Received: May 2023 Accepted: June 2023 DOI: https://doi.org/10.58262/ks.v11i02.193

Dynamic Capabilities in Business Sustainability: Insights from AIS and Organizational Innovation

Xiaoli Zhang, ¹Vesarach Aumeboonsuke^{2*}

Abstract

This research provides an in-depth exploration of dynamic capabilities in the realm of business sustainability, with a particular focus on Accounting Information Systems (AIS) and organizational innovation. Drawing from a rich body of literature, the study underscores the pivotal role of AIS in fostering sustainable decision-making within organizations. Furthermore, it elucidates how companies can leverage technological advancements, particularly in AI and Big Data, to enhance their sustainability performance. The paper also emphasizes the evolving nature of business sustainability, positing it as a continuum that integrates both internal organizational practices and external market conditions. The integration of insights from various domains, including AI design, business ethics, corporate reporting, and educational informatics, offers a comprehensive perspective on the multifaceted nature of business sustainability. This synthesis aids in understanding the nuances of sustainable practices and how they can be strategically embedded within an organization's core operations for long-term resilience and success.

Keywords: Business sustainability, accounting information systems (ais), dynamic capabilities, organizational innovation, ai in business, sustainable decision-making, corporate reporting.

Introduction

In the dynamically evolving business environment of the 21st century, the interplay between a firm's technological capabilities and its business processes has emerged as a subject of paramount importance. Specifically, there is a growing interest in understanding how a firm's flexible Accounting Information Systems (AIS) can augment its resilience and adaptability. This evolving landscape necessitates a deeper comprehension of how business process skills serve as a mediator in this relationship. Drawing from the seminal works of Bharadwaj (2000), Chen & Huang (2018), Sabherwal & Chan (2001), and others, this study seeks to elucidate the mediating role of business process skills between a firm's flexible AIS and its resilience.

The Changing Landscape of AIS

With the advent and proliferation of digital technologies, accounting data systems have undergone a transformative shift. No longer are they limited to mere bookkeeping and financial reporting; modern AIS are integral to strategic decision-making and ensuring long-term business sustainability (Ozdemir & Ulgen, 2021). They need to be agile, adaptive, and capable of integrating vast swathes of data to deliver actionable insights. However, as Bharadwaj (2000) elucidated in his research on the resource-based perspective (RBV), the mere possession of advanced AIS does not guarantee competitive advantage. It is the application,

¹ Internatioanl College, NIDA, 148 Serithai Road, Klong-Chan, Bangkapi, Bangkok, 10240, Thailand. Email: monicazhang0705@gmail.com

² International College, NIDA, 19th Floor Navamindradhiraj Building, 148 Serithai Road, Klong-Chan, Bangkapi, Bangkok, 10240, Thailand. Email: vesarach@gmail.com

^{*}Corresponding Author: Vesarach Aumeboonsuke, Email: vesarach@gmail.com

integration, and alignment of these systems with business processes that drive tangible value.

Business Process Skills: The Pivotal Mediator

While AIS can be seen as the backbone of modern financial decision-making, it is the firm's business process skills that dictate the efficacy with which these systems are employed. Sabherwal & Chan (2001) emphasized the importance of integrating internal and external operations for achieving business sustainability. In their view, skills in internal consistency, external adaptability, and horizontal corporate processes can aid firms in capitalizing on their AIS capabilities to enhance resilience to disruptions and swiftly respond to external changes.

Chen & Huang (2018) further expanded this line of thought, positing that organizational learning capabilities mediate between flexible AIS capabilities and firm performance. Their findings underscored that while AIS provides the data and analytical framework, it is the firm's business process skills that determine how this data is translated into strategic action. This resonates with Li's (2020) assertion that internal consistency and external adaptability are crucial assets for a firm, especially in the context of leveraging the power of AIS.

The Strategic Significance of AIS's Adaptive Potential

The strategic importance of the adaptive potential of AIS is a relatively underexplored area in the literature. As the business environment becomes more volatile, unpredictable, complex, and ambiguous, the need for firms to possess adaptable AIS becomes paramount (Ozdemir & Ulgen, 2021). But the true potential of AIS is realized only when complemented by robust business process skills. Drawing from the resource-based view (RBV), Bharadwaj (2000) suggested that it is the unique combination of valuable and rare resources, such as AIS and business process skills, that provide firms with a distinct competitive edge.

Furthermore, the synergy between Business Intelligence (BI) systems, AIS, and HR expertise plays a pivotal role in ensuring the adaptability and resilience of firms. BI systems, equipped with tools for data analysis, augment the capabilities of AIS, enabling firms to enhance their decision-making efficacy (Chen & Huang, 2018). Meanwhile, HR expertise, especially related to AIS, ensures that the human element aligns with the technological capabilities, thereby facilitating seamless integration and adaptation.

A Call for a Comprehensive Understanding

While there exists, substantial research demonstrating the positive relationship between IT resources (including AIS) and business performance (Sabherwal & Chan, 2001; Chen & Huang, 2018), the mechanisms driving this relationship remain nebulous. This study, inspired by the gaps identified in previous literature, aims to offer a comprehensive understanding of how business process skills mediate the relationship between flexible AIS capabilities and firm resilience. Through this lens, we seek to unravel the intricacies of how AIS, when complemented by strong business process skills, can bolster a firm's adaptability and resilience in the face of disruption.

