Digital Corporate Governance Practices: Evidence from Sri Lankan Listed Companies

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Abstract

The purpose of the research is to identify digital corporate governance practices in Sri Lankan listed firms. The concept of digital corporate governance has many areas. Digital meetings, cyber security, transparency and board IT (Information Technology) knowledge are some of them. Corporate governance in the 21st century has become the main focus and concern of companies in Sri Lanka of Digital transformation. Digital corporate governance practices are described in this research. With COVID 19 pandemic situation, most of the companies in Sri Lanka started to digitalize their business in every area. Digital corporate governance is one of the main areas in a company. Digital drive has developed steadily and has been integrated into the management system. For a stronger corporate governance system of organizations, the strict cyber security legislation must be developed.

Keywords: board IT experience corporate governance; cyber security; digitalization; regulatory framework; transparency; virtual meetings.

JEL Classification: R41; R410; M10.

Introduction

During December of 2019, a COVID 19 epidemic arose in China and quickly expanded to other countries (World Health Organization, 2010). Everybody is concerned about company performance issues during this time period (World Economic Forum, 2020). People in several countries are struggling to make ends meet as a result of the city shutdown. As early estimate of a crisis is still feasible, despite that fact that the International Monetary Fund (IMF) says it is hard to precisely predict the economic downturn (IMF, 2020). Global GDP will contract by 2.41 percent in 2020, according to Statista (2020).

This study examines the digital corporate governance practices in Sri Lankan listed firms. Companies are operationally dependent on IT; thus, it plays a key part in formulating business
strategies. But most boards have a limited awareness of IT strategy and spending, despite the fact that they dedicate a significant percentage of their assets. For starters, the research studies that quantify business success are a major factor. It is as a result that most corporate performance is judged by how much information is shared. Consequently, monitoring business performance will not accurately represent the concept of digital corporate governance (Kadir, Sonar, and Burak, 2021).

It was during the COVID-19 outbreak that the need for digital corporate governance grew. Environmental, social, and governance factors are increasingly being considered in decision-making, and the financial crisis has accelerated this trend by highlighting business’s position as a social force and the significance of effective corporate governance (Allam and Remm, 2019).

As part of this research, Sri Lankan listed firms will have their digital corporate governance evaluated and the influence on their performance evaluated on a systematic basis. Overall objective of the research is empirically explored how Sri Lankan listed firms function when it comes to digital corporate governance. Other specific objectives are:

1. To examine the extent of digital corporate governance adopted by Sri Lankan listed firms.
2. To examine the level of firm performance in Sri Lanka.
3. To examine the application of digital corporate practices on Sri Lankan firms.

Sri Lankan enterprises’ digitalization and digital corporate governance would be the primary focus of this research. Digital corporate governance measures are still in their infancy in Sri Lankan listed corporations (Kuruppu et al., 2015; Sheham, 2016). A company’s embrace of digitalization as a means to disclose information to interested parties is, thus, particularly relevant today.

**Literature Review**

Corporate governance literature began with the Cadbury Report, which was published in December 1992 as a response to the Cadbury Committee’s recommendations in the United Kingdom. Cadbury was created as a result of several high-profile business failures (Joseph Illonga, 2014). Due to a lack of investor confidence in publicly traded firm’s openness, Cadbury considered corporate governance.

The principal agent relationship is explained by the agency theory. It states that the separation of management and ownership creates a separation of the duties and responsibilities of an agent. During a given business transaction, the agent represents the principle and is supposed to represent the principal’s best interests without regard to self-interest (Mitnick, 2015). Because certain agents may not always act in the principal’s best interests, the contrasting interests of the principle and the agent might lead to conflict (Hill and Jones, 1992). There might be a variety of complications emerging from the miscommunication and dispute. A stakeholder’s incompatibility can lead to inefficiency and financial losses. So, every company has the principal-agent problem to deal with (Josh, Eric, and Phillip, 2016).

Whenever the interests of both the principal and agent are at odds, that company has the principal-agent problem. Solid business policies should be used to reduce the likelihood of these circumstances occurring in the first place (Shapiro, 2005). Moral hazard is a possibility for people who are typically ethical. The agent’s behavior can be changes via incentives to align the agent’s interests with the principal’s concerns (Susan, 2005).

