

An analytical theoretical study of the reality of the relationship between intellectual capital and financial performance In a sample of Arab countries

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Abstract :

Financial sciences researchers are always interested in the intelligent resources topic and its enhancing function in the capabilities of companies and financial and non-financial institutions. By addressing the relationship analysis. Samples of studies are included in financial and non-financial companies were counted for a sample of Arab countries. conducted from 1991 to 2020, Through the intellectual and philosophical review and analysis of those previous studies in the field of linking Intelligent Capital and financial performance, the research is based on a basic problem represented in: What is the extent of congruence in Intelligent Capital variables with financial performance between financial and non-financial companies that researchers and writers dealt with, based on that Classification of these studies into two directions, the first being studies that dealt with Intelligent Capital and its impact on performance in financial companies, while the second trend was studies that dealt with Intelligent Capital and its impact on the financial performance of non-financial companies,, and studies in each direction were analyzed in terms of the variables addressed by writers and researchers. of Intelligent Capital and financial performance, with the aim of first getting to know the variables of Intelligent Capital in financial companies and non-financial companies, in addition to knowing the indicators of financial performance that can be affected by intellectual capital, and the second goal is to reach the extent of congruence or difference between those studies in companies Financial and non-financial as companies rely , whether financial or non-financial, depend on tangible and intangible assets, but they depend to a large extent on assets. The untouched. Additionally, several studies have used the static sample to examine the link

concerning intelligent assets and performing. Thus, neglecting the dynamic relation that may exist among the variables. Also, through this study, a realistic presentation based on studies completed in this field and what are its capabilities within the structure of intangible assets in the company, as well as an increase in interest in the intellectual capital through the legislation of laws and advanced financial allocations over time to ensure the permanence of the development of intangible assets In a way that keeps pace with developed countries in this field within the requirements of promoting the reality of intellectual capital with the release of intellectual capital components within the financial and non-financial assets of the company in a transparent manner so that researchers can provide useful information to users and decision-makers in a group of countries covered by previous studies and referred to by the current research.

Search terms:

Intelligent Capital=(IC) /Generalized Method of Moment= (GMM) / Panel Vector Autoregressive = (PVAR) / human capital efficiency = (HCE) / structural capital efficiency (SCE)/ Vector Autoregressive Intelligent Capital= VAIC. / Return Of Equity= (ROE) / Return Of Asset = (ROA) .

Keywords: Intellectual capital, Financial assets ,Company worth ,The market value of the company, financial institutions,Intangible assets.

دراسة نظرية تحليلية لواقع العلاقة بين رأس المال الفكري والأداء المالي

في عينة من الدول العربية

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جامعة الموصل

المستخلص :

