Impact of Integrated Reporting on Firm Value of Licensed Banks and Finance Companies in Sri Lanka

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Abstract

The purpose of this study is to synthesize the impact of integrated reporting on the firm value of licensed banks and finance companies in Sri Lanka. This paper develops an informative outcome, covering 20 licensed banks and finance companies for the period from 2015 to 2020. The quantitative approach was employed to generate a multi-dimensional perspective on integrated reporting and firm value. The integrated reporting was measured using content analysis with the support of an integrated reporting index and, the firm value was measured by Tobin's Q and market to book ratio. The study results revealed that integrated reporting has a significant negative relationship with firm value. As an emerging voluntary disclosure requirement, Sri Lankan licensed banks and finance companies showed a strong motive to follow the International Integrated Reporting Framework in their integrated reporting disclosures. However, Sri Lankan banks and finance companies have failed to gain the supreme benefits of integrated reporting yet. Even though, there are a few studies regarding integrated reporting and firm value, this study becomes one of the dominant studies which strive to explore the impact of integrated reporting on firm value using market-based performance indicators to measure firm value concerning Sri Lanka. Moreover, this study used a self-constructed scoring index to measure integrated reporting in Sri Lanka based on literature. The findings facilitate the practitioners and policymakers about rethinking and revisiting the adoption and the use of integrated reporting effectively.

Keywords: Firm value, Integrated reports, Integrated reporting, Tobin's Q.

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Introduction

The conventional routine of financial reporting has some complications in capturing information related to the economic inferences on innovative revolutions in the corporate environment. Throughout the past several decades, the organizations have improved the way they report their information to the stakeholders. Similarly, the investors' interest in both financial and non-financial reporting has gradually grown (Lee & Yeo, 2015). Stakeholders have an interest in organizational corporate reporting including both financial and non-financial information as they want to see the firm in a holistic view (Needles et al., 2016). This trend of corporate reporting composition merges both financial and non-financial reports in a single document called Integrated Reporting (IR) (Nurkumalasari et al., 2019). The importance of IR arose as the companies presented financial and non-financial reports in a way that even shareholders could not understand. Therefore, in 2010, the International Integrated Reporting Council (IIRC) suggested a solution to link non-financial and financial information in one reporting mechanism (Cheng et al., 2014). Due to various reasons, companies are eager to adopt IR. Some engage in IR for legislative purposes (in South Africa, IR is mandatory) whereas, others do it voluntarily to gain advantages derived from IR in the form of capital allocation, reputation, effective decisions, etc. (Barth et al., 2017).

In the present, many companies consider their financial performance as well as their non-financial performance to enhance the well-being of the company and to gleam in the corporate field in both present and future. Managers need to be aware of whether there's a possibility to achieve long-term success of the company through IR. Although IR is not a mandatory requirement, the personal compliance of every company in its value creation procedure is appreciated (Dumay et al., 2017). Hence, studying the adoption of IR in Sri Lanka and its relationship with firms' value has timely importance.

According to the literature, the scarcity of the empirical evidence relevant to the IR has been identified, and among those studies carried out, many were conducted considering IR in the South African context (Navarrete-Oyarce et al., 2021). Therefore, this study aims to explore the relationship between IR and firm value among banks and financial companies in Sri Lanka. When considering the relationship between firm value and IR, the findings in the literature are debatable. Lee and Yeo (2015) found a positive relationship between those two factors. When the level of compliance with IR is high, the level of firm value is also high (El-Deeb, 2019). Moreover, there is a positive relationship between IR and firm value which occurs due to the capital market and real effects (Barth et al., 2017). However, when combining financial reports with non-financial information, it does not improve the explanatory power of stock prices (Moneva & Cuellar, 2009). Furthermore, a study conducted covering IR and firm value in the Asian region found that IR does not have an impact on firm value (Nurkumalasari et al., 2019). Though IR does not have a significant impact on firm value, there is a negative significant relationship between the two constructs when IR is combined with book value per share (Cooray et al., 2020). In the disclosures of proprietary information arise in firms, the firm value can be decreased (Lee & Yeo, 2015). The stakeholders' insufficient knowledge on understanding IR could not lead to an increased value of the firm value (Nurkumalasari et al., 2019). By considering the scarcity of previous research studies in IR within the Sri Lankan context and the inconclusive

conclusions made by previous researchers regarding the IR context, this paper examines whether there is a relationship between IR and the firm value of the licensed banks and licensed finance companies in Sri Lanka.

