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A Circular Cause-and-Effect Model: Exploring the Relationship between Intellectual Capital, Islamic Financial Risk, and Financial Performance in Islamic Commercial Banks

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ABSTRACT
This study explores the interrelationship between intellectual capital, Islamic financial risk, and financial performance in Islamic commercial banks using a circular causation model. The research analyzes 48 annual reports from eight Indonesian Islamic banks between 2015 and 2020, employing purposive sampling and dynamic Two-Stage Least Squares (2SLS) estimation via EVIEWS 9. The banks include Bank Syariah Mandiri, BNI Syariah, BRI Syariah, Panin Syariah, Bukopin Syariah, Mega Syariah, Muamalat, and BCA Syariah. Findings reveal that intellectual capital has no significant impact on key performance indicators such as the Profit Sharing Ratio (PSR), Zakat Performance Ratio (ZPR), or the Equitable Distribution Ratio (EDR). Similarly, financial risks—comprising financing, liquidity, capital, and operational risk—do not significantly affect these performance metrics. From a circular causation perspective, PSR, ZPR, and EDR also show no reciprocal effect on intellectual capital or financial risks. The results highlight a disconnect between intellectual capital and financial outcomes within the Islamic banking sector, raising important questions about the alignment of human and knowledge assets with performance in faith-based finance. These findings contribute to global discussions on optimizing intellectual capital and risk frameworks to enhance the sustainability and ethical value of Islamic financial institutions.

Keywords: islamic financial performance, intellectual capital, financial risk, circular causation

INTRODUCTION

The evaluation of financial performance in Islamic commercial banks relies on specific criteria or standards designed to gauge a company's achievement of predetermined objectives. Distinct from conventional banks, the measurement of financial performance in Islamic commercial banks necessitates a performance assessment tool that aligns with their unique characteristics.[1] introduced the Islamicity Index, an index tailored to assess the financial

[1] Shahul Hameed and Ade Wirman, *Alternative Disclosure and Performance Measures for Islamic Banks*, 2005.

performance of Islamic banks, which can be used to analyse ratios reflecting the operational effectiveness of these banks.Additionally, [2] introduced two indices, the Shariahicity Disclosure Index and the Shariahicity Performance Index, aimed at assessing the disclosure and overall performance of Islamic banks.

The future and potential of a company hinge on the management's ability to effectively harness the hidden worth of intangible assets, as highlighted by Astuti in Wahdikorn's 2010 work. Consequently, it is imperative to measure and evaluate these intangible assets, among which Intellectual Capital holds a significant place. According to PSAK No. 19, intangible assets refer to non-monetary assets that can be identified, do not possess any physical form, and are held for the purpose of generating or delivering goods or services, leasing to others, or for administrative uses [3]. The inherent challenge in directly quantifying Intellectual Capital makes it difficult to confirm its existence within a company. Introduced an indirect method for gauging Intellectual Capital, utilizing the Value-Added Intellectual Coefficient (VAIC) as a metric to evaluate the effectiveness of value added resulting from a company's intellectual capabilities.[4]

The existence of a positive correlation between IC and a company's performance has been substantiated by studies conducted by Chen et al. , and Tan et al. These research endeavors have provided evidence of IC's impact on financial performance. However, certain research findings, including those from Firer and Williams (2003) and Kuryanto (2011), suggest a contrary outcome. In these cases, Intellectual Capital does not seem to influence market value and company performance, even though, in theory, it should. [5]

In the banking sector, risk refers to potential events, both expected and unexpected, that can negatively impact a bank's income and capital. While these risks cannot be entirely avoided, they can be effectively managed and controlled. Managing them is crucial to minimize the likelihood of their occurrence. Islamic banks, much like traditional banks, also need established procedures and governance mechanisms for the identification, measurement, monitoring, and control of risks stemming from their business activities, a practice commonly known as risk management. A study conducted by [6] concluded that financial risk does not have an effect on the financial performance of Islamic Commercial Banks. This outcome contradicts the theory proposed by [7], which suggests that

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[2] Shahul Hameed, *Alternative Disclosure…*

[3] IAI, *Pernyataan Standar Akuntansi Keuangan (PSAK)*, 2015.

[4] Ante Pulic, "VAICTM–An Accounting Tool for Intellectual Capital Management," *International Journal Technology Management* 20, no. 5 (2000): 6.