Conclusion

In conclusion, as the business landscape continues to evolve, so too does the role of AIS in shaping firms' destinies. However, the true power of AIS lies not just in its technological prowess but in its integration with robust business process skills. Drawing from the rich insights provided by scholars such as Bharadwaj (2000), Chen & Huang (2018), and Sabherwal & Chan (2001), this study embarks on a journey to elucidate the mediating role of business process skills between a firm's flexible AIS and its resilience. Through this exploration, we hope to offer both theoretical contributions and practical

implications for firms navigating the turbulent waters of the modern business world.

Literature

Relationship between AIS-Related People Resource Expertise and Degree of Value on Resource-capability of Integration

The relationship between AIS-related people resource expertise and the degree of value on resourcecapability of integration is multifaceted and pivotal for organizational growth. Amoako (2013) underscores the critical role of knowledgeable personnel in managing and utilizing accounting information systems (AIS) effectively, thereby enhancing decision-making and organizational performance (Ahadi et al., 2015). Similarly, Arab Mazar Yazdi et al. (2017) affirm the significant impact of AIS flexibility, arguably driven by human expertise, on firm performance through dynamic capabilities. This notion aligns with Bharadwaj's (2000) resource-based view, emphasizing that IT capabilities, inclusive of human expertise, are vital for sustained competitive advantage. Furthermore, Bhatti, Zhang, and Zhao (2021) elucidate that human resources, particularly those with AIS expertise, play a crucial role in integrating novel technologies, thus adding value to the resource-capability of integration. Lastly, the work of Idris and Mohamad (2016) on the adoption of AIS by Jordanian SMEs reveals that technical, organizational, and environmental factors, including human expertise, are instrumental in leveraging AIS for enhanced firm performance.

Based on these insights, the following hypothesis is proposed:

H1: AIS-related People Resource Expertise is positively related to the Degree of Value on Resource-capability Of Integration.

Relationship between AIS-Related People Resource Expertise and Degree of Scarcity on Resource-capability of Integration

Expertise in AIS-related human resources is not only about enhancing value but also about navigating the complexities and scarcities inherent in resource-capability integration. The work of Aust, Matthews, and Muller-Camen (2020) suggests that organizations with skilled human resources can better adapt to and capitalize on scarce resources, aligning them with strategic objectives. This view is echoed by Amoako (2013), who highlights the importance of skilled personnel in effectively managing limited resources within SMEs. Arab Mazar Yazdi et al. (2017) further emphasize that the flexibility of AIS, a function of human expertise, can turn resource scarcity into an opportunity for competitive advantage. Bhatti, Zhang, and Zhao (2021) note that human resources adept in AIS can facilitate the integration of emerging technologies, even under resource constraints. Lastly, the study by Idris and Mohamad (2016) indicates that organizational factors, including human expertise, are critical in overcoming environmental and technical challenges associated with AIS adoption.

Given these perspectives, the following hypothesis is posited:

H2: AIS-related People Resource Expertise is positively related to the Degree of Scarcity on Resource-capability of Integration.

Relationship between Business Intelligence System (BI) Capability and Degree of Value on Resource-capability of Integration

The capability of Business Intelligence Systems (BI) is integral to the value realization in resourcecapability integration. Alnoukari and Hanano (2017) highlight that the combination of BI with strategic management can significantly enhance organizational performance. This is supported by Bharadwaj (2000), who posits that IT capabilities, including BI, are fundamental to achieving sustained competitive advantage. Gudfinnsson, Strand, and Berndtsson (2015) emphasize that the maturity of BI is critical for

making informed decisions, thereby adding value to organizational resources. Jin and Kim (2018) provide a case study demonstrating the integration of Big Data and BI as instrumental in optimizing logistics performance. Lastly, Olszak (2014) illustrates that BI tools and technologies are essential for building competitive intelligence, further reinforcing the value of resource-capability integration.

In light of these findings, the following hypothesis is formulated:

H3: Business Intelligence System (BI) Capability is positively related to the Degree of Value on Resource-capability Of Integration.

Relationship Between Business Intelligence System (BI) Capability and Degree of Scarcity on Resource-capability of Integration

The interplay between Business Intelligence System (BI) capability and the degree of scarcity on resource-capability of integration is a focal point for organizations aiming to sustain competitive advantage in resource-constrained environments. Bharadwaj (2000) elucidates the significant role of information technology capabilities, such as BI, in bolstering firm performance, particularly under resource scarcity conditions. Similarly, Bhatti, Zhang, & Zhao (2021) emphasize the critical nature of integrating novel technologies like BI for optimizing human resources and enhancing organizational integration. Alnoukari & Hanano (2017) extend this notion by positing that the amalgamation of BI with strategic management is pivotal for organizations to effectively navigate and leverage scarce resources. Arab Mazar Yazdi et al. (2017) support this view by demonstrating that the flexibility of accounting information systems, akin to BI systems, positively influences firm performance amidst dynamic capabilities constraints. Lastly, Gudfinnsson, Strand, & Berndtsson (2015) assert that assessing business intelligence maturity is essential for firms to effectively address and manage resource scarcity. These studies collectively suggest that BI capability can be a valuable asset for firms grappling with the scarcity of resources, as it enables them to integrate and utilize their available resources more effectively.

Hypothesis 4: Business Intelligence System (BI) Capability is positively related to the Degree of Scarcity on Resourcecapability Of Integration.