The subsequent section of the paper reviews the literature, section 3 provides details on methodology, section 4 presents the data analysis and results generated, section 5 discusses the findings and the final section presents the conclusion and study implications.

Literature Review

Integrated Reporting (IR)

IR is recognized as a novel and innovative reporting framework and it merges both financial and non-financial information in one report. Further, it enhances novel ideas which can swap the corporate reporting practices (Villiers et al., 2016). IR tends to provide a perception about the associations and resources utilized by a firm and according to the International Integrated Reporting Framework (IIRF), the resources and associations are referred to as capitals. Consequently, IR aims to specify how firms deal with the external environment and capitals to create firms' value over time (IIRC, 2013). IR has been developed by two main ideas providing information to interested parties to get a comprehensible idea of the organization's performance. Moreover, IR developed as the management's ability to react to the desired requirements of stakeholders' intention on social responsibility (Haller & Staden, 2014). IR is essential to carry together sufficient material information on the firm's strategy, performance, governance, and prospects in an approach that reflects the social, environmental, and commercial context within which the firm operates (IIRC, 2011). IR has built up a fundamental change from the old disaggregated reporting way to an amalgamated, sufficient and effective pattern of reporting which involves one set of reports that give both financial and non-financial information in an integrated manner to uplift the shareholders' knowledge and understanding of the organization (Lee & Yeo, 2015).

Measurement of Integrated Reporting

The studies related to IR are burgeoning and IR is habitually measured with the use of various indices and created checklists (Cooray et al., 2020). The checklist can be created either based on principles or rules. Accordingly, the binary scoring method is appropriate to score the adoption of those constructed principles or rules (Stent & Dowler, 2015). In the checklist created by Stent and Dowler (2015), there are a few recognized constraints in the spheres of the elements coverage. Thus, a modified version of the checklist is more effective and is more comprehensive (Gunarathne & Herath, 2016). The content analysis is recognized as the most common method to measure IR and by using the coding system or constructed checklist, the quality of the IR adaptation is assessed (Akhter & Ishihara, 2018). Cooray et al. (2020) have followed the checklist developed by Gunarathne and Herath (2016) and it was based on the checklist prepared by Stent and Dowler (2015). That checklist contains eight elements of IIRF and a non-weighted disclosure approach has been used. For the purpose of this study, the researchers developed an IR score index based on different indexes used in the literature to measure IR reasonably. Due to lack of theoretical aspects regarding the weighting of each measure, it was primarily determined to

distribute equal importance to each IR element and subsequently weighting was executed when preparing the IR score index. Further, it is identified that self-constructed indexes are more accurate in the content analysis (Lee & Yeo, 2015).

Firm Value

The utmost goal of any organization is to increase the wealth and value of shareholders (Gharaibeh & Qader, 2017). Among many organizational performance indicators, firm value has gained important attention from the stakeholders. Similarly, firm value is reflected by the performance of the company and it can be identified when investors first look at the company's performance before they invest (Al-Matari, Al-Swidi, & Fadzil, 2014). The value of an organization can be influenced by exogenous or endogenous factors and firm value variations are correlated with the changes in many variables like the size of the firm, price-earnings ratio, dividend coverage ratio, etc. The organization's structure, existing technology workforce, wealth, well-established hierarchy, etc. have been identified as some determinants of firm value (Sucuahi & Cambarihan, 2016). Besides the traditional concept, the studies based on firm value pointed out that the stakeholders' value links with the firm value. Consequently, to expand the value relevant to the firm, organizations have to enlarge the wealth creation to all the stakeholders (Lonkani, 2018). When the companies are not giving quality and adequate information to the stakeholders, the information asymmetry will not decline and it will not enhance the value of the firm (Nurkumalasari et al., 2019). Therefore, business organizations must create a sound serious balance between information and shareholder wealth.

