

Business Digitization's Edifying Effects on a Firm's Ambidexterity

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Abstract: Improving a firm's simultaneous capabilities to exploit the existing opportunities whilst also exploring future opportunities is critical for catalysing a firm's ambidexterity and sustainability. In that context, this research evaluates how business digitisation edifies a firm's ambidexterity in the increasingly more discontinuous modern business environment. Using a qualitative-Delphi Method, the study diagnoses the perceptions of about twenty expert panelists from a cross-section of twenty enterprises in Aberdeen-Scotland on how digitised enterprise systems are often utilised to discern how the existing as well as future trends can be maximised to leverage a firm's ambidexterity and sustainability. Findings indicated some of the businesses to take the initiatives to leverage their exploitation and exploration capabilities. However, it was still highly evident from most of the narratives that as most of the businesses focused on leveraging their existing state of performance, cost savings or the use of rational plans that only aim to achieve short-term business quests, it tends to undermine data optimisation in the simultaneous improvement of a firm's exploitation and exploration capabilities. This is because most quests for optimising the digitised business systems or to undertake the required changes to leverage ambidexterity are often constrained by a combination of different heterogeneous internal business conditions that either cause low investments in digitisation or inflexibility that constrains change. It is not only the level of digitisation's optimisation which is low, but also most businesses' greater preponderance to focus on exploitation at the expense of exploration. Such business approach was found to undermine most quests for bolstering a firm's ambidexterity. Considering that this area had not been explored by most of the previous studies, the study concludes with certain propositions that can enrich the existing ambidexterity theories by offering new insights on how digitisation highlights a new paradigm that can be optimised to bolster a firm's ambidexterity.

Keywords: a firm's ambidexterity; business digitisation; exploitation and exploration capabilities

1. Introduction

As the world is increasingly getting engulfed by "born digital" generations of customers and businesses, most of the sources of opportunities as well as threats are also increasingly getting digitised (Prescott 2016:92) [1]. That signifies the use of more digitised approaches is critical for not only extracting such opportunities, but also for discerning how the unfolding threats can be countered. Digitised opportunities and threats require digitised business approaches. It is often through such quests that digitisation spawns a firm's capabilities to survive in the midst of the existing as well as the emerging future unpredictabilities and uncertainties (Gagliardi

2013:891) [2]. Yet, as it catalyses a firm's survival in the midst of such discontinuities, business digitisation's generativity also edifies a firm's ambidexterity.

A firm's ambidexterity connotes the executives' constant strategic quests to leverage a business' dual and simultaneous capabilities to exploit the existing opportunities whilst also balancing with the conceptualisation and application of the strategies for exploring future opportunities (O'Reilly & Tushman 2013:1) [3]. It is in such quests that business digitisation offers novel business discourses that spur a business' simultaneous capabilities to respond to the present as well as future trends. Business digitisation is a transformational process that seeks to create business structures, systems and processes that aid the optimisation of the existing digital technologies to create bundles of value offerings that reposition a business to respond to the existing and the emerging market trends (Mithas, Tafti & Mitchell 2013:511) [4].

Business digitisation spawns a firm's capabilities to undertake relevant trends' analysis to exploit the unfolding opportunities whilst also exploring how the opportunities that are most likely to unfold in the future can be maximised. It is often through such initiatives that it catalyses a firm's ambidexterity. Using the generativity of predictive big data analytics in conjunction with relevant business intelligence technologies, most digitised businesses are often able to easily compare past trends with the present to predict the future (Wolfgang & Schmid 2020:985) [5].

Whether it is threats or opportunities that are identified, business digitisation still enables a business develop novel business models and capabilities to counter such threats or even to gain from such opportunities. Yet, as a business gains such advantages, the edifying effects of the generativity of business digitisation technologies are often not only latent in the repositioning of a business to respond to future trends, but also in the catalysation of a firm's existing market performance (Nambisan 2017:1029) [6].

In the quests to leverage a firm's existing marketing performance, business digitisation leverages cost minimisation, operational efficiency and the use of a more flexible, agile and lean approach that bolster a firm's capabilities to respond to the unfolding market dynamics (Schumpeter 1934:1) [7]. Certainly, it is through such discourses that the generativity of business digitisation often spawns a firm's ambidexterity. However, as most of the studies focus on exploring the strategies for catalysing a business' digital transformation, this research seeks to offer new critical insights on why the adoption of the appropriate business digitisation strategy is a prerequisite for a firm's long term future survival and sustainability.

2. Literature Review

The notion that the generativity of business digitisation edifies a firm's ambidexterity is implicitly echoed in most of the theories on business digitisation as well as in the theories and literature on a firm's ambidexterity (Andriopoulos & Lewis 2009:696 [8]; Grover & Kohli 2013:655 [9]; Porter & Heppelmann 2014:64 [10]).

2.1. Business Digitisation

Business digitisation is the process of changing and transforming all the organisational critical structures, processes and systems to aid efficient and effective acquisition, preservation and utilisation of digital resources to create differential values that leverage a firm's overall effective market performance (Nambisan, Lyytinen, Majchrzak & Song 2017:223) [11]. Digitisation does not only entail the integration of information technologies in the accomplishment of different activities. Instead, it is also a process that requires in-depth change and transformation of the business approaches, models and practices to enhance the utilisation of different digital technologies to achieve the desired strategic outcomes.

Digitisation refers to an integral approach that requires the utilisation of the enabling digital technologies such as internet embedded technologies, additive manufacturing, big data analytics and artificial intelligence to respond to the increasingly changing dynamics of the digital world (Nambisan et al., 2017: 223) [11]. As businesses seek to respond to the opportunities and the demands created by the emergence of the concept of the new digital paradigm, digitisation may also entail the use of automated sensors, cloud computing, augmented and virtual reality as well as block chain technologies. The increasing emphasis of business digitisation is instigated by the increasing digitisation of the world. As the world becomes increasingly engulfed by more

“born digital” generations of customers and businesses, business digitisation is critical for responding to the needs in the unfilled digital global markets (Porter & Heppelmann 2014:64) [10].

In such quests, the generativity of business digitisation enables a business respond to the competitive threats from rivals that are using different digital technologies to reshape both the digital and physical markets to their advantages. To achieve such advantages, business digitisation may not only require the digitisation of the operational systems, but also products, services, innovations and business models. Such a view is accentuated in Iansiti and Lakhani’s (2014:91) notion of “Digital Ubiquity” that emphasises the need for businesses to adopt the appropriate digital transformation approach. It suggests the essence for digitisation of the existing products and services [12].

