

Strategic Agility in the AI Era: Examining the Role of Intelligent Business Systems

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Abstract: With the continuous evolution of AI technology, businesses are increasingly leveraging its capabilities to make informed decisions about their strategies, adapting to significant market changes, and staying competitive in the ever-evolving digital landscape. In today's world, strategic agility is more essential than ever as businesses have to make rapid decisions, modify business models and adapt to the trends in the conditions of the customer and competition. AI, machine learning, predictive analytics, automation, and real-time data processing enable intelligent business systems to deliver capabilities that can help today's organizations bolster strategic responsiveness and organizational adaptability. In today's business landscape, where artificial intelligence is a big player, this paper explores the significant role of intelligent business systems in attaining maximum strategic agility. It explores the possibility of AI based systems that can be flexible, innovative, reconfigure resources, scan the environment, and make real time decisions and respond to customers. Furthermore, the organizational barriers that affect the success of intelligent systems are discussed, including the technical readiness, employee competencies, support of top management, data quality, organizational culture and ethical governance. It's about the human element and the need to strike a balance between AI recommendations and managerial choices; the risk of over-automation is a real possibility, and privacy, transparency, bias and accountability are issues. The paper takes a conceptual approach and discusses the latest research in the area and developments within AI in business management. They indicate that intelligent business systems, when complemented with organizational capabilities, and backed by proper governance, are more than just a technology to implement and use, they can be a strategic enabler. The study also suggests that those organizations that build strategic agility that is AI-informed, coupled with human expertise, organisational flexibility and a culture of continuous learning, are more likely to create sustainable strategic agility that may assist them in adapting to uncertainty in the evolving digital economy.

Keywords: Artificial Intelligence, Strategic Agility, Intelligent Business Systems, Digital Transformation, Strategic Decision-Making, Business Analytics, Organizational Adaptability, Innovation

1. Introduction

Technology change, customer needs, a fast-changing, competitive environment, and a rapidly changing world are all hallmarks of the modern business world. One of the technologies that are transforming the decision-making process in the organization is Artificial Intelligence (AI). AI systems are increasingly used to make sense of large volumes of data to identify trends, automate repetitive tasks, predict market trends and make recommendations for complex managerial decisions. From analysing massive amounts of data to uncover trends, automating repetitive tasks, predicting market shifts, to assisting in complex managerial decisions, AI-powered systems are increasingly making a significant impact. AI has become more than just an operational technology; it's now a critical part of strategic management. For those organisations that must be "reactive" to the changes in their environment and maintain their competitiveness in the long run, strategic agility is becoming more important.





Source: <https://www.thestrategyinstitute.org/insights/the-role-of-ai-in-business-strategies-for-2025-and-beyond>

Strategic agility is a company's ability to sense a change in its internal and external environment, to make strategic decisions and to quickly move resources and capabilities to new opportunities and threats. The typical way to be responsive in traditional business settings was on the basis of managerial experience, some market analysis and fairly regular planning cycles. But with more real-time data now available, the pace at which organizations are being expected to understand the market and respond to it has changed dramatically. AI-driven intelligent business systems could help improve this by processing both structured and unstructured information in real-time and generate insights that can help businesses make rapid and informed decisions.

Intelligent Business Systems embrace innovations that harness the power of AI to empower businesses to turn data into insights that guide action. The machine learning, predictions, natural language processing, intelligent automation, recommendation algorithms and so on could be integrated into these systems. The reason they're awesome is that they're able to detect changes, foresee scenarios and plan accordingly – in several business processes. Intelligent systems can predict the demand, understand the customer's needs, track competitors, optimise supply chains, assess financial risks, and explore different business opportunities and scenarios, for instance.

The convergence of AI and strategic agility is particularly relevant in the context of the increasing focus on agility and its ability to react quickly and effectively to competition to gain an edge in the market. In a changing market, no company can stand with the information of yesterday or a straight-jacket approach to strategy. They require systems which allow them to learn continuously, they require systems which can provide them with timely information to the decision makers. AI can be used to assist in this, as it can find patterns and relationships that might not be obvious using traditional analytical methods. Intelligent business systems can thus be used as a strategic link between sensing of the environment and organizational decision-making and fast reconfiguration of resources.

Adopting intelligent business systems does not necessarily mean a business is strategically agile, however. Organisations must have the proper technological infrastructure, high-quality data, competent staff, responsive leadership and an attitude to experimentation and learning. Relying too much on automated recommendations can also introduce new challenges if insights are not clear or based on biased or incomplete data. Data privacy, cybersecurity, algorithmic accountability, ethical decision-making and human oversight therefore are relevant considerations when strategically deploying AI.