Measurement of Firm Value

Tobin's Q is the widely used ratio to calculate the firm value and it is ascertained as the market value of a company divided by the cost of the organization's assets. Tobin's Q has been used to explain the bond between firm value and managerial ownership (Singhal et al., 2016). Market Value Added (MVA), Market to Book Ratio (MBR), Tobin's Q is known as market-based measurements which are used to measure firm value whereas Return on Equity (ROE), Earnings per Share (EPS), etc. are known as accounting-based measurements which are used to measure operational performance (Al-Matari et al., 2014). In a study conducted to examine the impact of financial performance on firm value, the firm value has been tested using Tobin's Q. Tobin's Q is measured by dividing the market value from book value (Al, 2017). In one of the studies conducted in Vietnam on the determinants of firm value, the firm value has been measured from the share price (Ha & Minh, 2020). Moreover, in another study of optimization of capital structure and firm value, the firm value has been measured using the price to book value (Uzliawati et al., 2018). For this study, the researchers used two market-based indicators to measure firm value as Tobin's Q and MBR.

Theories Applicable for the Study

Stakeholder Theory

Stakeholder theory can be split into normative and managerial. The normative theory describes that stakeholders' interests should be fulfilled by organizations and the managerial

theory is aligned with the concept of stakeholder management (Parmar et al., 2010). Stakeholder theory is used to describe the decision to produce an integrated report, as stakeholders pressure organizations to adapt IR framework within the company. Simultaneously, stakeholder theory motivates the companies to inform its stakeholders with both financial and non-financial information of investments like financing in debt and equity, capital of intellectual, natural and manufacturing, etc. (IIRC, 2013).

The Legitimacy Theory

It is identified that integrated reports are preparing to maintain legitimacy among stakeholders of the company. The stakeholders believe that organizations that are maintaining legitimacy are following societal rules and regulations (Camilleri, 2018). Legitimacy can be identified as strategic because it emanates from recurring problems among stakeholders and management (Dacin et al., 2007). The company's management pays their maximum focus to enhance their organizational legitimacy by reporting both financial and non-financial information (Camilleri, 2018). According to investors, the importance of disclosing non-financial information became a crucial point at legitimacy requirements so that the organizations' contribution towards non-financial information is important to protect the going-concern concept of the organization (Moloi & Iredele, 2020).

The Signaling Theory

Moreover, signaling theory describes that organizations can use profitability as a factor to state the organization's stability and the level of investments which increase the value of an organization. If the organization earns high profits, stakeholders are looking forward to more information within the annual reports about the company as it signals the market about the reputation and the status of the company (El-Deeb, 2019). Nevertheless, there are different empirical findings in the literature about the relationship between the disclosure of information and the profitability levels of the organization (El-Deeb, 2019).

Integrated Reporting in International Context

The South African listed companies prepare integrated reports as it is a mandatory requirement and it has been recognized as the first country in the world to mandate preparing integrated reports (Maroun & Atkins, 2015). The study of IR and firm value, conducted in the South African context showed that the study results are not potential to provide a generalization on other countries with various institutional settings (Lee & Yeo, 2015). IR is identified as a voluntary requirement in Asian countries and also the development of IR in the Asian region is significantly slow. A study found that IR does not have an impact on firm value and found there is no validity in the signaling theory (Nurkumalasari et al., 2019). Lee and Yeo (2015) state that there is a positive relationship between IR and firm value when organizations have a higher complexity as IR develops the information disclosures in large firms. However, if a firm is forced by IR requirements to disclose proprietary information, then the firm value can be negative. Moreover, if IR forces organizations to follow processes that are high in cost, it can affect the firm value negatively. However, the quality of the available information will be enhanced due to IR and it motivates investors to invest more as IR creates a strong bond among the business

strategy, model, and in the creation of value. Thus, it is arguable that the link between integrated reporting and firm value is positive (Lee & Yeo, 2015). The positive relationship between IR and firm value can occur due to the capital market and real effects (Barth et al., 2017). However, it is identified that combining financial reports with non-financial information does not improve the explanatory power of stock prices (Moneva & Cuellar, 2009). Considering the aforementioned inconclusive findings, the following hypotheses were developed.

