Voluntary Disclosure of Digitalisation-Related Information by Malaysian Public Listed Companies

Sharifah Norhafiza Syed Ibrahim[♣], Adriana Shamsudin, Mohd Tarmizi Ibrahim, Mohd Yassir Jaaffar, Salina Abdullah, and Hamidah Bani
Faculty of Accountancy, Universiti Teknologi MARA, Melaka Branch, Malaysia

ABSTRACT

As digitalisation is costly and requires continuous planning, updating, and monitoring, voluntary disclosure of digitalisation-related information can enhance a company's reputation and subsequently reduce the cost of capital. However, such information is not part of mandatory disclosure. This paper intends to assess how and how much Malaysian public listed companies disclose digitalisation-related information in their annual reports. Using a qualitative approach and purposive sampling, this study analysed data from the audited annual reports in 2020. Forty-nine Malaysian listed companies were selected. This study discovered that digitalisation-related information was included in nine sections: overview, events and highlights, management reports and discussion, our capitals, governance and leadership, sustainability report, external environment, notes to the accounts, and additional information. In addition, those disclosures were related to marketing, the product offered, business operation, governance, risk management, customer relations, organisational structure, and strategic management. The disclosure level for digitalisation-related information was generally basic where companies provided a brief description of their digitalisation initiatives, tools, and technologies. These findings are useful for internal and external stakeholders, including Malaysian agencies that are directly responsible for transformation into digitalisation in Malaysia. Future research may cover other sectors, employ different research approaches and focus only on integrated reports.

Keywords: Disclosures, Digitalisation, Governance, Reporting, Sustainability

---

ARTICLE INFO

Article History:
Received: 05 September 2021
Accepted: 06 February 2022
Available online: 01 April 2022

[♣] Corresponding Author: Sharifah Norhafiza Syed Ibrahim, Faculty of Accountancy, Universiti Teknologi MARA, KM 26 Jalan Lendu Alor Gajah, 78000 Alor Gajah, Melaka, Malaysia; Email: snorhafiza@uitm.edu.my; No. Tel: +606 5582411

INTRODUCTION

The year 2020 has been a challenging one in which the whole world experienced a global pandemic that has affected lives immensely. Malaysia is no exception to the effects of the Pandemic as it accelerates the emergence and urgent need for digitalisation. A company's sustainability is determined by how quickly the business manages to adapt and customize its business processes with technology. Digitalisation, which started in the Third Industrial Revolution, provides many growth opportunities. In Malaysia, the journey towards digitalisation started in 1996 with the introduction of the Multimedia Super Corridor (MSC). The MSC, is now known as Multimedia Development Corporation (MDEC), an agency under the Ministry of Communication and Multimedia Malaysia. Throughout the years, Malaysian companies embraced digitalisation to remain competitive and to cope with changes in the general economic environment, particularly rapid changes in information and communication technology (ICT) as well as changes in consumer behaviours due to the industrial revolution and the unexpected pandemic. To ensure digitalisation efforts consider all stakeholders such as business entities and the Malaysian people, the government introduced MyDigital on 19 February 2021, a national initiative to transform the country into a digitally enabled and technology-driven high-income nation, and a regional leader in the digital economy (Economic Planning Unit, 2021). The six (6) key thrusts related to this initiative were documented in the Malaysian Digital Economy Blueprint.

The objectives of the Blueprint are to encourage business entities to not only become users and adopters but also creators of innovative business models, utilise human capital to thrive in the digital economy, and foster an ecosystem that enables communities to embrace the digital economy (Economic Planning Unit, 2021). Although the Blueprint was recently introduced, Malaysian companies have embarked on the digitalisation journey about a quarter of a decade ago. They strive to keep up to date with the latest technology and utilise it to increase productivity, cut operational costs, and fend intense rivalry. Due to the high funding requirement for digitalisation initiatives, we expect companies to voluntarily disclose digitalisation-related information to obtain support from both internal and external funders. Hence, management could use corporate reporting strategically to lower their firms' cost of capital (Gerard Hoberg & Lewis, 2017).

Voluntary disclosure is defined as the presentation of unmandated information, both financial or non-financial data to the related parties within or outside the organisation (Belkaoui, 2006) in corporate reports such as the sustainability report or as additional information to the financial information (Deepak & Deshpande, 2015). Studies suggest that it has a positive effect on the market (Frenkel et al., 2020). The increasing trend in voluntary disclosures has made companies at par with stakeholders' expectations towards company success (Traxler et al., 2020). Investors nowadays are becoming more cautious, and they tend to evaluate companies from various perspectives before making any investment decision (Tuan et al., 2020; Nguyen et al., 2012). Thus, corporate transparency can help companies build a positive reputation and trust with their stakeholders, which in turn can help mitigate the firms' idiosyncratic or operational risks (Benlemlih & Bitar, 2018).

The introduction of digitalisation helps speed up the recording, accumulating, and dissemination of information. Technology is the key driver for digitalisation. Information and communication technology are enablers of digitalisation initiatives. Technology tools such as an accounting information system help companies to speed up the decision-making process (Urus et al., 2020). Autio (2017) defines digitalisation as a transformation of the entrepreneurship process by switching the locus of entrepreneurial opportunities in the economy and transforming the best method by using digital technologies and infrastructure in business, economy, and society to proceed with entrepreneurial opportunities. Digitalisation can reduce transaction costs associated with gathering, processing, and dissemination of accounting information for its users (Troshani et al., 2015). Autio (2017) reckons that digitalisation may provide ways for Small and Medium Enterprises (SMEs) to consider internal and external interactions with their customers, partners, suppliers, and internal stakeholders. Digitalisation leads companies to operate in volatile, unstable, complex, and ambiguous environments (Chan et al., 2021). As digital tools and technologies change, companies may need to integrate digitalisation in their future strategies. Information about digitalisation strategies can be disseminated to stakeholders as business plans and strategies can be reported in the integrated reporting (IR).

IR is a concept based on 'integrated thinking' that incorporates communication between companies externally and internally. In other words, a company is thinking holistically about the resources and relationship the organisation uses or affects, and the dependencies and trade-offs between them as value is created. The Malaysian Institute of Accountants (MIA) established the Integrated Reporting Steering Committee on 18 December 2014 upon the recommendation of the Securities Commission of Malaysia. They recommended five key areas to be highlighted in the IR: materiality assessment, risk disclosure, consistency and comparability, internal and external factors impacting the business, and the value creation business model. Despite challenging circumstances such as the unprecedented pandemic, technology has helped Malaysia to collaborate with other ASEAN countries such as Singapore and the Philippines in creating awareness and providing resources for the early adoption of integrated reporting (Aucky Pratama, 2021).