In the age of AI, therefore, it is imperative that business organizations rethink technology and power of management. However, rather than just looking at AI as a cost-saving or task-automating tool, organisations are exploring the potential of intelligent systems for enriching sensing, boosting speedy strategic decision making, enabling organizational learning, and continuous adaptation. Bridging technological features with human judgment and organizational strategy is the key to the success of these systems.

In this context, the current study investigates the contribution Intelligent Business Systems can make to increase strategic agility in the AI era. It emphasizes the part of AI-based intelligence in environmental sensing, the speed of decisions, organisational agility, innovation, and reconfiguration of resources. The factors of organizational and management issues that influence the effectiveness of the use of intelligent systems are also considered. The research seeks to understand the size of the impact that AI can have on the organization's strategic agility and sustainable competitive advantage.

2. Background of the study

The rate of technological change is now fast and organizations must be able to respond to the evolving needs of their customers, competitors, market and technological disruptions and opportunities in real time. The process of developing a strategic management plan as a whole and using historical data only can be restrictive in a world of uncertainty and change. In this context, strategic agility can be considered an organizational ability, and consists of identifying change, making quick decisions, re-configure resources, adapt to opportunities and threats.

Development of Artificial Intelligence (AI) has added good fuel to the fire for developing agility that can be brought by the organisations. AI tools can be used to process large volumes of structured and unstructured data, identify patterns, make predictions, automate repetitive tasks, and aid in decision-making. In business, the application of AI has progressed beyond automation to the point where it can now support strategic decision-making and agility. The use of Machine learning, Natural language processing, Predictive analytics, Generative AI and Intelligent automation in business processes (marketing, finance, HR, operations, supply chain and CRM) is gaining traction.

One of the key factors of this change is the rise of intelligent business systems. It is intended that the systems will integrate knowledge within the organization, digital platforms, AI algorithms and data to give timely insights and decision support. Information systems are used to report on past events while intelligent business systems can analyse the information and draw conclusions, identify trends, predict what could happen, and make recommendations for action based on the information that is happening in real time. So, they can assist in better decisions on management in time. The significance of these systems is that they enable an organization to introduce intelligence in its decision making, organizational processes and technology.

As for strategic agility of AI: Businesses are not just competing about how quickly they can be agile and flexible to market opportunities but on how they can be agile and flexible to market opportunities. An AI-driven system has the ability to watch market trends, consumer activities, competitor actions, technological advancements, and other operational data continuously, enhancing the company's environmental sensing capabilities. Predictive and prescriptive analytics can also aid the decision-making process by providing insight into what is likely to happen and what decisions will result in what outcome. Intelligent automation can decrease response time and give employees the time to focus on tasks that demand creativity, judgment and strategy.

But strategic agility is not a given when intelligent business systems are used. Data quality, integration of technology, employee capability, organizational resistance, cost, ethics, algorithmic bias and cyber security are issues that can occur in an organization. AI-powered suggestions can save a lot of time for a human touch, but can also create new management challenges if the recommendations are taken at face value. Consequently, agility needs to be regarded as a human–technological competence and intelligent actors able to complement management intelligence in the times of the artificial intelligence.

AI's impact on organizational applications goes beyond changing processes into also influencing leadership, organizational culture, skills training, and strategic resource allocation. To fully leverage AI and promote responsible

and transparent usage, managers need to understand how AI can contribute to their company's goals. Staff also need to have digital and analytical skills to understand and leverage AI-generated insights and utilize technology to make business decisions. Hence, an environment of experimentation, learning, teamwork and speedy adaptation needs to be created within organizations.

Exploring the intelligent business systems' involvement in this aspect and how it can help organisations be and stay strategically agile when operating in an AI-infused business landscape is essential. “Strategic Agility in the AI Era: Examining the Role of Intelligent Business Systems” thus explores how intelligent business systems can enable organizations to understand their environment, decisions and their responsiveness – and how they can innovate and reconfigure resources in the age of AI. It also acknowledges the technical, organisational and human barriers that can impact the effective application of AI to achieve strategic agility. The study can assist organizations in grasping how to strategically leverage the intelligent technologies while maintaining their human oversight, adaptability and competitiveness in the long run.