H_{1A}: There is a statistically significant relationship between IR and Tobins' Q of the licensed banks and licensed finance companies in Sri Lanka.

H_{1B}: There is a statistically significant relationship between IR and MBR of the licensed banks and licensed finance companies in Sri Lanka.

Sri Lankan Context

In Sri Lanka, companies do not require to adopt the IR framework as it is not a mandatory requirement and hence the voluntary disclosures made by the companies following IR elements are insufficient (Pathiraja & Priyadarshanie, 2018). Pathiraja & Priyadarshanie, (2018) have considered IR with a firm's structure, performance, and market-related characteristics like firm size, industry type, and market value. However, the study has not examined firm value. According to Cooray et al. (2020), the extent of IR adoption and the value relevant to the firm have been analyzed by using price and return models. In that study, it has been recognized that the adoption of IIRF in Sri Lankan companies did not have a significant impact on firm value (Cooray et al., 2020). The study of Haleem, Ahamed, and Kumarasinghe (2020) revealed that a significant impact can be identified of IR on the value related to the firm. IR has been identified as an evolving reporting concept and IR can uplift the value related to organizational capital. They have used IIRF based divulgation review list which is similar to the Stent and Dowler (2015) method (Haleem et al., 2020). Accordingly, as the relationship between IR and firm value is still unsolved, this study attempts to address the same from the Sri Lankan context.

Research Methodology

This study is conducted as a quantitative research since it involves a systematic study of occurrence by gathering quantifiable data and performing mathematical, statistical, or computational techniques in which the research design is descriptive. The researchers selected licensed banks and finance companies to conduct the study as they comparatively tend to adopt IR among other company sectors in Sri Lanka. Accordingly, the population of the study is 71 licensed banks and licensed finance companies in Sri Lanka (CBSL, 2018). Among these firms, a sample of 10 licensed banks and 10 licensed finance companies were selected using a systematic random sampling technique. In the sample selection, researchers employed the circular systematic sampling method as the population is not an integer. Hence, the researchers have rounded off the sampling interval and chose the sample companies from the considered population. This study is conducted purely based on secondary data and data was collected from annual reports of the sample companies. However, since the IIRF was implemented in 2013 in Sri Lanka, the researchers considered gathering data from the annual reports for the period between 2015 and 2020.

The IR is recognized as the independent variable and the researchers measured it by preparing an IR scoring index. Lee and Yeo (2015) suggest that due to a lack of theoretical directions regarding how to measure the weight in making an aggregated index score on IR, it is important to assign equal importance to every eight content elements mentioned in the IR framework. Further, Nurkumalasari et al. (2019) have provided scores by considering the absence or presence of each item by a given score of 0 or 1. However, the researchers selected the weighted score IR index to provide a more reliable picture of IR disclosures. Accordingly, the researchers assigned scores to IR ranging from 0 (non-compliance with IR framework) to 3 (full-compliance with IR framework). There is a total of 8 elements in the index that each element has another 5 sub-elements (See Appendix 1), and a maximum score of 3 or a minimum score of 0 is given to each sub-element based on the compliance with the IR index. Consequently, a firm's total score that can be achieved for the entire index is 120 (40x3). However, if the organization's annual report contains a stronger perspective or considerable disclosure regarding a sub-element of the main IR component, it receives a score of 3, if the report contains a fairly strong perspective or disclosure it receives a score of 2 and if the annual report contains minimal or less strong disclosure, it receives a score of 1. If none of the disclosure is made to a particular sub-element, 0 is given to that element.

The dependent variable; firm value has been measured through Tobin's Q ratio and MBR as they provide a more realistic outcome of the firm's value. The greater value identified from Tobin's Q and MBR shows the company has a good investment opportunity as well as better growth potentials. As the researchers have identified the profitability ratios as control variables, Sales Growth (SG) and Return on Assets (ROA) have been used as the proxy for profitability, whilst changes in sales were used to measure SG.