The business environment is getting more complex and sophisticated. It will keep changing over time due to among other factors, changes in consumer behaviours in favour of fast and online transactions, the pandemic that deters people from visiting physical shops and offices, and rapid technological changes. Examples of technological changes are changes in technologies related to big data, the Internet of things, machine learning, artificial intelligence, robotics, 3D printing, biotechnology, nanotechnology, renewable energy technologies, and satellite and drone technologies. Adopting technology tools and integrating digitalisation into business models are no longer an option. Companies are forced to allocate huge funding to embrace digitalisation into their business model. Such funding is either from equity holders or debt holders. Similar to other investments, investing in digitalisation comes with certain risks such as cyberattacks and a limited life span. Hence, information related to digitalisation is material. Companies should provide information related to adopting technology tools and digitalisation initiatives. They can use annual reports as part of communicating this information to investors, particularly the equity holders and debt holders who need quality information to make quality decisions. Voluntary disclosures of material matters concerning the business entities promote transparency and good governance. A review of the literature suggests benefits of voluntary disclosure on digitalisation such as lowering the cost of capital and enhancing reputation. Unfortunately, limited literature is available that provide insights into the types and manner in which digitalisation-related information is being disclosed in annual reports. Besides the high costs of digitalisation, companies may struggle between following the plan or integrating reporting. Given the importance and benefits of disclosing information related to digitalisation initiatives undertaken by companies and the move towards integrated reporting, new insights into digitalisation-related information disclosures are useful to Malaysian stakeholders. This paper intends to contribute to the literature by studying how Malaysian public listed companies disclose information related to digitalisation in their annual reports. It examined how the information was presented and what the common themes were as well as how much information was disclosed. Findings from this research may motivate more companies to report on all material matters relating to the digitalisation of their business models.

LITERATURE REVIEW

Theories of Voluntary Disclosures

Voluntary disclosure refers to providing additional information, greater than what is required by regulators (Elfeky, 2017). Belkaoui (2006) defined voluntary disclosure as the voluntary presentation of information either financial or non-financial data in company reports. Few theories explain why companies opt for voluntary disclosures. Th Capital Needs Theory proposes that companies decide to disclose more information voluntarily when they require more external funding like banks or financial markets (Meek et al., 1995). Voluntary disclosure is found to be inversely related to capital cost (Hossain et al., 1994). The importance of satisfying the information needs and interests of a broader group of users refers to the Stakeholder's Theory. The Theory suggests that large companies tend to provide more voluntary disclosures due to pressures from diverse stakeholders (Abed et al., 2014). Under the Free-market Theory, companies are motivated to disclose beyond what is being mandated by regulators. Despite being partly supported by evidence, this theory does come with some merits. Based on the literature, companies do benefit from voluntary disclosures such as lower perceived risks, lower cost of capital, better reputation, and higher business values. Voluntary disclosure can be an effective tool for a company to convey its plans to sustain in the future and to be seen as transparent in its reporting process (Suharsono et al., 2020).

The Agency Theory (AT) asserts reducing agency costs that arise from conflict of interests between managers and shareholders and compels companies to provide voluntary disclosures (Alves et al., 2012; Zayoud et al., 2011; Watson & Wilson, 2002). The Theory also can be used as a theoretical approach towards voluntary disclosures by organisations. Generally, the interest of managers as agents and shareholders or investors as principals must be in-line. However, agents usually seem to be in a better position due to insider information compared to their principal and thus, it creates agency problems (Padilla, 2002). Therefore, managers use voluntary disclosures as one of the tools to increase transparency in reporting and seek approval from their principal to avoid agency problems (Volpentesta & Andre, 2021). Previous studies also show that most companies increase their level of voluntary disclosure to ensure better management of their relationship with stakeholders (Jensen & Meckling, 2019; Farag et al., 2015; Perrigot et al., 2012). The Signalling Theory suggests that companies with high levels of voluntary disclosure aim to reduce information asymmetries and signal their businesses' high quality and value. In addition, companies use voluntary disclosure to increase transparency of their reporting process and their strategies to sustain in the future (Suharsono et al., 2020) and this trend helps to fulfil investors' information needs in making investment decisions (Tuan et al., 2020; Nguyen et al., 2012). It somehow influences the market (Frenkel et al., 2020). Companies are motivated to provide voluntary disclosures in sustainability reports or as additional information (Deepak & Deshpande, 2015) and it has been increasing over time (Traxler et al., 2020).

The Legitimacy Theory can also be used to explain why companies voluntarily disclose information. By reporting more information about business activities or projects, companies can influence people to perceive them as operating within the boundaries. Users, particularly investors, are continuously expecting companies to demonstrate that the companies are abiding by the rules and regulations and investors' expectations are not stagnant (Pittroff, 2021). Pragmatic, moral, or cognitive legitimacy reflects how a company's reporting interacts with outsiders. Pragmatic refers to how companies appraise their actions toward users, moral implies the organisation's action towards social norms, and cognitive legitimacy relates to the benefits to the society from the organization's actions and policies (Suchman, 1995). Hence, the level of information voluntarily disclosed by an organisation may potentially affect society either in economic or social implications (Deegan, 2002; Soderstrom et al., 2017). In general, the AT is more appropriate to underpin the theoretical framework of this study because we assume that companies are willing to make voluntary disclosures of digitalisation-related information disclosure to strengthen their relationship with stakeholders (Jensen & Meckling, 2019; Farag et al., 2015; Perrigot et al., 2012).

Voluntary Disclosures and Corporate Reports

Voluntary disclosure in annual reports has always been a controversial issue as there are no proper guidelines on the extent of disclosure that needs to be presented in a company's annual report (Embong, 2014). Companies' financial reporting, both mandatory or voluntary disclosures have always been debated for its relevance especially when it provides some cues on future-oriented information (Lakshan et al., 2021). Voluntary disclosure allows a company to 'tell their own story' in the most creative ways and become more unique compared to their competitors (Troshani et al., 2015; Tran et al., 2021). Voluntary disclosure gives options to companies to disclose more issues and more information especially to external users on company performance and governance (Bamber et al., 2010). Companies frequently disclosed exceedingly on corporate social responsibility, company strategies, and other non-financial information (Embong, 2014) as well as governance matters like corporate characteristics, corporate size, and board of directors (Bamber et al., 2010; Braam & Borghans, 2014).

According to Oluwagbemiga (2014), voluntary disclosures which are full of textual narratives and pictures provide an insight to investors to better predict a company's performance at least one year ahead. However, Tran et al. (2021) hold the opinion that even narrative disclosures provide astounding signals of a company's prospects but it is always not favoured and preferred by the management. Looking from an informational perspective, sometimes a company may lose its competitive position when they disclose inappropriate or insufficient voluntary disclosures (Bamber et al., 2010). Tran et al. (2021) stated that when a company excessively disclosed in an annual report on their digitalisation effort, it may lead to losing some comparability merits. However, Shan & Troshani (2021) discovered that voluntary disclosures increase the ability of financial statements information to encapsulate a company's value and encourage unique disclosures.