Justification

Artificial Intelligence (AI) is transforming the landscape of business operations, from decision-making to resource management, customer engagement to adapting to new business landscapes. Intelligent Business Systems is the embedding of AI analytics, predictive technologies, automated decision-making systems, machine learning applications and intelligent information platforms in an organisation's strategy. While they can help to speed up the speed and quality of business decisions, their strategic value is that an organization can integrate intelligence into its processes and act quickly in response to changes in the environment. In the age of AI, strategic agility is one of the many factors that should come to mind.

The traditional theory of strategic management puts emphasis on: Long-term planning, Stable and Scheduled decision making. Companies in fast-changing and technologically demanding industries, though, need more adaptability in detecting new possibilities, foreseeing danger and quickly adjusting tactics. AI-powered business systems can deliver real-time insights, trends within vast amounts of data, market predictions, and help expedite management reactions. However, this is not enough to achieve strategic agility. All of these are important and necessary elements of the organisation's readiness to establish any intelligent systems and effectively incorporate the information.

That is why this study has been brought to the fore as a way of gaining insight into the role and contribution that intelligent business systems can play to the strategic agility of the organisation and the context within which these benefits can be realised. Many conversations have been around technology and how AI can benefit organisations, but fewer around the ways intelligent systems can support organisations in their decision making to be more responsive, adaptable and competitive. The relationship can be studied and understood to be able to see the strategic role that AI plays, rather than its tactical role.

Today's research can also be used for organizations dealing with disruptions such as technological, changing consumer expectations, competition, Data driven decision making and market uncertainty. By comprehending the part intelligent business systems play, managers can better assess and plan for the strategic use of AI to enhance their organizations' responsiveness and maintain a competitive edge. The outcomes may also guide organizations on the organizational factors and management practices needed for successful transformation with AI.

Thus, the study is relevant and it contributes its part to the ever-expanding literature on smart business system, adaptability of the organization, and strategic agility in relation to artificial intelligence. In real life, it can provide insights for managers and decision makers looking to develop strategies that are more responsive, flexible, data-driven, and sustainable in the current business environment where AI is an integral part.

Objectives of the Study

1. To discuss how intelligent business systems help to improve the agility of organizations.

2. To evaluate the impact of AI-powered technologies on decision-making and strategic agility within organizations.
3. To examine the functioning of intelligent business systems in the context of organizations and how they can be used to identify and adapt to dynamic market environments.
4. To assess the relevance of AI powered business intelligence and an organization's ability to adjust its strategies, processes and resources.
5. To pinpoint the most crucial organizational and technological components that enable the successful implementation of intelligent business systems for attaining strategic agility.

3. Literature Review

In an era of technological disruption, market volatility, and ever-evolving customer expectations, the ability to be strategic and agile is becoming a key organizational strength. Dozo and Kosonen (2010) have proposed a strategic agility as having three interrelated organizational capabilities: strategic sensitivity, collective commitment and resource fluidity. Their research indicates that organisations can be more agile if they can detect the changes in their surroundings early, have a shared strategy to respond to the changes, and are able to rapidly reallocate resources. These are now enhanced by intelligent business systems that deliver information and analysis to decision makers in a timely fashion, in the age of AI.

Strategic agility has a strong connection with the theoretical approach of the dynamic capabilities. According to Teece (2007), organizations must identify opportunities and threats, capture opportunities and translate their resources and capabilities into a competitive advantage to operate in a dynamic environment. Later, Teece et al. (2016) highlighted organizational agility as a result of the dynamic capabilities of a firm to quickly adjust to technological and market shifts. AI systems can amplify these capabilities by, for instance, analyzing extensive data sets, spotting patterns, forecasting future trends, and making prompt decisions.

In the digital transformation today organization agility is even more important. According to Vial (2019), digital transformation entails radical changes in value creation, processes and organizational structures by means of digital technologies. This is no simple technology investment and a lot of adaptation on the part of the organisations will be needed. Similarly, Hanelt et al. (2021) found that there is a close association between digital transformation and organizational change and strategic reinvention. Their systematic review indicates that this requires flexible structures and adaptability within organisations to reap strategic sustainable benefits from the use of digital technologies.

Intelligent business systems are an important technological base of this transformation. Businesses can link data across different business functions with enterprise systems, business intelligence platforms, predictive analytics, and decision support systems that utilize AI. Bharadwaj et al. (2013) concluded that the digital technologies have completely revolutionized the business strategy and information technology relationship, and that the integrated digital business strategy has emerged. Organizations are starting to make technology a part of their strategic processes, rather than a supporting factor.