Table 1. Constructs of Variables

Variables	Measurements
IR	IR Score index
Firm value Tobin's Q	Total Market Value of Firm/Total Assets Value of Firm
MBR	Market capitalization/Book value
Control variables	
ROA	Net income/ total assets
Sales growth	Current period sales – prior period sales/prior period sales

Source: Literature survey

The study results are based on descriptive statistics and Ordinary Least Squares (OLS) method based on pooled regression analysis. Lee and Yeo (2015) suggest that descriptive statistics help to analyze and understand the features of the two constructs. The researchers employed pooled OLS estimation with panel data to figure out the relationship between IR and firm value. The models constructed according to the developed hypotheses are shown below.

Model 1: There is a statistically significant relationship between IR and Tobin's Q of the licensed banks and licensed finance companies in Sri Lanka.

$$\text{Tobin's } Q_{it} = \alpha + \beta_1 IR_{it} + \beta_2 ROA_{it} + \beta_3 SG_{it} + \varepsilon_{it} \quad \ldots\ldots (1)$$

Model 2: There is a statistically significant relationship between IR and MBR of the licensed banks and licensed finance companies in Sri Lanka.

$$MBR_{it} = \alpha + \beta_1 IR_{it} + \beta_2 ROA_{it} + \beta_3 SG_{it} + \varepsilon_{it} \quad \ldots\ldots (2)$$

Where,

MBR – Market to Book Ratio
IR – IR Disclosure Score
ROA – Return on Assets
SG – Sales Growth
α – Constant Value
β – Regression coefficient
ε – Random Error

Table 2 shows the descriptive statistics for the considered variables. To secure the normality assumption, the outliers have been removed.

Table 2. Descriptive Statistics

	Mean	S.D	Maximum	Minimum
IR	0.834	0.090	0.960	0.530
Tobin's Q	0.091	0.050	0.240	0.020
MBR	0.755	0.356	1.800	0.090
ROA	0.018	0.014	0.052	-0.022
Sales Growth	0.141	0.149	0.470	-0.190

Source: Survey data of annual reports (2015-2020)

The mean value of IR disclosure of licensed commercial banks and licensed finance companies is 0.834 with a minimum of 0.530 and a maximum of 0.960. The standard deviation of IR is 0.090 and it depicts that there is no big difference in the IR disclosures among the sample companies. The minimum IR reports 0.530, which indicates the voluntary disclosure of IR in licensed commercial banks and licensed finance companies is at a considerable level since it is more than 50%. The average Tobin's Q is 0.091 with a standard deviation of 0.050. The average MBR of the selected sample companies during the 6 years is 0.755 and it is greater than the average value of Tobin's Q. During the last 6 years, the maximum ROA and sales growth reported in licensed commercial banks and licensed finance companies were 0.052 and 0.470 respectively.

Level and Trend of IR among Licensed Banks and Finance Companies

According to figure 1, it is clear that even though IR is a novel concept, licensed banks and licensed finance companies have adopted the IR framework adequately during the considered period. Figure 1 shows the trend of IR adoption by the sample banks and finance companies in Sri Lanka.

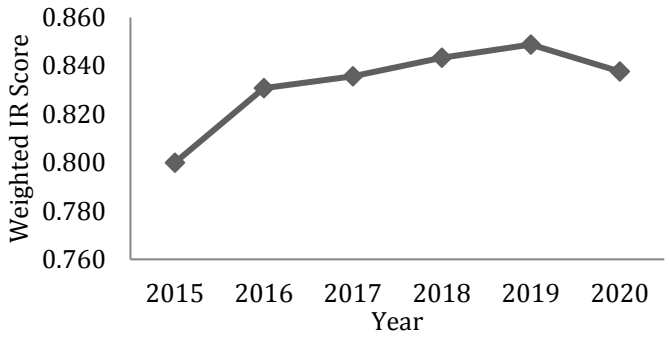

Figure 1. Level and extent of IR practices among the sample

Accordingly, figure 1 for the IR trend in banks and finance companies demonstrates that there is a growing adoption, even though IR is a voluntary disclosure requirement in Sri Lankan companies. Further, researchers found that as IR is a novel concept, the consideration of IR in sample companies varies. Some companies follow IR at an adequate level whereas some do not adequately adopt. Hence, this study reveals that every organization does not sufficiently disclose relevant information and some companies disclose even unnecessary information and in turn, those organizations fail to provide proper signals to the investors. When IR creates a report with excessive and bulky information it does not provide sufficient signals to reduce the information asymmetry (Nurkumalasari et al., 2019).