When graphs are used to depict symmetry or relationship between discrete objects, it is called network theory (Barbarasi, 2016). In computer science and network research, network theory is a subset of graph theory.
Traditionally, corporate governance systems have been based on the interactions between a variety of stakeholders and the separation of ownership and control at different levels. Alternatively, the relationship between traditional corporate governance difficulties and network theory properties has yet to be investigated in any meaningful way.

According to the website of IT Governance Institute (ITGI), ITG is a branch of corporate governance that focuses on information technology systems and how their success is judged, as well as how risks are managed (2018). According to McCollum (2006), the Sarbanes-Oxley Act of 2002 has transformed the board of directors’ understanding of the importance of information technology governance in their organization. So, Huff and Colleagues (2004) propose that an IT expert should be appointed to the board to bring alternative perspectives based on their practical experience or background in the field of information technology.

The globe is becoming more and more globalized as technology advances. As a result, the world has shrunk into a little settlement on a single planet. It’s all thanks to the latest technology. Today, technology is incredibly crucial. Various sectors of the economy have embraced technology in one way or another. It has helped firms standardize practices.

Digital governance has becoming increasingly popular in the 21st century. Leaders in business have learned that as the globe gets more globalized, they must equally globalize their operations. The emergence of global marketplaces has facilitated international trade. Worldwide, Coca-Cola is a well-known American beverage company. Toyota Motors of Japan, on the other hand, has a global market presence.

Sri Lankans are increasingly using social media sites to advocate for clean politics and to criticize politicians and political parties, which is a significant development. Entrepreneurship has been revolutionized by the networked economy, which is fueled by digital technologies connected by the internet, while simultaneously upending long-standing business norms (Nalaka Gunawardhana, November 2017).

According to the Central Bank of Sri Lanka’s Annual Report 2016, the government has highlighted communications and digital infrastructure as two major areas that boost digital ecosystems and economic development (which also serves as a state of the economy report). Weakening self-employment and small business through the broad use of ICT fosters inclusive growth and the creation of new jobs. Social media is being used by companies to strengthen their own accountability, improve consumer communication, and promote new leadership styles. People of all backgrounds are using the same tools to hold corporations accountable.

Computer technology is used more and more in modern institutions to manage business acts and procedures. There are several reasons why firms need to create internal IT controls in order to mitigate the risks associated with their reliance on IT, including its rising complexity, interconnectedness, threats to these systems, and their expanding dangers (Stoel and Muhanna, 2011). They are administrative, operational, and technical procedures that aim to protect the system’s confidentiality, integrity, availability, and information (International Organization for Standardization/International Electrotechnical Commission, 2005; IT Governance Institute [ITG]; National Institute of Standards and Technology, 2005; The National Institute of Standards and Technology, 2006). (Lunardi, Becker, Macada, and Dolci 2014) Information governance is part of corporate governance. The board of directors and executive officers are tasked with IT governance (ITGI, 2003). A company’s performance improves as a result of IT governance (Mohamed and Singh, 2012) and the evolution of IT investment efficiency (Weill and Ross, 2004). The importance of IT in determining the performance of a corporation has been the subject of much controversy and disagreement in past research. “Since information technology has become a commodity, it has no strategic significance for projects.” Argues Carr (2003). “The directors of these companies don’t think it’s significant”. There is a negative correlation between IT investments and firm performance, according to Stiroh (2008).
According to Sandulli, Fernandez-Menendez, Rodriguez-Duarte, and Lopez-Danchez, 2012; Tambe and Hitt, 2012), IT investment and corporate performance are positively related.

**Methodology**

In this research, research philosophy is positivism. The researcher uses deductive approach because this study begins with a theory, generally derived from a reading of the academic literature, and then builds a research strategy to test the theory (Saunders, 2019, p.153). To argue that positivism, deduction, and quantitative research design are inextricably linked, however, is considered as a philosophical caricature. This study’s results are collected, analyzed, interpreted, and documented using quantitative methods. Identifying a sample and population, describing the design, collecting, and analyzing data as well as presenting the results and generating an interpretation are all part of survey strategy.