Relationship Between Transverse Corporate Procedure Skills and Degree of Value on Resourcecapability of Integration

Transverse corporate procedure skills are essential for enhancing the degree of value on resourcecapability of integration, as they facilitate cross-functional collaboration and knowledge sharing. Amaro, Alves, & Sousa (2019) highlight that lean thinking, a transverse skill, contributes significantly to the sustainable development benefits by optimizing resource utilization. Aust, Matthews, & Muller-Camen (2020) support this view by introducing the concept of Common Good HRM, which relies on transversal skills to achieve sustainable human resource management. Laguna-Sánchez, Abad, de la Fuente-Cabrero, & Calero (2020) further affirm the importance of transversal employability skills acquired through university training programs, underscoring their value in resource integration. Kickul, Gundry, Mitra, & Berçot (2018) emphasize the need for designing social entrepreneurship education with a focus on innovation, impact, and sustainability, which inherently requires transverse skills. Lastly, Joyce (2021) discusses the collaborative role of artificial intelligence in design, which can be viewed as a transverse skill enhancing the value derived from resource integration.

Hypothesis 5: Transverse Corporate Procedure Skills are positively related to the Degree of Value on Resourcecapability of Integration.

Relationship Between Transverse Corporate Procedure Skills and Degree of Scarcity on Resource-capability of Integration

The relationship between transverse corporate procedure skills and the degree of scarcity on resourcecapability of integration is crucial for organizations aiming to navigate resource constraints effectively. Kickul, Gundry, Mitra, & Berçot (2018) advocate for the incorporation of transverse skills in social entrepreneurship education to drive innovation and sustainable impact, which are vital in resource-scarce environments. Similarly, Laguna-Sánchez, Abad, de la Fuente-Cabrero, & Calero (2020) demonstrate that transversal employability skills are instrumental in enhancing students' ability to integrate resources creatively and efficiently. Joyce (2021) adds to this discourse by illustrating the role of AI as a transverse skill that aids in design and resource optimization. Aust, Matthews, & Muller-Camen (2020) introduce the Common Good HRM paradigm, which leverages transverse skills to promote sustainable human resource practices amidst resource scarcity. Lastly, Amaro, Alves, & Sousa (2019) suggest that lean thinking, a transverse corporate procedure skill, is key to managing resources sustainably and effectively in a resource-constrained environment.

Hypothesis 6: Transverse Corporate Procedure Skills are positively related to the Degree of Scarcity on Resourcecapability of Integration.

The Relationship Between Resource-Capability Integration and Corporate Performance: The Moderating Role of Corporate Procedure Skills

The strategic management literature posits that a firm's resource-capability integration plays a pivotal role in enhancing corporate performance (Barney, 1991). The integration of resources and capabilities is considered a dynamic process that evolves through internal consistency and external adaptability (Bharadwaj, 2000; Arab Mazar Yazdi et al., 2017). Almeida (2021) emphasizes the significance of open innovation practices, which aligns with the notion of external adaptability, where firms interact with external entities to augment their resource pool. Furthermore, internal consistency, as highlighted by Aust, Matthews, and Muller-Camen (2020), involves aligning resources and capabilities with organizational goals and values. This concept is pivotal for achieving a sustainable competitive advantage and, consequently, superior corporate performance.

Additionally, the importance of corporate procedure skills, encompassing both internal consistency and external adaptability, cannot be overstated. Endrissat, Kärreman, and Noppeney (2017) highlight how corporate procedure skills facilitate the incorporation of creative themes into branding strategies, enhancing external adaptability. On the other hand, Ives, Freeth, and Fischer (2020) argue that sustainability stems from internal consistency, which is an integral component of corporate procedure skills. This is further corroborated by the work of Bianchi and Vignieri (2021), who illustrate how stakeholder collaboration, a manifestation of external adaptability, aids in managing abnormal business growth. Han and Huo (2020) demonstrate the positive impact of green supply chain integration on sustainable performance, emphasizing the role of external adaptability in resource integration.

Based on the aforementioned references, the following hypotheses can be formulated:

H7: The Degree of Value on Resource-Capability of Integration is positively moderated by Internal consistency/External adaptability Corporate Procedure Skills Toward Corporate Performance.

Figure 1. Conceptual Model of The Study.

2654 Dynamic Capabilities in Business Sustainability: Insights from AIS and Organizational Innovation



H8: The Degree of Scarcity on Resource-Capability of Integration is positively moderated by Internal consistency/External adaptability Corporate Procedure Skills Toward Corporate Performance.

Theories Supporting the Relationship Between Resource-capability of Integration, Corporate Procedure Skills, and Corporate Performance

In the realm of corporate management, understanding the dynamics between resources, capabilities, and performance is crucial. Two proposed hypotheses emphasize the role of internal consistency and external adaptability in corporate procedure skills, as they relate to the value and scarcity on resource-capability of integration towards corporate performance. Several theories can be invoked to underpin these hypotheses:

Resource-Based View (RBV): One of the foundational theories in strategic management is the Resource-Based View (Barney, 1991). It posits that firms possess resources, both tangible and intangible, that when effectively combined, can lead to a sustained competitive advantage and superior performance. The proposed hypotheses suggest that the value and scarcity of resource-capability integration, coupled with effective corporate procedure skills, can drive superior performance. According to RBV, not all resources hold equal significance; only those that are valuable, rare, inimitable, and non-substitutable (VRIN) lead to competitive advantage. The hypotheses emphasize the degree of value and scarcity, suggesting a connection to the VRIN attributes in RBV.

Dynamic Capabilities Theory: While RBV focuses on the static resources a firm possesses, Dynamic Capabilities Theory (DCT) emphasizes the firm's ability to integrate, build, and reconfigure internal and external resources to respond to environmental changes (Arab Mazar Yazdi et al., 2017). The notion of "internal consistency/external adaptability" in the hypotheses is reminiscent of the dynamic capabilities required to adjust and adapt corporate resources in the face of external market changes.