[5] Ihyaul Ulum, "Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan Perbankan Di Indonesia" (Program Pascasarjana Universitas Diponegoro, 2007).

[6] Ahmad Roziq and Herdian Nisar Danurwenda, "Pengaruh Good Corporate Governance Terhadap Corporate Social Responsibility Melalui Risiko Bisnis Dan Kinerja Keuangan Pada Bank Umum Syariah Di Indonesia," *Jurnal Akuntansi Universitas Jember* 10, no. 1 (2015): 90–109.

[7] Anisa Nursatyani and Prasetiono Prasetiono, "Analisis Pengaruh Efisiensi Operasi, Risiko Kredit, Risiko Pasar, Dan Modal Terhadap Kinerja Keuangan Perbankan (Studi

an increase in Non-Performing Loans (NPL), used as an indicator for assessing bank credit risk, indicates a decline in banking performance. It also differs from the findings of a study conducted by [8].

Previous research has explored various hypotheses regarding the relationship between Intellectual Capital (IC) and financial performance, including positive, negative, or no effects. This study also aims to investigate how IC and financial risk influence Islamic Financial Performance in Islamic Commercial Banks in Indonesia, employing a Circular Causation model. This dynamic model illustrates how each observed variable interacts with and impacts other variables. This approach is known as the Tawhidi String Relation approach, founded on the fundamental principles of interaction, integration, and evolution (IIE).

1. Literature Review

The Theory of Muamalah and Tawhidy String Relation (TSR)

The theory of muamalah serves as a bridge between knowledge and religion. It highlights the significance of knowledge in guiding human life on Earth and emphasizes faith as a moral compass for both worldly and spiritual existence. This theory's expansion can be observed in the realm of Islamic economics, encompassing various entities and tools such as Islamic banking, Islamic insurance, Islamic finance, Islamic investments, and academic investigations into Islamic accounting, finance, and management [9]. Muamalah, in essence, deals with the rules governing human interactions with one another. It adapts and evolves in sync with technological progress and the evolving needs of society. As these models of business and muamalah take shape in everyday life, it is essential to respond thoughtfully and cautiously. This response should not only consider their advantages and disadvantages but also take into account the Islamic legal principles (sharia) associated with this business and muamalah frameworks. This is because Muslims possess a distinctive and unique perspective compared to other communities, as explained by [10]

The theory of muamalah has undergone a rapid transformation, transitioning from individual behavior to shaping civilization. This transformation became particularly pronounced with the development of the Interaction, Integration, and Evolution techniques within the Tawhidy String Relation (TSR) theory introduced by Masudul Alam Choudhory. This shift was accomplished through a philosophical approach aimed at unifying knowledge,

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Perbandingan Pada Bank Domestik Dan Bank Asing Di Indonesia Periode 2004-2008)" (Universitas Diponegoro, 2011).

[8] Wisnu Mawardi, "Analisis Faktor Faktor Yang Mempengaruhi Kinerja Keuangan Bank Umum Di Indonesia (Studi Kasus Pada Bank Umum Dengan Total Asset Kurang Dari 1 Trilyun)" (Program Pascasarjana Universitas Diponegoro, 2004).

[9] Lalu Abdul Fatah, "Faktor-Faktor Yang Mempengaruhi Pengungkapan Informasi Tanggung Jawab Sosial Perusahaan (CSR-D) Pada Laporan Tahunan Industri Perbankan Syariah Dalam Perspektif Akuntansi Islam" (Universitas Trisakti, 2013).

[10] Hafidz Abdurrahman and Yahya Abdurrahman, *Bisnis & Muamalah Kontemporer* (Bantarjati, Bogor: Al Azhar Fresh Zone Publishing, 2015, 2015).

striving to restore it to a comprehensive and non-dualistic state. From an epistemological perspective, the Unity of Knowledge concept alludes to the unity of divine law, where knowledge emanates from the divine aspect of God, the Supreme Creator.[11]

Additionally, TSR serves as a methodology that elucidates the interactive and integrative processes occurring within the interrelationships of elements within a system. These processes are propelled by the accumulation of learning experiences, comprehension, knowledge, and beliefs rooted in Islamic teachings derived from the Quran and Hadith. This ongoing process signifies a continuous and positively oriented transformative journey (shuratic process) that ultimately leads to an anticipated and optimal state. Within the TSR methodology, the journey of seeking authentic truth until reaching fallah is known as the shuratic process. Shuratic is derived from "Syura," signifying a consultative and dynamic procedure. This suggests that individuals cannot instantly achieve fallah without undergoing the shuratic process while pursuing genuine truth. The shuratic process persists continuously until an unfavorable state transforms into a more favorable one.