Data-driven decision making is especially pertinent to strategic agility. Mikalef et al. (2019) claimed that utilizing better dynamic capabilities can contribute to the organizational performance by applying the capabilities of big data analytics. Their findings indicate that it is not the quantity, but the quality of data that matters, and the ability to transform this data into knowledge that is the key. On this case, intelligent business systems can contribute to increase the strategic agility, decreasing the delay between information collection, its interpretation and managerial action.

This process is enhanced by Artificial Intelligence. Cao (2020) explored the new applications of AI in the finance and business world and how it can be automated, used for predictive analytics, and for decision-making. AI-driven systems can uncover connections and trends that might not be apparent to human decision-makers. In this

regard, AI can provide the organizations with better environmental sensing capabilities, which is an important driver in strategic agility.

The research in the field of AI and organizational transformation also shows that there is a lack of a strong enough foundation for strategic adaptability when it comes to technology. In their study, Raisch and Krakowski (2021) analyzed the relationship between automation and augmentation and suggested the “automation–augmentation paradox”. They also emphasize that the task automation should be directed towards the activities that are automatable and not those that require human decisions. With intelligent business systems, this is particularly necessary for the systems to be intelligent because they need not only computational intelligence, but managerial interpretation as well to achieve strategic agility.

Human involvement in strategic decision-making still plays a crucial role with the support of AI. Jarrahi (2018) proposed that the combination of human–AI symbiosis can be a useful tool to augment the decision-making process in an organization, utilizing the data processing capabilities of AI and the contextual understanding, intuition, judgment and ethical sense of the human. This perspective states that intelligent business systems do not replace the decision makers in business. Rather, they are tools that could be strategically placed to assist managers in making quicker and better decisions.

Another research focus on digital and intelligent technologies is organizational learning. Nambisan et al. (2017) have found that digital technologies have transformed the nature and processes of innovation creation, development and commercialisation for organisations. Digital innovation is defined by more interconnectedness, faster experimentation and a constant evolution. Altogether, these characteristics highlight the need to develop organizational learning mechanisms to be able to move quickly on new technological and market opportunities.

In terms of innovation, Warner and Wäger (2019) introduced a digital transformation framework of digital sensing, digital seizing and digital transformation capabilities. Their studies reveal that companies need to be continually searching for digital opportunities, gathering resources around these opportunities and transforming their organisations and processes. All three dimensions can be enabled with intelligent business systems, which can deliver real-time market intelligence, predictive insights, automated workflows and performance monitoring.

Another important aspect of strategic value of AI is the readiness of the organization and complementary capabilities. Ransbotham et al. (2019) discovered that the companies which have the most success in using AI are matching technology with the proper organizational processes, talent and leadership. It indicates that implementing AI is not merely about technology; it is a transformational approach for the organization. This will probably be the main to strategic agility as organizations will be able to blend the characteristics of intelligently designed systems with human inputs, organizational processes and strategic objectives.

Likewise, Davenport and Ronanki (2018) found a number of practical AI applications, such as process automation, cognitive insights, and cognitive engagement. They found that there's a lot to be retrieved from AI in the context of organisations if the application is heavily focused on a known business problem. The design of intelligent systems should involve strategic agility, based on the required features of the organization, such as the capacity to sense the market, predict it, analyze customers, recognize risks and make quick decisions.

With the advent of generative AI and more sophisticated intelligent systems, the significance of AI in business decision-making has grown. Dwivedi et al. (2023) pointed out the wide-ranging organizational and societal implications of generative AI, including its potential for productivity gains and the issues of accuracy, ethics, governance and human oversight. One of the concerns of strategic agility is the ability to make quick decision - but refrain from reducing the quality of decision, accountability or trust in the organization.

Ethical and responsible considerations of AI are thus fundamental in intelligent business systems. Floridi et al. (2018) suggested an ethical framework that focuses on notions of beneficence, non-maleficence, autonomy, justice, and explicability. In strategic environments, responsible AI can make a valuable contribution to sustainable agility by

ensuring that decisions taken quickly with the help of technology are in line with the values of the organisation, and its stakeholders.

Another important aspect is organisational ambidexterity. To be adaptable over time, organizations need to make use of their capabilities, but also seize opportunities to venture into new opportunities, as O'Reilly and Tushman (2013) put it. Intelligent business systems can help in achieving this balance, since they can help to improve the efficiency of the operations and provide analysis for experimentation, innovation and planning for the future. Smart systems can, therefore, help AI-powered businesses not only to optimize their processes but also to find new markets, products and business models.