Digitisation of the existing products and services would require digitisation of how the existing products are developed, manufactured, stored and distributed to the final consumers. Such digitisation initiatives must also encompass the digitisation of processes, business models and systems to create lean, agile and cost-effective digital business system (Wirtz, Schilke & Ullrich 2010:272) [13]. It may also require digitisation of the synergy between the existing assets and those in the external business networks such as customers, product developers, suppliers and distributors.

The effects of such digitisation initiatives will not only leverage the improvement of the collaboration between different parties, but also information exchange and sharing. It will also edify the acquisition of new insights on the unfolding trends as well as new capabilities from the partners in the existing ecosystem on how to respond to such changes. Iansiti and Lakhani (2014:91) notion of “Digital Ubiquity” also agitates for the diagnosis and extraction of new value creation modes, as well as capturing and integration of new values [12].

Even if such initiatives induce the achievement of the desired values, it is also still critical that relevant big data analytics’ methodologies as well as digital innovation technologies must be optimised to extract and create new product or service components. Quite often, it is also through such initiatives that businesses may have to re-invent their existing capabilities to unlock new potential that would disrupt the existing models to create new values before rivals are able to do so (Barrett, Davidson, Prabhu & Vargo 2015:135) [14]. Depending on the objectives that the business aims to achieve, investment in relevant complementary software and technologies such as the internet embedded technologies, 3D printing, robotics and artificial intelligence is also a critical prerequisite for a business to achieve such outcomes.

As such initiatives are being undertaken, other theories emphasise the need for prototyping a business’ strategy to ensure that it is adaptive and supportive of the digitisation quests (Kalyanam, Lal & Wolfram 2010:5 [15]; Lee & Ho 2010:37 [16]). Prototyping a business’ strategy would also require the abandonment of the conventional process of strategic planning in favour of digital strategic planning. Digital strategic planning encourages the use of emergent strategies to leverage a business’ capabilities to respond to the changing business environment as such trends unfold (Grover & Kohli 2013:655) [9]. However, as the firm adopts the appropriate transformational approach to leverage its digitisation, its capabilities to utilise the integrated networks of digital technologies to aid value creation depends on the adopted digital business strategy.

A digital business strategy is a firm-level strategy and not a functional level strategy that seeks to set the course for the optimisation of the linkage between a firm’s bundle of IT technologies as well as digital technologies with its core business strategy (Bharadwaj, El Sawy & Pavlou 2013:471) [17]. It is the digital business strategy that influences the analysis of the unfolding changes in the external business environment and the utilisation of the existing digital technologies and business concepts to reposition a business to tap such opportunities.

Digital business strategy also enables a business build new capabilities to tackle new threats. Considering the constantly changing needs of the largely digitised market, it is through the digital business strategy that the business is able to easily understand the unfolding dynamics in the digital market (Bharadwaj & Pavlou 2013:633) [18]. Understanding such dynamics influences the determining of the digital as well as physical value propositions that can be undertaken to respond to such needs. It is through improved understanding of such digital market dynamics that firms are able to identify the segments to target. Yet, as “born digital” firms continue to utilise different digital technologies to invent new business models that destroy the traditional

business concepts, it is also through the digital business strategy that the executives are able to identify their weaknesses and the new areas that need to be improved (Bharadway & Noble 2016:560) [19].

Improvement in such capabilities may require the utilisation of their digital technologies to create novel business models that not only disrupt their own traditional business models, but also rivals' business models. Certainly, that implies through digitisation, firms are able to engage in creative destruction that destroy their own existing business models to invent new capabilities to tackle the emerging market challenges (Lyytinen, Yoo & Boland 2016:47) [20]. Using big data analytics, business digitalisation not only aids the development of new value propositions, but also the invention of the novel ways through which the business can get connected to the customers. It leverages a firm's capabilities to evolve from multi-channel approach to the omni-channel of having different services delivered to its customers (Hui 2014:3) [21].

Yet, as the business engages in the application of such digitised approach, it is not only its market reach that tends to be extensive, but also the returns on investment. This is attributable to the fact that as the business digitises; it tends to become quite lean. This influences cost minimisation, efficiency and the effective application of the methodologies such as customisation and JIT production systems (Marion, Meyer & Barczak 2015:98) [22]. It also spawns improvement of a firm's flexibility and agility to analyse and sense using their existing data analytics technologies to identify the emerging future threats or opportunities. This influences a business' capabilities to reposition itself to tackle such threats or to maximise such opportunities. Quite often, it is through a combination of such actions that business digitisation edifies a firm's ambidexterity.

2.2. *A Firm's Ambidexterity*

A firm's ambidexterity connotes the executives' constant strategic quests to leverage a business' dual capabilities to exploit the existing opportunities whilst also balancing with the conceptualisation and application of the strategies for exploring future opportunities (Andriopoulos & Lewis 2009: 696) [8]. Organisational ambidexterity leverages a business' continuity and sustainability. It edifies a business' survival in the midst of the unfolding environmental uncertainties and unpredictabilities. Derived from March's (1991: 71) notion of "Exploration and Exploitation in Organisational Learning" [23], the concept of organisational ambidexterity emphasises the importance for analysis, sensing and forecasting to discern the existing and the emerging future opportunities as well as threats. Such analysis influences the alignment of a business' capabilities to exploit the existing opportunities as well as exploration of how it can maximise the opportunities that are most likely to emerge in the future (Kock & Gemunden 2016: 670) [24]. It is through such business approach that the application of the concept of organisational ambidexterity eliminates the constraints of executives' complacency as one of the major causes of the organisational failure.

Executives' complacency often emerges from the executives' stronger contentment with the existing good performance (Lubatkin, Simsek, Ling & Veiga 2006:646) [25]. As the executives get contented with a business' existing good performance, it tends to affect the undertaking of the initiatives to discern the emerging future trends as well as the initiatives that can be undertaken to explore how such future opportunities can be maximised to leverage a business' overall continuity and sustainability. This is attributable to the fact that due to the constant changes in market and industry trends, most of the businesses tend to adopt emergent rather than planned strategies.

Emergent strategies tend to arise from the strategic actions undertaken to respond to the unfolding market and industry trends (Mintzberg & Quinn 1992:5) [26]. This contrasts with the planned strategies that are often the result of forecasting and predicting future changes to determine the strategies that will be applied to respond to such changes. However, due to the constantly changing business environment, flexibility and agility are often integrated in the strategic planning process to enhance change and modifications of strategies as the dynamics in the unfolding market and industry trends unfold.

