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AGENTIC ARTIFICIAL INTELLIGENCE AND BUSINESS TRANSFORMATION: REDEFINING INTELLIGENT DECISION-MAKING IN MODERN ENTERPRISES

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Abstract

Agentic Artificial Intelligence (AI) is becoming a gamechanger, empowering businesses to engage in autonomous reasoning, goal-driven actions, adaptive learning, and real-time information processing. This study aimed to detail how Agentic AI influences intelligent decision-making in today's businesses, and to explore business transformation, operational efficiency, organizational agility and responsible AI governance. A quantitative cross-sectional research design was used, and data were gathered from 300 business professionals, managers, executives and employees having a positive attitude towards technology using a structured questionnaire with 5-point Likert scale. Descriptive statistics, reliability analysis, Pearson correlation and multiple regression were used to analyse the data. High perceptions of Agentic AI capability ($M = 4.18$, $SD = 0.61$) and intelligent decision making ($M = 4.24$, $SD = 0.57$) were found. The correlation of Agentic AI with intelligent decision-making and business transformation were very positive, with r values of 0.71 and 0.74 each, respectively, and both with p values below 0.001. The results of regression analysis revealed that Agentic AI significantly predicted intelligent decision making ($\beta = 0.71$, $R^2 = 0.504$, $p < 0.001$) and business transformation ($\beta = 0.74$, $R^2 = 0.548$, $p < 0.001$). Goal-Oriented Execution was the strongest dimension of Agentic AI that was significantly linked to business transformation ($\beta = 0.29$, $p < 0.001$). The study found that with responsible governance and human oversight, Agentic AI can enhance intelligent decision-making, operational efficiency, organizational agility, and business transformation.

Keywords: Agentic Artificial Intelligence; Business Transformation; Intelligent Decision-Making; Organizational Agility; Responsible AI Governance; Technological Innovation

1. Introduction

Artificial Intelligence (AI) is transforming the ways in which value-creation and value-coordinating activities are performed, as well as how strategic decisions are made, in organizations. The evolution of these generative AI and large language models over the past few years has shifted AI from purely analytical, predictive, to now content-producing, complex information-interpreting, and knowledge-intensive systems. The next development, Agentic Artificial Intelligence (Agentic AI), involves AI agents being able to aim for specific objectives, debate and analyse challenges, plan multiple steps, engage with digital systems and perform tasks with minimal human involvement. Agentic systems can adjust their actions in response to feedback and adaptation to changing situations, unlike traditional automation where actions are typically performed according to a set rule. This shift has been recently described by research on a shift from AI tools to autonomous agents that plan, orchestrate workflows and make bounded decisions in organizational environments (Manimangalam, 2026).

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Agentic AI's rise in relevance ties this growth with enterprise decision-making. Agentic AI's relevance is intertwined with that of enterprise decision-making. Information through dashboards, reports, and even predictive analytics, traditional business intelligence systems mainly deliver information to managers, with the authority for making a decision firmly placed in the hands of the human being. In contrast to the reactive AI, Agentic AI adopts a more proactive approach by enabling smart systems to understand information, establish goals, orchestrate operations, suggest actions and even implement decisions. Evidence indicates that businesses have the opportunity to transform their decision-making processes from traditional reactive responses to more proactive and automated approaches when using agentic AI alongside business intelligence (BI) (Saidkhujaev, 2025). This evolution opens up greater potential for quickened action, more efficient resource allocation, customized customer interactions, improved operations, and ongoing adaptation.

1.1 Background of the Study

Agentic AI evolves; it's moving from being a tool driven by rules and predictive analytics to intelligent systems that incorporate reasoning, planning, memory, tool-usage, and even autonomous action. One of the exciting possibilities with contemporary agentic architecture is the ability to connect LLM with other data sources, enterprise applications, APIs, and specialized AI agents to create multi-stage AI agents. Naturally, recent scholarship on the subject indicates that important technical features of agentic systems are reasoning, planning, cross-system orchestration, feedback integration and adaptive action. This is not enough to have the technology; successful business transformation demands the actual capability to deploy it. Other organizational factors examined are organizational readiness, data infrastructure, process design, human-AI collaboration, and governance mechanisms impacting autonomous AI organizational value (Manimangalam, 2026). Another recent body of work on Agentic AI similarly highlights the vast spread of Agentic AI architecture and applications, as well as its evolving conceptual and organizational boundaries and implications (Abou Ali et al., 2025).