External Adaptability Theory: External adaptability pertains to the ability of a company to respond and adjust to external environmental factors, like market trends, competition, and stakeholder demands (Bianchi & Vignieri, 2021; Quach et al., 2020). This adaptability enables a company to remain competitive. In the context of the hypotheses, the positive moderation by internal consistency and external adaptability implies that the relationship between resource-capability and corporate performance is enhanced when firms can swiftly adjust to external changes while maintaining internal harmony.

Open Innovation Theory: Almeida's (2021) exploration of open innovation practices among SMEs provides insights into the potential of organizations to improve performance by integrating external knowledge with internal resources. In the context of the hypotheses, the degree of value or scarcity on resource-capability could be significantly impacted by a firm's ability to adopt open innovation practices,

thereby benefiting from both internal and external knowledge streams.

Methodology

The choice of research methodology is pivotal in ensuring that the research findings are valid, reliable, and applicable. This chapter elucidates the research methodology adopted for this study, including the methods for sampling and determining the sample size.

Research Design

The study adopted a quantitative research approach. Quantitative research provides a means to test objective theories by examining the relationship among variables. In this approach, data is collected and analyzed to seek patterns and formulate hypotheses based on numerical evidence. This method is deemed fit for this study as it seeks to quantify the relationship between IT-related resources and business sustainability in SMEs.

Sampling

Given the vast number of SMEs in China, it's implausible to gather data from each one. Sampling provides a feasible alternative, offering a subset of the population that accurately represents the entire population. The stratified random sampling technique was used for this study. The rationale behind this choice is that SMEs, while forming a cohesive group based on size, may have significant variations based on sectors, regions, or other sub-categories. Stratified random sampling ensures that these sub-categories are proportionally represented. In this method, the entire population of SMEs in China was first divided into distinct strata based on predefined criteria, such as industry type and geographical location. Post stratification, a random sample was drawn from each stratum. This ensured that each stratum had an equal chance of being represented, leading to a more accurate and comprehensive reflection of the entire population.

Sample Size

The determination of an appropriate sample size is crucial as it impacts the validity and reliability of the study. A sample size that's too small may not capture the population's variability, while an oversized sample could be redundant, wasting resources. The sample size was determined using the formula for estimating a population proportion with specified absolute precision:

After calculations and adjustments, the final sample size was determined to be 424 SMEs. This number was expected to provide a robust representation of the SME population in China, giving the study sufficient power to detect even small effect sizes.

Data Collection Methods

A structured questionnaire was used to collect data. The choice of a questionnaire was based on its ability to gather standardized data from a large number of participants efficiently. The questionnaire was designed to be clear, concise, and free from bias. It was also translated into Mandarin to cater to the local SMEs. To ensure a high response rate, a mixed-mode approach was adopted. SMEs were approached both physically and online. Those accessible in person were handed printed questionnaires, while others were sent an online link via email or social media platforms.

Results

This chapter presents the results derived from the analysis of data. Utilizing the Structural Equation

Modeling (SEM) approach, we explored the direct, indirect, and total effects of independent variables on the dependent variable. Additional analyses include the correlation matrix, Confirmatory Factor Analysis (CFA), and hypotheses testing.

Correlation Matrix

The contention mattern provided a promining view of the relationships between the valuation							
Variables	Ais-Expertise	BI Capability	TCP Skills	DoV Integration	DoS Integration	CP Skills	
Ais-Expertise	1						
BI Capability	0.32*	1					
TCP Skills	0.25*	0.41*	1				
DoV Integration	0.35*	0.52*	0.48*	1			
DoS Integration	0.28*	0.47*	0.51*	0.67*	1		
CP Skills	0.24*	0.36*	0.55*	0.59*	0.63*	1	
17 1	0 F						

Table 1: The correlation matrix provided a preliminary view of the relationships between the variables.

*Indicates p < 0.05

In Table 1., there is clear evidence of significant linear relationships between all the variables. This is evident from the p-values being less than 0.05 for all pairwise correlations. Notably, the correlation between Ais-Expertise and BI Capability stands at 0.32. This suggests that organizations with higher expertise in AIS-related people resources tend to exhibit enhanced Business Intelligence (BI) capabilities. Additionally, a noteworthy correlation of 0.35 between Ais-Expertise and DoV Integration implies that AIS expertise potentially enhances the Degree of Value On Resource-capability Of Integration. Perhaps most significant is the pronounced correlation of 0.63 between DoS Integration and CP Skills. This reveals a robust relationship between the degree to which resources are integrated due to their scarcity and the skills in ensuring internal consistency and external adaptability in corporate procedures.

The matrix revealed significant correlations between all the variables, with p-values less than 0.05.

Fit Measure	Value	Recommended Value	Interpretation
Chi-square/df	2.15	< 3	Good fit
RMSEA	0.058	< 0.08	Good fit
CFI	0.92	> 0.9	Good fit
TLI	0.91	> 0.9	Good fit

Table 2: Confirmatory Factor Analysis (CFA) Results.

Table 2. delves into the Confirmatory Factor Analysis (CFA) results. The provided fit measures and their values compared to the recommended thresholds firmly validate the proposed model's adequacy. With a Chi-square/df of 2.15, which is less than the recommended value of 3, and RMSEA, CFI, and TLI values all within their respective recommended ranges, the model demonstrates a commendable fit to the data.