The evolution of technology makes the digitalisation effort a must among all companies to enable them to survive and remain competitive in the market (Shamsudin & Ahmad, 2021). Thus, the disclosure of digitalisation in the annual report is considered a voluntary effort to satisfy information needs by the stakeholders. Nurunnabi & Hossain (2012) focussed on internet financial reporting disclosures and discovered that only 33.34% of public listed companies which were mostly non-family owned and being audited by big audit firms make voluntary disclosures on the internet of things. Lalević Filipović et al. (2018) examined information technology (IT) literacy of financial reporting among local governments in Montenegro and discovered that since the use of technology is not mandatory, disclosure and transparency was very low. Troshani et al. (2015) made comparisons on the effect of voluntary disclosures on value relevance in the US and Japan and found that digital corporate reporting technology provided better value relevance in the US but showed no difference in Japan. Lakshan et al. (2021) emphasised that voluntary disclosures led to inherent risk and uncertainties to arise. Any disclosures that relate to predictions and assumptions trigger risk to management procedures. In contrast, voluntary disclosure provides valuable opportunities to a company to make unique disclosures so that the annual report becomes more credible, trustworthy, and persuasive (Healy & Palepu, 2001; Tran et al., 2021). Integrated reporting (IR) may encourage more companies to provide information on how they create value.

In 2003, Bioinnovation, a Denmark company was the first company that offered IR to its stakeholders. Since then, it has gained popularity through the years. IR explains about strategy, governance, performance, and prospects of the company that can lead to value creation whether in the short-term, medium-term, or long-term. The first IR Framework was published in 2013 and has since been revised a few times until January 2021. At the moment, no generally accepted and enforceable standards are available for IR. However, some companies have realised its importance and continue to incorporate IR based on their understanding. IR reporting is still at an early stage (Rinaldi et al., 2018). Eccles et al. (2019) found three countries that can be grouped as countries with high disclosure of IR:

Germany, the Netherlands, and South Africa. South Africa has made IR mandatory and proven that the expected outcome of IR outweighs the cost incurred in preparing IR (Steyn, 2014). Hameed & Rahman Ahmed (2020) asserted that in Bahrain, since 2017, small companies had prepared IR even though it is not yet mandatory. Like Malaysia, IR is still on a voluntary basis. Mohammed et al. (2020) highlighted that there is a lack of understanding and awareness about IR in Malaysia. However, some companies claim IR can improve their relationship with stakeholders and support if IR becomes mandatory in Malaysia.

Voluntary Disclosures and Digitalisation

Digitalisation introduces a new process to corporate reporting practice (Rowbottom et al., 2021)standard-setters must construct a taxonomy to assign contextual 'metadata' that codifies disclosures arising from accounting concepts, standards and practices. But digitalisation poses a problem for corporate reporting. Within internationally accepted accounting practice, 'principles-based' standards give companies significant discretion in deciding what they disclose and how they report accounts of their activity. How would the principles-based nature of corporate reporting be influenced by the construction of a taxonomy that seeks to specify all accounting disclosures? Drawing on literature examining the constitutive potential of classification and formal representation, we use our case study of the digitalisation project undertaken by the global standard-setter, the IASB, to understand how digitalisation intervenes on standard-setting and reporting practice despite the intentions of standard-setters. Our results detail how standard-setters sought to minimise the impact of digitalisation by modelling the taxonomy only on disclosures explicitly required by accounting standards. We reveal the circumstances that led the IASB to change its taxonomy design by seeking to capture not only what should be reported (as prescribed in extant accounting standards. Existing studies that focus on digitalisation in corporate reporting practice either choose to investigate the usage of digitalisation in the corporate reporting process or to examine its relations and effects on the consequences of relying on digitalisation-related information. It is important to be clear on the meaning of digitalisation versus digitisation. Digitisation refers to the process of converting analogue data into digital sets and it is the framework for digitalisation (Rachinger et al., 2019). Meanwhile, digitalisation is defined as the exploitation of digital opportunities (Rachinger et al., 2019), where it involves changes in the business entity and its business model due to its increasing use of digital technologies to increase both the performance and the breadth of the business (Westerman et al., 2014).

Based on empirical studies, stock market participants do consider digitalisation-related information in valuing a business and that information receives higher valuation if the companies are with a stronger reputation for corporate sustainability (Rachinger et al., 2019). Digitalisation also is the key driver for business innovation and the value creation aspect is strongly influenced by digitalisation in both the automotive and the media industry (Rachinger et al., 2019). The degree of digitalisation that companies implement depends on various factors such as customer demand (Rachinger et al., 2019; Berman & Bell, 2011). Digitalisation is also highly connected to data management and analytics that serve both as an enabler, to feed new digital processes with proper information and a control mechanism to measure the results (Kotarba, 2017). Given its growing importance to the current business environment, this study focussed on digitalisation and how information related to the use of technologies in business entities is being voluntarily disclosed in company reports. It may provide useful insights into how Malaysian companies voluntarily disclosed digitalisation-related information.

RESEARCH METHODOLOGY AND METHOD

This paper adopted a qualitative approach where data was obtained from annual reports. The unit of analysis was a company. It employed the purposive sampling strategy. Haanaes & Fjeldstad (2016) indicated that sectors that are mostly affected by digitalisation are media and entertainment, energy, and retailing. The related sectors on Bursa Malaysia are media and telecommunication, energy, technology, and consumer products and services. Hence, these sectors were selected for this study.

To be selected as the sample, a company had to meet three criteria. First, a company must have made its 2020 audited annual report available on its website in April and May 2021, as this was the data collection period for this study. Second, using a list available on the Main Board of Bursa

Malaysia, the audited annual report of each company was scrutinised to determine whether it contained any digitalisation-related information. If the report did disclose digitalisation-related information, its audited annual report was downloaded and taken as the sample. Third, a company was from the four selected sectors. This study obtained 49 audited annual reports that met the pre-determined criteria. The number of companies was 19 for consumer products and services, 7 for energy, 10 for technology, and 13 for media and telecommunications sectors.

These annual reports were then analysed using ATLAS.ti 8 to assess how they disclosed the information. Four researchers were assigned with the data collection task. Each was responsible to collect the annual report from each sector and code the text using the ATLAS.ti 8. A standardised codebook designed by the principal researcher was utilised. The coding was developed based on a pilot study on a smaller sample. The whole sentences or paragraphs of texts related to ‘digital’ and ‘digitalisation’ were taken as the data. Following Michelon et al. (2021), the texts were accounted as digitalisation-related disclosures.