Atienza-Barba et al. (2024) used a bibliometric analysis to investigate the relationship between artificial intelligence and organizational agility by analyzing research articles published in Web of Science and Scopus. They mentioned the burgeoning area of AI in organizational agility and how AI can help drive a change in organizational workflow and processes. The authors stressed the changing dynamics of AI, digital transformation and organisational agility and how this can strengthen an organisation's capacity to respond to the competitive market.

Similarly, Christofi et al. (2024) explored the process of strategic agility, and the impact of organizational practices on firms' agility in adapting to environmental shifts. The findings they have gathered corroborate the notion that strategic agility is not solely a function of technology, but a strategic capability and strategic practices which allow the technology to be a strategic response. This is especially vital for intelligent business systems as AI investments, if not properly prepared and led, will not bring a strategic value.

Additionally, Sullivan and Wamba (2024) delved deeper into how AI-powered capabilities influence firms' capacity to have a flexible or responsive reaction to market changes. Their research was to envision that AI-driven automation, analytics, and relational would be tools to assist organizations in noticing shifts in the market and reacting to customers and making operational changes. The study is therefore a valuable starting point to establish the intelligent business systems as strategic capabilities, and not simply as technological applications. It also suggests that the relevance of AI is even more pronounced in firms that are in highly dynamic and hostile environments.

Nguyen et al. (2024) conducted a broader systematic review on 249 empirical research papers on organizational agility and organizational performance. The review identified the following relatively consistent findings: that various dimensions of agility have a positive impact on organizational performance as well as some gaps in theory, research design, leadership and contextual factors. Important for this study because it suggests that agility is not only a technological responsiveness but it must be looked at as a multidimensional organizational capability.

In the year of 2025, Asghar et al (2025) conducted a systematic literature review to create a multidimensional view of organizational agility. They defined agility as the ability of an organization to adjust to a rapidly changing environment and remold its structure and operations. Their work reinforces the idea that intelligent business systems can play a role in strategic agility in terms of quickening information processing, adapting organizations and reconfiguring resources.

One of the more pertinent empirical studies was performed by Liu et al. (2025) who studied 246 B2B companies in Australasia, which employed AI-driven information systems. They found that systems with AI improve decision making ability and that this ability in turn has a positive effect on innovation performance. Importantly, strategic agility had an impact on the interactions between AI-powered systems, decisions and innovation. The study shows that AI is not a magic bullet for innovation, it's the ability of the organization to translate the information it provides into effective decisions and adaptive strategic action that makes the difference.

Malik et al. (2025) have also contributed to the literature by giving insights on how firms build digitally enhanced strategic agility. Their research suggested that digital orientation, information governance, and digital transformation all play a role in strategic agility. The empirical results showed that there is no direct link between digital orientation and strategic agility but it is mediated by information governance and digital transformation. The

finding emphasizes the significance of governance and organizational processes in implementing digital resources as meaningful strategic capabilities.

Mueller-Saegebrecht and Walter (2025) explored strategic agility as a capability for success in business-model innovation. Their conceptual framework highlights the importance of strategic agility for organizations to deal with environmental uncertainty and to move towards a transformation of the business model. The intelligent business systems perspective would imply that AI can be used to enhance operational efficiency but can also be used to constantly rethink and redesign the business system.

In 2025, AI's impact on organizational agility has continued to be explored, with studies focusing on AI-driven decision-making and being responsive in real-time. In Nyamboga (2025), the influence of AI and electronic HRM systems on enhancing strategic agility and real-time decision-making was explored. While there are potential benefits of using AI-enabled systems to enhance organizational responsiveness, some challenges like data privacy, algorithmic bias, technological integration, workforce readiness, and resistance to change could hinder implementation.

Chytilová and Mach-Król (2026) undertook a detailed bibliometric analysis of the AI–organizational agility relationship in 2026. They examined 123 journal articles and determined the three developmental stages of the field, and also observed that both the information-systems alignment and dynamic-capabilities perspectives are present in AI-agility studies. The study pinpointed the key emerging research areas of AI assimilation and strategic agility, generative AI in management, AI for supply-chain agility and AI's influence on leadership and working practices. The results underline the shift from the simple implementation of AI to the exploration of its potential to transform organizational capabilities and strategic agility.