According to Choudhury and Harahap, the TSR methodology comprises an Interaction, Integration, and Evolution (IIE) process. Attaining the desired condition is possible when both the IIE process and shuratic process are grounded in knowledge drawn from the Quran and the Hadith. In the Tawhidi String Relation (TSR) approach, values, ethics, and knowledge symbolyzed by (θ) thrive when everything is aligned with the guidance of Allah SWT, specifically the Quran (Ω) and the Hadith/Sunnah of the Prophet Muhammad SAW (S).

Financial Performance

Financial performance entails evaluating a company's achievements against predetermined targets, as outlined by Hameed et al. Assessing a company's performance forms an integral part of the oversight process, aiding in enhancing future performance while pinpointing deficiencies in financial operations over the course of the year. The significance of evaluating the performance of Islamic financial institutions is on par with assessing individual accomplishments. It is evident that the responsibilities of Islamic financial organizations extend beyond merely addressing the financial needs of diverse stakeholders. Rather, the focus lies in how they conduct their operations and the strategies employed to ensure that all activities align with Islamic principles.

One approach to gauge financial performance involves the use of indices, as proposed by Hameed et al. The development of these indices to measure the performance of Islamic financial institutions holds increasing importance due to the rising awareness within the Muslim community regarding the evaluation of these institutions' successful attainment of their objectives. Presently, most Muslims are not solely concerned with the ultimate return on their investments;

[11] M A Choudhury, *The Islamic Worldview: Socio-Scientific Perspectives* (Kegan Paul International, 2000).

rather, they are more interested in understanding where their funds have been channeled. Hameed et al. have devised two distinct index types: the Islamicity Disclosure and the Islamicity Performance Index. These indices are crafted to facilitate stakeholders such as customers, shareholders, religious bodies, governments, and others in the assessment of Islamic financial institutions' performance.

In their paper, Hameed et al. introduced two types of indices applicable to Islamic banking: the Islamicity Disclosure and the Islamicity Performance Index. The Islamicity Disclosure Index aims to evaluate how effectively a company communicates information that could be beneficial to its stakeholders. This index can be further subdivided into three primary indicators: Islamic compliance,corporate governance, and indicators related to social and environmental aspects. On the other hand, the Islamicity Performance Index assesses a company's overall performance. However, the measurement of performance relies solely on the information available in annual reports. This encompasses aspects such as profit-sharing performance, zakat (charity) contributions, equity performance, and other relevant factors.

Intelectual Capital

Generally, intellectual capital refers to the knowledge or intellectual abilities that a company possesses. It lacks a physical form, and having intellectual capital allows a company to potentially increase its profits or improve its business operations, giving it a competitive advantage or added value compared to other companies orcompetitors [12]. The term "intellectual capital" is used to encompass the intangible assets of the market, intellectual property, infrastructure, and human resources that enable a company to operate effectively. Stewart, as cited in Tan et al., suggests that researchers typically identify three primary components of IC: human capital (HC), structural capital (SC), and customer capital (CC).

Value Added Intellectual Coefficient (VAIC)

The Value-Added Intellectual Coefficient (VAIC), developed by [13] designed as a method to present information about the value creation efficiency of tangible assets and intangible assets owned by a company. VAIC serves as a tool to measure the performance of a company's intellectual capital, and this method has an advantage because the required data can be relatively easily obtained from various sources and types of companies. The data needed to calculate these various ratios are standard financial figures that are generally available from a company's financial reports [14].

Financial Risk

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[12] Maritza Ellanyndra, "Pengaruh Intellectual Capital Terhadap Business Performance Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia (BEI)" (Skripsi, 2011).

[13] Ante Pulic, "Measuring the Performance of Intellectual Potential in Knowledge Economy," in *2nd McMaster Word Congress on Measuring and Managing Intellectual Capital by the Austrian Team for Intellectual Potential* (McMaster University, Hamilton, 1998), 1–20.

[14] Ulum, "Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan Perbankan Di Indonesia."