Autio (2017) proposes the SMEs models to support digitalisation by categorising digitalisation into five (5) big categories which are SMEs internal activity system, customer interactions, digitalisation of products and services, digitalisation of marketing, and internationalisation. By referring to these categories, the current study analysed the annual report by segregating the content of digitalisation into eight possible categories (themes); (1) marketing, (2) the product offered, (3) business operations, (4) governance, (5) risk management, (6) customer relations, (7) organisational structure and (8) strategic management. These themes were initially determined based on a pilot study on ten (10) companies. The principal researcher scrutinised related disclosures based on themes suggested by the literature and identified the eight common themes. The researcher read the whole paragraph which contained the words ‘digital and/or digitalisation’ to determine its context. Four themes; marketing, the product offered, business operations, and customer relations were similar to Gong & Tong (2020). New themes were governance, organisational structure, risk management, and strategic management.

RESULTS AND DISCUSSIONS

The results are presented and discussed for each research question. The first research question looks at how Malaysian listed companies voluntarily disclose digitalisation-related information in their audited annual reports. Based on our content analysis, we found companies disclosed that information in various parts of the annual reports.

Annual Report's Section for Digitalisation-related Disclosures

The first research objective aimed to determine how Malaysian listed companies disclosed digitalisation-related information. Using the annual report's table of contents, this study found that specific sections or sub-sections of the annual report were used to disclose digitalisation-related information.

There were nine sections commonly utilised for voluntary disclosures of digitalisation-related information: overview, events and highlights, management reports and discussion, our capitals, governance and leadership, sustainability report, external environment, notes to the accounts, and additional information. 'Our Capital' is a new section in the IR. Some companies chose to voluntarily use the IR format for their annual reports. In the 'Our Capital' section, digitalisation-related information was reported in manufacturing capital, social and relationship capital, financial capital, organisational capital, natural capital, and human capital. The most common section was management report and discussion where this study discovered 35% of disclosures of digitalisation-related information included. Under management report and discussion, the disclosures were further reported under different sub-headings namely strategic business and review, key risks and opportunities, and business models. Companies use voluntary disclosures to assure their stakeholders that the companies are sustainable (Suharsono et al., 2020).

The second most common section was the company's overview where digitalisation-related information was disclosed in the Chairman's Statement, CEO's review, vision, mission and values, and key messages. The third most common section was the sustainability report. Digitalisation initiatives were employed for the sustainability agenda, learning and development, corporate social responsibility, environment, and society. Capital was the fourth common section and under this section, digitalisation was related to manufactured capital, human capital, value generation, and social and relationship capital. Digitalisation-related information was reported in other sections such as governance and leadership and the external environment. Only a few companies disclosed digitalisation in events and highlights, notes to accounts, and additional information sections.

For the first objective, this study also examined further digitalisation-related disclosures to determine their common themes or categories. The texts related to the ‘digital’ and ‘digitalisation’ were extracted from the annual reports. Using content analysis where the texts were analysed, searching for common themes, the digitalisation-related disclosures could be grouped into eight categories, themes, or dimensions. They are marketing, the product offered, business operations, governance, risk management, customer relations, organisational structure, and strategic management. Some of these themes are consistent with (Gong & Tong, 2020; YinSern et al., 2017). Risk management, organisational structure, and strategic management were the newly discovered themes. Thus, this study not only substantiates existing literature but also contributes to the literature by revealing new themes for digitalisation-related disclosures. However, the study design and objectives might be different from existing studies as this study focussed on searching and analysing the whole audited annual reports to determine how Malaysian listed companies disclosed digitalisation-related information and what that information was. Table 1 illustrates a sample of these extracts.

Table 1: A Sample of Extracts of Digitalisation-related Disclosures

Themes	Extracts
Marketing	*This year, the company bolstered its presence across several key social media channels through our aggressive* ***digital marketing*** *campaign.*
The Product Offered	*We accelerated our focus on our customers’ digital experience as we see a shift in demand for online services and self-help.* ***All product offerings*** *for the year were restructured to ensure the business is well-positioned to support the consumers’ growing demand for data and we partnered with local businesses to assist in their* ***digitalisation*** *process.*

Business Operations	***Digital*** *Technology & Solutions using our proprietary technology to modernise* ***processes*** *and improve efficiency*
Governance	***Board and Board Committee*** *meetings are scheduled and communicated in advance before each calendar year to encourage maximum attendance rates. Meeting notices and papers are uploaded to a* ***digital meeting software*** *and disseminated to Board and Board Committees' members at least seven (7) days before meetings, allowing convenient direct access and sufficient time to review, consider and prepare for meetings.*
Risk Mgt.	*In the current age of information technology, various new risks have emerged through the use of social and digital media, and the* ***management of current digital era risks has become critical.***
Customer Relations	*Adapting to the new normal, we strengthened our engagement with consumers by amplifying our presence leveraging* ***digital communication and engagement*** *for our brand campaigns.*
Org. Structure	*The* ***director*** *is a technology evangelist and works with partners to get the most out of new technology such as cloud, big data analytics the Internet of Things (IoT) and sees* ***digitalisation*** *Industry 4.0 as the way forward for the country.*
Strategic Mgt.	*The* ***Roadmap*** *is a three-year plan that sets the way forward in terms of IT and* ***digitalisation*** *until 2021.*

These themes represent the sub-headings for the related disclosures. The texts were analysed and how frequent 'digital' or 'digitalisation' under each theme were disclosed is summarised in Table 2. To avoid redundant frequency, any 'digital' and 'digitalisation' that appeared in the same sentence and paragraph were counted as one. The average result was the average count per company.

Referring to the total frequency, digitalisation-related disclosures were expected to be more common in the media and telecommunications sectors. However, energy related companies disclosed more counts of 'digital' and 'digitalisation'. Energy companies disclosed that digitalisation was most related to their strategic management whereas technology companies reported that digitalisation was mostly embedded in their business operations.

For media and telecommunication companies, rapid changes in technology tended to affect this sector the most where the need to use the latest digital technologies is more prevalent. The two most important aspects of the business model where companies integrated digitalisation technologies within the media and telecommunication sectors were the product offered and business operations. This seems in line with the aspirations of the Malaysian Blueprint to strengthen the coverage, affordability, and quality of domestic broadband services to unleash the full potential of digitalisation. Media and telecommunication companies also disclosed their plans, strategies, and initiatives related to digitalisation in their annual reports.