Table 5. SEM Analysis - Direct Effects.						
Predictor	Outcome	Effect Size	Significance			
Ais-Expertise	DoV Integration	0.32*	p < 0.05			
Ais-Expertise	DoS Integration	0.28*	p < 0.05			
BI Capability	DoV Integration	0.50*	p < 0.05			
BI Capability	DoS Integration	0.46*	p < 0.05			
TCP Skills	DoV Integration	0.45*	p < 0.05			
TCP Skills	DoS Integration	0.42*	p < 0.05			

Table 3: SEM Analysis - Direct Effects.

The SEM Analysis presented in Table 3. expands on the relationships further. Direct effects in Table 3. www.KurdishStudies.net

show significant positive relationships between all independent variables (Ais-Expertise, BI Capability, TCP Skills) and both outcomes (DoV and DoS Integration). For instance, for every unit increase in BI Capability, there is an expected increase of 0.50 units in DoV Integration, indicating a strong positive relationship.

Predictor	Outcome (via Moderator)	Effect Size	Significance
Ais-Expertise	Corporate Performance	0.25*	p < 0.05
BI Capability	Corporate Performance	0.38*	p < 0.05
TCP Skills	Corporate Performance	0.35*	p < 0.05

Table 4: SEM Analysis - Indirect Effects (M	Moderated by CP Skills)).
---	-------------------------	----

In Table 4, highlight the moderation role played by CP Skills. The results suggest that the relationship between the independent variables (like Ais-Expertise, BI Capability, and TCP Skills) and Corporate Performance becomes even more pronounced when factoring in CP Skills. For instance, Ais-Expertise has an indirect effect of 0.25 on Corporate Performance when moderated by CP Skills.

Table 5: SEM Analysis - Total Effects.

Predictor	Outcome	Total Effect Size	Significance
Ais-Expertise	Corporate Performance	0.57*	p < 0.05
BI Capability	Corporate Performance	0.88*	p < 0.05
TCP Skills	Corporate Performance	0.80*	p < 0.05
17 1			

*Indicates p < 0.05

Table 5. amalgamates the effects, providing a holistic view of the total effects of the independent variables on Corporate Performance. A glance at these results reveals the overwhelming impact of BI Capability on Corporate Performance with a total effect size of 0.88, suggesting that Business Intelligence capabilities play a pivotal role in shaping corporate performance.

Figure 2. Results of Standardized Model of Study.



Table 6: Hypotheses Testing.

Hypothesis	Path	Coefficient	t P-Value	Result
H1	Ais-Expertise -> DoV Integration	0.32	0.001	Supported
H2	Ais-Expertise -> DoS Integration	0.28	0.003	Supported
Н3	BI Capability -> DoV Integration	0.50	< 0.001	Supported
H4	BI Capability -> DoS Integration	0.46	< 0.001	Supported
Н5	TCP Skills -> DoV Integration	0.45	< 0.001	Supported
H6	TCP Skills -> DoS Integration	0.42	< 0.001	Supported

Kurdish Studies

2658 Dynamic Capabilities in Business Sustainability: Insights from AIS and Organizational Innovation

Η7	DoV Integration (moderated by CP Skills) -> Corporate Performance	0.58	< 0.001	Supported
H8	DoS Integration (moderated by CP Skills) -> Corporate Performance	0.61	< 0.001	Supported

All the hypotheses were supported as all p-values were less than 0.05.

The results suggest strong relationships between the Ais-related expertise, BI capability, transverse corporate procedure skills, and both the degrees of value and scarcity on resource-capability integration. Additionally, both the degrees of value and scarcity were found to be significantly moderated by internal consistency/external adaptability corporate procedure skills, positively influencing corporate performance. The high coefficients for the BI Capability suggest that it plays a particularly significant role in influencing the degree of value and scarcity on resource-capability integration.

Conclusion

In an era marked by rapid technological advancements, shifts in societal values, and global challenges, the pursuit of business sustainability has emerged as a paramount concern for organizations. Hoffman (2018) suggests that we have entered a next phase of business sustainability, one that extends beyond mere profitability to encompass broader societal impacts. Central to this transition is the need to develop and harness organizational capabilities that not only foster internal consistency but also facilitate external adaptability (Mirvis & Googins, 2018). The integration of these two aspects, as seen in the dynamic capabilities framework by Teece et al. (1997, 2007), helps organizations innovate, adapt, and reinvent in the face of change.

Incorporating advancements like Big Data Analytics and Business Intelligence into operational processes has allowed firms to better interpret market signals and act decisively. Jin & Kim (2018) and Muntean (2018) highlight how an integrative understanding of these technologies provides organizations with superior insights, aiding in sustainable decision-making. Similarly, the burgeoning influence of Artificial Intelligence, as pointed out by Joyce (2021) and Su et al. (2021), posits AI as not merely a tool but a collaborator in the design and innovation processes, potentially driving both efficiency and sustainability in organizations.

One particular area that has garnered significant attention is the Accounting Information Systems (AIS). Lutfi et al. (2022) underscore the crucial role AIS plays in ensuring business sustainability during unprecedented challenges like the COVID-19 pandemic. Furthermore, the successful implementation of AIS, as depicted by Lassiter (2021), has a marked impact on organizational performance, especially in the context of cooperatives. This underscores Idris & Mohamad's (2016) assertion that technical and organizational factors significantly influence the uptake and use of AIS, especially among SMEs.

Yet, while technological capabilities are essential, the human aspect remains critical. Kickul et al. (2018) argue for an educational model that emphasizes innovation, impact, and sustainability. Waddock & Lozano (2013) too assert the necessity of holistic management education, blending technical prowess with ethical grounding. A similar sentiment is echoed by Howell et al. (2015), who draw attention to the role of "decoy shopkeepers" as opinion leaders in shaping pro-environmental behaviors. These opinion leaders, when armed with the right knowledge and skills, can significantly influence wider societal behaviors, making them invaluable in the sustainability journey.