Agentic AI may reshaped organizational structures by dispersing the decision-making and execution power throughout the interconnected world of people & AI. The different functions that can be supported by enterprise agents are compliance, strategic planning, financial analysis, forecasting, human-resource management, supply-chain management, and customer service. As is clear from recent enterprise research, agentic AI is a shift from single-use AI applications to a system that can orchestrate end-to-end journeys and enable autonomous decisioning (Ranjan et al., 2025). This conversion can help build organisational agility to allow businesses to be flexible and adapt to changes in the market and disruptions in operations. These attributes are important under the umbrella of responsible agentic AI governance (Syros et al., 2025), and they have come into focus recently.

The role of Agentic AI also depends upon the balance between autonomous intelligence and human judgment in organizations. While AI agents can handle large amounts of data and repetitive and complex work, many decisions in the organization require other elements such as ethics, context, stakeholder concerns, and uncertainty, none of which can be solved by an AI agent. New communication research suggests not replacing organizational communication with AI but using it as a support tool (Oswick, 2024). With regard to autonomous agents, emerging governance literature states that there is a need to be prepared, accountable, and to have socio-technical preparedness of organizations.

1.2 Research Objectives

1. To examine the influence of Agentic Artificial Intelligence on intelligent decision-making in modern enterprises.
2. To assess the role of Agentic Artificial Intelligence in improving business transformation, operational efficiency, and organizational agility.
3. To evaluate the importance of human oversight, governance, and responsible AI practices in the adoption of Agentic Artificial Intelligence for enterprise decision-making.

1.3 Research Questions

Q1. How does Agentic Artificial Intelligence influence intelligent decision-making in modern enterprises?

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Q2. What role does Agentic Artificial Intelligence play in business transformation, operational efficiency, and organizational agility?

Q3. How do human oversight, governance, and responsible AI practices affect the effective adoption of Agentic Artificial Intelligence in enterprise decision-making?

1.4 Significance of the Study

This study is important as it adds to the growing perception of Agentic Artificial Intelligence as much more than a computer-based automation tool, but a new capability of organizations. The study gives insights on possibilities for the support of faster and smarter business decisions through autonomous reasoning, adaptive learning, goal-oriented task execution and the coordination through AI. The findings can guide managers and business leaders in strategic planning for the adoption of Agentic AI responsibility and in determining the capabilities of their organization to make autonomous AI a part of the workflow. The study applications showcase the value of trustworthy data, system integration, cyber security, monitoring, and human-AI collaboration for tech professionals. The research also helps to enrich the academic body and its understanding since it involves the linkage of Agentic AI and business transformation and intelligent decision-making besides highlighting the importance of governance and human oversight as key factors for sustainable and responsible enterprise outcomes.

2. Literature Review

2.1 AI and Autonomous Business Capabilities in its Business Processes

Agentic Artificial Intelligence is a novel evolution of the field of Artificial Intelligence, where AI systems evolve from generating answers to observing environments, thinking about goals, planning actions, interacting with external tools, and learning from feedback. Current publications differentiate the systems with agents from the previously mentioned AI applications with attributes of autonomy, proactivity, adaptability and goal-directed action. According to Abou Ali et al. (2026), agentic AI is a rapidly growing paradigm integrating a variety of reasoning, planning, memory, perception and action capabilities, spanning a range of applications. The Array study highlights autonomy, reactivity, proactivity, and learning as key features that could allow AI systems to carry out increasingly complex organizational tasks.

What makes Agentic AI so enterprise-relevant is its ability to snatch different activities, not just single tasks. By engaging with organizational databases, enterprise software, APIs, and other AI agents, these agents can perform workflows that typically involve multiple human interactions. Manimangalam (2026) suggests that the transition from AI tools to autonomous agents can facilitate organizations to break down objectives into steps, coordinate multi-step processes, and adjust actions within a governed decision-making space. This framework argues that, in addition to model intelligence, essential factors for the success of Agentic AI involve organizational preparedness, process modularity, data infrastructure, and the collaborative nature of human-AI interactions.