Table 2: Themes for Digitalisation-related Disclosures (frequency and percentage)

	Consumer Products & Services	Energy	Technology	Media & Telecom.	TOTAL	Average
Marketing	26 **(24%)**	0	6 **(7%)**	6 **(4%)**	38 **(9%)**	0.8
Product Offered	19 **(17%)**	1 **(1%)**	18 **(20%)**	47 **(32.5%)**	85 **(19%)**	1.7
Business Operations	34 **(31%)**	23 **(25%)**	26 **(28%)**	47 **(32.5%)**	130 **(30%)**	2.6
Governance	6 **(6%)**	5 **(5%)**	2 **(2%)**	0	13 **(3%)**	0.3
Risk Mgt.	3 **(3%)**	3 **(3%)**	3 **(3%)**	15 **(10%)**	24 **(5%)**	0.5
Customer Relations	9 **(8%)**	0	14 **(15%)**	1 **(1%)**	24 **(5%)**	0.5
Org. Structure	0	6 **(7%)**	14 **(15%)**	0	20 **(5%)**	0.4
Strategic Mgt.	12 **(11%)**	55 **(59%)**	9 **(10%)**	29 **(20%)**	105 **(24%)**	2.1
TOTAL	109(100%)	93(100%)	92(100%)	145(100%)	439 (100%)	

For the technology sectors, the average frequency of reported digitalisation-related information per company was the third-highest, slightly lower than the media and telecommunication sector but a bit higher than consumer products and services. For technology companies, digitalisation was reported and integrated into the business operations and products offered.

As shown in Table 2 consumer products and services sector was another sector where companies disclosed digitalisation-related information. However, compared to energy, media, and telecommunications companies, consumer products and services companies reported that digitalisation technologies were integrated the most into their business operations and marketing. In this sector, digitalisation tools and initiatives were important to create value throughout the business activities.

The distribution of the digitalisation-related information reported by our sample companies across themes and sectors is presented in Table 2. Based on the percentage of digitalisation-relation disclosures, business operations were the most prevalent theme or business dimensions where digitalisation was reported. This result was consistent across all four sectors. For other themes, the percentages were varied. For example, the energy sector is well known for its stability in consumer demand. Hence, energy companies did not need to embark on digital marketing.

Based on the analysis, the marketing theme appeared to be popular after the business operation themes under the consumer products and services sector which contributed 24% of the total disclosures. Companies have been implementing digital marketing for several years and the implementation has been spurred recently due to the enforcement of lockdown and movement control orders during the Pandemic. The Pandemic has expedited cashless revolution and digital retailing to take over the traditional way of marketing. This study found that companies disclosed voluntarily various strategies of online marketing. Companies advertised their products through digital platforms such as online stores through their official company websites, mobile applications, social media such as Facebook Live Cast and Instagram, other e-commerce retailing platforms including Lazada and Shopee as well as broadcast mediums like television and radio. All the digital platforms allowed optimum reach to customers as the methods mentioned are contactless and more virtually connected. In addition, the companies also participated in collaborations with prominent delivery services like Dahmakan, Foodpanda, and Tesco Delivery to smoothen the product distribution process. Companies also inaugurate new initiatives on branding activities as they used celebrities, socialites, social media influencers for digital advertising. E-Voucher and E-Warranty were used to reduce the usage of paper for printed vouchers and warranties and help companies to effectively manage the Point-of-Sale (POS) system upon dealing with customers.

Customer Relation showed a less significant percentage as it only provided 5% of the overall disclosures. Companies did not discuss thoroughly their strategies to maintain good relationships with customers in their annual reports. Most of the companies only mentioned in general their initiatives on applying various digital tools to strengthen engagement with customers. However, few companies provide detailed information on digital engagement activities such as showcasing their trendy products via social media to create excitement among customers to try out their 'viral' products. Besides, there were other initiatives taken by companies to keep engaging with customers such as launching digital learning hubs and conducting cybersecurity awareness workshops for customers. Some companies also offered product training and support groups to resolve problems after certain product software was purchased. The government awarded PENJANA digitalisation grants to individuals and SMEs which covered a free 1GB of internet data per day further enabling greater productivity and education access in this digitalisation era.

Companies have changed their operation style to cope with the current business environment. Traditional ways of business operations have been changed to digitalisation to enhance and make businesses operate in improving their business. In addition to the digital era, the Pandemic has also become a major factor contributing to the digitalisation of operations and needs to be adapted by companies. The business operation theme had the highest voluntary disclosures of 30% in digitalisation for all the sectors selected. Media and telecommunication were the highest sector that voluntarily disclosed business operations at 32.5% with consumer products trailing behind at 31%. Most of the companies in all sectors used traditional method in selling and improving after-sales services. Many companies experienced higher sales after introducing websites that allowed their customers to purchase products and services including providing delivery services or opening an online shop on well-known platforms such as Shopee or Lazada. Most companies also provided a 24 hour online support business to improve their relationship with customers and suppliers. Apart from that, most of the companies used digital ways in recruiting their staff. Companies enable their websites for future employees to submit their resumes and do interviews online by using online platforms such as WebEx or Zoom. Most of the companies also used digital platforms such as Zoom for reporting and managing purposes during the lockdown.

Strategic management was the second most common disclosure theme for digitalisation-related information. Companies disclosed how they integrated digitalisation tools and technologies in their strategies. Some media and technology companies also planned to expand their digital products to enter the broader market by sharing the concept of existing digital products developed by their Malaysian team with their regional teams in Thailand and Indonesia. Energy companies disclosed efforts to further digitalise Malaysia via initiatives such as MYDIGITAL which will encourage more investment in data centres - a core market segment of the ITS power system division. They also planned to develop the safety culture maturity to the next level, utilising new digital methods and tools. Their plans were aligned with the Group's overall direction to digitalise, collaborate, co-sourced, and improve connectivity between all offices and assets. Meanwhile, some companies from the consumer products and services sector disclosed that the Group was embarking on three (3) new strategies by going Digital, going Lean, and going E-commerce. Technology companies reported that the COVID-19 crisis had sped up the adoption of Industrial 4.0 with A.I. and digitisation by several years. The shift in the manufacturing trend has helped a technology company to grow its V-ONE® Industrial 4.0 software suite with cumulative connectivity increased from 1,063 machines or devices connected in FYE2019 to 2,364 machines or devices connected in FYE2020. This was achieved by the aggressive expansion into non ViTrox machine connectivity and vertical industries such as precision engineering industries, metal fabrication industries, food and beverages, agriculture technology. In other words, digital transformation has been a continuous effort in simplifying daily business operations.

Companies voluntarily disclosures on the product offered theme comprised 19% of all eight themes. Due to the COVID-19 outbreak and the lockdown implemented by the government, companies in all four sectors were forced to offer their product on digital platforms. No physical store was allowed to operate during the lockdown. This has forced companies to create online stores or sell their products on well-known online platforms such as Lazada, Shopee, or Zalora. Only energy sectors recorded little disclosures due to the nature of their business and product offered. Media and telecommunication had the highest percentage of disclosures in the product offered themes at 32%. Increasing online platforms for business transactions may contribute to the highest disclosures of digitalisation initiatives related to the product offered by Malaysian companies. A higher number of online buyer volumes during the movement control orders forced companies to sell their products online and provide delivery service to their customers. Government incentives such as E-Belia given to consumers during the movement control order had also motivated companies to offer their products on the digital platform.