Listed companies on the Colombo Stock Exchange comprised the study’s population. As a result of the sample criteria, the researcher has selected 160 companies as a final sample or data collection. Sample profile of respondents is shown in Table 1.

| Variables          | Item          | Frequency | Percentage |
|--------------------|---------------|-----------|------------|
| Gender             | Female        | 83        | 51.9       |
|                    | Male          | 77        | 48.1       |
| Age                |Less than 20 years | 2         | 1.3        |
|                    | 21 – 25 years | 31        | 19.4       |
|                    | 26 – 30 years | 60        | 37.5       |
|                    | 31 – 35 years | 46        | 28.7       |
|                    | Over 35 years | 21        | 13.1       |
| Current position   | Executive level | 62        | 38.7       |
|                    | Managerial level | 63        | 39.4       |
|                    | Junior level  | 35        | 21.9       |
| Current experience |Less than 1 year | 27        | 16.9       |
|                    | 1 – 5 years   | 47        | 29.3       |
|                    | 6 – 10 years  | 66        | 41.3       |
|                    | Over 10 years | 20        | 12.5       |

*Source*: constructed by the Authors based on SPSS output.

Following this is the frequency analysis performed in order to foresee how often a variable phenomenon will occur at specific values of digital corporate governance variables. Secondly it discusses descriptive analysis to provide basic information about variables in a dataset and in order to draw attention to possible linkages between variables. Next reliability analysis and validity analysis are done to investigate the properties of measurement scales and the objects that makeup scales and to draw meaningful and valuable conclusions about the respondents using test taker’s score. At last normality analysis and Kruskal-Wallis test is done to analyze the changes in digital corporate governance variables in companies.

**Analysis**

**Frequency analysis**

As a descriptive statistical tool, frequency analysis indicates the number of times each response has been selected by the respondents. As part of the frequency analysis, SPSS Statistics may also calculate the mean and median in order to assist users in analyzing the results and drawing inferences.
Board IT experience

In the variable board IT experience agree has the highest frequency level. BdITexp1 has 64.4% of frequency among all the eight items. Highest frequency of respondents has responded as agreed to the given questions related to the variable board IT experience. BdITexp1, BdITexp3 and BdITexp4 variables’ frequency level for the strongly agree were 0%. BdITexp2 and BdITexp7 has 6% of lowest frequency among all the items. As the researcher can see, highest amount of disagreed is 11.3% in BdITexp5 and other items are less than that amount. More than 50% of respondents have responded as agree and strongly disagree. That means most of the listed companies in Sri Lanka, having good board members with good knowledge in IT (Information Technology). The Table 2 shows the results of frequency analysis of board IT experience.

| Item       | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|------------|-------------------|----------|---------------------------|-------|----------------|
| BdITexp1   | 8.8               | 8.8      | 64.4                      | 18.1  |
| BdITexp2   | 6                 | 9.4      | 13.8                      | 43.8  | 32.5           |
| BdITexp3   | 6.3               | 15.6     | 43.1                      | 35.0  |
| BdITexp4   | 8.8               | 14.4     | 43.8                      | 33.1  |
| BdITexp5   | 1.3               | 11.3     | 11.9                      | 41.9  | 33.8           |
| BdITexp6   | 1.3               | 10.6     | 19.4                      | 41.3  | 27.5           |
| BdITexp7   | 6                 | 10       | 12.5                      | 40.6  | 36.3           |
| BdITexp8   | 1.3               | 7.5      | 8.8                       | 53.1  | 29.4           |

Source: constructed by the Authors based on SPSS output.

Cyber security management

In Cyber5, strongly disagree has 0% frequency. According to the above table, the researcher can come to a conclusion that Cyber1, Cyber2, Cyber3, Cyber4, Cyber5, Cyber6, and Cyber7 agree has the highest frequency levels of 43.8%, 45.6%, 42.5%, 43.8%, 46.9%, 47.5%, and 51.2% respectively. Strongly agree has the lowest frequency level of 0.6% which is related to Cyber1 and Cyber 7. Between 7.5% - 12.5% has no knowledge regarding the company’s cyber security management. According to the analysis, the frequency of agree and strongly agree are greater than strongly disagree, disagree, and neither agree nor disagree. The Table 3 shows the results of frequency analysis of Cyber security management.

| Item       | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|------------|-------------------|----------|---------------------------|-------|----------------|
| Cyber1     | 0.6               | 6.3      | 7.5                       | 43.8  | 41.9           |
| Cyber2     | 1.3               | 4.4      | 8.1                       | 45.6  | 40.6           |
| Cyber3     | 1.9               | 8.1      | 11.3                      | 42.5  | 36.3           |
| Cyber4     | 0.6               | 10.6     | 12.5                      | 43.8  | 32.5           |
| Cyber5     | 0.6               | 10       | 11.9                      | 46.9  | 31.3           |
| Cyber6     | 1.3               | 11.3     | 10.0                      | 47.5  | 30             |
| Cyber7     | 0.6               | 9.4      | 11.3                      | 51.2  | 27.5           |

Source: constructed by the Authors based on SPSS output.