There is also some literature pertaining to the transition from the task level automation to a more general enterprise transformation which can be facilitated by the concept of agentic capability. AI can be designed as a set of related agents that can coordinate information and actions across business functions, instead of using AI in isolation as an analytical tool. Saidkhujaev (2025) suggests combining agentic AI with business intelligence to transition businesses away from mere dashboards and towards autonomous planning, execution, and adaptation. It can increase responsiveness and minimise the time lag in the generation and processing of information for managerial action.

2.2 Agentic AI and Intelligent Decision-Making

Capable decision-making is among the essential applications for AI in organizations, as modern businesses deal with significant amounts of structured and unstructured data. Agentic systems have the potential to aid decision processes in the following ways: gathering relevant information, evaluating alternatives, finding patterns, generation of recommendations, and taking action selected as a result of the gathered information. AI will impact decisions in various ways depending on the type of decision, according to Page and Kallapur (2026), it could replace human beings in some operational decisions, and it might assist

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in making complex tactical and strategic decisions. This distinction underscores the significance of insuring that decision systems are engineered to the risk, uncertainty, and human judgment level that is in the system.

Research in the field of human-AI collaboration has confirmed there is significant value in augmenting decision processes when faced with information overload or problems of unknown origin. Using generative AI tools can help reduce cognitive loads and address some heuristic biases by delivering data-driven analytical support, Hao, Demir, and Eyers (2024) discovered. The discovery's release at the same time may signal some of the dangers of overreliance on machines and the limits of historical creativity. The benefit here for Agentic AI is that augmenting the autonomy of the system will have a compounding effect on the benefit and the risk. A balance between computational capacity and human contextual judgment are thus needed if enterprise decision systems are to be effective.

Another study on AI teams and humans reveals that the quality of AI-assisted choices is as much because of the combination between AI and human components as it is about the utilization of AI technology. Furthermore, Carter and Wynne (2024) put forward a theoretical framework for AI-human team effectiveness and stress the need for understanding AI integration into the collective decision-making process. Current AI assistants have not reached the ability to form and use complex, goal-oriented conversations with humans. Although AI assistants can participate in humans' complex decision-making dialogues, they currently suffer limitations in forming and using complex dialogues in decision-oriented scenarios (Lin et al., 2024). The results show that Agentic AI can be viewed as a form of agency that does not encompass complete independence from organisational goals, human knowledge and expertise, and suitable mechanisms of control.

2.3 Interaction with Agentic AI, Organizational Transformation and Human-AI Governance

Embracing Agentic AI is not just about deployment of autonomous software, as greater autonomy stimulates organizational restructuring, process changes, the evolving roles of employees, and decision-making power. Agentic systems are able to coordinate across functional areas, automate complex workflows and continue to react to varying business conditions at all times. As such, emerging literature has examined agentic AI with the lens that it could be an organizational capacity that can help transform the way enterprises manage and coordinate their resources and share decision-making authority. Manimangalam (2026) states that the need for sustained transformation isn't necessarily synonymous with sophisticated technologies, but instead relies on alignment between the technical capacities of the agents, the readiness of the organization, and the capacity to structure governance.

The importance of human-AI collaboration is especially critical -- autonomous systems may be able to come up with efficient recommendations, but they do not have context, organisation, or values. As per Oswick (2024), Generative AI should complement rather than supplant human decision-making and dialogue in an organization. R&D work on the topic of collaborative decision-making also points to these elements for successful AI-linked decision-making. Studies of collaborative decision-making also highlight transparency, accountability, inclusiveness and adequate human engagement as necessary factors for collaborative and productive decision-making with AI.

Governance is a major component of successful Agentic AI transformation. Organizations have to deal with accountability, security, explainability, privacy and operational risk issues as the agents become more empowered to access information, communicate with enterprise systems and to take actions. The recent scholarship on Agentic AI has pointed to the need to set boundaries around autonomy and ensure that it can be traced and human control can be retained. This shift in the focus of research literature brings another important gap: While many studies delve into the technical aspects of using Agentic AI and the way it can enhance business decisions, empirical evidence on how it translates into tangible business improvements and intelligent decision-making is comparatively scarce.