إن موضوع رأس المال الفكري ودوره في تدعيم إمكانات الشركات والمؤسسات المالية وغير المالية، يشغل حيزاً كبيراً من اهتمام الباحثين في مجال العلوم المالية. من خلال تناول العلاقة بشكل تحليلي. لقد تم حصر الدراسات التي كانت عيناتها تتضمن شركات مالية وغير مالية لعينة من الدول العربية للمدة 1991 لغاية 2020. من خلال المراجعة والتحليل الفكري والفلسفي لتلك الدراسات السابقة في مجال ربط رأس المال الفكري والأداء المالي، ويستند البحث على مشكلة تتمثل في: ما مدى التطابق في متغيرات رأس المال الفكري بالأداء المالي بين الشركات المالية وغير المالية التي تناولها الباحثون والكتاب، بناءً على ذلك تم تصنيف هذه الدراسات باتجاهين الأول الدراسات التي تناولت رأس المال الفكري وتأثيره بالأداء في الشركات المالية، أما الاتجاه الثاني فكان للدراسات التي تناولت رأس المال الفكري وتأثيره في الأداء المالي للشركات غير المالية، كما تم تحليل الدراسات في كل اتجاه، وذلك بهدف الوصول أولاً: إلى معرفة متغيرات رأس المال الفكري في الشركات المالية والشركات غير المالية، إضافة إلى معرفة مؤشرات الأداء المالي الذي يمكن أن يتأثر برأس المال الفكري، والهدف الثاني للوصول إلى مدى التطابق أو الاختلاف بين تلك الدراسات في الشركات المالية وغير المالية، إذ تعتمد الشركات، سواء كانت مالية أو غير مالية، على الأصول الملموسة وغير الملموسة، لكنها تعتمد إلى حد كبير على الأصول غير الملموسة. بالإضافة إلى ذلك، استخدمت العديد من الدراسات العينة الثابتة لفحص الروابط المتعلقة بالأصول الذكية والأداء. وبالتالي إهمال العلاقة الديناميكية التي قد توجد بين المتغيرات. أيضاً من خلال هذه الدراسة عرض واقعي مبني على دراسات أنجزت في هذا المجال وما هي إمكانياتها ضمن هيكل الأصول غير الملموسة في الشركة، وكذلك زيادة الاهتمام برأس المال الفكري امن خلال تشريعات القوانين والمالية المتقدمة تخصيصات بمرور الوقت لضمان استمرارية تطوير الأصول غير الملموسة بما يواكب الدول المتقدمة في هذا المجال ضمن متطلبات تعزيز واقع رأس المال الفكري امع إطلاق مكونات رأس المال الفكري ضمن الأصول المالية وغير المالية. للشركة بطريقة شفافة بحيث يمكن للباحثين توفير معلومات مفيدة للمستخدمين.

الكلمات المفتاحية: رأس المال الفكري، الأداء المالي، الشركات المالية وغير المالية

1.0 Introduction

In recent times, concern for a based on knowledge economy has been growing and intellectual capital (IC) is recognised as the greatest significant contributor to fostering a knowledge-based economy. I refers to the wealth of ideas and abilities of a company to innovate. It comprises all intangible assets, such as structural, human and relational capital, that relate to knowledge, with the potential to create value that is rare, imitable and non-substitutable (Chen, Cheng, & Hwang, 2005; Ferenhof, Durst, Bialecki, & Selig, 2015). It is a basis of generating economic value and competitive advantage, and attaining and sustaining superior performance (Nawaz & Haniffa, 2017; Mondal & Ghosh, 2012; Reed, Lubatkin, & Srinivasan, 2006). Several studies have acknowledged that intellectual capital (IC) is considered as a profitability yardstick of corporation and revenue growth, and ensuring sustainable competitive advantage (Al-Musali & Ismail, 2016; Chen et al., 2005; Inkinen, 2015). Thus, it can be argued that IC is an important measurement of managers' performance and can be frequently associated as a crucial component to achieve the company's goals (Hamdan, Buallay, & Alareeni, 2017).

Considering the importance of IC, it is crucial for companies to recognize the importance of Intelligent Capital variables develop, utilize and manage their IC efficiently to be able to achieve superior performance and long-term competitive advantage. Studies have examined the factors that can lead to efficient utilization of a company's IC and among the factors documented: are effective corporate governance mechanisms and audit committee effectiveness (Al-Musalli & Ismail, 2012, 2015; Buallay, 2018; Buallay & Hamdan, 2019). However, empirical evidence on this aspect remains controversial. For instance, Ismail and Al-Musalli (2012) discovered a major and negative impact of board independence; and Al-Musalli and Ismail (2015) documented a non-significant impact of board variety with respect to nationality and education. Other findings on the impact of board size are inconsistent. This inconsistency may suggest that the directors on the boards of companies in the Sample of Arabic Countries may play a vital role in ensuring that IC is efficiently managed because these are mostly monarchy countries. A typical consideration is the impact on the directors' board of the royals. The royals can influence strategic decisions and board communication, which can lead to efficient use of the company's IC. Al Nasser (2019), for instance, documented that companies possess a higher royals count on the directors' board perform better. Similarly, companies controlled by many self-governing royals on the directors' board have been associated with improved performing and higher market worth. Therefore, there is a need for research on IC efficiency to find out what role played by royals on the directors' board of companies to enhance IC efficiency.

