in Malaysia for Takaful operators is more developed than in Brunei which demonstrate the level of maturity and strengthening of governance framework under IFSA 2013 (Ruhana et al., 2023). These regulatory changes were intended to promote financial stability and protect participants' interests thus enhancing confidence in the Takaful system. As a result, in order to meet such challenges, the Family Takaful operators had to put more focus on operational discipline and financial performance.

In the recent past, increased competition from both conventional insurers and other Takaful providers has added to the demand for efficient operational practices. Family Takaful operators face challenges to manage cost, improve service delivery and maintain competitive pricing. At the same time, gradual adoption of digital technologies has affected other aspects of operational processes such as policy administration, claims management and customer engagement. The use of big data analytics and automation in Takaful operations leads to better customers service experience and cost optimization. The applications allow operators to obtain market intelligence and enhance its services to meet customer needs more effectively (Faqih & Nurhayati, 2023; Śliwiński et al., 2025). These developments demonstrate the increasing significance of operational efficiency as a driver for financial performance.

In general, the Malaysian Family Takaful industry offers a practical and dynamic context for observing long-term financial performance and operational efficiency trends. Regulatory developments, competitive pressures and operational changes over time which makes the industry suitable for a longitudinal conceptual discussion especially in understanding how efficiency and performance evolve together.

### ***Financial Performance of Takaful Operators***

The financial performance of Takaful operators has been widely discussed in literature as it contributes to institutional stability and participants' confidence. Within the context of Family Takaful, financial performance reflects the operator's ability to manage resources effectively while fulfilling Shariah-compliant obligations to participants. Accordingly, prior studies have focused on identifying appropriate indicators that capture the financial condition and sustainability of Takaful operators.

Existing literature generally evaluates financial performance using profitability, growth and solvency indicators that have been adjusted to the Takaful context. Profitability metrics such as return on assets (ROA) and underwriting results are commonly used to assess management effectiveness. The studies highlight that ROA is an important measure of financial performance in Takaful companies as they demonstrate their capabilities to manage assets effectively in accordance with the requirements of Shariah law (Billah & Aziza, 2021; Suci & Pristiana, 2019). Growth indicators including contribution income and asset expansion reflect market acceptance and the operation scales, while solvency measures represent the operator's capacity to meet long-term obligations to participants. These indicators collectively provide a multidimensional perspective on the financial sustainability of Takaful institution.

Despite the availability of these measures, the literature presents varying perspectives on the financial performance of Malaysian Takaful operators. Some studies highlight improvements in profitability and financial stability following regulatory developments and industry expansion, while others emphasise the importance of operational cost management and investment performance in shaping financial outcomes. Regulation such as the China risk-oriented solvency system has improved cost efficiency and operational output in insurance sector, despite increasing absolute costs. This implies that while regulations can be a financial burden, but they also lead to increases in efficiency (Zhang & Cao, 2023). Such discussions suggest that financial performance in the Takaful industry is influenced by multiple organisational and environmental factors rather than a single determinant.

Another limitation observed in the literature is the tendency to examine financial performance within relatively short observation periods. Short-term analyses may provide limited insights into broader performance dynamics of the industry particularly in a sector that has experienced regulatory reforms and increasing digitalisation of the operational processes. The short observation periods are potentially insufficient to capture full impact of digital transformation and regulatory changes as these processes will occur over several years (Rahman & Khalid, 2022). These structural developments typically unfold over extended periods and may gradually influence how Takaful operators manage resources and sustain financial outcomes.

The literature suggests that the financial performance of Family Takaful is shaped by a complex interaction of organisational practices and industry developments. Therefore, adopting a longitudinal conceptual perspective can provide a better comprehend the financial performance over time and how it relates to operational practices within the Malaysian Family Takaful industry.

### ***Operational Efficiency of Takaful Operators***

Operational efficiency is the capability of an organisation to deliver products or services in the most cost-effective manner while minimising costs and operational waste. In the Takaful context, operational efficiency is particularly essential because operators manage participants' funds on a trust basis mechanism which requires prudent cost control and effective operational management. Retakaful is one of the highest costs for Takaful operators and best practices in retakaful management may lead to operational efficiency (Ismail et al., 2021). Takaful operators' efficiencies are positively affected by turnover and size while total net income is negatively impact on cost efficiency. Experience Muslim directors with Islamic finance knowledge will improve management efficiency (Lee et al., 2019).