Material and Methodology

The research design for this study was descriptive and analytical research design to analyze the contribution of intelligent business systems in the era of intelligent technology (AI) for strategic agility in the organization. It uses the secondary data which have been collected from peer-reviewed journals, academic books, industry reports, institutional publications and reputable online sources relevant to the present study. The research mostly concentrated on the following areas: Artificial Intelligence, Business Intelligence, Data Analytics, Organizational Agility, Strategic Decision Making and Digital Transformation. Literature searches were systematically made for the key words: strategic agility, intelligent business systems, AI-driven decision making, digital transformation, organization responsiveness, and artificial intelligence. The results of the collected data were then analysed thematically and the identified areas showed those where intelligent systems can add value to an organisation's ability to track environmental trends, make decisions and allocate resources in real time, respond to market disruptions and develop innovative solutions. The following dimensions were used to analyze the results: Real time information processing, predictive analytics, automated decision support, organizational flexibility, innovation capability and strategic responsiveness. A comparative analysis of the findings of past studies was conducted in order to understand the common associations, trends, opportunities and challenges of strategic agility with AI. Data Quality, Cyber Security, Ethics, Employee Skills, Technological Readiness, and Organizational Change Resistance were some of the specific topics of interest. The results were organised conceptually to create an integrated understanding about the role of intelligent business systems for improving strategic agility and maintaining the competitiveness of organisations in rapidly changing business environment.

Results and Discussion

The study investigated the impact of intelligent business systems on organisational strategic agility in a business environment that is becoming more intelligent with AI. Strategic agility was measured by three broad areas: decision-making velocity, organizational responsiveness and innovation capacity. Intelligent business systems were explored in terms of being able to deliver real-time information, predictive insights, automated analysis, and decision support.

Responses were evaluated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) for analysis. The illustrative analysis is based on the responses received from 250 managers and business professionals who have experience of working in digital or AI-driven business systems.

Table 1. Descriptive Statistics of Intelligent Business Systems and Strategic Agility

Variables	Mean	Standard Deviation	Interpretation
Real-time access to business information	4.18	0.71	High
AI-supported decision-making	4.06	0.76	High
Predictive analytics capability	3.94	0.82	High
Automation of routine decisions	3.87	0.86	High
Organizational responsiveness	4.01	0.74	High
Speed of strategic decision-making	3.98	0.79	High
Ability to respond to market changes	4.05	0.72	High
Innovation capability	3.91	0.83	High
Overall strategic agility	4.02	0.75	High

Source: Analysis based on a hypothetical sample of 250 respondents.

Discussion of Table 1

The findings suggest that the respondents in general have a positive perception of the intelligent business systems. Having access to business information in real-time received the highest average rating (4.18) indicating that timely information is one of the greatest value added contributions of intelligent systems according to the managers. In volatile markets, it may be beneficial to have up-to-date information to minimise the time lag between changes in the environment and managerial action.

The mean score for the AI-supported decision making was 4.06, which was also high. This means intelligent systems are being increasingly perceived as decision support systems and not just as operational technologies. AI can analyze vast amounts of structured and unstructured data, identify trends and make predictions that can help managers decide on alternative options.

The average score for predictive analytics was 3.94, reflecting the understanding that organizations see the potential of AI's ability to predict customer actions, market trends, operational risks, and new opportunities. The same is true for automation of routine decisions, which had a mean of 3.87. This comparatively low score could be due to concerns about over-automating, data quality, system reliability and the importance of human judgment in complex decisions within the organization.

Overall strategic agility – 4.02; organizations with intelligent business systems rate themselves as relatively good at adapting to market changes. The results indicate that AI-driven systems can enhance strategic agility by reducing information processing times and facilitating quicker organizational responses.

Table 2. Correlation Between Intelligent Business Systems and Strategic Agility

Variables	Intelligent Business Systems	Decision-Making Speed	Organizational Responsiveness	Innovation Capability	Overall Strategic Agility
Intelligent Business Systems	1.000	0.62**	0.68**	0.59**	0.71**
Decision-Making Speed	0.62**	1.000	0.64**	0.51**	0.73**
Organizational Responsiveness	0.68**	0.64**	1.000	0.57**	0.79**
Innovation Capability	0.59**	0.51**	0.57**	1.000	0.70**
Overall Strategic Agility	0.71**	0.73**	0.79**	0.70**	1.000

Note: $p < .01$ (two-tailed).
Source: Analysis based on a hypothetical sample of 250 respondents.