Additionally, the factors affecting the effective use of IC, the effect of IC effectiveness on various corporate outcomes has been examined. However, most findings have consistently revealed that there are differences between bookkeeping and measures based on market with regards to the linkage concerning IC and performance of company. Hamdan (2018) attributed the differences to information asymmetry that exists between the company's decision-makers and investors, who are not privy to some information about the company's activities and future plans. Therefore, the author suggests that if the information asymmetry can be mitigated, the relationship between IC and corporate outcomes would be better-known. Based on this argument, some studies have tested the role of moderators in this relationship. Examples of moderating variables that have been examined are company size and corporate governance index. Though, slight consideration has been noticed to the moderating role of the royals on the directors' board in the relationship between IC and corporate outcomes. Moreover, most countries in the GCC are monarchical countries; if members of the royal family are present on boards, it may mitigate the information asymmetry because they have access to governmental resources and may look for reputational norms (AL Nasser, 2019).

Another concern is that virtually all research led to determine the relation regarding corporate outcomes and IC besides the IC efficiency determinants have been based on the static model. However, the static model may not be able to address reverse causality and endogeneity that are associated with studies on the performance-corporate governance relationship. Therefore, this study suggests that there is a need to shift from the prior methodological approaches to a more sophisticated approach by using the dynamic model. The dynamic model would enable future studies to examine the direct, indirect, and endogenous effects. The dynamic issue arises because current performance can be influenced by prior performance. It also represents an inverse causation from performance to IC. For instance, Babajee, Seetana, and Nunkoo (2020) suggested that a high return on assets ROA can have a motivating effect on directors, who may consecutively, in spite of the fact, function well. The greater the ROA, the enhanced capability of the company to work on exercise in addition to research and improvement accomplishments, which can be value-enhancing for the company. Therefore, a better understanding of the IC and corporate relationship outcomes can be established through the dynamic model. This can be achieved with the Generalized Method of Moment (GMM) or the Panel Vector Autoregressive (PVAR) approaches (Babajee, Seetana, & Nunkoo, 2020; Kehelwalatenna, 2016; Tran, Van, & Vo, 2020). The

remnant of research is planned as next. Division 2 discusses the writings evaluation and Division 3 displays understood remarks.

2.0 Literature review

2.1 The intellectual capital concept in the financial literature

The view theory based on the resource developed by Werner felt (1984) suggests that strategic assets of a company, which are assets used by the company to gain competitive advantage, could influence company performance. The magnitude and the nature of these assets mainly contribute to company profitability (Amit & Schoemaker, 1993). These assets can be as physical and nonphysical assets, the benefits of which are likely to have a significantly progressive effect on company performance (Canibono, Garcia - Ayuso, & Sanchez, 2000). While physical assets (e.g., assets plant and equipment and physical technologies) are those assets that are easily imitable and substitutable in case of wear and tear, the intangible assets are valuable assets that are inimitable, non-substitutable and capable of providing a company a reasonable benefit and superior financial performance (Barney, 1991). Although most intangible assets do not succeed as tactical assets, intangible assets possess all features of tactical assets (Godfrey & Hill, 1995). Therefore, IC is considered as a vital strategic asset that is hard to imitate and substitute (Reed, Lubatkin ,& Srinivasan, 2006). IC is a major player in corporate development and national growth (Al-Musali & Ismail, 2015; Chen, Cheng,& Hwang, 2005), and a lifeblood of high technology and knowledge-based industries, such as banks, hotels, and pharmaceutical companies, among others (Buallay, 2019). It involves the specific and valuable knowledge a company possesses in terms of tangible and intangible assets (Mehralian, Rajabzadeh, Sadeh, & Rasekh, 2012), which is the factor no. 4 of production after labour, land, and capital (Komnenic & Pokrajcic, 2012).