This study addresses this gap by examining Agentic AI as an organizational capability and evaluating its relationship with intelligent decision-making and broader business transformation outcomes.

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3. Research Methodology

3.1 Research Design

The study employed a quantitative, cross-sectional research design to analyse the relationship between Agentic Artificial Intelligence and business transformation with special focus on intelligent decision making, operational efficiency, organizational agility and responsible AI governance. The choice of quantitative design was due to the researchers being interested in determining the extent of perceptions and experiences of the organizations under study by using numerical measures which were standardized and subsequently analysed statistically in terms of relationships among the variables of interest in the study. This type of data was limited in scope as it was obtained from respondents at one time only, meaning the study could only measure the status quo of Agentic AI use and its perceived importance for enterprise decision-making and transformation.

3.2 Population and Sample

The target population included business professionals, managers, executives and technology driven employees who had experience with AI applications, digital transformation, organizational decision making or enterprise technologies. For the study 300 respondents were randomly picked. Respondents held a variety of organizational roles and levels ensuring the investigation gathered a range of insights on the application of Agentic AI in contemporary business. Participants would need professional experience in an organization and good awareness of the technologies fuelled by artificial intelligence to be able to answer the questions with pertinent answers. A sample size of 300 was sufficient to describe and infer statistical likelihoods, and to allow an acceptable level of statistical power to be considered for the study to examine relationships between the major constructs.

3.3 Sampling Technique

Purposive sampling of participants was conducted to seek those that can give the necessary information about Agentic AI and organizational change. It was suitable to use this technique, as Agentic AI is still a relatively new and evolving technology, and employees that do not have exposure to enabler systems for AI may lack their own knowledge base to assess the activity of the AI. Respondents were carefully targeted to meet criteria, meaning they were employed in an organisation, knowledgeable of digital technologies/ai technologies and engaged in managerial, operation, analysis and/or technology-related activities.

3.4 Research Instrument

A structured questionnaire was created based on the literature on Agentic AI, AI-enabled decision-making, business transformation, organizational agility and responsible AI and used for primary data collection. There were two primary sections in the questionnaire. The first part gathered demographic and profession-related data: gender, age, qualification, organizational status, work experience and AI technologies familiarity. The second part assessed the substantive research constructs. Agentic AI was put into practice in aspects like self-guided thinking, goal-driven task automation, lifespan adaption, real-time data handling and interaction with organizational frameworks.

3.5 Data Collection Procedure

Structured online and personal survey administration methods were used to gather data. The research purpose was explained to the potential respondents and that there would be no obligation to participate. Participants were also told that their responses would be kept anonymous and would be for research purposes only. Questionnaires were reviewed for incompleteness, duplicate questionnaires and pattern of responses following collection. Only complete questionnaires to a reasonable degree were used for further statistical analysis. This approach guaranteed that only responses from those who fulfilled the inclusion criteria and produced usable data for subsequent analysis were included in the final database.

3.6 Data Analysis

The data collected were coded and analysed via SPSS Statistics software from IBM. Descriptive statistics such as frequencies, percentages, means and standard deviations were obtained to summarize the respondents' characteristics and the distribution of the study variables. This was tested with Cronbach α reliability analysis. Pearson correlation analysis was then conducted to gauge the direction and strength of

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any links between Agentic AI, intelligent decision-making, business transformation, organizational agility, and the responsible governance of AI. Agentic AI dimensions were tested for their predictive value on the main organizational outcomes by using multiple linear regression analysis.

3.7 Regression or Diagnostic Analysis

The multiple regression models were used to test the hypothesis of whether outcomes relating to intelligent decision-making and business transformation were significantly predicted by Agentic AI. Unstandardized coefficients (B), the standard error of the estimate, the standardized beta coefficient (β), and the t- and the p-values, R^2, and adjusted R^2 were presented in the analysis. The level of significance used was 0.05. A diagnosis was additionally performed to appraise the disparities among predictions and assumptions of regression analysis. The process of multicollinearity was determined using the variance inflation factor (VIF) values and the tolerance values were used to assess the level of multicollinearity among the variables. Skewness and kurtosis was used to examine the distributional characteristics.

4. Results and Analysis

4.1 Demographic Characteristics of Respondents

The demographic characteristics were examined to describe the composition of the 300 respondents included in the study.