Even though it is such flexibility and agility that often edify a business' capabilities to exploit the existing opportunities whilst also exploring how the emerging future opportunities can be maximised, it is often still the executives' stronger preponderance to focus on exploiting the existing opportunities that affects the emphasise of organisational ambidexterity. In line with March's (1991: 71) notion of "Exploration and Exploitation in

Organisational Learning” [23], exploitation requires the highest level of operational efficiency, control, certainty and variance reduction, as exploration emphasises the need for search, discovery, autonomy and innovation. Organisational ambidexterity can be achieved through sequential, structural and contextual ambidexterity. Sequential ambidexterity emphasises the importance of shifting and realignment of structures, processes and strategies as the trends in environmental change shift from one form to another. To accomplish that, Burns and Stalker’s (1961) “Management of Innovation” emphasises the need for the development and adoption of less formal structures, tasks and processes [27]. It also agitates for reliance on lateral coordination and less emphasis of formalisation and specialisation.

For firms that are operating in less stable and more turbulent environment, the adoption of such flexible and agile business approaches enhances ease of change, shifting and realignment of the business’ structures, processes and business models to the changing environmental trends. Such approach contrasts with the situations where a business is operating in more stable markets. Businesses that are operating in relatively stable markets are often characterised by mechanistic management systems, hierarchical structures, as well as well-defined roles and responsibilities and business processes (Lubatkin et al. 2006:646) [25].

In the event of the changes in industry and market trends, it is such more mechanistic business systems that constraint a business’ flexibility and agility to shift and realign its business approaches to the unfolding changes in market and industry trends. Even if an organisation is able to develop the appropriate level of sequential ambidexterity to shift and realign its business approaches from state of industry and market trends to another, its capabilities to do so are still often edified by its overall level of structural ambidexterity (O’Reilly &Tushman 2008: 185) [28]. Structural ambidexterity requires a business to create simultaneous parallel or spatial departments or units of which one set of structures pursue the goal of exploitation, as the other pursues the motives of exploration.

Such approach would spawn a business’ capabilities to simultaneously pursue exploitation and exploration. However, it is still critical that the creation of such parallel structures is also accompanied by the development and application of parallel competencies, systems, incentives, processes and business cultures. It is such shared corporate culture, vision, strategies and cross-functional teams that edify a business’ capabilities to pursue exploitation and exploration within the same business organisation(O’Reilly &Tushman 2008: 185) [28]. It is the establishment of such a business system that also subsequently influences the creation of contextual ambidexterity.

Contextual ambidexterity constitutes of the internal business conditions that support the strategic balance between exploration and exploitation. It enhances effective utilisation of sequential and structural ambidexterity to spawn the simultaneous achievement of both exploitative and exploration outcomes. Contextual ambidexterity arises from a business’ capabilities to combine and utilise all the structures and resources to create values that spawn a firm’s overall exploitative and exploration capabilities.

Contextual ambidexterity as well as the overall organisational ambidexterity are often further influenced by the leadership style adopted by the organisation(Choi 2014:127) [29]. Quite often, transformational as well as transactional leadership approaches have been considered as critical for leveraging organisational ambidexterity. Transformational leadership influences the change and transformation of the organisation’s business approaches to support the simultaneous adoption of exploitation and exploration business philosophies. Just like the transactional leadership approach, it would also instigate the change in behaviours. However, increasingly, the concept of adaptive leadership is emerging as critical for bolstering organisational ambidexterity (Choi 2014: 127) [29].

Adaptive leadership refers to the ability of leaders to cognitively sense turbulence, innovatively develop solutions, experiment and apply solutions to respond to the emerging volatile unfolding industry and market changes (Martin & Deimler 2011: 5) [30]. Adaptive leadership edifies a firm’s overall continuity and sustainability in the increasingly discontinuous and unpredictable contemporary business landscapes. Adaptive leadership refers to the leaders’ capabilities to constantly remain flexible and agile to cognitively sense, recognise situations, act, adapt and change a business’ approach, models, thinking, philosophy and the overall nature of operation to ensure that a firm survives and remains sustainable in the midst of all discontinuities and

unpredictabilities(Sacramento, Fay & West 2013:141) [31].

Adaptive leaders are constantly alert and reading all trends as they unfold to identify signs or symptoms of the likely turbulence to emerge that may undermine a firm's performance. This enables executives undertake more precautionary rather than reactionary measures to develop strategies that render it possible for firms to adjust and adapt to changes even before they occur. As the enterprise prepares itself to change and adapt, critical actions undertaken to foster change and transformation often do not only entail change and transformation of a business' approach, models, thinking, philosophy, but also its operational capabilities (Teece 2007:1319) [32]. Although increasingly it is emerging as a leadership style, the notion of adaptive leadership is still largely regarded as a leadership skill rather than a leadership style. Adaptive leadership is a skill rather than a leadership style. It is a skill that leaders acquire from enormous experience gained from managing and leading activities through different periods of industry stability and instabilities (Heifetz & Linsky 2011:26) [33].

It is such crucible experience that provides leaders with the capabilities to combine the learnt leadership experience with leadership skills gained through formal process of leadership education and training to initiate business activities that improve a firm's adaptive capabilities (O'Connell, McNeeley & Hall 2008:248) [34]. Although adaptive leadership is largely influenced by leaders, its effectiveness is still often defined by certain inbuilt traits in leaders' personalities. Such traits are often linked to the inbuilt mental agility and flexibility of the leaders to sense situations requiring change to act to effect such changes.

It requires shrewdness of the leaders to undertake new changes just on the identification of symptoms to act and re-evaluate actions after the changes have been effected (Heifetz, Linsky & Groshow 2009:3) [35]. Adaptive leaders often use only sketchy strategic business plans, thereby implying as much as a formal business plan is critical for defining the course of activities that must be accomplished to achieve the desired business outcomes, maintenance of significant level of flexibility and agility to respond and adapt to new circumstances is often highly prioritized (Lahcen & Yachou 2012:71) [36].

It is often through such improved flexibility and agility that adaptive leadership catalyses improvement of a firm's ambidexterity. However, since the world is increasingly getting digitised with the effect that most opportunities and threats are also often digitised, it is not adaptive leadership that may leverage a firm's ambidexterity. It is instead a combination of adaptive leadership combined with business digitisation that would leverage a firm's ambidexterity. Business digitisation catalyses a business' capabilities to simultaneously exploit the existing opportunities while also at the sametime exploring how to thwart future threats or to gain from the emerging future opportunities. It encourages the emergence of more fluid and flexible operational approaches that encourages acquisition and absorption of new knowledge and organisational learning (Eaterby-Smith & Prieto 2008:235 [37]; Yoo, Boland, Lyytinen & Majchrzak 2012:1398 [38]). Subsequently, these spawn a firm's agility as well as dynamic adaptive and innovative capabilities to respond to the emerging changes in the external business environment.