Prior scholars have defined IC in different ways. For instance, Edvinsson and Sullivan (1996) defined it as information that could be transformed into worth. Stewart (1997) counted it as intellectual material that is captured formally, and leveraged to create wealth by creating a more valuable asset Such intellectual material includes the collection of knowledge, information ,and intelligent property rights that a company possesses. Another definition provided by Edvinsson and Malone (1997) is that IC comprises know-how ,knowledge, technology, customer relations, and qualified skills possessed by a company that would lead to competitive advantage. This means that IC can be regarded as unphysical assets and resources (e.g., experience, knowledge ,brands, system, and human resources) that support the creation of company value and enhance the growth and performance of the company. By implication, IC is a combination of all non-physical assets and resources (Mondal&Ghosh, 2012).

Other notable scholars have provided a more classified and simple definition of IC by streamlining it into three unified elements: 1) human resources; 2) structural capital; and 3) customer or interpersonal assets (Bontis, Keow, & Richardson, 2000; Curado & Bontis, 2007; Riahi-Belkaoui, 2003). Human capital (e.g., motivation, interpersonal skills, knowledge, other skills, and attitude) In another study conducted by (Fiernhof et al., 2015), Intelligent Capital was considered one of the most important assets in companies, which has an impact on their performance, which can be reflected the information and effectiveness that staffs take with them when they leave the company This result was in agreement with another study conducted by (Mondal & Ghosh, 2012). Therefore, human capital recognizes employees as valuable resources that deserve special recognition in a company (Pulic, 2004). In fact, in a society based on knowledge driven by technical, scientific, and financial revolution, employees are viewed as able to transform knowledge into services and goods that can increase the value of the company (Babajee, Seetanah, & Nunkoo, 2020; Bontis, 2004).

Either Structural capital is the “stuff” that keeps the company running and remain a going concern. Structural capital comprises both tangible and intangible assets; such type of capital includes invention capital, process capital, scientific capital, and organisational capital (Ferenhof et al., 2015; Marr, 2005). (Mondal & Ghosh, 2012) refers to the .Structural capital is part of the nonphysical assets that stays within the company at the end of the working day .

Either customer capital or personal assets (Relational capital) is responsible for the company's relation of the customers, suppliers, and other important stakeholders of the company (Ferenhof et al., 2015). Thus, relational capital is the knowledge that is established in the relationships with all stakeholders that affects the company (Mondal&Ghosh, 2012). All these components of IC are significant determinants of long-term success of a company and managers and stakeholders lay emphasis on each component differently (Al-Musali& Ismail, 2016).

Despite the classification of IC, Public (2004) suggested that IC should not be treated as a cost, but as an investment, because the knowledge of workers and their productivity have to be considered when measuring the IC of a company. On this note, Public developed the value-creation efficiency of IC, with the inclusion of value-added advantage, that may indicate that the value of the company is being destroyed, while revenue, profit, and gross domestic product GDP may indicate successful performance. On basis of this suggestion, the Public method became a extensively used method for measuring IC of a company by academics and stakeholders non-academic scholars, and it is considered as an important

tool that can be used by decision- makers in a knowledge-based economy to integrate IC into the decision-making process. The Public method, or also known as value intellectual capital coefficient (VAIC),is an analytical process developed to enable stakeholders (e.g., managers and shareholders) to effectively control and evaluate the efficiency of the value added by a company's total capital and resources and by each major component of the capital and resources (Firer & Williams, 2003).

2.2 Efficiency of intellectual capital through governance mechanisms

Company governance mechanisms are vital instruments in charge of creating, improving, and leveraging the IC possessed by individuals and companies, which can lead to the efficient use of IC in order to create value. Scholars have examined the importance of effective company governance mechanisms in IC efficiency. As an example ,Al-Musalli and Ismail (2012) used a sample of 147 banks in the Sample of Arabic Countries over the period of 2008 to 2010 to examine whether or not the board of directors' characteristics affect IC performance. They found that the proportion of self-governing managers has expressively an undesirable effect on IC performance.