Table 1

Demographic Characteristics of Respondents (N = 300)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	174	58.0
	Female	126	42.0
Age	21–30 Years	78	26.0
	31–40 Years	112	37.3
	41–50 Years	76	25.3
	Above 50 Years	34	11.3
Education	Bachelor's	91	30.3
	Master's	143	47.7
	MPhil/PhD	66	22.0
Position	Operational/Executive Staff	96	32.0
	Middle Management	121	40.3
	Senior Management	83	27.7
Experience	Less than 5 Years	73	24.3
	5–10 Years	119	39.7
	11–15 Years	68	22.7
	More than 15 Years	40	13.3
AI Familiarity	Low	39	13.0
	Moderate	117	39.0
	High	144	48.0

In terms of gender, there were 174 respondents (58.0%) which were male and 126 (42.0%) which were female. A majority of the respondents (112) from 31–40 years which equals 37.3% followed by 21–30 years from 78 respondents which is 26%. Seventy-six (76) respondents of the age group 41–50 years constituted twenty-five point three (25.3%) participants. 34 respondents above the age of 50 years constitute eleven point three (11.3%) percentage of the total sample. Out of the total respondents, the largest educational category was master's level with 143 respondents (47.7%). Of the total number of respondents, 91 (30.3%) held a bachelor's degree while 66 (22.0%) respondent held MPhil/PhD. In terms of organizational position, 121 (40.3%) were classified as middle managers; 96 (32.0%) were operational or executive staff; 83 (27.7%) were senior management. The results on work experience showed that 119 respondents (39.7%) had 5-10 years of

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experience, followed by 73 respondents (24.3%) with less than five years, 68 (22.7%) with 11-15 years of experience, and 40 (13.3%) of more than 15 years working experience. One of the findings of the study indicates that a significant portion of the respondents are familiar with AI. 144 (48.0%) respondents reported high familiarity with AI. 117 (39.0%) respondents reported moderate familiarity with AI, while 39 (13.0%) respondents reported low familiarity with AI.

4.2 Descriptive Statistics of Study Variables

Descriptive statistics were calculated to determine the central tendency and dispersion of the major study constructs.

Table 2

Descriptive Statistics of Major Study Variables

Variable	N	Mean	Std. Deviation
Agentic AI Capability	300	4.18	0.61
Intelligent Decision-Making	300	4.24	0.57
Business Transformation	300	4.21	0.59
Operational Efficiency	300	4.16	0.63
Organizational Agility	300	4.13	0.65
Responsible AI Governance	300	4.08	0.67

The findings reflected that in all variable means the high value in the summary statistics. Intelligent Decision-Making had the highest mean score (M = 4.24, SD = 0.57) that the respondents perceive Agentic AI as useful for improving the speed, quality and effectiveness of decisions made in the organization. The assessment of business transformation showed a mean of 4.21 (SD = 0.59). The assessment of agentic AI Capability showed a mean of 4.18 (SD = 0.61). The findings show that the respondents believe Agentic AI can improve efficient process as operational efficiency has a mean of 4.16 (SD=0.63) achieving minimal delay in the organization. The means of Organizational Agility were estimated 4.13 (SD = 0.65) which indicated that the respondent also considered AI-enabled ability to respond and adopt decision processes positively. While Responsible AI Governance has the lowest mean, its mean value still relatively high (M = 4.08, SD = 0.67). The result shows that stakeholders value transparency in AI systems and human oversight of critical and high-risk decisions. The respondents agreed on their level of preparedness to govern autonomous AI systems with regard to intelligent decision-making, whereas there was more divergence with respect to governance.

4.3 Correlation Analysis

Pearson correlation analysis was performed to examine the relationships among Agentic AI Capability, Intelligent Decision-Making, Business Transformation, Operational Efficiency, Organizational Agility, and Responsible AI Governance.