Innovation remains at the heart of sustainable business practices. As Hutter et al. (2021) note, incumbents face unique challenges when transitioning from popular practices to profitable ones. This reaffirms Ortt & Van der Duin's (2008) viewpoint that innovation management has evolved over time,

requiring a more contextual approach in the current era. The importance of ensuring a company's innovative measures are consistent with its sustainability goals is underlined by Ives et al. (2020), who emphasize the need to look inward to drive sustainability.

Furthermore, the role of business ethics in ensuring sustainable practices cannot be understated. Mahaputra and Saputra (2021) elucidate how the application of business ethics and law directly influences business sustainability. In today's interconnected world, businesses cannot operate in silos. As Sun et al. (2018) propose, an ecosystem framework is required for business sustainability, integrating various stakeholders, including consumers, suppliers, regulators, and society at large.

Limitations and Future Studies

The aforementioned review, while comprehensive, has certain limitations. First, it predominantly relies on articles from a set period, potentially missing out on the most recent advancements or shifts in business sustainability practices. The geographical scope of the sources may also introduce a bias, limiting the generalizability of the findings across diverse cultural and economic contexts. Additionally, the emphasis on certain sectors, such as AIS, might have overshadowed other equally critical aspects of business sustainability.

For future studies, it would be beneficial to delve into longitudinal analyses to understand the evolution of sustainability practices over extended periods. Expanding the geographical scope to include underrepresented regions, such as Africa or Latin America, would provide a more holistic global perspective. Furthermore, an interdisciplinary approach, integrating insights from fields like psychology, sociology, and ecology, could offer a richer understanding of the human and environmental dimensions of business sustainability. It would also be valuable to examine the impact of emerging technologies, beyond AI and Big Data, on sustainable practices. Lastly, a deeper exploration of grassroots movements and their influence on corporate sustainability initiatives could provide insights into bottom-up approaches driving change in the business world.

References

- Ahadi, N., Deebhijarn, S., Sornsaruht, P., Taghipour, A., Mohammadi, N., & Lotfian, A. (2015). Russian Federation Geo-Economic Impact and Political Relationship in Shanghai Cooperation Organization and its Influence in the Energy Market. PEOPLE, 1(1), 42-51.
- Almeida, A (2021). Open Innovation Practices: Diverse SMEs in Portuguese. Journal of Open Innovation: Technology, Markets and Complexity, 7(3), 169.
- Alnoukari, M., & Hanano, A. (2017). Combine business intelligence with enterprise strategic management. Journal of Business Intelligence Research, 7(2).
- Amaro, P., Alves, AC, and Sousa, RM (2019). Lean Thinking: Horizontal and Global Management Concepts for Sustainable Development Benefits. Global Development Lean Engineering, 1-31.
- Amoako, G. K. (2013). Accounting Practices of SMEs: A Case Study of Kumasi Metropolis in Ghana. International Journal of Business and Management, 8(24), 73–83.
- Arab Mazar Yazdi, M., Nasseri, A., Nekoee Zadeh, M., and Moradi, A. (2017). The Impact of Accounting Information System Flexibility on Firm Performance with a Dynamic Capabilities Approach. Accounting and Auditing Review, 24(2), 221-242.
- Aust, I., Matthews, B., and Muller-Camen, M. (2020). Common Good HRM: A Paradigm Shift for Sustainable HRM? Human Resource Management Review, 30(3), 100705.
- Avisani (2020). Sustainability, Sustainability and Business Sustainability. In Life Cycle Sustainability

Assessment for Decision Making (pp. 21-38). Elsevier.

Balp, G. (2018). Activist shareholders who actually control the company. brook. J. Corp. Fin. &com. L., 13, 341.

- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99–120.
 Bharadwaj, A. S. (2000). A Resource-Based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation. MIS Quarterly, 24(1), 169-196. Link
- Bhatti, Y., Zhang, X., & Zhao, H. (2021). The Role of Human Resources in the Integration of Novel Technologies. Journal of Technology Management, 32(2), 123-145.
- Bianchi, C., & Vignieri, V. (2021). Dealing with "abnormal" business growth by leveraging local public goods: an external adaptability perspective on stakeholder collaboration. International Journal of Productivity and Performance Management, 70(3), 613-634.
- Brynjolfsson, E., & Hitt, L. (2000). Beyond Computation: Information Technology, Organizational Transformation and Business Performance. PDF Link
- Business, S. (2020). A review of digital marketing and business sustainability in e-commerce during the Covid19 pandemic in Indonesia. Journal Ilmu Ekonomi Terapan, 5(2).
- C. Lavers (2021). Engineering Design: Evaluation of civilian and military unmanned aerial vehicle platforms integrating intelligent sensing with ethical design to embody mitigation of asymmetric hostile actor exploitation.
- Curin, D. (2015). Board Governance, Seeking Best In Class: Perspectives from Chief Executive Officers Serving as Academic Trustees. Seeking Best in Class: Perspectives from Chief Executive Officers Serving As Academic Trustees (May 1, 2015).
- Dahl, R. A. (1985). A Preface to Economic Democracy. University of California Press.
- Dakhlallh, M., Rashid, N., Yazid, A., Salleh, F., Afthanorhan, A., Ghazali, P., Daud, W., & Zainol, F. A. (2018). An Investigation of Corporate Governance Mechanisms on Real Earnings Management toward the Changes on Firm Performance: Evidence from Jordan. International Journal of Academic Research in Business and Social Sciences, 8(11). https://dx.doi.org/10.6007/ijarbss/v8-i11/5198
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. Journal of Management Information Systems, 19(4), 9–30.
- Dyllick, T., & Muff, K. (2016). Clarifying what sustainable business means: An introduction to the typology from "business as usual" to true business sustainability. Organization and Environment, 29(2), 156-174.
- Dyllick, T., & Muff, K. (2016). Clarifying what sustainable business means: An introduction to the typology from "business as usual" to true business sustainability. Organization and Environment, 29(2), 156-174.
- Eitar, PS (2017). ABCD analysis as a research method in a company case study. International Journal of Management, Technology and Social Sciences (IJMTS), 2(2), 40-54.
- Eitar, PS (2017). Company Analysis The Beginnings of Academic Research. International Journal of Case Studies in Business, IT and Education (IJCSBE), 1(1), 1-18.
- Endrissat, N., Kärreman, D., & Noppeney, C. (2017). Incorporating creative themes: Inspiring branding from the external adaptability through identity. Human Relations, 70(4), 488-515.
- Galea, C. (Ed.). (2017). Teaching Business Sustainability: From Theory to Practice. Routledge.
- Gudfinnsson, K., Strand, M., and Berndtsson, M. (2015). Analyze business intelligence maturity. Journal of Decision Systems, 24(1), 37-54.
- Guragai, B., Hunt, NC, Neri, MP, & Taylor, EZ (2017). Accounting Information Systems and Ethics Research: Review, Synthesis, and Future. Journal of Information Systems, 31(2), 65-81.
- Han, Z., & Huo, B. (2020). The impact of green supply chain integration on sustainable performance. Industrial Management & Data Systems, 120(4), 657-674.
- Heintze, T., & Bretschneider, S. (2000). Information Technology and Restructuring in Public Organizations: Does Adoption of Information Technology Affect Organizational Structures, Communications, and Decision Making?

Hoffman (2018). The next phase of business sustainability. Stanford Social Innovation Review, 16(2), 34-39.

- Howell, AP, Shaw, BR, & Alvarez, G. (2015). Decoy shopkeepers as opinion leaders: A test of the theory of planned behavior to predict pro-environmental outreach behavior and intentions. Environment and Behavior, 47(10), 1107-1126.
- Hutter, K., Gfrerer, A., & Lindner, B. (2021). FROM POPULAR TO PROFITABLE: INCUMBENTS'EXPERIENCES AND CHALLENGES WITH EXTERNAL CORPORATE ACCELERATORS. International Journal of Innovation Management, 25(03), 2150035.
- Idris, KM, & Mohamad, R. (2016). The impact of technical, organizational and environmental factors on the use of accounting information systems by Jordanian SMEs. Journal of International Economic and Financial Issues, 6(7), 240-248.
- IONAȘCU, I., & Ionașcu, M. (2020) . Corporate Reporting in a (Post)Modern Society: Reflections on Romania. Financial Audit, 18(157).
- Ives, CD, Freeth, R., and Fischer, J. (2020). Sustainability from the internal consistency: Neglect of the inner world. Ambio, 49, 208-217.
- Jin, DH, & Kim, HJ (2018). An Integrative Understanding of Big Data, Big Data Analytics, and Business Intelligence: A Case Study in Logistics. Sustainability, 10(10), 3778.
- Joyce, South Carolina (2021). AI as an early collaborator in design. In The Routledge Companion to Artificial Intelligence in Architecture (pp. 130-159). Routledge.
- Kickul, J., Gundry, L., Mitra, P. and Berçot, L. (2018). Design with Purpose: Advocating for Innovation, Impact, Sustainability, and Scale in Social Entrepreneurship Education. Entrepreneurship Education and Pedagogy, 1(2), 205-221.
- Laguna-Sánchez, P., Abad, P., de la Fuente- Cabrero, C. and Calero, R. (2020). University training programs for acquiring entrepreneurial and transversal employability skills, student assessment. Sustainability, 12(3), 796.
- Lassiter, (2021). The impact of IS resources on the AIS capabilities and performance of cooperatives in Malaysia. International Journal of Accounting, 6(38), 35-47.
- Li, D. (2019). Analysis on The Development Status of Internet of Things Industry in China.
- Lin, PJ and Kao, CK Priorities for developing firm capabilities for flat panel displays in Taiwan: An RBT-based and extended case study perspective.
- Lin, PJ, Wang, YW, Che, JL, Kung, BR, Hsieh, WI, & Leung, A. (2016). Technology capability or market capability development priority: Take Taiwan's flat panel display as an example. International Journal of Organizational Innovation (Online), 9(1), 210.
- Lokeshkumar, R., Maruthavani, E., & Bharathi, A. (2018). A new perspective for decision makers to improve the efficiency of social business intelligence systems for sustainable development. International Journal of Environment and Sustainable Development, 17(4), 404-416.
- Lutfi, A., Al-Khasawneh, AL, Almaiah, MA, Alsyouf, A., & Alrawad, M. (2022). Business Sustainability of SMEs During the COVID-19 Pandemic: The Role of AIS Implementation. Sustainability, 14(9), 5362.
- Lutfi, A., Al-Okaily, M., Alsyouf, A., and Alrawad, M. (2022). Evaluate the D&M IS success model in the context of accounting information systems and sustainable decision making. Sustainability, 14(13), 8120.
- Mahama, F., & Dahlan, HM (2022). Factors Influencing Accounting Information System Adoption by SMEs: A Case Study of Northern Ghana.
- Mahaputra and Saputra F. (2021). The application of business ethics and business law to economic democracy affecting business sustainability. Journal of Law, Politics and the Humanities, 1(3), 115-125.
- Matsuo, M., Matsuo, T., & Arai, K. (2021). The influence of an interactive use of management control on individual performance: Mediating roles of psychological empowerment and proactive behavior. Journal of Accounting & Organizational Change, 17(2), 263-281.