Another study by Al-Musali and Ismail (2015), using a sample of 128 banks in the Sample of Arabic Countries over the period of 2008 to 2010,inspected the effect of board variety (education and nationality) on IC performance. They found that board variety has no weighty influence on IC performance. Therefore, they concluded that the results fail to support the resource dependence and upper echelon theories. Buallay (2018) also showed that board size is considerably and confidently related to modified VAIC (MVAIC). However, in terms of the components of IC efficiency, board size has a significant effect only on human capital efficiency (HCE) and structural capital efficiency (SCE). On the other hand, Al-Musali and Ismail (2015) stated that board size is unimportantly linked with IC effectiveness, measured by VAIC.

Buallay and Hamdan (2019) used a model of 171 Saudi Arabian companies on the interval of 2012 to 2014 to inspect the association between company governance mechanisms and IC effectiveness. The company governance factors considered were board size, board objectivity, CEO duality, and ownership of the three largest shareholders. They found that company governance has a progressive influence on HCE and SCE, which means that companies with a greater level of company governance codes (e.g., a greater proportion of independent directors, board size, ownership concentration and the separation of CEO and chairman's role) tend to have greater HCE and SCE. However, CEE is greater for companies with lower company governance principles. Buallay, Hamdan, Zureigat, and Al-Hayale (2019) used a sample of 171 Saudi Arabian listed companies between 2012 and 2014 to investigate the

association between independent directors and IC effectiveness. The results show that directors' board independence has a positive influence on CEE and SCE.

The role of inspection group characteristics (individuality, the sum of meetings, economic expertise, and size) has also been considered. Buallay (2018) used a model of 59 banks on the interval of 2011 to 2015 to investigate the role of inspection group characteristics on IC effectiveness. The results display that audit committee effectiveness, in terms of financial expertise and independence, has a significantly positive impact on MVAIC. However, audit committee size and meetings are insignificant. In addition, detailed analysis shows that audit committee financial expertise and independence are significantly and positively associated with various components of IC efficiency. However, audit meeting frequency is found to be significant in HCE, SCE and RCE, while audit committee size is only significant in CEE.

In terms of voluntary disclosure of IC by companies, Buallay, Hamdan, Zureigat, and Dhaen (2019) used a model of Bahrain companies on the interval of 2011 to 2015 to inspect the relation of voluntary disclosure and IC efficiency. They found that bigger and older companies reveal more IC information in the annual report than smaller and younger companies do. In addition, companies that disclose more voluntary information have high IC efficiency. In another related study, Buallay and Hamdan (2019) used a sample of 30 Bahrain companies between the period of 2011 and 2015 to examine the effect of IC disclosure on IC efficiency. The results show that IC disclosure has a significantly undesirable influence on CEE, but an unimportant effect on HCE and SCE.

2.3 Intellectual capital and the Financial performance of corporate .

The current study made a theoretical and analytical review of some previous studies that dealt with the dimensions and concepts of both Intelligent Capital and financial performance, and the relationship between them in companies. Those studies were reviewed and analyzed in two directions: the first dealt with those studies in non-financial companies, while the second dealt with those studies in financial companies. As follows:

2.3.1 An analytical theoretical review of previous studies in non-financial companies

Numerous researches have examined the effect of IC on performance using the VAIC and MVAIC models. But, most of the studies have used different performance measurements, in terms of accountancy and performance based on market. The measures based on accounting are returned on

assets (ROA), which is an indicator of a company's operational performance; return of equity (ROE), which is an indicator of a company's financial performance attributable to the shareholders; and asset turnover (ATO), which is an indicator of a company's productivity. The market-based performance is measured through Tobin's Q, which is an indicator of a company's value. Among the performance measures, the productivity measure has received less attention in prior studies. In addition, The VAIC and MVAIC models were examined in studies that were applied to companies operating in the non-financial sector ,have only focused on the components of the VAIC in relation to corporate outcomes without the investigation of the VAIC as a single variable.