Against that backdrop, it is implicitly evident from theories that business digitisation would edify a firm's ambidexterity. However, considering the limited attention that such area has received in most of the contemporary studies, this empirical research sought to fill such epistemological gap by exploring how business digitisation can be optimised to leverage a firm's ambidexterity.

3. Problem Statement

Even if the world is increasingly getting engulfed by the "born digital" generations of customers and businesses, discerning how digitisation can be undertaken to bolster a firm's capabilities to respond to the existing as well as the emerging opportunities or threats is a phenomenon that has not yet been evaluated by most of the contemporary studies.

4. Purpose of the Research

The purpose of this empirical research is to evaluate how business digitisation can be optimised to edify a firm's ambidexterity.

5. Methodology

Conventionally, a Delphi research process may be qualitatively or quantitatively skewed. A qualitative-Delphi research process often commences with the use of open-ended questions against which participants with the requisite level of expertise or knowledge are expected to respond for further statements to be generated and put back to the participants for a general consensus to be reached on the phenomenon being researched (Sekayi & Kennedy 2017:2755) [39]. In contrast, the quantitative-Delphi method uses a set of survey questionnaire to elicit experts' opinions against which highly scoring items are extracted and put back to the expert respondents for rating to reach consensus on the items that predict the phenomenon being research (Christensen, Johnson & Turner 2013:26) [40]. To access relevant information and reach logical conclusions on how business digitisation can be optimised to leverage a firm's ambidexterity, empirical research entailed the use of the qualitative-Delphi method. Attributable to such a decision is the fact that the motive of the empirical research was not to elicit numerical facts, but rich in-depth insights on how business digitisation can be optimised to leverage a firm's ambidexterity.

5.1. Delphi Method

Certainly, a Delphi method is a research technique that aids the eliciting of the opinions and consensus from the experts or persons with detailed knowledge about the subject being research (Avella 2016: 305) [41]. It entails not only the selection and use of the participants with detailed subject knowledge, but also a series of the iterative processes of rounds to aid reaching of consensus among the participants as well as logical conclusions about the subject being researched. Delphi method is often used for evaluating more complex subjects of which not so many people are expected to have detailed knowledge and understanding.

In this empirical research, the application of the Delphi-method was motivated by the fact that the notion of how business digitisation leverages a firm's ambidexterity is not only complex, but also a subject that only the senior managers are expected to be knowledgeable about. To accomplish this, the study was only based on the perceptions of about twenty managers from a cross-section of twenty enterprises that are operating in Aberdeen-Scotland. Basing the study on such relatively knowledgeable participants was construed to be critical for reaching a consensus as well as relevant logical conclusions on how business digitisation leverages a firm's ambidexterity as well as its inherent constraints and challenges.

5.1.1. Experts' Selection

Selection and inclusion of relevant experts into the study was accomplished using purposive sampling (Gill, Johnson & Clark 2016:48) [42]. The study used the knowledge and a list of marketing and operational managers that were previously involved in a consultancy related work on digital marketing as well as in a workshop on digital innovation that took place in Aberdeen-Scotland. in June of 2021. It was from such a list that about twenty senior managers that constituted of senior operational and marketing managers from the private enterprises were contacted.

Since they had already demonstrated interests in the issues of digitisation, they were requested to participate in an online Delphi expert discussion on business digitisation and organisational ambidexterity which was also presumably construed to be useful for extracting new insights on how digitisation can be undertaken. Issues of business digitisation and improved ambidexterity require the complex interplay between data optimisation and strategy conceptualisation and application to respond to the emerging market challenges.

Hence, it was construed that it would only be the senior operational and marketing managers that would possess the appropriate knowledge and understanding of such interactive interplay between data optimisation and strategy application to leverage ambidexterity. Using a combination of e-mails and telephone calls, the iterative Delphi discussions were accomplished in the period between September of 2020 and April of 2021 using three main processes.

5.1.2. Iterative Discussions

Collection and analysis of the experts' opinions were accomplished according to three main processes that encompassed posing of open-ended questions and soliciting experts' opinions, thematic analysis to extract themes and subthemes, and seeking experts' endorsement or further arguments about the extracted themes and subthemes (Avella 2016:305) [41]. While using e-mails, the notions of business digitisation as well as a firm's ambidexterity were explained to the panelists. This aided the reaching of consensus on what such concepts are or not.

Thereafter, structured open-ended questions were developed and e-mailed to each of the twenty panelists. The open-ended questions explored the general trends of business digitisation as well as the approaches that they were undertaking to get their businesses digitised. The questions also examined whether businesses rely on such digitised business systems to make relevant decisions on how to respond to the existing as well as the emerging future trends. Finally, the questions evaluated the challenges or constraints that are often experienced during the undertaking of such initiatives.

After all the responses to these questions were received, thorough reading and re-reading of each script was undertaken to identify and extract common themes that explained how businesses utilise digitised business systems to make relevant decisions on how to respond to the existing and the emerging future trends as well as the constraints of undertaking such initiatives. The emerging themes were compared and contrasted with themes from each script to extract two discourses of themes that encompassed short-term business quests, and digitisation and change's inhibitors. In terms of the discourse of short-term business quests, a general summary was developed to imply that as most of the businesses focused on leveraging the existing state of performance, cost savings or the use strategic plans that only aim to achieve short-term business quests, it tends to undermine data optimisation to spawn the simultaneous improvement of exploitation and exploration capabilities.

In regard to digitisation and change's inhibitors, a general summary was extracted to read as most quests for optimising the digitised business systems or to undertake the required changes to leverage ambidexterity are often constrained by a combination of different heterogeneous internal business conditions that either cause low investments in digitisation or inflexibility that constrain change. In the second iterative process, these summaries of discourses and their associated themes were further sent to each panelist for comments (Vernon 2009:69) [43].

Due to time constraints, the comments were solicited through telephones and the summaries were modified again and sent to the panelists. However, in that final stage, most of the panelists did not have further comments. Although most of the narratives in the first process were integrated in the presentation of the findings, other later comments that introduced new insights on what the other participants had said were also integrated where necessary in the findings. Certainly, this influenced the credibility of the findings.

5.1.3. Credibility

The process influenced the improvement of credibility and reliability on the basis that as the themes were extracted, the panelists were still afforded the opportunities to comment on how their responses had been analysed and interpreted (Creswell 2014:17) [44]. This leveraged the veracity and credibility of the findings.