Risk can be defined as the potential for an event to occur that may result in negative outcomes. In Workbook Level 1 of the Global Association of Risk Professionals, which is the certification body for risk management, risk is described as the "likelihood of an adverse result." This essentially means that risk encompasses the chance of unfavorable consequences arising, potentially leading to losses if not adequately anticipated and effectively managed. Within the banking industry, risk pertains to potential events, both foreseeable and unforeseeable, that can have adverse effects on a bank's financial income and capital. While it's impossible to completely eliminate these risks, they can be actively controlled and managed. The goal is to handle them in a manner that minimizes their potential impact. Similar to traditional banks, Islamic banks also require procedures and governance mechanisms to identify, assess, monitor, and mitigate risks stemming from their business activities, a process commonly known as risk management.

Depending on the circumstances and external factors influencing them, a bank's risks can be broadly categorized into two main groups: (1) Systemic Risk, which arises from specific macro-level conditions or situations like changes in political dynamics, shifts in government economic policies, alterations in market conditions, crisis scenarios, or economic recessions that affect the overall economy. And (2) Unsystemic Risk, which is unique risk inherent to a particular company or industry.

Conceptual Framework

Based on the analysis of previous literature studies and research that examined the Intellectual Capital and financial risk on Islamic financial performance, a research model has been created as shown in the diagram below.

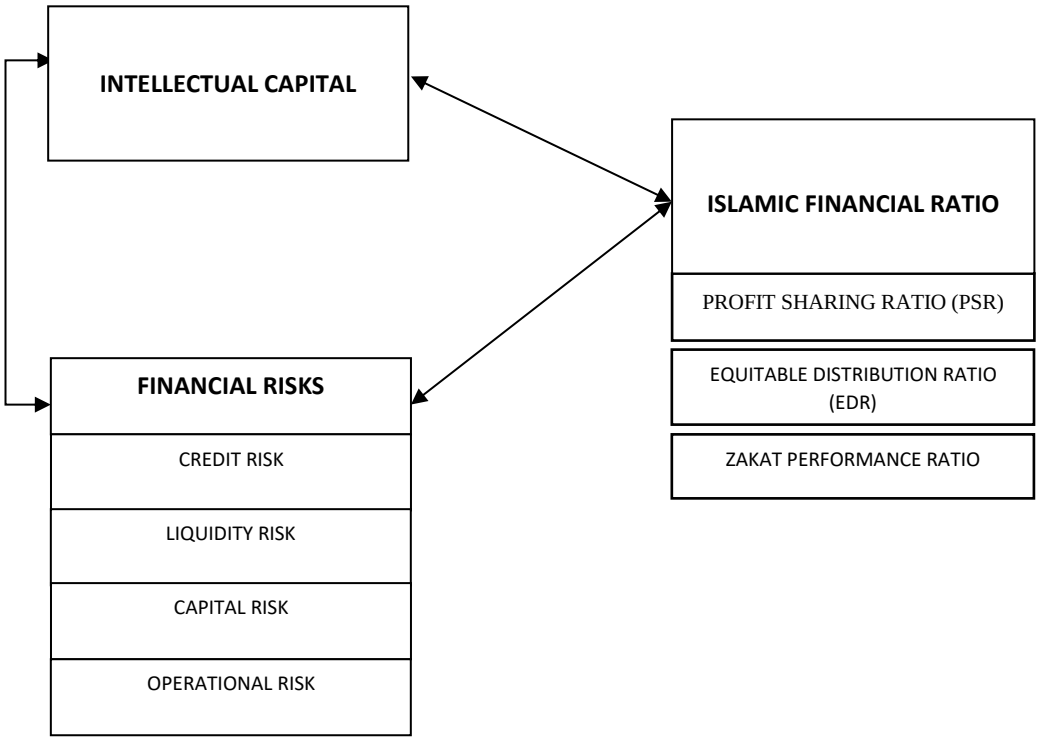

Figure 1. Conseptual Framework

Hypothesis Development.

The effect of Intellectual Capital (IC) on Islamic Financial Performance.

Intellectual capital (IC) is a quantifiable asset that can boost a company's competitive edge, and as a result, it positively affects the company's financial performance Chen et al. IC is also seen as a key factor in augmenting a company's value and overall performance. Studies by Firer and Williams, Chen et al., and Tan et al. have provided evidence of the favorable influence of IC (VAIC) on a company's performance. Therefore, when a company effectively manages and nurtures its intellectual capital, it can lead to an enhancement in its performance.