Virtual meetings

Meeting1, Meeting6, and Meeting8 items have frequency of 1.3% as strongly disagree. Meeting3 and Meeting4 have frequency level of 0.6% for strongly disagree. While other items have no frequency level for strongly disagree. In every item, strongly agree has frequency levels
between 26% - 40%. According to the analysis in every item agree has the highest frequency level or virtual board meetings. Among all these numbers, Meeting1 has the highest frequency level of 54.4% for agree. The researcher can say more than 50% of respondents have agreed and strongly agreed that virtual board meetings are held in their companies and most of them are aware about the virtual meetings in the company especially during Covid 19 pandemic situation. The Table 4 shows the results of frequency analysis of Virtual meetings.

Table 4. Frequency Analysis of Virtual meetings

| Item   | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|--------|-------------------|----------|----------------------------|-------|---------------|
| Meeting1 | 1.3               | 4.4      | 13.8                       | 54.4  | 26.3          |
| Meeting2 | 13.8              | 13.1     | 36.9                       | 36.3  |               |
| Meeting3 | 0.6               | 5.0      | 13.8                       | 44.4  | 36.3          |
| Meeting4 | 0.6               | 11.9     | 9.4                        | 41.9  | 36.3          |
| Meeting5 | 8.1               | 13.8     | 48.1                       | 30.0  |               |
| Meeting6 | 1.3               | 9.4      | 10.0                       | 42.5  | 36.9          |
| Meeting7 | 6.3               | 13.1     | 44.4                       | 36.3  |               |
| Meeting8 | 1.3               | 8.8      | 11.3                       | 48.1  | 30.6          |

Source: constructed by the Authors based on SPSS output.

Transparency

When consider about transparency variable, 0.6% is the strongly disagreed frequency level for items Trnsp1, Trnsp2, Trnsp5, Trnsp6, and Trnsp7. In trnsp1 item, exactly frequency level of 50% has taken by agree. Remaining 50% is shared among other sections. In this table, some of the companies have less attention for the transparency of the company. But most of the companies have agreed, and strongly agreed that their companies have strong transparency in the company towards stakeholders of the company. The Table 5 shows the results of frequency analysis of Transparency.

Table 5. Frequency Analysis of Transparency

| Item   | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|--------|-------------------|----------|----------------------------|-------|---------------|
| Trnsp1 | 0.6               | 4.4      | 9.4                        | 50.0  | 35.6          |
| Trnsp2 | 0.6               | 10.0     | 16.9                       | 39.4  | 33.1          |
| Trnsp3 | 1.3               | 12.5     | 13.1                       | 41.3  | 31.9          |
| Trnsp4 | 1.3               | 9.4      | 13.1                       | 43.8  | 32.5          |
| Trnsp5 | 0.6               | 10.6     | 10.0                       | 44.4  | 34.4          |
| Trnsp6 | 0.6               | 8.1      | 13.1                       | 50.6  | 27.5          |
| Trnsp7 | 0.6               | 11.9     | 9.4                        | 53.8  | 24.4          |

Source: constructed by the Authors based on SPSS output.

Descriptive Analysis

Describing, showing, or summarizing data points in a constructive way allow patterns to develop that satisfy the conditions of the data. When it comes to statistical data analysis, this is a crucial step to take in the process.

Board IT experience

According to the Table 6, mean values are closer to the 4 or greater than 4. Round off value of all these, mean values are 4. That means most of the respondents have agreed for the board IT experience in their companies. Median of this data set is 4. It means, most of the respondents have selected “Agree” for the questions given regarding the board IT experience of the
company. It’s a positive factor for the company. BdITexp1 has the lowest SD and BdITexp5 has the highest SD.