Reduction of the risks of the findings' distortion also arose from the fact that the process also offered the panelists with the opportunity to comment and respond to each other's comments in the second stage of the analysis. This not only reduced the risks of distortion, but also the credibility, dependability and transferability of the findings on the basis that if this research is to be conducted again, it is most likely that it is such similar findings that will be obtained. Other methods of enhancing credibility, dependability and transferability entailed triangulation of the findings with theories to discern whether such findings were supported or disputed in theories.

The details of the findings are as presented and evaluated in the sections that follow.

6. Results

Narratives from most of the managers indicated most of the businesses to only focus on short-term business

quests or to be constrained by certain digitisation and change's inhibitors. Basing on such narratives, the interpretation of the emerging themes influenced the extraction of two discourses and their associated themes that encompass:

- Short-term Business Quests
- Digitisation and Change's Inhibitors

The details of these two discourses and the associated themes, subthemes and narratives are evaluated as follows.

6.1. Short-Term Business quests

Thematic analysis of the participants' narratives indicated that as most of the businesses focused on leveraging the existing state of performance, cost savings or the use rational plans that only aim to achieve short-term business quests, it tends to undermine data optimisation to spawn the simultaneous improvement of exploitation and exploration capabilities.

6.1.1. Business Sustenance

Maintenance of the existing state of a business' performance was found to be more preferable as compared to searching for new unknown opportunities. In such instances, it was common in the narratives of most of the senior managers that even if most of the businesses are increasingly digitising, the motives of such digitisation are often not to leverage the capabilities to gain from the existing as well as future opportunities. Instead, findings indicated that rather than repositioning the business to tap new opportunities, most of the digitisation initiatives have often been more motivated by the quests to leverage the existing operational efficiency.

Some of the managers attributed this to the fact that even if some of the digitisation technologies and software are expensive, most of the executives are increasingly recognising the values of digitisation as an antecedent for leveraging operational efficiency. As they seek to leverage operational efficiency, findings indicated that the motives of such quests are often to catalyse the increment of the existing profitability margins rather than on the exploration of the emerging new trends.

Even if such initiatives spawn the improvement of a business' financial sustainability, some of the managers still emphasised that the motives of digitisation are often just to improve the management of cost, data, activities' integration and coordination. Such views were certainly common in most of the participants' narratives. However, some of the narratives indicated the quests that drive data utilisation to reposition the business to tap the existing and the future unfolding opportunities to depend on the type of the business that the firm is in.

In such instances, managers from the relatively stable industries such as telecommunication, energy and mining were found to often undertake less initiative to evaluate and identify the likely future prospects that the business must explore whilst also exploiting the existing opportunities. Even if threats of resource depletions are often major threats, findings still indicated that as such businesses get contented with the existing business' performance and less threatened by the risks of the emergence of any threats; they often focus on exploiting the existing opportunities as compared to exploring the emerging new opportunities. Such a view was corroborated in the opinions of one of the panelists who argued that:

“Performance of the business is measured by the annual returns of every year, and I think even every month. Hence, what the business gets now and not in the future is what determines its performance.”

Certainly, such a finding signifies the expectations of the business of its managers and executives influence the emergence of the business approach that either favour only exploitation or the simultaneous use of exploitation and exploration. As the business focus on measuring the executives' performance by focusing not only on daily performance, but also on the yearly performance, such approach was also found to lure most of the executives to focus on exploiting the existing opportunities.

In such initiatives, they often aim to produce the desired results rather than on exploring how future opportunities can be exploited. Such approach also influences how the existing data is optimised on the basis that even if the existing data are used for relevant analysis, findings indicated such analysis is often only aimed

at evaluating the existing state of a business' performance in terms of the progress towards the achievement of the expected sales and profitability targets.

While such analysis is being undertaken, one of the operational managers noted that forecasting may also tend to be undertaken from such data. However, such forecastings are often only aimed at discerning the likely changes in the immediate future trends like two or five years in front. Even though in most of the high performing organisations, such initiatives influence the determining of the strategies that can be undertaken, some of the panelists still indicated that most of the businesses tend to focus on exploiting the opportunities as they unfold.

As it emerged from the findings, most of the businesses tend to perceive that as the best business management approach. Attributable to such a view was the argument that most of the senior executives tend to be sceptical about the likely values that the application of new strategies would induce when the changes in trends are not occurring. Such a view is accentuated in the opinions of one of the senior managers who argued that:

“Of course change to tap the arising new opportunities is important. But in practical business terms, it is difficult to change before change has occurred as it can disrupt business approaches and practices that are still relatively very valuable.”

Instead, as some of the businesses adopt the approach of “wait and see”, they tend to proactively to identify the emerging business models from the competitors and change before it is too late. In the context of the views from one of the managers, such initiative saves the business from incurring the costs of research as well as from experiencing anxiety that may arise from the uncertainties of conceptualising and applying untested business models. However, as most of the businesses adopt the approach of exploiting the emerging existing opportunities, others were found to engage in the conceptualisation and application of the initiatives that leverage cost savings and subsequently a firm's financial sustainability.

6.1.2. Cost Savings

Instead of focusing on utilising the existing data to read and identify trends that may never turn to be a reality, some of the businesses were found to just focus on cost savings to leverage financial sustainability. It was such quests that were also found to undermine investment in the initiatives that would illuminate a firm's capabilities to maximise the existing as well as the emerging future opportunities. From the experience of real industry practices, one of the senior managers argued that it is the finances and not data analytics that predict a business' capabilities to perform more effectively in the existing and the future markets. She explained that with sufficient finances, the business can easily make the necessary changes to respond to the emerging trends.

As businesses adopt such approaches, some of the managers argued that the utilisation of the existing business data has often not been directed towards the identification of some of the yet unknown opportunities, but more on discerning how to optimise the existing resources. Such initiatives have often entailed the utilisation of data from the existing business processes to undertake analysis and identify better operational practices that can be adopted to minimise wastes and costs. Such a finding was echoed in the opinions of one of the senior operational managers from the state-owned enterprise who noted that:

“It is cost savings. If the business saves enough funds, it is safe. It can tackle any eventualities. This thing of analysing data to identify where the business is going is important. But the focus is profitability, profitability and profitability. Because with sufficient funds, a business can easily be able to change as new changes arise.”

In contrast, other managers reiterated considering investment in better technologies to improve efficiency and minimise operational costs. In contrast, most of the managers from the mining sector reiterated using more aggressive restructuring processes that entail downsizing to minimise costs and leverage financial sustainability. However, as some of the businesses use such approach to spawn cost savings and leverage financial sustainability, others were found to engage in some form of training and human resource development to improve the overall efficient performance of the organisation.