H_1: Intellectual capital has a positive effect on Islamic Financial Performance.

The Effect of Financial Risk on the Performance of Islamic Finance

Ahmad Roziq's study in 2014 revealed that financial risk does not exert any influence on the financial performance of Islamic Commercial Banks. This finding contradicts [15] theory, which posits that an increase in Non-Performing Loans (NPL), used as a metric for assessing a bank's credit risk, is indicative of a decline in banking performance. These results do not align with the outcomes of Mawardi's research conducted in 2010. A study conducted by [16] in the Middle East and North Africa (MENA) region demonstrates a significant adverse impact on performance. In simpler terms, the greater the likelihood of problematic credit risk, the lower the expected performance of the banking sector.

H_2: Financial risk has an effect on the performance of Islamic finance.

The Effect of Islamic Financial Performance on Intellectual Capital (IC)

The level of profit also determines intellectual capital performance. Profit levels are associated with the earnings generated by a company, and earnings serve as a measure of a company's performance. A company is considered to have good performance when it generates significant profits, and conversely, it is deemed to have poor performance when it does not generate profits or even incurs losses. This motivates employees to enhance their performance, which in turn boosts the company's intellectual capital performance. Thus, the level of profit is one of the aspects that affects intellectual capital performance [17]. A study on the effect of profit levels and company risk on intellectual capital performance has been conducted by El-Bannany et al., focusing on cases in the United Kingdom. The research findings indicate an influence of profit levels on intellectual capital performance.

H_3: Islamic Financial Performance has a positive effect on IC.

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[15] Nursatyani and Prasetiono, "Analisis Pengaruh Efisiensi Operasi, Risiko Kredit, Risiko Pasar, Dan Modal Terhadap Kinerja Keuangan Perbankan (Studi Perbandingan Pada Bank Domestik Dan Bank Asing Di Indonesia Periode 2004-2008)."

[16] Ahmad Y Khasawneh and Husam Aldeen Al-Khadash, "Risk and Profitability in Middle East and North Africa Banking System: An Examination of off Balance Sheet Activities," *The International Journal of Business and Finance Research* 8, no. 3 (2014): 13–26.

[17] Putriani and Femega Dian, "Pengaruh Struktur Kepemilikan, Tingkat Keuntungan Perusahaan, Risiko Perusahaan Terhadap Kinerja Intellectual Capital (Studi Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2007-2009)," 2010.

The Effect of Islamic Financial Performance on Financial Risk

This study utilizes a model in which the observed variables interact with one another, drawing from Choudhury's work in 1995. From this model, the concept of IIE emerges, encompassing interactions, integration, and evolution of the studied variables, as originally introduced [18]. IIE represents a process that results from specific combinations of knowledge derived from the models, uniting conditions that reflect realism.

H_4: Financial Performance affects Financial Risk.

The Effect of Intellectual Capital on Financial Risk

Concerning the intellectual capital, Firer and William contend that the banking sector ranks among the industries with the most concentrated intellectual capital. Furthermore, from an intellectual perspective, employees in the banking sector exhibit greater overall homogeneity compared to other economic sectors.[19] The choice of the banking sector is based on Firer and William's assertion in 2003 that it possesses a significant intellectual capital intensity. Investments in human resources have a substantial impact on elevating company productivity, a goal that can be pursued through education and training.[20] Enhanced productivity is followed by increased operational profits, serving as an indicator of risk reduction. The allocation of total assets to investments in human resources contributes to achieving corporate objectives. No prior research has explored the influence of intellectual capital on financial risk. Based on this explanation, the following hypothesis is posited:

H_5: Intellectual Capital has a substantial effect on Financial Risk.

The Effect of Financial Risk on Intellectual Capital

Intellectual capital, as a key factor in enhancing a company's value, is influenced by several aspects. As highlighted by Bonie et al., the factors determining the impact on intellectual capital include: (1) ownership retention; (2) ownership costs; (3) corporate governance structure. In addition to being influenced by ownership structure, according to [21] the performance of intellectual capital is influenced by investments in information technology, investments in intellectual capital, profit levels, company risk, market entry barriers, and company efficiency.

H_6: Financial risk has a significant effect on Intellectual Capital.

METHODS

In this research, a quantitative approach is employed along with an Explanatory Research design. The quantitative research approach is utilized

[18] Choudhury, *The Islamic Worldview: Socio-Scientific Perspectives*.