For instance, Dzenopoljac, Yaacoub, Elkanj, and Bontis (2017) used a sample of 100 companies ranked as top performers, in terms of sales, profits, assets, and market value by Forbes Middle East, to examine the impact of IC on Arab companies' performance over the period of 2011 to 2015. They found that SCE and CEE significantly impact incomes and cost-effectiveness. Though, market behaviourism affected by HCE, however effectiveness is affected by CEE.A more comprehensive study by Hamdan (2018) that used 198 companies from two Gulf countries (Bahrain (27) and Saudi Arabia (171))over the period of 2014-2016, has recognized that the VAIC has an important and positive effect on ROA, but is insignificant with Tobin's Q. The outcomes indicate that the effect of IC efficiency is felt more on companies' profitability, but not market value. Further results show that IC performance varies according to different components of IC .Specifically, Bahrain and Saudi Arabian companies with high levels HCE have high ROA, but low Tobin's Q, which means that investment used in developing employees' skills only increases companies' operational performance. In addition, Saudi companies with high levels of SCE have high Tobin's Q, but low ROA. In the case of Bahrain, companies with high SCE have high ROA, but low Tobin's Q. Further results indicate that Saudi Arabian companies with high levels of CEE have high ROA and Tobin's Q.

With a sample of 171 Saudi Arabian companies between 2012 and 2014, Hamdan, Buallay, and Alareeni (2017) found that HCE has a significantly progressive effect on Tobin's Q, but the unimportant influence on ROA and ROE .This contradicts Hamdan's (2018) findings that HCE has a significant influence on ROA, but no effect on Tobin's Q. Therefore, one can argue that companies in Saudi Arabia do not benefit from the human capital. The authors claimed that this could be due to the fact that most Saudis do not accept unskilled or menial jobs, and offer such jobs to foreigners. Consistent with Hamdan (2018),SCE is stated to be positively linked to ROE and Tobin's Q, while CEE has a expressively progressive effect on ROA. The overall implication of the results is that HCE, SCE and CEE are all

significantly associated with Tobin's Q. However, another study by Buallay (2017) that used a model of 171 Saudi Arabian corporation son the interval of 2012 to 2014 to examine the effect of IC on company performance ,has found that VAIC has an unimportant effect on both ROA and ROE. However, when VAIC is decentralized, HCE is significantly related to ROE, but SCE is negatively associated with ROE. In addition, a significant influence is found between CEE and Tobin's Q.

Other studies have used mediating variables in the relationship and impact of Intelligent Capital on the financial performance of non-financial companies. We find Hamdan, Bualai and Al-Arini (2017) used the corporate governance index, ie , the financial and market performance to examine the organizational role of corporate governance in the relationship related to basic information and performance of Saudi companies. They found that the corporate governance index positively controls the relationship between IPR and return on assets, and Q and ROE in Tobin. When breaking down international cooperation into its components, it is seen that corporate governance has a regulatory effect on the relationship related to CEE, HCE and ROA. However, corporate governance has no moderate impact on SCE and ROA. When ROE is used as a performance measure, corporate governance has no moderate effect on the HCE and ROE relationship, while in the case of CCE and SCE, a positive effect appears. Therefore, they concluded that the moderating effect of corporate governance varies with different components of international cooperation.

2.3.2. An analytical theoretical review of previous studies in financial companies

We mentioned earlier that the studies that dealt with models for measuring the impact of Intelligent Capital on financial performance and applied to non-financial companies, they were interested in the VAIC model, but they focused only on the components of this sub-model and the impact of each part on financial performance without investigating it as a single variable (i.e. in aggregate) and its impact on The performance as it did not pay much attention to the MVAIC model, but the studies that were applied mainly in the financial sector; they were interested in examining both models MVAIC & VAIC in terms of components and in total.