### Table 6. Board IT experience descriptive analysis

|        | BdIT Exp1 | BdIT Exp2 | BdIT Exp3 | BdIT Exp4 | BdIT Exp5 | BdIT Exp6 | BdIT Exp7 | BdIT Exp8 |
|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Valid  | 160       | 160       | 160       | 160       | 160       | 160       | 160       | 160       |
| Missing| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Mean   | 3.92      | 3.98      | 4.07      | 4.01      | 3.96      | 3.83      | 4.02      | 4.02      |
| Median | 4.00      | 4.00      | 4.00      | 4.00      | 4.00      | 4.00      | 4.00      | 4.00      |
| Mode   | 4         | 4         | 4         | 4         | 4         | 4         | 4         | 4         |
| St. Deviation | .785 | .948 | .870 | .911 | 1.012 | .992 | .974 | .894 |
| Skewness | -.962 | -.814 | -.715 | -.732 | -.872 | -.633 | -.864 | -1.108 |
| Std. Error of Skewness | .192 | .192 | .192 | .192 | .192 | .192 | .192 | .192 |
| Kurtosis | 1.063 | .666 | -.112 | -.173 | .039 | -.247 | .016 | 1.287 |
| Std. Error of Kurtosis | .381 | .381 | .381 | .381 | .381 | .381 | .381 | .381 |
| Minimum | 2         | 1         | 2         | 2         | 1         | 1         | 1         | 1         |
| Maximum | 5         | 5         | 5         | 5         | 5         | 5         | 5         | 5         |

Source: constructed by the Authors based on SPSS output.

According to the given results, all the skewness values are negative values. That means having a longer or thicker tail on the left. This negative skewness is good because these are having positive mean values. Std. error of skewness of all the items are 0.192 and it is closer to 2. As this value is between (-2) and (+2), the researcher can accept the normality of the data. BdITexp3, BdITexp4, and BdITexp6 are having negative kurtosis values. That means the distribution is flatter than a normal curve. Other items have positive kurtosis values. That means distribution is peaked and possesses thick tails. The standard error of kurtosis value 0.381 for every item in the table. Minimum value is 1 and maximum value is 5. It is standard and normal for the data analysis.

### Cyber security management

As shown in the Table 7, mean values are around 4 or closer to 4. That means the result is good regarding the cyber security management of the listed companies in Sri Lanka. Median and mode values are also exactly 4 and it same for every cyber item. That means it also give positive feedback regarding the company’s cyber security. Standard deviation is greater than 0.8 and less than 1. That means between 0 and 1. Cyber2 has the lowest SD and Cyber3 has the highest SD.

### Table 7. Cyber security management descriptive analysis

|         | Cyber1 | Cyber2 | Cyber3 | Cyber4 | Cyber5 | Cyber6 | Cyber7 |
|---------|--------|--------|--------|--------|--------|--------|--------|
| Valid   | 160    | 160    | 160    | 160    | 160    | 160    | 160    |
| Missing | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Mean    | 4.20   | 4.20   | 4.03   | 3.97   | 3.99   | 3.94   | 3.96   |
| Median  | 4.00   | 4.00   | 4.00   | 4.00   | 4.00   | 4.00   | 4.00   |
| Mode    | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| St. Deviation | .875 | .860 | .987 | .968 | .915 | .982 | .907 |
| Skewness | -1.202 | -1.302 | -.1057 | -.823 | -.787 | -.922 | -.887 |
| Std. Error of Skewness | .192 | .192 | .192 | .192 | .192 | .192 | .192 |
| Kurtosis | 1.315 | 2.045 | .703 | -.006 | -.046 | .284 | .455 |
| Std. Error of Kurtosis | .381 | .381 | .381 | .381 | .381 | .381 | .381 |
| Minimum | 1      | 1      | 1      | 2      | 1      | 1      | 1      |
| Maximum | 5      | 5      | 5      | 5      | 5      | 5      | 5      |

Source: constructed by the Authors based on SPSS output.
When talk about skewness all are negative values. That means it is good because mean values are positive. Std. error of skewness is 0.192 and it same or all the cyber security items. As this value is between (-2) and (+2), the researcher can accept the normality of the data. Kurtosis is negative in Cyber4 and Cyber5. That means the distribution is flatter than a normal curve. Other items have positive kurtosis values. That means distribution is peaked and possesses thick tails. The standard error of kurtosis value 0.381 for every item in the table. Minimum value is 2 only in Cyber5 and all others are 1 and maximum value is 5. It is standard and normal for the data analysis.