Through efficient performance, they argued that they can be able to gain from the improvement of the quality of customer services, better management practices and productivity. As it emerged from the findings,

such initiatives tend to unlock better business performance, competitiveness and capabilities that can enable a business gain the desired returns to counter the emerging trends. Yet, as some of the managers indicated a general consensus on the values of leveraging financial sustainability, others raised the issue of leadership development and succession planning as critical for a business' future sustainability. In such explanations, one of the senior operational managers argued that data analysis and trend forecasting and tracking are just part of the complementary strategies for enhancing a business' future sustainability.

As such analysis is being undertaken, he explained that the actual determinant resides in the consistency of leadership competencies and capabilities to steer the organisation from one state of industry performance to another. In effect, as some of the businesses seek to bolster their sustainability, major attentions at the strategic level have often been directed at proactively developing and nurturing future leaders through the development and application of the appropriate leadership succession planning. Such a view was also corroborated in the opinions of one of the managers who argued that:

“Data analysis is important for understanding and responding to new trends. But the whole thing lies on the leadership of the organisation. If the leadership does not understand the value of data, there is no way that either such data can be utilised or funds can be granted to finance the new strategies that are arising from the analysis and interpretation of such data.”

Such a finding implies even if digitisation is undertaken, it is often the organisational leadership that creates the organisational conditions that influence the utilisation of such data. In the analysis of the merging themes, such a finding was also found to be strongly echoed in the opinions of some of the managers who argued that the level of the organisational data optimisation also impacts on a business' capabilities to respond to the existing as well as future opportunities.

In such narratives, some of the managers stated that even though some of the businesses often have enormous data as well as relevant technologies for accomplishing different data analysis, in most of the cases, such data is not utilised. Instead, some of the businesses were reiterated to only undertake data analysis if the performance of the business declines. In such cases, quick analysis is undertaken to discern and identify the causes of such declining business performance. However, in the periods of relative stability and good business performance, some of the narratives indicated most of the businesses to often not be much bothered about the essence for undertaking relevant analysis to proactively identify and mitigate any future eventualities. Yet, as some of the businesses were found to engage in such initiatives, findings indicated others to engage in the conceptualisation and implementation of rational plans.

6.1.3. Rational Planning

Instead of relying on business digitisation to leverage a business' exploitation and exploration capabilities, most of the businesses were found to significantly rely on the rational strategic planning processes. As some of the businesses focus on utilising the strategic plans to exploit the existing opportunities, findings indicated other businesses to also utilise the strategic planning processes as part of the initiatives of discerning the likely future changes as well as the corresponding strategies that can be undertaken.

However, even if such analysis of future trends are undertaken, it was not easily discernible from the participants' narratives that any form of intense business digitisation as well as the application of superior data analytic technologies to discern patterns in the existing as well as the emerging future trends are used. Instead, findings revealed businesses to use the basic form of data evaluations. As on the otherhand, some of the businesses were found not to undertake thorough analysis and evaluation of the unfolding environmental trends.

This is attributable to the fact that as a result of the long period of industry experience, some of the senior managers often have readily available facts that inform different decisions during the strategic planning process. It is often such situations that affect not only investment in relevant business digitisation technologies, but also the optimisation of the existing data in the strategic planning process to discern how the emerging future opportunities can be maximised. Yet, while using the conventional strategic planning process, some of the managers still reiterated that strategic planning aids thorough analysis and interpretation of the present and future trends.

It is often through such analysis that some of the businesses are often able to create the linkage between the present and future trends. It is such linkage that leverages the continuity of a business even in the midst of the emerging new future changes. Such a view was accentuated in the opinions of one of the managers who argued that:

“It is our strategic business plan which is used as part of the initiatives that have been undertaken to enhance tapping of the existing opportunities and future opportunities. It is done yearly, but during its formulation, it enhances the analysis and change of strategies to respond to the likely future changes.”

Certainly, the adoption of such approach would spawn a firm’s exploitation and exploration capabilities. However, further interpretation of the themes from the participants’ narratives suggested the extent to which strategic planning is able to bolster a firm’s exploitation and exploration capabilities to depend on whether it is undertaken as part of the process for achieving short term or long term objectives. Attributable to such a view was the participants’ narratives that suggested some of the businesses to only use strategic planning to achieve yearly short-term objectives.

In such initiatives, most of the managers reiterated strategic planning to be part of the conventional business management process which is undertaken yearly to set new targets and direction. In effect, they explained that even if such approach aids the linking of the past with the present to discern the likely future changes, the motives of such strategic planning processes are often just to aid determining how the existing opportunities can be exploited. Such a view was substantiated in the opinions of one of the managers who argued that the notion that strategic planning is usually aimed at exploiting the existing opportunities is reflected in the fact that strategic planning is undertaken yearly. It is also linked to the yearly annual budgets that are evaluated quarterly to determine the extent to which the business is progressing towards the achievement of the desired objectives.

Participants’ narratives indicated not only such strategic planning processes to be aimed at exploiting the existing opportunities, but also mainly supported by data analytics that focus on discerning how such strategic plans can be utilised to aid the exploitation of the existing opportunities. Such a finding seems to echo most of the narratives under the theme of sustenance of the existing state of performance in which it was noted that most of the businesses are often not that much bothered about the likely future opportunities, but instead more concerned about the exploitation of the existing opportunities. Yet, as the businesses focus on such short term objectives, it was also found to affect the commitment of sufficient investments in relevant business digitisation technologies. In otherwords, findings not only indicated most of the businesses to focus on exploitation, but also that most quests for optimising the digitised business systems or to undertake the required changes to leverage ambidexterity are often constrained by a combination of different heterogeneous internal business conditions.

6.2. *Digitisation and Change Inhibitors*

It emerged from thematic analysis that most quests for optimising the digitised business systems or to undertake the required changes to leverage ambidexterity are often constrained by a combination of different heterogeneous internal business conditions that either cause low investments in digitisation or inflexibility that constrain change. The details are as follows.

6.2.1. Digitisation’s low Investment

Low investment in relevant business digitisation technologies was found to affect the acquisition and utilisation of data to make necessary conclusions on the strategies that can be undertaken to aid the exploitation of the existing opportunities as well as the exploration of future opportunities. In such situations, most of the businesses were found not to have invested in the necessary big data technologies. Instead, when asked how they use their digital technologies to improve the tapping of the existing as well as future opportunities, most of the managers responded that they had not invested much in business digitisation technologies.