Pooled OLS Estimation

According to model 1 on IR and Tobin's Q, the adjusted coefficient of determination is 0.322 ($F=15.880$, $p<0.01$) and IR is a significant indicator of Tobin's Q ($B = -0.278$, $p<0.05$). Consequently, there is a significant negative relationship between IR and Tobin's Q. As per the statistics shown in table 3, when IR increases by 1%, Tobin's Q decreases by 0.28%. In accord with model 01, this study concludes that there is a negative relationship between integrated reporting and firm value. Further, the study discovered a statistically significant association between IR and a control variable; ROA ($B = 1.243$, $p<0.05$). However, there is no statistically significant association between IR and SG. When ROA increases by 1%, Tobin's Q increases by 1.24%. Even though there is a negative relationship between SG and Tobin's Q, it is clear that there is no significant impact as the p-value is greater than 0.05. The forecasted formula for firm value can be derived from this model as below.

Tobin's Q = 0.304 - 0.278 IR + 1.243 ROA – 0.025 SG

Table 3. Coefficients of Model 01 – Tobin's Q

Model 01	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.304	0.040		7.597	0.000***
IR	-0.278	0.047	-0.504	-5.892	0.000***
ROA	1.243	0.304	0.350	4.094	0.000***
SG	-0.025	0.028	-0.076	-0.892	0.375

R2	0.344
Adjusted R2	0.322
Durbin Watson	1.959
F Statistics	15.880
P value	0.000***

Note: Associations are statistically significant at *10%, **5% and ***1% levels

Source: Survey data of annual reports

According to table 4, the adjusted coefficient of determination for IR and MBR is 0.145 (F=6.315, p<0.01). Thus, IR is a significant indicator of MBR (B = -1.195, p<0.05). Consequently, there is a significant negative relationship between IR and MBR. Moreover, the study found a statistically significant association between IR and ROA. However, there is no statistically significant association between IR and SG. According to the statistics in table 4, when IR increases by 1%, the MBR depletes by 1.19% as the B value of IR showed -1.195 and model 02 indicates that IR has an impact on firm value. However, the relationship among those two variables is negative. Accordingly, when ROA increases by 1%, MBR increases by 5.3% and there is a positive relationship. It manifests that there is no significant impact when compared with SG. The forecasted formula for firm value can be derived from this model as below,

MBR= 1.593 – 1.195 IR + 5.299 ROA + 0.453SG

Table 4: Coefficients of Model 02 – MBR

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.593	0.324		4.918	0.000***
IR	-1.195	0.382	-0.300	-3.127	0.002***
ROA	5.299	2.458	0.207	2.156	0.034**
SG	0.453	0.229	0.189	1.975	0.051
R2	0.172				
Adjusted R2	0.145				
Durbin Watson	2.192				
F Statistics	6.315				
P value	0.000***				

Note: associations are statistically significant at *10%, **5% and ***1% levels

Source: survey data of annual reports

Discussion of the Findings

Overall, the current study found that the IR has a significant negative relationship with firm value and it validates at 95% confidence level as the p values for both models are less than 0.05. Although Lee and Yeo (2015) and Barth et al. (2017), found that IR has a significant impact on firm value, the current study could establish a significant negative relationship between the

two constructs. However, Nurkumalasari et al. (2019) found a neutral effect of IR on firm value. Although Cooray et al. (2020) revealed that IR does not have a significant impact on firm value in the Sri Lankan context, this study found that there is a significant negative relationship between two constructs in the licenced banks and finance companies in Sri Lanka. Hence, this study found that more disclosure might lead to lower market based performance.

Moreover, considering a shred of evidence from the Asian region, it is found that there is no significant relationship between IR and firm value and the empirical findings revealed that in the Asian region's IR disclosures are not producing sufficient signals. Furthermore, information-related strategy and resource allocation, outlook, etc. are not completed and insignificant in the Asian IR disclosure (Nurkumalasari et al., 2019). Similarly, the current study also concluded that information regarding business model, strategy, and resource allocation was insufficient. Thus, the IR signals created by the organizations within the annual reports are insignificant and less strong to influence the market-based firm value perofrmances.