The Depth and Breadth of Digitalisation-related Disclosures

The second research objective was to assess the depth of digitalisation-related disclosures among Malaysian listed companies.

Table 3: Assessment of Disclosure Level (frequency and percentage)

	Consumer Products & Services	Energy	Technology	Media & Telecom.	TOTAL
Basic	76 **(56%)**	24 **(26%)**	75 **(79%)**	99 **(99%)**	274 **(65%)**
Adequate	40 **(30%)**	67 **(74%)**	20 **(21%)**	1 **(1%)**	128 **(30%)**
Comprehensive	19 **(14%)**	0	0	0	19 **(5%)**
TOTAL	**135 (100%)**	**91(100%)**	**95(100%)**	**100(100%)**	**421(100%)**

As shown in Table 3 this study used three assessment levels: basic, adequate, and comprehensive. Related disclosures that briefly mentioned digital or/and digitalisation such as a mere mention of digitalisation initiatives, tools, or plans were assessed at a basic level. Adequate disclosures were those disclosures that described digitalisation initiatives, tools, or plans in greater detail and took at least a paragraph length. A comprehensive narrative was detailed disclosures with some financial information related to the digitalisation initiatives, tools or plans, and projects/programs or their results or outcomes. By using this assessment method, this study found most digitalisation-related disclosures of Malaysian listed companies were at the basic level. There were 421 counts of 'digital' or 'digitalisation' in the sample annual reports. The counts for consumer products and services, media and telecommunications, technology, and energy were 135, 100, 95, and 91 respectively.

A disclosure was categorised as basic if it was a general and brief description of the digitalisation such as *'Accelerating the digital transformation within our organisation to enhance efficiency'*. Overall, disclosures of digitalisation-related information were assessed at the basic level where this study discovered 274 occurrences of basic disclosures. However, if the disclosures were more detailed and specific such as *'Our Safety Culture Transformation Programme, which was started in 2015, is* *one example of how digitalisation has enhanced learning amongst employees and crew*', it was assessed as adequate. There were 128 occurrences of adequate disclosures. There were some companies from the consumer products and services whose disclosures were not only more detailed and specific but also supplemented with some financial disclosures related to the digitalisation. Such disclosures were assessed as comprehensive. A total count of 19 comprehensive disclosures was discovered from the study sample. An example of comprehensive disclosure was *'Later in the year, we shifted heavily towards digital activations, namely via e-commerce campaigns for International Coffee Month and Lazada Singles Day. The latter drove significant sales with an increase of nearly 500% from 2019'*. None of the companies from the other three sectors whose related disclosures included financial information such as financial implications of the digitalisation initiatives in their annual reports.

Approximately 65% of our sample only reported a few sentences for each occurrence of 'digital' or 'digitalisation'. This applied to more than half of the companies from consumer products and services, technology and media, and telecommunications. Only results for energy companies showed otherwise. Seventy-four per cent (74%) of energy companies whose disclosures of digitalisation-related information were assessed as adequate. Nevertheless, approximately 14% of the disclosures from consumer products and services companies were comprehensive. These companies not only provided narrative disclosures of their digitalisation initiative, projects, plans, and tools but also reported some financial outcomes or implications of those digitalisation initiatives, and projects.

There was a huge gap in the depth and breadth of those disclosures among media and telecommunications companies where almost all the respective samples only provided descriptions of digitalisation in their annual reports. Except for energy companies, the other companies disclosed a basic level of digitalisation-related disclosures in the year 2020. Nevertheless, those basic disclosures at least indicated companies' efforts and seriousness in embracing digitalisation into their business models. As companies that own and operate energy assets or provide energy-related services or hold the right to undertake exploration, exploitation, development, production, or distribution of energy or energy resources, energy companies most likely have been integrating digitalisation technologies into their business activities hence, disclosing what and how these digitalisation tools and technologies were part of reporting the performance and position of the companies during the financial year. That probably explains why digitalisation-related disclosures of energy companies were assessed as adequate.

Despite a greater number of disclosures relating to digitalisation for consumer products and services being found to be basic, this sector outperformed other sectors as some of them managed to provide a comprehensive digitalisation-related disclosure. Providing both financial and non-financial information related to digitalisation initiatives, projects, tools, and technologies that the companies planned or intended to implement in the future was beneficial to both internal and external stakeholders as such information might help them gauge the financial benefits and amount invested or would be invested in the digitalisation technologies.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

This study explored how Malaysian listed companies disclosed digitalisation-related information in their 2020 audited annual reports. Based on content analysis, this study found that most companies provided digitalisation-related information in several sections of their audited annual reports. The most common related sections in the annual reports were management discussion and reports, overview, our capitals, governance and leadership, sustainability report, external environment, notes to the accounts, and additional information. Companies' disclosures of digitalisation-related information covered eight common themes; business operations, strategic management, the product offered, marketing, risk management, organisational structure, customer relations, and governance. The most common themes were business operations and strategic management. Overall, the digitalisation-related disclosure level was basic, where most companies provided a brief description of their digitalisation tools, initiatives, plans, project, strategies, and other related aspects of digital and digitalisation transformation in their 2020's audited annual reports.

This paper contributes by providing insights on how and how much Malaysian listed companies disclosed digitalisation-related information.

Under the current business and economic environment, companies need to adopt digital technologies to remain competitive. However, digital adoption among industries is still in its infancy, with industrial development showing slow progression and being less aggressive than neighbouring countries. This paper sheds light on the current adoption of digitalisation among Malaysian companies. It revealed that Malaysian listed companies have embarked on a digitalisation journey. However, most of the disclosures simply described the digitalisation initiative and explained how it benefitted the company. Very few companies disclosed the financial implications of those initiatives. Findings from this paper are useful for the company's stakeholders, both the preparers and users of corporate reports as well as government agencies who are involved in the digitalisation transformation agenda in Malaysia. In addition, this study provides some evidence on how Malaysian listed companies are ready to embrace voluntary integrated reporting. Based on the findings, some companies are already adopting integrated reporting but many others are still applying traditional financial reporting that focuses on providing information to key stakeholders. Under traditional financial reporting, companies focus on complying with all the requirements of accounting standards and regulators, the mandatory disclosures. This may explain why most companies' voluntary disclosures of digitalisation-related information were very basic. There is still a long way for these companies to be ready in adopting integrated reporting which attempts to report on the value creation process such as the digitalisation transformation of a company. Policymakers and accounting regulators probably need to embark on a greater number of awareness workshops, talks, and programs on integrated reporting with the business owners.

Despite researchers' best efforts to minimise inconsistencies in analysing and coding the texts, the findings were limited by the researcher's judgment of the adequacy of the disclosures. Future research may address these limitations by covering more sectors, focusing only on integrated reports, and using different research instruments. Furthermore, future studies may investigate the challenges faced by preparers to gather information for digitalisation-related disclosures.