From a theoretical perspective, several frameworks help explain the importance of operational efficiency in improving organisational performance. Efficiency theory emphasises that optimal allocation and utilisation of resources enable firms to maximise output while minimising costs. Similarly, the resource-based view (RBV) suggests that firms can achieve sustained competitive advantage by effectively managing valuable and organisational capabilities. Dynamic capability theory further extends this argument by highlighting the ability of firms to adapt and reconfigure internal resources in response to changing market condition. Within the Takaful industry, these theoretical perspectives suggest that efficient operational practices can enhance organisational capabilities and support stronger financial performance over time.

Previous studies have extensively examined operational efficiency in Takaful operators using efficiency-based approaches instead of relying solely on traditional financial ratios. Common measures such as cost efficiency, technical efficiency and scale efficiency are commonly applied to assess how efficiently Takaful operators transform inputs such as labour and operating expenses into outputs such as contribution income and policy services. Technical efficiency is the extent to which Takaful operators could achieve maximum output from a given set of inputs. The Malmquist Productivity Index (MPI) is commonly used to measure technical efficiency over time (Islam et al., 2013; Taib et al., 2018). As for scale efficiency, it focuses on optimal size of Takaful operators. Scale inefficiencies occur only when firms are either too large or too small to operate all possible economies of scale (Saad, 2012; Yusof, 2020). These indicators serve to provide visibility not only in terms of financial performance. Besides other financial indicators, these efficiency indicators play a key role in strategic decision-making and long-term planning. They help organizations assess their strengths and weaknesses to improve productivity and competitiveness (Ahmed & Ibrahim, 2021).

Empirical discussions in the literature suggest that the level of operational efficiency of varies across Takaful operators and over time. Some studies indicate that efficiency improves with more experienced operators as they expand their operational scale while others suggest that persistent inefficiencies are based on high management expenses, distribution costs and limited economies of scale. Studies has found that scale inefficiency is a primary source of inefficiency in the Takaful industry rather than managerial inefficiency. This implies that Takaful operators are not operating at an optimal scale which impacts their overall efficiency (Lee et al., 2018; Yusof, 2020). These observations underline the continuing importance of efficiency improvements within the Takaful industry.

In recent years, the need to increase operational efficiency among Takaful operators has been heightened due to the regulatory developments and increasing market competition in Malaysia. The demand to meet with governance standards, enhance service quality and manage operational costs has encouraged operators to examine internal processes and adopt more effective operational practices. Within this evolving environment, digital transformation has emerged as an important enabler of operational efficiency. The adoption of digital technologies, automation and data-driven systems can streamline internal processes, improve service delivery and optimise resource utilisation (Fu et al., 2024). From conceptual standpoint, digital transformation can therefore be viewed as a mechanism that enhances organisational capabilities and supports more efficient operational practices.

However, there are still many studies on the operational efficiency of Takaful that focuses on specific periods or relatively short time frames. Such approaches provide limited insights into how efficiency evolves over time specifically in an industry that experiencing regulatory

reforms and increasing digitalisation. Therefore, a longitudinal conceptual perspective is consequently required in order to understand how operational efficiency develops and how it relates to the long-term sustainability of Family Takaful operators.

### ***Digital Transformation in the Takaful***

Digital transformation has increasingly influenced the operational environment of financial services including the Takaful industry. In recent years, particularly following the COVID-19 pandemic, financial institution has accelerated the adoption of digital technologies to enhance customers experience, improve operational processes and strengthen cybersecurity. This has resulted in more remote banking services and the use of AI for fraud detection (Oladele, 2024). The adoption of digital technologies has been perceived as a strategic approach to enhance service delivery, minimise operational costs and improve organisational efficiency. For Takaful operators, digitalization offers an opportunity to strengthen operational processes without compromising Shariah principles. Digitalisation should be in accordance with Shariah principles which requires strict supervision and collaboration between financial institutions, regulators and technology developers to ensure that technological innovations do not compromise Islamic values (Muslih & Anwar, 2025; Sari, 2025).