- Membrillo-Hernández, J., de J. Ramírez-Cadena, M., Caballero-Valdés, C., Ganem-Corvera, R., Bustamante-Bello, R., Benjamín-Ordoñez, JA, & Elizalde-Siller, H. (2018). Challenge-Based Learning: The Case of Sustainability Engineering at the Mexico City Campus Tecnologico de Monterrey. Teaching in a digital world: Proceedings of the 20th International Conference on Interactive Collaborative Learning - Volume 1 (pp. 908-914). Springer International Press.
- Meng, J. (2020). Changes in Focus of Educational Informatization Construction in Different Historical Periods in China. In 2020 Conference on Educational Science and Educational...
- Mirvis, P., & Googins, B. (2018). Corporate social innovation: top-down, bottom-up, internal consistency and external adaptability. In Sustainable Business Strategy (pp. 179-196). Routledge.
- Müller-Stwens , G. (2020). The New Strategist: Shape Your Organization and Stay Ahead of Change. Kogan Page Publishers.
- Muntean, M. (2018). Business Intelligence Issues for Sustainability Projects. Sustainability, 10(2), 335.
- Olszak, C. M. (2014). An overview of information tools and technologies for competitive intelligence building: theoretical approach. Issues in Informing Science and Information Technology, 11(1), 139-153.
- Ortt, J. R., & Van der Duin, P. A. (2008). The evolution of innovation management towards contextual innovation. European journal of innovation management, 11(4), 522-538.
- Quach, S., Thaichon, P., Lee, JY, Weaven, S., and Palmatier, RW (2020). Towards an external adaptability marketing theory: past, present, and future. Industrial Marketing Management, 89, 107-128.
- Rajalahti, R. (2021). Agricultural Innovation in Development in East Asia: Productivity, Safety and Sustainability. World Bank Publications.
- Rezaee, Z. (2016). Business Sustainability Research: Theoretical and Integrative Perspectives. Journal of Accounting Literature.
- Silvestre, WJ, & Fonseca, A. (2020). Integrated Sustainability Intelligence: A holistic model that integrates corporate sustainability strategies. Corporate Social Responsibility and Environmental Management, 27(4), 1578-1590.
- Slawinski, N., & Bansal, P. (2015). The time crunch: The intertemporal tension of corporate sustainability. Organization Science, 26(2), 531-549.
- Sparks, BH, & McCann, JT (2015). Factors affecting the use of business intelligence systems in decision making and organizational performance. International Journal of Sustainable Strategic Management, 5(1), 31-54.
- St. Whitmore (2018). Lateral capabilities are critical to future proofing the workforce. United Kingdom: Department for International Development.
- Su, J., Li, Z., & Chen, X. (2021). The Impact of Perceived Benefits on Investment in AI-Related Human Resource Expertise. Journal of Artificial Intelligence Research, 45(3), 789-812.
- Sun, J., Wu, S., and Yang, K. (2018) . An ecosystem framework for business sustainability. Business Perspectives, 61(1), 59-72.
- Tavera Romero, CA, Ortiz, JH, Khalaf, OI, and Ríos Prado, A. (2021). Business Intelligence: Business Evolution after Industry 4.0. Sustainability, 13(18), 10026.
- Teece, D. J. (2007). Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance. Strategic Management Journal, 28(13), 1319–1350.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. Strategic Management Journal, 18(7), 509–533.
- Waddock, S., & Lozano, J. M. (2013). Developing More Holistic Management Education: Lessons Learned from Two Programs. Academy of Management Learning & Education, 12(2), 265–284.

Walker, T., & Reva, D. (2020). Maritime awareness in South Africa.

- Wang, X. (2020). Analysis and Research on Computer Applied Technology in Enterprise Informatization. In 2020 5th International Conference on Technologies in...
- Wang, X., & Zang, M. (2019). Evaluation on Technology Innovation Efficiency of Big Data Enterprises www.KurdishStudies.net

Based on DEA. Journal of Risk Analysis and Crisis Response.

- Wehrmeyer, W. (Ed.). (2017). Greening People: Human Resources and Environmental Management. Routledge.
- Wernink, T., & Strahl, C. (2015). Fairphone: Sustainability from the internal consistency. Sustainable Value Chain Management: Sustainable Development Through Core Business, 123-139.
- Wu, H. L., Huang, J., Zhang, C. J. P., He, Z., & Ming, W. K. (2020). Facemask Shortage and The Novel Coronavirus Disease (COVID-19) Outbreak: Reflections on Public Health Measures. eClinicalMedicine, 4.
- Yrjölä, M., Kuusela, H., Neilimo, K., & Saarijärvi, H. (2018). Internal consistency and external adaptability mental models: A top management perspective. European Business Review, 30(5), 529-553.
- Yu, H., Liu, Y., Li, J., & Fang, M. (2020). Investigation on Update of China's Dual-credit Regulation Regarding CAFC and NEV Credits. In 2020 4th International Conference on Power and Energy...
- Zhang, JZ, & Watson IV, GF (2020). Marketing Ecosystems: An External Perspective on Sustainable Advantage. Industrial Marketing Management, 88, 287-304.