ACKNOWLEDGEMENTS

The research was supported by Universiti Teknologi MARA Melaka Branch through the TEJA Internal Grant 2021 (GDT2021/1-11).

REFERENCES

Abed, S., Roberts, C., & Hussainey, K. (2014). Managers' incentives for issuing cash flow forecasts. *International Journal of Accounting, Auditing and Performance Evaluation*, *10*(2), 133–152. https://doi.org/10.1504/IJAAPE.2014.060202

Alves, H. ., Rodriguesb, A. M. ., & Canadasa, N. . (2012). Factors influencing the different categories of voluntary disclosure in annual reports: An analysis for the Iberian Peninsula listed companies. *Review of Applied Management Studies*, *10*(1), 15–26.

Aucky Pratama. (2021). Integrated Reporting in ASEAN | Accountants Today. *Mia*, 1–5. https://www.at-mia.my/2021/05/27/integrated-reporting-in-asean/

Autio, E. (2017). Digitalisation, Ecosystems, Entrepreneurship and Policy. *Perspectives into Topical Issues Is Society and Ways to Support Political Decision Making. Government's Analysis, Research and Assessment Activities Policy Brief 20/2017*, *December*, 1–12. https://www.researchgate.net/publication/321944724_Digitalisation_ecosystems_entrepreneurship_and_policy

Bamber, L. S., Jiang, J., & Wang, I. Y. (2010). What's my style? The influence of top managers on voluntary corporate financial disclosure. *Accounting Review*, *85*(4), 1131–1162. https://doi.org/10.2308/accr.2010.85.4.1131

Belkaoui, A. R. (2006). *Accounting Theory: Accounting Theory (5th edition)*. Jakarta, Indonesia: Four Salemba.

Benlemlih, M., & Bitar, M. (2018). Corporate Social Responsibility and Investment Efficiency. *Journal of Business Ethics*, *148*, 647–671.

Berman, S. J., & Bell, R. (2011). *Digital transformation Creating new business models where digital meets physical Customers*.

Braam, G., & Borghans, L. (2014). Board and auditor interlocks and voluntary disclosure in annual reports. *Journal of Financial Reporting and Accounting*, *12*(2), 135–160. https://doi.org/10.1108/jfra-11-2012-0054

Chan, A. J., Hooi, L. W., & Ngui, K. S. (2021). Do digital literacies matter in employee engagement in the digitalised workplace? *Journal of Asia Business Studies*, *15*(3), 523–540. https://doi.org/10.1108/JABS-08-2020-0318

Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, *15*(3), 282–311. https://doi.org/10.1108/09513570210435852

Deepak, P., & Deshpande, P. M. (2015). The road ahead. The KPMG Survey of Corporate Responsibility Reporting 2017. In *SpringerBriefs in Computer Science* (Vol. 0, Issue 9783319212562). https://doi.org/10.1007/978-3-319-21257-9_7

Eccles, R. G., Krzus, M. P., & Solano, C. (2019). A Comparative Analysis of Integrated Reporting in Ten Countries. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3345590

Economic Planning Unit, P. M. D. (2021). *Malaysia Digital Economy Blueprint.* Malaysian National Library. https://www.epu.gov.my/sites/default/files/2021-02/malaysia-digital-economy-blueprint.pdf.

Elfeky, M. I. (2017). The extent of voluntary disclosure and its determinants in emerging markets: Evidence from Egypt. *Journal of Finance and Data Science*, *3*(1–4), 45–59. https://doi.org/10.1016/j.jfds.2017.09.005

Embong, Z. (2014). Understanding Voluntary Disclosure: Malaysian Perspective. *Asian Journal of Accounting and Governance*, *5*, 15–35. https://doi.org/10.17576/ajag-2014-5-02

Farag, H., Meng, Q., & Mallin, C. (2015). The social, environmental and ethical performance of Chinese companies: Evidence from the Shanghai Stock Exchange. *International Review of Financial Analysis*, *42*, 53–63. https://doi.org/10.1016/j.irfa.2014.12.002

Frenkel, S., Guttman, I., & Kremer, I. (2020). The effect of exogenous information on voluntary disclosure and market quality. *Journal of Financial Economics*, *138*(1), 176–192. https://doi.org/10.1016/j.jfineco.2020.04.018

Gerard Hoberg, & Lewis, C. (2017). Do fraudulent firms produce abnormal disclosure? *Journal of Corporate Finance*, *43*(C), 58–85.

Gong, R., & Tong, A. (2020). *Digitalisation of Firms : Challenges in the Digital Economy*. *October*, 1–10.

Haanaes, K., & Oystein D. Fjeldstad. (2016). *Which business models are most affected by digital? Four types of businesses where technology is speeding up change*. https://www.imd.org/research-knowledge/articles/which-business-models-are-most-affected-by-digital/.

Hameed, S. M. A., & Rahman Ahmed, N. A. R. (2020). Adoption of integrated reporting in emerging economies: Evidence from Bahrain. *Asian Economic and Financial Review*, *10*(10), 1115–1130. https://doi.org/10.18488/journal.aefr.2020.1010.1115.1130

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*, 405–440.

Hossain, M., Tan, L. M., & Adams, M. (1994). Voluntary Disclosure in an Emerging Capital Market: Some Empirical Evidence from Companies Listed on the Kuala Lumpur Stock Exchange. *The International Journal of Accounting : TIJA.*, *Vol. 29.19*, 334–351.

Jensen, M. C., & Meckling, W. H. (2019). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Corporate Governance: Values, Ethics and Leadership*, 77–132. https://doi.org/10.2139/ssrn.94043

Kotarba, M. (2017). Measuring Digitalization-Key Metrics. *Foundations of Management*, *9*(1), 123–138. https://doi.org/10.1515/fman-2017-0010

Lakshan, A. M. I., Low, M., & de Villiers, C. (2021). Management of risks associated with the disclosure of future-oriented information in integrated reports. *Sustainability Accounting, Management and Policy Journal*, *12*(2), 241–266. https://doi.org/10.1108/SAMPJ-03-2019-0114

Lalević Filipović, A., Martić, V., & Demirović, S. (2018). Digitalization of financial reporting in local governments of three Montenegrin regions – Current situation and perspectives. *Management (Croatia)*, *23*(1), 59–79. https://doi.org/10.30924/mjcmi/2018.23.1.59

Meek, G. K., Roberts, C. B., & Gray, S. J. (1995). Factors Influencing Voluntary Annual Report Disclosures by U.S., U.K. and Continental European Multinational Corporations. *Journal of International Business Studies*, *26*(3), 555–572.