**Virtual meetings**

The Table 8 shows the results of descriptive analysis of virtual meetings data collection. Mean value is very close to 4. That means as an average most respondents have agreed to the virtual meetings in the company. According to the mean value analysis is good. Median value is exactly 4 for every item and mode is also 4 for every item. The researcher can say that most of the respondents have responded as agree for the questionnaire. All the SD values are closer to 1.

| Meetin1 | Meetin2 | Meetin3 | Meetin4 | Meetin5 | Meetin6 | Meetin7 | Meetin8 |
|---------|---------|---------|---------|---------|---------|---------|---------|
| Valid   | 160     | 160     | 160     | 160     | 160     | 160     | 160     |
| Missing | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| Mean    | 4.00    | 3.96    | 4.11    | 4.01    | 4.00    | 4.04    | 4.11    | 3.98    |
| Median  | 4.00    | 4.00    | 4.00    | 4.00    | 4.00    | 4.00    | 4.00    | 4.00    |
| Mode    | 4       | 4       | 4       | 4       | 4       | 4       | 4       | 4       |
| St. Deviation | .832 | 1.024 | .866 | .997 | .876 | .980 | .859 | .942 |
| Skewness | -.996 | -.695 | -.914 | -.913 | -.739 | -1.022 | -.811 | -.970 |
| Std. Error of Skewness | .192 | .192 | .192 | .192 | .192 | .192 | .192 | .192 |
| Kurtosis | 1.555 | -.630 | .668 | .019 | .027 | .495 | .132 | .626 |
| Std. Error of Kurtosis | .381 | .381 | .381 | .381 | .381 | .381 | .381 | .381 |
| Minimum | 1       | 2       | 1       | 1       | 2       | 1       | 2       | 1       |
| Maximum | 5       | 5       | 5       | 5       | 5       | 5       | 5       | 5       |

*Source:* constructed by the Authors based on SPSS output.

Meeting1 has the lowest SD and Meeting2 has the highest SD value. All the skewness values are negative. That means it is good with because mean values are positive according to the above table. Std. error of skewness is 0.192 and it same or all the cyber security items. As this value is between (-2) and (+2), the researcher can accept the normality of the data. Kurtosis value of Meeting2 is negative and all others are having positive values. Having a positive value means distribution is peaked and possesses thick tails. The standard error of kurtosis value 0.381 for every item in the table. Most of the minimum values are 1 and all the maximum values are 5. It is normal for the data analysis.

**Transparency**

In the Table 9, mean value of the transparency item are close to 4. That means it is good. Median value is exactly 4 for every item and mode is also 4 for every item. The researcher can say that most of the respondents have responded as agree for the questionnaire. Lowest standard deviation is 0.813 in Trnsp1, and highest SD is 1.029 in Trnsp3.
All the skewness values are negative. That means it is good with because mean values are positive according to the table. Std. error of skewness is 0.192 and it same or all the cybersecurity items. As this value is between (-2) and (+2), the researcher can accept the normality of the data. Kurtosis values of Trnsp2 and Trnsp3 are negative, and all the others are positive values. Having a positive value means distribution is peaked and possess thick tails. The standard error of kurtosis value 0.381 for every item in the table. All the minimum values are 1 and maximum values are 5. It is normal for this data analysis.

Reliability Analysis

Measurement scales and its constituent items can be studied using reliability analysis. As a result of the reliability analysis, technique, several regularly used scale reliability measures can be calculated, as well as information regarding the relationship between specific items in the scale.

Board IT experience

The Table 10 shows the results of reliability analysis of Board IT experience. According to the reliability analysis Cronbach’s alpha is 0.834. As this value is greater than 0.7, reliability of Board IT experience is high. There is not any item to delete in the column “Cronbach’s alpha if item deleted” because all the values are less than Cronbach’s alpha 0.834.
Cyber security management

Table 11 shows the results of reliability analysis of Cyber Security. According to the reliability analysis Cronbach’s alpha is 0.832. As this value is greater than 0.7, reliability of cyber security management is good. There is not any item to delete in the column “Cronbach’s alpha if item deleted” because all the values are less than Cronbach’s alpha 0.832.