In such analysis, some of the managers explained that the in-depth investment that had been undertaken had only entailed the investment in relevant IT infrastructure, technologies and software. This is attributable to the fact that given the prevailing industry and market conditions, some of the businesses perceive that it is yet too early to go digital. Such a view is echoed in the views of one of the senior managers who argued that:

“Every business is talking about digitisation. But I think it is yet too early to digitise.”

Although such IT systems are used for managing customer data as well as for leveraging operational efficiency, most narratives indicated most businesses not to apply such data in relevant analysis of the existing and likely changes in future trends. As some of the businesses adopt such approach, findings indicated most of the businesses to only respond to changes once such changes have already taken place. Such situations were found to be further exacerbated by the fact that some of the businesses have not invested in the other IT systems like enterprise resource planning system. Certainly, such situations affect the utilisation of relevant data to undertake relevant analysis and strategic actions.

Reasons for low investments in relevant business digitisation technologies such as big data analytics were associated with the fact that as businesses focus on cost minimisation; it also tends to affect investment in the often expensive required superior business digitisation technologies. Such a view was echoed in the opinions of one of the operational managers who argued that:

“Digitisation is a costly adventure. Presently, we are relying only on our ERP system after spending a lot of funds.”

Even if cost is not the challenge, findings indicated some of the businesses that have undertaken significant strides to digitise not even to use such technologies. Most of the businesses were found not to apply more complex big data analytics. Certainly, such approach was found to undermine data optimisation to leverage discerning how the existing as well as the emerging future opportunities can be exploited.

Such a view was also corroborated in the opinions of some of the managers’ reiteration that some of the businesses to find business digitisation less valueless and a waste of resources because they often do not rely on much data analysis in their operations. All such situations were found to affect investments in relevant business digitisation technologies. As on the otherhand, further analysis and interpretation of the findings indicated that whether data analysis are undertaken using mega big data analytic technologies or just using IT systems such as ERP, major challenges often still arise from inflexibility.

6.2.2. Inflexibility

Inflexibility emerged from the findings as some of the constraints that undermine the application of relevant change management strategies to leverage a firm’s capabilities to respond to the emerging future trends. The implications are latent in the fact that most of the managers indicated that in most of the cases it is often not the case that the changes that subsequently destabilize a business’ performance are often not proactively identified early. Instead, most of the executives were reiterated to often identify the early symptoms of such changes. However, management flexibility to abandon the relatively still lucrative business models to undertake the required changes were noted to often be the major challenge. In effect, most of the executives were found to only undertake the required changes when it is already too late. Such a view is accentuated in the opinions of one of the managers who argued that:

“Change and transformation are critical for ensuring business continuity. However, before, change can be instigated, it is important to be sure because the costs of change in terms of investment in new machineries or introduction of new strategies can be enormous.”

As it emerged from the findings, the implications are often latent in the fact that the results of the undertaken relevant data analytics tend to be of significant importance. This is attributable to the fact that as the results of such analysis signify that the application of the necessary proactive strategies is critical for either countering the emerging future threats or opportunities, failure to undertake such strategies render the essence of business digitisation to be of less significance.

Reasons for the application of such approach was found to arise from the overall costs that the executives consider to be required for undertaking such changes. In such analysis, findings indicated that if the executives find that change is required to respond to less serious threats such as declining sales and revenues that would require increment of advertisement and marketing budgets, deployment of more salespersonnel or the introduction of new distribution outlets in new geographical areas, the executives would tend not to be hesitant.

However, if the change requires investment in new heavy machineries, entry into another market or

diversification, then, the hefty costs involved would cause some of the executives to be hesitant. As it emerged from the findings, it is often such form of the required changes that tend to cause some of the businesses to undertake late interventions when it is already too late. Such a finding was also corroborated in one of the managers' narratives that stated that:

“Cost of change is usually enormous. If it requires simple changes like the introduction of new structures, there is usually no problem. But if it requires total change that includes structural change, new machineries or entry into new markets, there is usually a problem until when it appears to be a must that something must be done for the business to survive.”

Such a view indicates the extent to which even if some of the businesses are to digitise, it is often still difficult to proactively identify and respond to the emerging threats and leverage a firm's ambidexterity. In other words, despite the fact that some of the businesses were found to take the initiatives to leverage their exploitation and exploration capabilities, it was still evident from the findings that it is not only the level of digitisation's optimisation which is low, but also the greater preponderance of most of the businesses to focus on exploitation rather than exploration. As it emerged from the finding, such business approach seems to undermine most quests for bolstering a firm's ambidexterity.

7. Discussion

Survival and continuity in the constantly changing modern global markets require significant level of ambidexterity. It requires businesses to constantly be inquisitive on how to not only maximise the existing opportunities, but also the emerging unfolding future opportunities (O'Reilly & Tushman 2013: 1) [28]. Ambidextrous businesses are often able to easily achieve that by linking the past and the present with the future. It is such quests that often spawn their continuity.

However, as the world is increasingly getting digitised, trends that offer critical in-depth insights on the existing unfolding opportunities as well as the emerging future opportunities are no longer easily discernible in the physical world. Instead as businesses digitise and customers, business partners, suppliers and competitors also digitise; trends on how the existing as well as the future strategies must be modified are also increasingly digitized (Simmons, Palmer & Yann 2013:744) [45]. Capabilities to gain from such trends to leverage a firm's ambidexterity may not only require digitisation, but also significant investment in relevant digital technologies.

Digitised opportunities require digitised approaches to extract such opportunities. Business digitisation spawns improvement of a business' recognition of the value of data. It is often the recognition of the value of data that influences the streamlining and improvement of the efficiency and effectiveness of how data is acquired, processed and utilised to achieve the desired business outcomes. Yet, as the business digitises, it also tends to gain insights into enormous new data on the unfolding internal and external trends (Porter & Heppelmann 2014:64) [10]. Using relevant big data analytics technologies, it becomes easier for the executives to accurately discern the existing as well as the emerging future trends to determine the strategies that can be undertaken.

As digitisation bolsters acquisition, processing and utilisation of the existing and emerging future trends, it also leverages a firm's ambidexterity which is often not only to exploit the existing opportunities, but also to explore how the future opportunities can be maximised. Certainly, it is implicitly evident from theories that business digitisation spawns the simultaneous improvement of a firm's exploitation and exploration capabilities.