[19] Ulum, "Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan Perbankan Di Indonesia."

[20] Becker, Gary S. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. New York: Columbia University Press, 1964.

[21] Magdi El-Bannany, "A Study of Determinants of Intellectual Capital Performance in Banks: The UK Case," *Journal of intellectual capital* 9, no. 3 (2008): 487–498.

when researchers rely on widely accepted meanings, typically associated with theories having specific characteristics. As per Kerlinger, as referenced in [22], this approach involves a set of variables, definitions, or propositions that are interconnected and contribute to a structured perspective of a phenomenon by establishing connections among variables with the intention of explaining natural occurrences.

Population

The population under examination in this study encompasses all Islamic Commercial Banks (ICBs) that are officially listed in the Directory of Indonesian Banking. The research sample is chosen through purposive sampling, a non-random method of selection employed for specific objectives or targets.[23]

Table 1. Population

No.	Bank
1	PT. Muamalat Indonesia
2	PT. Bank Mandiri Syariah
3	PT. Mega Syariah
4	PT. BRI Syariah
5	PT. Bukopin Syariah
6	PT. BNI Syariah
7	PT. Bank Jabar Banten Syariah
8	PT. Bank BCA Syariah
9	PT. Bank Victoria Syariah
10	PT. May Bank Syariah Indonesia
11	PT. Bank Panin Syariah (Panin Dubai Syariah)
12	PT Bank Tabungan Pensiunan Nasional Syariah
13	PT. Bank Aceh Syariah
14	PT. BPD Nussa Tenggara Barat Syariah

Source: ww.ojk.co.id

Sampling and Data Collection Method

A sample represents a portion of the overall population, and its characteristics are scrutinized to serve as a representation of the entire population. The employed sampling method is purposive sampling, involving the non-random selection of samples with explicit objectives or targets. Only data that satisfies the predefined criteria will be employed as samples. These criteria encompass:

1. Sharia-compliant banks listed in Bank Indonesia's records from 2015 to 2020.

[22] John W Creswell, "Qualitative, Quantitative, and Mixed Methods Approaches" (Thousand Oaks, CA: Sage, 2003).

[23] Nur Indriantoro and Bambang Supomo, *Metodologi Penelitian Bisnis Untuk Akuntansi Dan Manajemen*, 1st ed. (BPFE Yogyakarta, 2009).

2. Sharia-compliant banks that have published annual reports from 2015 to 2020.

Data Analysis Method

This research employs the simultaneous equation method as its analytical approach. Simultaneous equations comprise a set of equations where variables that are dependent in one or more equations also act as independent variables in other equations [24] It can also be defined as a model that exhibits a cause-and-effect relationship between dependent and independent variables, allowing a variable to be considered both dependent and independent in other equations.

Simultaneous Equation Method

Within a simultaneous equation system, it is imperative to conduct an identification test initially to determine whether each equation is precisely identified, under-identified, or over-identified. Once the simultaneous equation model has been identified, the subsequent step involves estimating the model. According to [25] stimation techniques within the simultaneous equation method encompass:

1. Indirect Least Square (ILS)
2. Two Stage Least Squares (2 SLS).

Identification Problems in Simultaneous Equations

Challenges related to identification commonly arise in econometric models featuring multiple equations. To address this concern, it is essential to conduct tests or establish prerequisites to ascertain which equation coefficients are being estimated. These prerequisites are commonly referred to as identification criteria. Consider all the constraints present in the system of equations within the model.

Hypotheses Testing

In order to determine the validity of the hypothesis, it is necessary to engage in hypothesis testing using F-statistics and t-statistics or by assessing the resulting significance from these tests. Initially, determine the significance level, ranging from 90% to 95%, or the error of margin, which falls between 5% and 10%. Additionally, account for the number of observations (n). Based on these considerations, subsequently compare the tabulated t-values with the calculated t-values obtained using Eviews 9.

RESULT AND DISCUSSION

Based on the data presented in the table, it can deduce: in the context of H_1, that the variable "intellectual capital" exerts an influence on the metric measuring Islamic financial performance, specifically the "equitable distribution ratio." This influence is characterized by the highest coefficient value of -0.080294 and significance levels falling within the range of less than 0.05 to 0.10. Conversely, the variable "intellectual capital" does not exert any discernible

[24] Gunawan Sumodiningrat, *Ekonometrika Pengantar*, ed. 2007 BPFE-Yogyakarta, cet. 2., 2007.