| Item   | Scale mean if Item deleted | Scale variance if Item deleted | Corrected Item-total correlation | Cronbach’s Alpha if item deleted |
|--------|---------------------------|--------------------------------|----------------------------------|---------------------------------|
| Cyber1 | 24.09                      | 16.269                          | .571                             | .811                            |
| Cyber2 | 24.09                      | 16.194                          | .596                             | .807                            |
| Cyber3 | 24.26                      | 15.123                          | .647                             | .798                            |
| Cyber4 | 24.32                      | 15.590                          | .594                             | .807                            |
| Cyber5 | 24.29                      | 16.473                          | .505                             | .821                            |
| Cyber6 | 24.35                      | 15.914                          | .534                             | .817                            |
| Cyber7 | 24.33                      | 15.783                          | .619                             | .803                            |

Source: constructed by the Authors based on SPSS output.

Virtual meetings

According to Table 12 reliability analysis, Cronbach’s alpha is 0.920. As this value is greater than 0.7, reliability of virtual meetings is very high because it is close to 1. There is not any item to delete in the column “Cronbach’s alpha if item deleted” because all the values are less than Cronbach’s alpha 0.920.

| Item  | Scale mean if Item deleted | Scale variance if Item deleted | Corrected Item-total correlation | Cronbach’s Alpha if item deleted |
|-------|---------------------------|--------------------------------|----------------------------------|---------------------------------|
| Meeting1 | 28.21                      | 28.454                          | .663                             | .915                            |
| Meeting2 | 28.25                      | 26.189                          | .744                             | .909                            |
| Meeting3 | 28.10                      | 27.688                          | .724                             | .910                            |
| Meeting4 | 28.19                      | 26.019                          | .789                             | .905                            |
| Meeting5 | 28.21                      | 27.498                          | .737                             | .909                            |
| Meeting6 | 28.16                      | 26.665                          | .732                             | .910                            |
| Meeting7 | 28.10                      | 27.952                          | .699                             | .912                            |
| Meeting8 | 28.23                      | 26.565                          | .781                             | .905                            |

Source: constructed by the Authors based on SPSS output.

Transparency

As per the Table 13 of reliability analysis, Cronbach’s alpha is 0.809. As this value is greater than 0.7, reliability of transparency is very good. There is not any item to delete in the column “Cronbach’s alpha if item deleted” because all the values are less than Cronbach’s alpha 0.809.

| Item  | Scale mean if Item deleted | Scale variance if Item deleted | Corrected Item-total correlation | Cronbach’s Alpha if item deleted |
|-------|---------------------------|--------------------------------|----------------------------------|---------------------------------|
| Trnp1  | 23.68                      | 16.118                          | .530                             | .787                            |
| Trnp2  | 23.89                      | 15.366                          | .510                             | .790                            |
| Trnp3  | 23.94                      | 14.688                          | .569                             | .779                            |
| Trnp4  | 23.87                      | 15.184                          | .541                             | .784                            |
| Trnp5  | 23.83                      | 15.001                          | .576                             | .777                            |
Table 13 (cont.)

| Trnp6 | Trnp7 |
|-------|-------|
| 23.88 | 15.494 | .565 | .780 |
| 23.94 | 15.550 | .522 | .787 |

Source: constructed by the Authors based on SPSS output.

**Factor Analysis (Validity)**

**Board IT experience**

According to Bartlett’s test, sampling adequacy is 0.851 (Table 14). As this value is closer to 1, this sample of Board IT experience is adequacy is good. Next the communalities values for all the items are greater than 0.4. That means the validity of the sample is achieved.

Table 14. Board IT experience Bartlett’s test

| Measure of sampling adequacy | 851 |
|-----------------------------|-----|
| Approx. chi-square          | 400.490 |
| Df                          | 28 |
| Sig.                        | <.001 |

Source: constructed by the Authors based on SPSS output.

**Cyber security management**

According to Bartlett’s test, sampling adequacy is 0.857 (Table 15). As this value is closer to 1, this sample of cyber security management’s adequacy is good. Next the communalities values for all the items are greater than 0.4. That means the validity of the sample is achieved.

Table 15. Cyber security Bartlett’s test

| Measure of sampling adequacy | 857 |
|-----------------------------|-----|
| Approx. chi-square          | 346.673 |
| Df                          | 21 |
| Sig.                        | <.001 |

Source: constructed by the Authors based on SPSS output.