However, most of the businesses were found to only focus on either short-term business quests or to be constrained by certain digitisation and change's inhibitors. Short-term quests lure businesses to pursue short-term goals as well as profitability motives. It motivates businesses to focus on leveraging only the existing state of a business' performance so as to meet the designated targets. Combined with the fact that business performance is evaluated quarterly and yearly, such approach influences managers to focus on exploiting the existing opportunities.

Yet, as managers focus on exploiting the existing opportunities, it also tends to undermine exploration quests. It is such business approach that often renders most businesses vulnerable to the risks of the volatile changes in market trends (Smith, Binns & Tushma 2010:448) [46]. As the internal business conditions and

management style emphasise exploitation, the inverse negative effects may tend to be reflected in the poor analysis, sensing, tracking and response to even the trends that could easily have been identified.

That implies even if digitisation spawns ambidexterity, it is often still such internal business conditions as well as the executives' leadership philosophy that affect not only investment in relevant digitisation capabilities, but also the level of data optimisation to achieve the desired outcomes. Combined with more inflexible and less agile system, all these were found to mar the utilisation of relevant business digitisation to bolster a firm's ambidextrous capabilities (Raisch & Birkinshaw 2008:375) [47].

However, despite such a finding, it was still implicitly evident that if businesses are to extend to the focus of their data analytics as well as strategic planning process from only focusing on assessing how to leverage the existing performance to evaluating how to respond to the emerging future trends, business digitisation would certainly spawn ambidexterity. In that context, it is certainly apparent that this research achieved its fundamental motive which was to evaluate how business digitisation catalyses a firm's ambidexterity. However, even if that is so, the findings of this research still raise a number of managerial implication issues for the contemporary business executives.

8. Managerial Implications

Findings imply most business' capabilities to undertake significant investment in relevant digital technologies as well as improved level of data optimisation will certainly depend on the executives' recognition of the values of combining and applying the simultaneous exploitation and exploration capabilities. The executives will have to recognise that a business' sustainability is not only predicted by its current performance, but also by the capabilities to sustain such good performance even in the future.

The constantly changing business landscapes render the demonstration of the prowess of the conceptualisation and the application of such simultaneous capabilities critical for bolstering a business continuity and sustainability. It is the recognition of the essence for such quests that will drive businesses not only to undertake relevant analysis of the present and future trends, but also to invest in the more efficient and superior digital technologies.

However, empirical research indicated not only low investment in relevant digital technologies, but also poor data optimisation. Certainly, without digitisation, it will be difficult for the executives to understand the significance of the magnitude of the unfolding trends on its existing and future performance. Even though findings indicated that investment in IT technologies such as enterprise resource planning system would edify efficiency of data acquisition and analysis, such initiatives will still have to be accompanied by the investment in the other superior business digitisation technologies and software such as cloud computing, internet embedded technologies, 3D printing, robotics and artificial intelligence.

The establishment of a combination of such business digitisation technologies will certainly bolster a business' capabilities to analyse, sense and respond to the existing as well as the unfolding future trends. It is such technologies that will also spawn a business' capabilities to accurately acquire, analyse and undertake necessary interpretation of how the emerging results can influence the executives' decisions on the strategies that can be applied. Quite often, it is such improvement in a business' digital capabilities that subsequently leverages a firm's ambidexterity.

However, to bolster ambidexterity, it is also critical that a strong culture of data optimisation is developed and nurtured to aid the effective utilisation of not only the existing digital technologies, but also the data and information that they produce. Such a view is attributable to the fact that findings indicated that despite having relevant digital technologies, some of the businesses still face the challenge of utilising such data in relevant strategic decision making processes.

Yet, even if that data optimisation is not the challenge, the executives will have to recognise the need of ensuring that the results of trends analysis are undertaken to counter not only threats, but also to tap the emerging opportunities. Such a suggestion is derived from the fact that it emerged from the empirical research that there are often agility and flexibility related challenges for some of the businesses to undertake the required actions to respond to the unfolding trends before competitors are able to do so. Such constraints also undermine

quests to take actions to counter threats before they turn to be quite devastating.

However, as it emerged from the findings, digitisation may not only require investment in relevant technologies, but also undertaking the necessary change and transformation. That implies digitisation of the existing products and services would require digitisation of how the existing products are developed, manufactured, stored and distributed to the final consumers. It will also require not only digitisation of business processes, structures and systems, but also change and transformation of the business culture, practices and approaches. As the world is increasingly getting engulfed with “born digital” generations of customers and businesses, it is through such initiatives that businesses will be able to create a digitised system to leverage their overall level of ambidexterity.

9. Conclusion

Conventional theories on strategic management imply leveraged exploitation and exploration capabilities spawn a firm’s sustainability. Derived from March’s (1991: 71) notion of “Exploration and Exploitation in Organisational Learning” [23], most theories and literature indicate a consensus that exploitation and exploration capabilities edify the simultaneous maximisation of the existing opportunities as well as the discerning of how the emerging future opportunities can also be maximised. Leverage of such simultaneous capabilities requires businesses to constantly analyse, sense, track and respond to the emerging trends.

However, following the invention of digital capabilities, it was also seemingly evident from theories that it seems most business’ capabilities to easily analyse, sense and respond to such existing as well as future trends are also often edified by a firm’s overall level of digitisation. The notions that business digitisation spawns the simultaneous improvement of a firm’s exploitation and exploration capabilities was also implicitly echoed in the findings. However, even if it is so, most of the businesses were still found to only focus on either short-term business quests or to be constrained by certain digitisation and change’s inhibitors. Certainly, that signifies a greater preponderance of most of the businesses to focus on exploitation rather than exploration. Yet, as most of the businesses focus on leveraging the existing state of performance, cost savings or the use of strategic plans that only aim to achieve short-term business quests, findings indicated such approach to also undermine data optimisation to spawn the simultaneous improvement of exploitation and exploration capabilities. Such inhibitors of exploitation and exploration capabilities were further found to be exacerbated by a combination of different heterogeneous internal business conditions that either cause low investments in digitisation or inflexibility that constrain change.

As these undermine quests for optimising the digitised business systems or to undertake the required changes to leverage ambidexterity, the study concludes with the argument that not only emphasises the need for exploitation and exploration, but also how more digitised business systems can be optimised to leverage such simultaneous endeavours. Considering that such a study had not been undertaken before, this research certainly contributes enormously to enriching the existing theories on a firm’s ambidexterity. However, future research can still explore how data optimisation catalyses ambidexterity.

Funding

Not applicable.

Institutional Review Board Statement

Not applicable.

Informed Consent Statement

Not applicable.

Data Availability Statement

Data is available upon request from the corresponding author.

Conflicts of Interest

The authors declares no conflict of interest.

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