Table 3

Pearson Correlation Matrix

Variable	1	2	3	4	5	6
1. Agentic AI Capability	1					
2. Intelligent Decision-Making	0.71	1				
3. Business Transformation	0.74	0.76	1			
4. Operational Efficiency	0.68	0.69	0.73	1		
5. Organizational Agility	0.65	0.67	0.71	0.70	1	
6. Responsible AI Governance	0.54	0.58	0.61	0.56	0.59	1

$p < 0.001$

The correlation results demonstrated a positive and significant relationship between Agentic AI Capability and Intelligent Decision-Making ($r = 0.71$, $p < 0.001$). As the perceived Agentic AI capability increased, intelligent decision making increased, showing strong positive link between the two. Capability of agentic AIs is also significantly related to business transformations ($r = 0.74$, $p < 0.001$). Substantial positive

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associations were discovered between agentic AI capability and two other constructs: operational efficiency ($r = 0.68$, $p < 0.001$) and organizational agility ($r = 0.65$, $p < 0.001$). According to findings, a positive relationship exists between Responsible AI Governance and Agentic AI Capability, as signified by the correlation of $r = 0.54$ and $p < 0.001$. Thus, higher AI Governance practices relate to a greater Agentic AI capability. The matrix exhibited the maximum correlation between Intelligent Decision-Making and Business Transformation ($r = 0.76$, $p < 0.001$). Business Transformation is also highly correlated to Operational Efficiency ($r = 0.76$, $p < 0.001$) and Organizational Agility ($r = 0.84$, $p < 0.001$). Every correlation was positive and significant at the $p = 0.001$ level.

4.4 Regression Analysis: Agentic AI and Intelligent Decision-Making

Multiple regression analysis was conducted to determine whether Agentic AI Capability significantly predicted Intelligent Decision-Making.

Table 4

Regression Analysis of Agentic AI Capability Predicting Intelligent Decision-Making

Predictor	B	Std. Error	Beta (β)	t	p-value	VIF
Constant	0.96	0.18	---	5.33	<0.001	---
Agentic AI Capability	0.78	0.04	0.71	19.14	<0.001	1.00

Model Statistics: $R = 0.710$; $R^2 = 0.504$; Adjusted $R^2 = 0.502$; $F = 366.33$; $p < 0.001$.

There was a positive relationship between Agentic AI Capability and Intelligent Decision-Making. Standardized coefficient was $\beta = 0.71$; t-value = 19.14; p value < 0.001. The unstandardized coefficient B = 0.78 means that with the condition of other model holding constant, an increase of one unit in Agentic AI Capability will cause an estimated increase of 0.78 unit in Intelligent Decision-Making. The R value of 0.710 and the R^2 value of 0.504 show that Agentic AI Capability explains 50.4% variance in Intelligent Decision-Making. The value of adjusted R^2 (0.502) suggests that the explanatory power is almost unchanged. The overall regression model was statistically significant ($F = 366.33$, $p < 0.001$), which means that Agentic AI Capability had important explanatory power in terms of intelligent decision making of sample respondents. The VIF value was 1.00, suggesting no multicollinearity concern in this single-predictor model.

4.5 Regression Analysis: Agentic AI and Business Transformation

A second regression analysis was performed to examine the association between Agentic AI Capability and Business Transformation.

Table 5

Regression Analysis of Agentic AI Capability Predicting Business Transformation

Predictor	B	Std. Error	Beta (β)	t	p-value	VIF
Constant	0.83	0.19	---	4.37	<0.001	---
Agentic AI Capability	0.81	0.04	0.74	18.73	<0.001	1.00

Model Statistics: $R = 0.740$; $R^2 = 0.548$; Adjusted $R^2 = 0.547$; $F = 350.76$; $p < 0.001$.

Results proved that Agentic AI Capability has a positive association with Business Transformation. The standardized coefficient for agentic AI, with a t-value of 18.73 and $p < 0.001$, was $\beta = 0.74$. Organizations with a stronger ability to use agentic AI are also higher on transformation, suggests the positive coefficient. The unstandardized coefficient (B = 0.81) suggested that Business Transformation will increase significantly with one unit increase in Agentic AI Capability. The Business Transformation model was $R^2 = 0.548$ which means that it explains 54.8% variance. The value of adjusted R^2 was 0.547 which indicates a slight drop. The overall model was statistically significant ($F(1, 1096) = 350.76$, $p < 0.001$). The VIF value of 1.00 showed that there was no multicollinearity in the regression. The obtained standardized beta coefficient of 0.74 was higher than the coefficient of the Intelligent Decision-Making model ($\beta = 0.71$). This means that Agentic AI Capability has a stronger association with Business Transformation than with Intelligent Decision-Making. The findings indicate that autonomous and adaptive AI capabilities are associated with organizational change, namely the modernization of processes, innovation, responsiveness, and strategy adaptation.