Existing literature highlights several digital tools such as automated underwriting systems, online policy management platforms and digital claims processing that can support operational processes within insurance and Takaful institutions. Technologies such as automated underwriting systems, online policy management platforms and digital claims processing systems can improve administrative efficiency by reducing processing time and minimising manual tasks. AI has improved underwriting accuracy from 80% to 100% and fraud detection accuracy from 75% to 92% (Aragani, 2024). Digital platforms also enable more efficient customer interactions, faster claims management and improved service accessibility. The ability to maintain policies and claims online is a user friendly and enhance customer satisfaction (Elgargouh et al., 2021; Hs & Thooyibah, 2025). These developments can contribute to greater operational efficiency by enhancing process accuracy and enabling more effective resource utilisation.

From a broader perspective, studies in the insurance and financial services literature suggest that digital transformation can enhance organisational efficiency by improving scalability and operational flexibility. Technologies such as application programming interfaces (APIs), cloud computing and data analytics allow financial institutions to process information more efficiently and manage higher transaction volumes with lower operational delays. For example, the use of APIs and microservices architecture allows real-time data exchange and processing which enable financial institutions to handle larger transactions volumes with less latency and errors (Aragani, 2024). With the implementation of cloud optimization strategies, financial institutions can manage economy and performance resulting in greater operational efficiency and reducing costs (Tsapa & Ch, 2024). In this regard, digital transformation can be conceptually understood as an enabling mechanism that strengthen organisational capabilities and supports more efficient operational practices.

Within Malaysian Takaful industry, the gradual adoption of digital technologies has been supported by regulatory initiatives aimed at promoting financial innovation. Bank Negara Malaysia (BNM) and Securities Commission Malaysia (SC) have been instrumental in designing the digital landscape by issuing regulations that encourage the proliferation of

FinTech businesses. These involve more comprehensive digital currency exchanges, electronic know-your-customer (e-KYC) requirements and regulatory sandboxes to test new technologies in a relatively controlled environment (Kunhibava & Muneeza, 2020; Magnuson, 2018). Nevertheless, the level of digital adoption across Takaful operators remains uneven due to differences in technological capability, organisational readiness and investment capacity. Some operators are investing heavily in technology start-ups and building new product solution internally (Doss, 2020). Such variations may lead to differences in operational efficiency across firms and over time.

Despite the growing attention to digitalisation within financial services, existing studies on Takaful performance have largely focused on traditional operational and financial indicators. The potential role of digital transformation in shaping operational efficiency and financial performance remains relatively underexplored in the Family Takaful context. In many cases, discussions on digitalisation are descriptive or limited to short-term observations that provide limited insights into how technological adoption may affect the long-term industry performance. Therefore, a conceptual discussion that integrates digital transformation with operational efficiency and financial performance can provide a clearer understanding of how these elements interact within the evolving Malaysian Family Takaful industry.

## **Methodology**

This study adopts a conceptual research approach to examine the relationship between operational efficiency and financial performance in the Malaysian Family Takaful industry. Rather than conducting empirical testing, the study synthesises insights from existing academic literature, industry reports and regulatory publications to develop a conceptual understanding of how these constructs interact. A conceptual approach is appropriate as it allows the integration of the theoretical perspectives and prior studies to provide more comprehensive explanation of performance dynamics within the Takaful sector.