[25] Damodar Gujarti, *Ekonometrika Dasar* (Erlangga, 2003).

impact on both the "profit sharing ratio" and the "zakat performance ratio." The coefficients associated with these variables are 0.01215 and -142.264, respectively, and their significance levels are greater than 0.05 to 0.10. It is worth noting that the Profit-Sharing Ratio (PSR) in Islamic banks is determined by the outcomes of financing activities within Islamic commercial banks. A portion of this financing originates from *Mudharabah* and *Musyarakah*. As such, intellectual capital (IC) does not correlate with the determination of profit-sharing ratios because customers select one of these two financing options. Similarly, PSR does not relate to zakat performance ratio because zakat is an obligation for Muslims based on their wealth.

Furthermore, the conclusions for H_2 based on the data, that the financial risk variable with the first indicator, which is credit risk, has an effect on the Islamic financial performance variable, namely equitable distribution ratio, with the highest coefficient value of -0.293071 with significance < 0.05 – 0.10. Meanwhile, the credit risk variable does not affect the profit-sharing ratio and zakat performance ratio with coefficient values of -0.024967 and -22.14045 respectively,with significance > 0.05 – 0.10. The financial risk with the second indicator, which is liquidity risk, affects the Islamic financial performance variable, profit sharing ratio, with the highest coefficient value of -0.698627, with significance < 0.05 – 0.10. On the other hand, the variable of liquidity risk does not affect the equitable distribution ratio and zakat performance ratio, with coefficient values of -4.435798 and 469.3519 respectively, with significance > 0.05 – 0.10. Financial risk with the third and fourth indicators, capital risk and operational risk, does not have any effect on the Islamic financial performance variables, profit sharing ratio, equitable distribution ratio, and zakat performance ratio. The highest coefficient values for capital risk are -0.004637, -0.005316, and -139.0755, and for operational risk, they are 0.014458, -0.011123, and -15.07492, with significance > 0.05 – 0.10. This research finding provides an overview which the credit risk will affect financing costs (EDR), which will be a burden for the company if there is a default. Additionally, this impact may subsequently affect the bank's liquidity ratio if financing risk continues to escalate.

In the realm of Islamic financial performance, particularly concerning the equitable distribution ratio, observed an influence on intellectual capital. This influence is represented by the highest coefficient value of -0.075092 and falls within a significance level range between less than 0.05 and 0.10. Conversely, the profit-sharing ratio (PSR) and zakat performance variables do not exert any noticeable effect on intellectual capital. The respective coefficient values are 0.603581 and -0.000206, with significance levels exceeding 0.05 to 0.10. This analysis suggests that both PSR and zakat performance (ZPR) do not directly affect intellectual capital, primarily because Shariah commercial bank financing relies on customer-selected Mudharabah and Musyarakah structures, and zakat obligations for Muslims are fulfilled without regard to intellectual capital considerations.

According to the data presented in the table, the conclusions can be derived for H_4. It indicates that the Islamic financial performance indicator,

specifically the profit-sharing ratio, has an effect on the variable representing liquidity risk. This influence is demonstrated by the highest coefficient value of -0.106922 and a significance level falling below 0.05 to 0.10. However, the profit-sharing ratio does not affect the credit, capital, or operational risk, as evidenced by coefficient values of -1.10398, -0.519032, and 1.063875, respectively, and significance levels surpassing 0.05 to 0.10. Moreover, the Islamic financial performance variable, the equitable distribution ratio, affects the financial risk, particularly the credit risk indicator, represented by the highest coefficient value of -0.239346, and a significance level within the less than 0.05 to 0.10 range.

Nonetheless, the equitable distribution ratio does not appear to affect the liquidity, capital, or operational risk, with respective coefficient values of -0.239346, -0.012534, and -0.010991, and significance levels exceeding 0.05 to 0.10. Additionally, the Islamic financial performance variable, the zakat performance ratio, has an effect on financial risk, specifically with the capital risk indicator, indicated by the highest coefficient value of 0.00048, and significance within the less than 0.05 to 0.10 range. However, the zakat performance ratio doesn't affect credit risk, liquidity risk, or operational risk, as evidenced by coefficient values of -0.0000302, 0.0000221, and -0.0000342, respectively, and significance levels surpassing 0.05 to 0.10.