When considering the control variables, ROA has a significant positive impact on firm value and, this was evident in the study conducted by Barth et al. (2017) which stated that profitability influences in enhancing the firm value. Consequently, the current study affirms the same and as per both models, there is a statistical significant association between IR and ROA. Thus, it confirms that profitability influences enhancing firm value. Considering the other control variable; SG shows uncertain relationship with the firm value.

Consequently, this study is significant as the researchers have used market-based measurements (Tobin's Q and MBR) to measure the firm value which was not tested in the previous studies conducted in the Sri Lankan context. The findings showed that even though IR is a new concept that the companies have adopted the IIRF adequately during 2015-2020, the study found a negative relationship between IR and firm value. Thus, the findings revealed that the companies have to be careful in adopting IR to reduce information asymmetry and to gain value to the firm.

Conclusion and Implications of the Study

IR plays a noteworthy role in Sri Lanka as it is an emerging concept in reporting practices. Since this concept is adopted in the Sri Lankan context, researchers carried out this study to fill below mentioned gaps in the literature. Albeit there are only a limited number of studies regarding IR and firm value, this study is prominent as it used market-based performance indicators to measure firm value that has not been studied previously by researchers in the Sri Lankan context. Consequently, the researchers measured IR by preparing a self-constructed IR index based on literature because self-constructed indexes are more reliable and productive as they can be developed to match with respective contexts (Lee & Yeo, 2015). The dependent variable; firm value was measured by Tobin's Q and MBR. Accordingly, the study found a significant negative relationship between IR and firm value. Subsequently, the findings signaled that even though the Sri Lankan companies adopt IIRF, IR does not support to enhance the value of the firm. Thus, the study does not support the stakeholder theory and the signaling theory. However, it supports the legitimacy theory.

All in all, the study concludes that when IR increases, it leads to a reduction in firm value. Thus, the stakeholder theory discusses that a company should have the ability to recognize the disclosure needs of the stakeholders. However, publishing all the proprietary and much of other information can lead to a decrease in the firm value (Lee & Yeo, 2015). Moreover, even though reporting both financial and non-financial information enhances legitimacy (Camilleri, 2018), many companies tend to comply with more IR disclosures to become a pioneer in the relevant industry (Islam, 2020). When disclosing more information without considering their necessity, it will not give proper signals to the stakeholders, and it will not reduce the information asymmetry. Sometimes IR creates a report with excessive and bulky information, and it is not even followed by some users. Thus, it does not provide sufficient and suitable signals in order to mitigate the information asymmetry (Nurkumalasari et al., 2019).

The banking and finance sector provides a considerable contribution to the GDP and also to the economic development in the country. Therefore, the banking and finance sector should effectively operate continuously in order to be a lifeline for the development of the service sector, as well as the economic development of the country. Hence, this study can be considered as one of the important studies carried out exploring the impact of IR on firm value concerning Sri Lanka. The findings support the practitioners and policymakers to rethink properly about the adoption and the use of IR in order to enhance the value of the firms. Moreover, it is recommended to do similar studies regarding all the companies listed on CSE rather than dealing with only one sector. In addition, future studies can be conducted to investigate regional IR comparisons with comprehensive IR indexes and other performance indicators.

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Conflict of Interest

The authors declare no conflicts of interest.

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Appendix 1. Integrated Reporting - Index

1. Organizational overview and external environment
   - Vision, mission statements, created cultures and values
   - Information about the operating structure and the principal activities
   - External factors like macro and microeconomic situations including globalization, new industry trends, social issues, environmental challenges
   - Key quantitative aspects like revenue, total employees, and any major changes from prior periods
   - Identification of the competition in the industry, legislative and regulatory environment in which it operates
2. Governance
   - Information about the leadership structure of the organization
   - Governance structure support its ability to create value
   - Responsibilities assigned with governance promote and enable innovation
   - Actions taken to monitor and influence strategic direction and approach on risk management
   - Remuneration and incentives of directors and senior executives are linked to value creation
3. Business model
   - Diagrammatic presentation of business model
   - Businesses have identified the key elements of the business model
   - The integrated report implies the inputs, business activities, outputs, and outcomes when describing the business model
   - A business model is linked to other elements like strategy, risks, opportunities, and performance
   - Businesses have identified the critical stakeholders and other dependencies and crucial factors affecting the external environment
4. Risks and Opportunities
   - The integrated report identifies the major risks and opportunities which are specific to the organization