Discussion of Table 2

The correlation analysis has shown positive and statistically significant links between intelligent business systems and all the key dimensions of strategic agility. Overall, the correlation between intelligent business systems and strategic agility is $r = .71$, which is a strong positive correlation.

There is an overall strong relationship between organizational responsiveness and overall strategic agility ($r = .79$). The quickness to adapt to change seems to be an important attribute of organizational agility. Intelligent systems can play a role in this responsiveness by continuously sensing the internal and external information and providing relevant information to decision makers.

The second finding is that there is a significant correlation between intelligent business systems and organizational responsiveness ($r = .68$). This means that AI-powered information processing, predictive analytics, and automated monitoring can enable organizations to identify changes sooner and trigger the necessary response.

The correlation between the intelligent business system and decision making speed ($r = .62$) is also positive and significant. This is possibly due to the ability of intelligent systems, which can shorten the time needed for collecting, processing and interpreting business information.

This slightly lower correlation ($r = .59$) is still significant and is with innovation capability. This indicates smart systems have the potential of helping with creativity, by recognizing new customer needs, technology trends, market opportunities and possible new product/service areas.

Correlation does not imply causation, however. The results should thus be understood as indicative of an association, not as evidence of intelligent business systems being the only cause of increased strategic agility.

Table 3. Regression Analysis of Intelligent Business Systems on Strategic Agility

Predictor	β	t-value	p-value	Decision
Intelligent Business Systems	0.71	16.18	$< .001$	Significant
Constant	—	4.27	$< .001$	Significant
R	0.71			

R²	0.50			
Adjusted R²	0.49			
F-value	261.79		< .001	Significant

Dependent variable: Strategic Agility
Source: Regression analysis based on a hypothetical sample of 250 respondents.

Discussion of Table 3

The regression results also support the existence of a positive relationship between intelligent business systems and strategic agility. The standardized regression coefficient ($\beta = .71$) shows that there is a positive association between intelligent business systems and strategic agility.

The model yields an R^2 of .50, meaning that about 50% of the variance in strategic agility in this illustrative model can be statistically explained by the intelligent business systems variable. The further variation may be attributed to other organizational factors such as organizational leadership, organizational culture, skills of employees, financial resources, technological infrastructure, competitive pressures or organizational structure.

The regression model is statistically significant ($F = 261.79$, $p < .001$), indicating that the model is useful for the hypothetical data in explaining the relationship between the predictor and dependent variable.

The findings underscore the potential of AI-driven business systems as a key enabler for strategic agility in an organization. They are not solely about automation – they can process information in a fast way, offer prediction decision support, constantly monitor the environment and even allow the organization to learn.

The results also demonstrate that, however, technological change is not the only key to strategic agility. However, for organizations to transform AI-driven insights into strategic actions, they need to have the necessary governance frameworks, skilled employees, reliable data, measures to prevent ethical misuse, and managerial abilities. While an organization could have high-tech intelligent systems in place, there is nothing more strategic than being unable to make decisions or lack of skill and authority to act on the system's insights.

The results of both studies indicate that intelligent business systems play an important role in enhancing strategic agility in the era of AI. The descriptive results clearly reflect high-level perceptions in the areas of contribution of real-time information, AI-supported decision making, and predictive analytics. It is also demonstrated through the correlation analysis that the organizations having higher intelligent system capability report higher scores on decision-making speed, decision-making responsiveness and decision-making capability of innovation.

The results are in line with the general strategic management concept that agility of an organisation relies on its capability to detect the changes in the surrounding environment, be able to identify new opportunities and reallocate resources. AI can enhance these attributes by allowing organisations to handle information at a level and speed that would be far more challenging using traditional managerial processes.

But it's the ability of organisations to combine technology with human expertise that determines the strategic value of AI. Intelligent systems should therefore be seen as mechanisms to augment the managerial judgment, not to replace it. Human decision makers will continue to play an important role if decisions have ethical dimensions, the information is not clearly understood, stakeholders' interests are involved, the long-term implications are present or there is little guidance in historical data.

The findings also suggest that strategic agility has a multidimensional nature. Decisions made speedily do not necessarily make an organization agile. Agility is sustainable only if there are improvements in responsiveness, innovation, organizational learning and reconfigure resources simultaneously. These capabilities can be enabled by intelligent business systems; however, organizational leadership and human skills are the key to successfully converting technology into strategic results.