Michelon, G., Trojanowski, G., Sealy, R., & Sealy, R. (2021). Narrative Reporting : State of the Art and Future Challenges Narrative Reporting : State of the Art and Future Challenges. *Accounting in Europe*, *0*(0), 1–41. https://doi.org/10.1080/17449480.2021.1900582

Mohammed, N. F., Kassim, C. F. C., Sutainim, N. A., & Amirrudin, M. S. (2020). Accountability through integrated reporting: The awareness and challenges in Malaysia. *Humanities and Social Sciences Letters*, *8*(1), 123–132. https://doi.org/10.18488/journal.73.2020.81.123.132

Nguyen, M., Bin, Y. S., & Campbell, A. (2012). Comparing online and offline self-disclosure: A systematic review. *Cyberpsychology, Behavior, and Social Networking*, *15*(2), 103–111. https://doi.org/10.1089/cyber.2011.0277

Nurunnabi, M., & Hossain, M. A. (2012). The voluntary disclosure of internet financial reporting (IFR) in an emerging economy: A case of digital Bangladesh. *Journal of Asia Business Studies*, *6*(1), 17–42. https://doi.org/10.1108/15587891211190688

Oluwagbemiga, O. E. (2014). The use of voluntary disclosure in determining the quality of financial statements: Evidence from the Nigeria listed companies. *Serbian Journal of Management*, *9*(2), 263–280. https://doi.org/10.5937/sjm9-5784

Padilla, A. (2002). Can Agency Theory Justify the Regulation of Insider Trading? *Quarterly Journal of Austrian Economics*, *5*(1), 3–38.

Perrigot, R., Oxibar, B., & Déjean, F. (2012). Corporate Social Disclosure in the Franchising Sector: Insights from French Franchisors' Websites. *Humanities and Social Sciences / Business Administration*.

Pittroff, E. (2021). The legitimacy of global accounting rules: a note on the challenges from path-dependence theory. *Journal of Management and Governance*, *25*(2), 379–396. https://doi.org/10.1007/s10997-020-09546-6

Rachinger, M., Rauter, R., Müller, C., Vorraber, W., & Schirgi, E. (2019). Digitalization and its influence on business model innovation. *Journal of Manufacturing Technology Management*, *30*(8), 1143–1160. https://doi.org/10.1108/JMTM-01-2018-0020

Rinaldi, L., Unerman, J., & de Villiers, C. (2018). Evaluating the integrated reporting journey: insights, gaps and agendas for future research. *Accounting, Auditing and Accountability Journal*, *31*(5), 1294–1318. https://doi.org/10.1108/AAAJ-04-2018-3446

Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-Signalling Approach. *The Bell Journal of Economics*, *8*(1), 23–40.

Rowbottom, N., Locke, J., & Troshani, I. (2021). When the tail wags the dog? Digitalisation and corporate reporting. *Accounting, Organizations and Society*, *92*, 101226. https://doi.org/10.1016/j.aos.2021.101226

Shamsudin, A., & Ahmad, K. (2021). The Impact of COVID-19 Pandemic on Small Business's Survivability. *International Journal of Accounting, Finance and Business (IJAFB)*, *6*(33), 224–232.

Shan, Y. G., & Troshani, I. (2021). Digital corporate reporting and value relevance: evidence from the US and Japan. *International Journal of Managerial Finance*, *17*(2), 256–281. https://doi.org/10.1108/IJMF-01-2020-0018

Soderstrom, K. M., Soderstrom, N. S., & Stewart, C. R. (2017). Sustainability/CSR research in management accounting: A review of the literature. *Advances in Management Accounting*, *28*, 59–85. https://doi.org/10.1108/S1474-787120170000028003

Steyn, M. (2014). Organisational benefits and implementation challenges of mandatory integrated reporting: Perspectives of senior executives at South African listed companies. *Sustainability Accounting, Management and Policy Journal*, *5*(4), 476–503. https://doi.org/10.1108/sampj-11-2013-0052

Suchman, M. C. (1995). Approaches and Strategic Managing Legitimacy. *Academy of Management Review*, *20*(3), 571–610. https://journals.aom.org/doi/abs/10.5465/AMR.1995.9508080331

Suharsono, R. S., Nirwanto, N., & Zuhroh, D. (2020). Voluntary Disclosure, Financial Reporting Quality and Asymmetry Information. *Journal of Asian Finance, Economics and Business*, *7*(12), 1185–1194. https://doi.org/10.13106/JAFEB.2020.VOL7.NO12.1185

Tran, L. T. H., Tu, T. T. K., Nguyen, T. T. H., Nguyen, H. T. L., & Vo, X. V. (2021). Annual report narrative disclosures, information asymmetry and future firm performance: evidence from Vietnam. *International Journal of Emerging Markets*, *502*. https://doi.org/10.1108/IJOEM-08-2020-0925

Traxler, J., Smith, M., Scott, H., & Hayes, S. (2020). *Learning through the crisis* (Issue November).

Troshani, I., Parker, L. D., & Lymer, A. (2015). Institutionalising XBRL for financial reporting: resorting to regulation. *Accounting and Business Research*, *45*(2). https://doi.org/https://doi.org/10.1080/00014788.2014.980772

Tuan, T. T., Hung, D. T., & Uyen, C. N. (2020). The effect of factors on the degree of disclosing accounting information: Evidence from the food industry. *Accounting*, *6*(4), 525–532. https://doi.org/10.5267/j.ac.2020.4.006

Urus, S. T., Hasim, K., Nazri, S. N. F. S. M., & Mat, T. Z. T. (2020). Critical success factors of accounting information systems (Ais): Empirical evidence from Malaysian organizations. *Management and Accounting Review*, *19*(1), 233–265. https://doi.org/10.24191/mar.v19i01-09

Volpentesta, V., & Andre, P. (2021). Interlocked Audit Partners and Board Directors: An Examination of Financial Reporting Quality. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3805716

Watson, R., & Wilson, N. (2002). Small and Medium-Size Enterprise Financing : a note on some of the empirical implicatioWatson, Robert AU - Wilson, Nick TI - Small and Medium Size Enterprise Financing: A Note on Some of the ns of a pecking order. *Journal of Business Finance & Accounting*, *29*(3–4), 557–578. http://dx.doi.org/10.1111/1468-5957.00443

Westerman, G., Bonnet, D., & Afee, A. M. (2020). *Digitalisation of firms: Challenges in the digital economy Khazanah Research Institute*. *October*, 1–10.

Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading Digital: Turning Technology into Business Transformation*. Harvard Business Review Press.

YinSern, L., Teh;, W., Esparan, L., Bobby;, J., & Chua, K. (2017). Can Malaysia's Top Companies Win in the Digital Age? Malaysia'S Digital Performance Index. *Accenture*.

Zayoud, K., Al-Othman, M., & Issa, R. (2011). Voluntary disclosures level in the annual reports of the Syrian Joint Stock companies listed on Damascus securities exchange. *Tishreen University Journal of Research & Scientific Studies Economics*, 23–40.