- The company have taken steps to mitigate and manage risks and to enhance opportunities
- The company disclose internal and external risks and opportunities
- The integrated report provides on the company's key risks including strategic, supply chain, political, financial, human resources, environmental, and information technology
- Explain the likelihood of risks and impacts

5. Strategy and resource allocation
   - The integrated report implies organization's strategic objectives
   - Organizations have a resource allocation plan
   - The company link its strategy and resource allocation plan to its implemented, business model
   - The company have a scheme to measure the achievements and target outcomes
   - The environmental and social considerations have been embedded into the organization's strategy
6. Performance
   - The integrated report implies quantitative and qualitative information regarding the performance
   - The organization's outcomes in terms of effects on the capitals used in the value chain
   - Organizations disclose the linkage between past and current performance
   - The company indicate key performance which combines financial measures with other components
   - The integrated report discusses the state of key stakeholder relationships and how the company has responded to meet shareholders' needs
7. Outlook
   - The integrated report clearly shows the changes over time and provide information
   - The company intend to respond to critical challenges and uncertainties that are likely to arise
   - The discussion on potential implications include the availability, quality, and affordability of capitals and their effect on the organization's ability to create value over time
   - The integrated report discloses information by considering the legal aspects of the organization
   - Discussion on potential implications include the effects of the external environment, risks, and opportunities on the achievement of strategic objectives
8. Basis of preparation and presentation
   - The integrated report describes the basis of preparation and presentation
   - The integrated report includes a summary of the company's materiality determination process
   - The integrated report identifies its reporting boundary and explain how it is determined
   - The Integrated report discloses the material risks, opportunities, and outcomes related to the entity

Appendix 2

Integrated Reporting Practices of the Sample Companies

Bank/ Finance Institution	2015	2016	2017	2018	2019	2020
Amana Bank PLC	0.75	0.74	0.75	0.78	0.84	0.87
Cargills Bank Ltd	0.53	0.53	0.53	0.53	0.56	0.53
Commercial Bank of Ceylon PLC	0.53	0.65	0.89	0.90	0.92	0.92

Hatton National Bank PLC	0.92	0.84	0.84	0.83	0.81	0.82
National Development Bank PLC	0.83	0.91	0.91	0.91	0.91	0.91
Pan Asia Banking Corporation PLC	0.91	0.88	0.88	0.88	0.88	0.88
Sampath Bank PLC	0.88	0.88	0.94	0.94	0.95	0.96
Union Bank of Colombo PLC	0.73	0.73	0.73	0.73	0.73	0.73
HDFC	0.87	0.94	0.94	0.95	0.95	0.95
Sanasa Development Bank PLC	0.81	0.86	0.87	0.89	0.89	0.89
Abans Finance PLC	0.73	0.73	0.73	0.73	0.73	0.73
Commercial Credit and Finance PLC	0.73	0.73	0.73	0.73	0.73	0.73
HNB Finance PLC	0.59	0.74	0.82	0.82	0.82	0.82
LB Finance PLC	0.83	0.83	0.83	0.83	0.83	0.95
LOLC Finance PLC	0.82	0.82	0.82	0.82	0.82	0.82
People's Leasing & Finance PLC	0.88	0.93	0.93	0.93	0.93	0.93
Sarvodaya Development Finance Ltd	0.75	0.75	0.75	0.75	0.75	0.75
Singer Finance (Lanka) PLC	0.74	0.74	0.79	0.79	0.79	0.79
Softlogic Finance PLC	0.88	0.89	0.89	0.89	0.89	0.89
Vallibel Finance PLC	0.72	0.72	0.72	0.90	0.90	0.90