Relared to the table, the results for H_5 that the intellectual capital variable affects the financial risk variable, particularly with the liquidity risk indicator. This effect is indicated by the highest coefficient value of 0.039702 and a significance level falling within the less than 0.05 to 0.10 range. However, intellectual capital does not seem to affect credit risk, capital risk, or operational risk, with respective coefficient values of 0.278141, -0.071649, and -0.277376, and significance levels exceeding 0.05 to 0.10. This analysis suggests that the type of financing in Islamic banking, based on customer choices between *Mudharabah* and *Musyarakah*, is not directly related to intellectual capital risk considerations.

The finding for H_6 was the financial risk variable, specifically with the capital risk indicator, affects the intellectual capital, represented by the highest coefficient value of 12.88684 and a significance level falling within the less than 0.05 to 0.10 range. However, the credit, capital, and operational risk do not affect the corporate social responsibility, with respective coefficient values of 0.178427, -0.01842, and -0.100095, and significance levels exceeding 0.05 to 0.10. This finding suggests that liquidity risk is connected to intellectual capital because banks must effectively manage their daily transactions, meet urgent funding demands, fulfil customer financing requests, and maintain the flexibility to pursue attractive and profitable investment opportunities. To achieve these objectives, Islamic banks need to enhance their human capital capabilities to manage the potential risks that may arise.

CONCLUSION

1. The profit-sharing ratio and zakat performance ratio remain unaffected by the variable of intellectual capital, and likewise, the equitable distribution ratio is not influenced by the intellectual capital variable.

2. The first indicator of financial and credit risk, affects the Islamic financial performance indicator, specifically the equitable distribution ratio. However, the credit risk variable does not have an effect on the profit-sharing and zakat performance ratio. Similarly, the second financial risk indicator, liquidity risk, affect the Islamic financial performance indicator, the profit-sharing ratio. Conversely, the liquidity risk variable has no effect on the equitable distribution ratio and zakat performance ratio. As for the third and fourth financial risk indicators, capital risk and operational risk, they do not exert any influence on the indicators of Islamic financial performance, including the profit-sharing ratio, equitable distribution ratio, and zakat performance ratio.
3. The Zakat Performance Ratio, Profit Sharing Ratio, and Equitable Distribution Ratio do not have an effect on the Intellectual Capital, financing risk, liquidity risk, capital risk, and operational risk.
4. The Intellectual Capital does not have an effect on the financing risk, capital risk, and operational risk.
5. The financing risk, capital risk, and operational risk do not affect the Intellectual Capital.

Based on the findings of this research, the following managerial implications can be conveyed to stakeholders in the field of Islamic banking companies:

1. For Islamic banks, Islamic financial performance can be used to measure the ratios that reflect the Business Performance of Islamic banks, ensuring that their activities comply with Shariah regulations. In this regard, factors influencing or influenced by Islamic financial performance should be considered when conducting Islamic commercial banking operations.
2. For the Financial Services Authority (OJK), the research results can be used as the input for creating policies to measure financial performance using the Shariah Performance Index. Islamic banks should not only serve the needs of various parties but also ensure that their activities comply with Shariah regulations.

In light of the aforementioned constraints, the researcher offers the following suggestions for future researcher:

1. Future studies should strive to enhance research results by incorporating additional variables and adopting diverse metrics like ROA and ROE.
2. Upcoming research endeavours should widen their dataset by incorporating a more extensive range of secondary data and expanding their investigative focus to encompass Shariah-compliant business entities, as well as BPRS units.
3. This research is confined to the analysis of factors affecting Islamic financial performance using the Circular Causation TSR. Future researchers should explore alternative methodologies that encompass a broader spectrum of primary data and incorporate additional variables not accounted for in this model.

Author's Contribution

Azirwan, Inten Meutia: Contribute to formulating research ideas, collecting data, processing data, and interpreting data.
Zulnaidi Yaacob: Contributing to writing systematics, researchmethods, analyzing interpretation results.
Novriadi: Contributed to compiling a literature review.

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Declaration of Competing Interest

This article is purely the result of research, so there is no conflict of interest between the author and other parties such as institutions.

Ethical Approval

Ethical approval No patient-identifying parts in this paper were used or known to the authors. Therefore, no ethical approval was requested.

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