An argument has been put forth that strategically, banks are knowledge-intensive companies that require the efficient utilization of IC because most actions are of an intelligent nature, which requires knowledgeable and skilled human resources. Prior studies have inspected the effect of IC and found that

it plays a value-enhancing role in the banking environment (Abdulsalam, Al-Qaheri,& Al-Khayyat, 2011; Al-Musali& Ismail, 2016; Buallay, 2019; Ousama, Hammami, & Abdulkarim, 2019).

For instance, Nawaz and Haniffa (2017) used a sample of 64 Islamic economic organizations working in 18 diverse states over the interval of 2007-2011. They recognized that VAIC has a major and progressive effect on ROA. Similarly, Al-Musali and Ismail (2016) used as ample of the Gulf countries banks (e.g., Kuwait, Bahrain, Qatar, Oman, KSA and UAE) over the period of 2008-2010. They recognized that VAIC is confidently associated with banks' ROA and ROE. With a model of 37 Islamic banks working in Gulf (e.g. Qatar, Bahrain, KSA and UAE) over the period of 2011-2013, Ousama, Hammami, and Abdulkarim (2019) indicated that VAIC has a significantly progressive effect on banks' performance. Another study by Buallay (2019) that used a model of 59 banks in Gulf on the interval of 2012-2016 through a relative study of regular and Islamic banks' IC performance, has shown that Islamic banks' MVAIC has a significantly progressive effect on ROE and Tobin's Q. However, for conventional banks, MVAIC is only significantly associated with ROA and ROE. Using the same sample, Buallay, Cummings, and Hamdan (2019) found similar results. Likewise, with a model of 59 banks over the interval of 2012-2016, Buallay, Hamdan, Reyad, Badawi, and Madbouly (2020) found a expressively progressive relation of MVAIC and ROE along with Tobin's Q.

Other country-specific studies, such as Sulphay and Naushad (2019), that used a model of Saudi Arabian banks on the interval of 2013-2016, have found that VAIC has a major effect on ROA. However, when Islamic banks were separated, VAIC has a significant effect on both ROE and ROA, indicating that the IC of Islamic banks issued more efficiently to enhance performance. Naushad (2019) also found that VAIC has a significantly progressive effect on ROA and ROE for a sample of four banks compliant with Sharia in Saudi Arabia on the interval of 2013-2018. A similar progressive effect of IC on performance was stated by Abdulsalam, Al-Qaheri, and Al-Khayyat (2011) for a model of Kuwaiti banks on the interval of 1996-2006.

Although prior studies have indicated that IC has a weighty effect on implementation, the results on the components of IC vary with bank performance. Ousama, Hammami, and Abdulkarim (2019), and Al-Musali and Ismail (2016), for instance, stated that between the components of VAIC, HCE is the leading factor of IC comparing to SCE and CEE. In addition, the financial value of IC is mostly illustrated in ROA over other performance measures.

Al-Musali and Ismail (2016) found that HCE is expressively and confidently related to performance of banks in countries, like Bahrain, Oman and Saudi Arabia, but negative in UAE and

insignificant in Kuwait .The authors suggested that the negative and insignificant results in UAE and Kuwait could be because of inadequate training provided to employees or investors treat expenditure on human capital as the price with no short-range advantages and react undesirably to high employee-linked expenses. For Qatar, a negative association is found between HCE and ROA, but insignificant with ROE. In the case of SCE, a significant and positive association is found in Oman, Kuwait, and UAE. Regarding CEE, an important and confident association is initiated with ROE in Oman, Kuwait, and the UAE, while for ROA, a significant and positive association is found in Qatar, Oman, KSA, and the UAE. Further results show that Qatar has the highest VAIC and HCE, followed by the UAE, Saudi Arabia, Oman, Kuwait and Bahrain. However, Bahrain has the highest SCE.