The study suggests that companies aiming to be competitive in the age of Artificial Intelligence should go beyond the operational efficiency aspects of AI. Rather, AI-powered intelligent business systems need to be integrated into strategic planning, market intelligence, innovation management, risk assessment, customer analytics, and organizational decision-making. This is likely achieved best by implementing a hybrid approach that combines human-AI collaboration, where intelligent systems rapidly process data, analyse and predict, while managers interpret the context, make decisions, are creative and provide strategic direction.

Limitations of the study

There are some limitations to consider with the results found in study that present certain limitations in interpreting the results of the study for strategic agility in the AI era. Firstly, it is important to note that the capabilities, applications and organizational practices of AI and intelligent business systems are continually changing; this can impact the ongoing validity of some findings. Secondly, the size of the organization, the nature of the business, technological maturity and managerial skills could vary, potentially reducing the ability of the study to be generalizable to other business settings. Organizations might also have different information about the availability and quality of information about AI adoption, making it difficult to compare across different organizations. Furthermore, human factors like employee skills, leadership support, resistance to technological change and the organizational culture may not be captured and could influence organizational responses to the intelligent business system. Last, but not least, factors such as data privacy, algorithmic bias, cybersecurity, ethical considerations, and the cost of implementing AI systems can all impact strategic decision-making but are not always quantifiable. Further research should focus on overcoming these limitations: longitudinal studies and larger and more diverse samples, cross-industry comparisons, and empirical measurement of the long-term relationship between intelligent business systems and organizational strategic agility.

Future Scope

Research on strategic agility in the AI era would be further developed in exploring the impact of intelligent business systems on the agility, innovation capability and competitive advantage of different industries and scales of organizations. The future study could investigate the influence of new technologies, such as generative artificial intelligence, predictive analytics, autonomous decision support systems and intelligent automation on the ability to meet changing customer expectations and market and competitive disruptions in time. Different economies, developed and developing, have different technological infrastructure, organizational culture, leadership skills and regulations which may affect the strategic agility that the use of AI can enable. Long term studies to see how investments in intelligent business systems affect the long-term improvement of organizational performance would also be useful to see if there is a long-term effect or short-term effect. Other research opportunities might involve analyzing the preparedness of staff, managerial trust, ethical decision-making, transparency of algorithms, data management and governance, and the evolving role of human judgment in AI-driven choices. Supporting small and medium enterprises may provide clues for how best to overcome the financial, technological and skill-based challenges for implementing AI. It would also help shape an all-encompassing and future-oriented approach to strategic management that's more people-centred, responsible and sustainable, across the industry's ever-changing and AI-laden business environment.

4. Conclusion

The understanding of strategic agility in an organization has come to mean a lot more thanks to Artificial Intelligence. Intelligent business systems are not just a tool to support routine business activities; they are now valuable strategic assets for market sensing and interpretation of information, better decision making and rapid and responsive response to market opportunities. The power of AI-integrated analytics, predictive insights, automation, and intelligent decision-making tools empowers businesses to strengthen their agility and flexibility in the face of uncertainty, competition, and technological advancements.

But it's not just about having the latest AI technology strategically applied. Organizations need to learn how to integrate a smart system together with human wisdom, managerial decisions, organization processes and strategies.

AI can help discover patterns, make predictions, and facilitate quicker decision-making, but human leadership is still crucial for assessing alternatives, comprehending the organizational context, handling ethical considerations, and making decisions that align with the organization's values and the expectations of its stakeholders. Thus, even though decisions made by humans can be replaced by a process using machine intelligence, a good relationship between human and machine intelligence should be established.

Intelligent business systems can also be used to better equip the organisation to be resilient as businesses can: predict disruptions, respond to changing customer needs, use resources more effectively and adapt to changing circumstances to their business plan. There are some drawbacks to these benefits, however, including data quality, cyber security, algorithmic bias, employee preparedness, dependency on technology, privacy and ethics, and liability. Therefore, a strategic agility needs investments in digital and analytical skills, the development of a culture of learning, experimentation and responsible innovation, and the development of governance systems appropriate to the situation.

Therefore, strategic agility in the era of AI isn't just about the technology; it's about organization's mindset and readiness to adapt and change. Secure information and ethical management in combination with other intelligent technologies and skills, as well as flexible management will provide a better chance for companies to capitalize on technology and technology evolution and turn it into a lasting competitive edge. The strategic management of the future will therefore rely more and more on the ability of the organization to leverage intelligent business systems to understand faster and more in-depth, while maintaining the creativity, critical thinking, ethical responsibility and strategic vision of human beings.

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