**Virtual meetings**

According to Bartlett’s test, sampling adequacy is 0.927 (Table 16). As this value is very closer to 1, this sample of Virtual meeting’s adequacy is very high. Next the communalities values for all the items are greater than 0.4. That means the validity of the sample is achieved.

Table 16. Virtual meetings Bartlett’s test

| Measure of sampling adequacy | 927 |
|-----------------------------|-----|
| Approx. chi-square          | 763.846 |
| Df                          | 28 |
| Sig.                        | <.001 |

Source: constructed by the Authors based on SPSS output.

**Transparency**

According to Bartlett’s test, sampling adequacy is 0.810 (Table 17). As this value is closer to 1, this sample of Transparency’s adequacy is good. That means this sample is an adequate sample. Next the communalities values for all the items are greater than 0.4. That means the validity of the sample is achieved.
Table 17. Transparency Bartlett’s test

| Measure of sampling adequacy | .810 |
|-----------------------------|------|
| Approx. chi-square          | 302.372 |
| Df                          | 21 |
| Sig.                        | <.001 |

Source: constructed by the Authors based on SPSS output.

Normality Analysis

In this H1 is not normal hypothesis and H0 is normal hypothesis. According to the Table 18, all the variables are significant. That means null hypothesis is rejected and alternative hypothesis is accepted. The table shows that all the variables are not normal. In a not normal situation, cannot apply Anova model. Therefore Kruskal-Wallis Test is applied. The Table 18 shows the results of normality test.

Table 18. Normality test

| Statistic | df | Significance |
|-----------|----|--------------|
| BdITex    | .138 | 160         | <.001 |
| Cyber     | .127 | 160         | <.001 |
| Meeting   | .213 | 160         | <.001 |
| Trnsp     | .128 | 160         | <.001 |

Source: constructed by the Authors based on SPSS output.

Kruskal-Wallis Test

In non-parametric test, Kruskal Wallis test has done, because the variables are non-normal. According to the Table 19, the variables are significant. That means the change in number of employees affect the changes in digital corporate governance variables. There is a difference between number of employees and digital governance practices in listed companies.

Table 19. Kruskal-Wallis test

| Statistic | BdITex | Cyber | Meeting | Trnsp |
|-----------|--------|-------|---------|-------|
| Kruskal-Wallis | 12.205 | 12.744 | 19.723  | 12.207 |
| Df        | 4      | 4     | 4       | 4     |
| Asymp. Sig. | 0.016 | 0.013 | <.001   | 0.016 |

Source: constructed by the Authors based on SPSS output.

Conclusions

In this research objective is to examine the extent of digital corporate governance adoption by Sri Lankan listed firms. The researcher used primary data collected from a questionnaire to analyze the digital corporate governance of firms. As part of the study, an exhaustive literature review was conducted to identify and measure the digital corporate governance procedures used by companies in accordance with the literature. The researcher developed a questionnaire using the main variables in digital corporate governance. A thorough literature review was conducted to identify and measure the digital corporate governance practices employed by companies.

In Sri Lanka, only little research is related to digital corporate governance practices in companies. As the researcher think, the reason for this is Sri Lankan is behind some steps when compared to other countries. From the literature review, when looking at how other countries have adopted digitalization for corporate governance Sri Lanka is still on the way to that level. Therefore, the researcher thinks that this research will helps to fill the knowledge gap regarding digital corporate governance practices.
The researcher developed some variables such as virtual meetings, board IT experience, cyber security, and transparency for easy understanding of the readers. After conducting descriptive analysis most of the companies, like more than 50% companies have agreed that they are using digital corporate governance practices in their firms, especially because of this covid 19 pandemic situation.

This study is mainly conducted with an objective of identifying digital corporate governance practices in listed entities. It is recommended that future research studies do research on a larger population and sample in order to allow for a more detailed debate that would boost the generalizability of findings in the future research studies.

There are considerable differences across companies listed on the CSE, yet the study’s independent factors had a limited ability to explain the relationship between digital corporate governance and firm performance, according to the study’s findings. As a result, future research will be able to determine which elements, in addition to those stated in the research study, are most influential in Sri Lanka’s adoption of digital corporate governance practices.

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