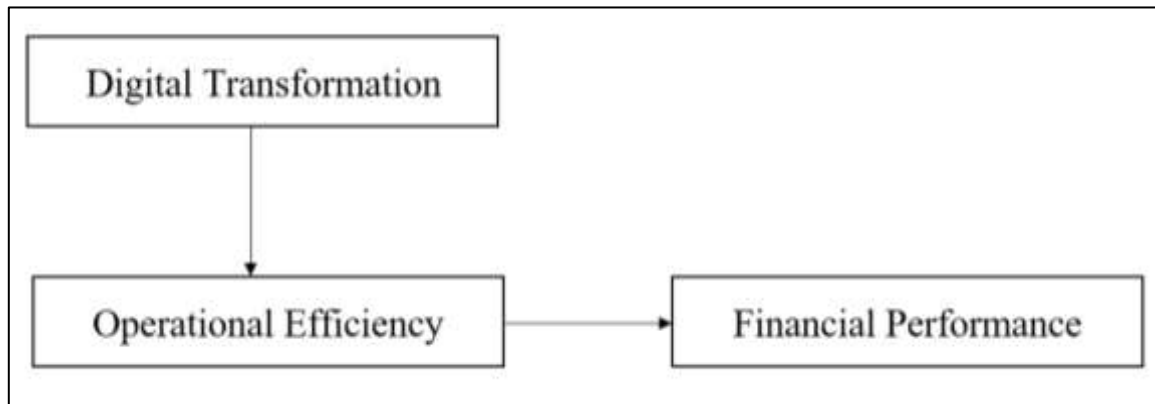
## ***Theoretical Foundation***

The development of the conceptual framework is guided by several theoretical perspectives including efficiency theory, the resource-based view (RBV) and dynamic capability theory. Efficiency theory emphasises the importance of optimal resource utilisation in improving organisational outcomes. The resource-based view highlights how firm-specific resources and capabilities can generate sustained competitive advantage, while dynamic theory capability theory focuses on the ability of organisations to adapt and reconfigure resources in response to changing environments.

## ***Conceptual Framework***

Based on the synthesis of literature and theoretical perspectives, this study proposes a conceptual framework linking operational efficiency and financial performance in the Family Takaful industry. Operational efficiency is conceptualised as a key organisational capability that enables Takaful operators to utilise resources effectively and manage operational costs. Financial performance represents the outcome of these operational practices, reflecting the ability of operators to maintain financial stability and meet participant obligations. Digital transformation is incorporated into the framework as a supporting factor that enhances

operational processes through technological adoption, automation and improved data management.



**Figure 1: Conceptual Framework**

Figure 1 above presents the conceptual framework of the study. The framework proposes that operational efficiency influences the financial performance of Family Takaful operators, while digital transformation acts as a supporting factor that enhances organisational capabilities and operational processes. By facilitating more efficient operational practices, digital technologies may strengthen the relationship between operational efficiency and financial performance.

### **Conclusion and Implications**

This conceptual study highlights the critical role of operational efficiency in shaping the financial performance of Malaysian Family Takaful operators over time. By adopting a longitudinal perspective, the paper provides a framework to understand how operational practices evolve in response to regulatory developments, competitive pressures and technological advancements and how these changes may contribute to organisational performance and long-term stability in a dynamic industry environment.

From a practical perspective, the framework suggests that Family Takaful operators should prioritise the optimisation of internal processes, efficient resource management and the strategic adoption of digital technologies. Digital transformation can enhance operational efficiency by automating administrative tasks, improving data management and supporting faster and accurate service delivery. Furthermore, these initiatives can reduce operational costs, improve customer satisfaction and strengthen the financial sustainability of Takaful operators. Regulators and policymakers can also benefit from the framework by designing guidelines and incentives that encourage efficiency-oriented practices and digital adoption, thus supporting the strength and competitiveness of the Malaysian Takaful industry.

In terms of academic contribution, this study integrates three previously under-connected elements including operational efficiency, digital transformation, and financial performance into a structured conceptual framework tailored to the Family Takaful context. It addresses gaps in prior research that often examine these factors separately or focus on short-term observations by providing a longitudinal conceptual perspective. The framework provides a foundation for future empirical studies that can test these relationships over extended periods

and across different operators which enable a deeper understanding of performance dynamics in Islamic financial institutions.

In summary, the study demonstrates that sustained operational efficiency, supported by digital transformation is essential for enhancing financial performance and ensuring the long-term viability of Family Takaful operators. The proposed framework contributes actionable insights for practitioners and regulators as well as offering a robust conceptual basis for future research on efficiency, technological adoption, and performance in the era of digital transformation.

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