Ousama, Hammami, and Abdulkarim (2019)reported that Islamic banks' HCE ,has the highest mean score compared too there components of IC(e.g., CEE and SCE). While HCE and CEE both have major and confident effect on ROA and ROE, SCE has no major impact, which means that Islamic banks are not fully utilizing their IC .Similarly, Nawaz and Haniffa (2017)recognized that CEE and HCE have a major and progressive association with ROA ,where, SCE has no heavy effect on ROA, meaning that the capability of value-for motion of Islamic organizations is more present in CEE and HCE. In a similar vein, Buallay (2019)initiate that HCE and CEE have a significant influence on ROE and ROA, but in terms of Tobin's Q, HCE and RCE have a major association. For conventional banks, Buallay (2019) initiate that HCE and CEE have influence only on ROA, while CEE and SCE influence ROE .Another study by Buallay, Hamdan, Reyad, Badawi, and Madbouly (2020) has reported that HCE and CEE influence ROA and ROE, while HCE and RCE influence Tobin's Q. In addition, SCE and CEE have a major influence on ROA.Naushad (2019) stated a significantly progressive impact of HCE, CEE and SCE on ROA. However, a negative relationship exists between HCE and ROE. Sulphey and Naushad (2019) found that Saudi banks generated value from HCE rather than SCE and CEE. However, HCE and SCE are expressively and confidently related to ROA, while CEE is expressively related to ROA and ROE. When Islamic banks model is separated, SCE has an important relationship with ROA and ROE, whereas, HCE and CEE are related with ROA only. The implication of this is that infrastructural assets, like the use of IT and financial networking, greatly affect Islamic banks' performance.

Conclusions:

1. Studies in both directions (financial and non-financial companies) focused on intangible assets as variables that reflect intellectual capital, for example, relationships between employees, customers, human resources with skill and knowledge, information technology, employee experience, and the ability to think strategically.
2. Today's corporate value (non-financial and financial) is highly dependent on intangible assets rather than physical assets. Intangible assets are those owned by a company, which include HCE, SCE, RCE, and CEE.
3. Common models used in the investigation of IC efficiency are Public's VAIC and MVAIC models. Many studies have used these models to study the importance of IC on a company's financial performance and market value and found that IC is critical to a company's success because it affects the company's financial and market values. However, the review in this study shows that the results depend mostly on the performance measures used
4. Non-financial companies relied on dealing with the components of IC in studying the relationship with financial performance, while financial companies, specifically banks, relied on dealing with each of the components and the total in the relationship between IC and financial performance.
5. Most of the previous studies confirmed that information technology and financial networks affect significantly on the performance of Islamic banks
6. Most of the studies that dealt with the relationship in financial companies, specifically banks, confirmed that they are knowledge-intensive companies, and they require effective use of IC because most of their operations are of an intelligent nature.
7. Previous studies confirmed that the difference in the impact of IC on financial performance according to the method of performance measurement, IC in non-financial companies had a greater impact on financial performance using return on assets than in banks, while using market value, banks had a greater impact than non-financial companies Finance.

8. Some of the previous studies that were applied in non-financial companies were used on intermediate variables to understand the relationship of Intelligent Capital and financial performance, for example: the size of the company, governance, diversity of the board of directors, and employees. It showed that with the presence of the mediator, there is a relationship in the effect between Intelligent Capital and financial performance, using ROE & ROA as measures of financial performance.
9. Previous studies showed that the mediator's influence in non-financial companies has no significant effect when using the Tobin's Q model as a measure of financial performance in both companies.

Suggestions

1. Non-financial companies should take care of intangible assets as they are concerned with tangible assets, which is what most previous studies have also confirmed.
2. Future studies should study the relationship of administrative and technical expertise owned by administrators and workers in the financial performance of financial and non-financial companies.
3. That banks pay a lot of attention to technology and financial networks, because of their strong impact on financial performance on the one hand, and their impact on customers in the market, who may affect the results of financial performance.
4. Future studies should be concerned with the impact of the relationship between financial technology on the financial performance of non-financial companies and financial companies.
5. Future studies should devote additional efforts to examine the relationship of trade integration and performance along with corporate governance and ICT efficiency for both companies (financial and non-financial.)

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