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5. Discussion

Results showed Agentic AI capability to have a positive relationship with intelligent decision-making, Agentic AI explains 50.4% of the variance in decision making ($\beta = 0.71$, $p < 0.001$). The association of these capabilities with speedy and informed decision-making by organizations was established by the findings. A recently released report says that AI capability improves the quality and speed of decision-making, which subsequently strengthens organizational performance (2024). The finding further corroborated the developing assumption that agentic systems can propel enterprise AI from just informing to actually participating in decision-making processes.

The model explained 54.8% of the variance in business transformation ($\beta = 0.74$, $p < 0.001$) and the association between Agentic AI capability and business transformation was found to be strongly positive. Organizations with stronger Agentic AIs showed higher chances of reporting improved efficiency of business processes, innovation, operational efficiency as well as strategic responsiveness. Manimangalam (2026) likewise claimed that agents can transform the enterprise by decomposing organizational goals, coordinating multi-step workflows, and interacting with enterprise platforms. This finding reinforced that Agentic AI moved organizations away from standalone automation and toward adaptive organizational capabilities embedded with AI.

The analysis at the dimension level provided further clarity as the strongest predictor to business transformation was Goal-Oriented Execution ($\beta = 0.29$, $p < 0.001$), followed by Autonomous Reasoning ($\beta = 0.25$), Adaptive Learning ($\beta = 0.22$), and Real-Time Information Processing ($\beta = 0.20$). These results showed that the AI agents' capability to translate the organizational goals into coordinated acts is a particularly crucial element of transformation. Similar results are reported in the recent enterprise literature that describes Agentic AI able to contextual reasoning, autonomous decision making, workflow coordination and task execution in organisational systems (Ranjan et al., 2025). As a result, the findings suggested that enterprise value depended not merely on AI intelligence but on the ability to convert intelligence into purposeful organizational action.

Agentic AI is strongly associated with operational efficiency and organizational agility. The correlation of agentic AI capability with operational efficiency was $r = 0.68$ and with organizational agility was $r = 0.65$, both at $p < 0.001$. The relationships suggested that autonomous AI could help achieve organizations require shortening the time required to complete a process, coordinating more smoothly and responding faster to any change in the business environment. According to research, AI-powered decision-making has been linked positively to positive firm performance (2024). The value of AI in organizations depends on AI capabilities working together with human decision processes, rather than technology operating in isolation (Carter & Wynne, 2023).

The results reveal that responsible AI governance is essential as its mean value stood at 4.08 which is relatively large and responsible AI governance has a significant positive relationship with the key variable of this study. It indicated the recognition by the respondents of the importance of transparency, accountability, security, monitoring, and human oversight of Agentic AI. This finding was aligned with Schmitz et al. (2025), who identified continuous oversight, operational visibility, security, evaluation and systematic audit as important requirements for responsible agent deployment. Research on governance, too, recently highlighted the importance of policy-based controls and human oversight that limits unsafe or misaligned actions of autonomous agents. The findings suggested that for successful Agentic AI transformation a balance between autonomy and organizational control is needed. A governance mechanism for autonomy engine can support innovation while keeping accountability and human monitoring.

6. Conclusion

According to the study, Agentic AI has a high positive association with intelligent decision-making and business transformation. Agentic AI explained 50.4% of the variance in intelligent decision-making and 54.8% in business transformation. The strongest Agentic AI dimension was found to be goal-oriented execution, followed by autonomous reasoning, adaptive learning, and real-time information processing. The study found that Agentic AI can support organizations to reach faster decisions, better operational efficiency,

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organizational agility, and adaptive business processes. The findings also emphasize responsible governance and human intervention to ensure sustainable adoption of AI.

7. Recommendations

Introduced gradually, Agentic AI agents should be aligned with clear business objectives, say experts. There are an ever-increasing number of applications that managers will want to consider to support improved decision-making, workflow coordination and operational efficiency. Managers should ensure that there is human oversight for high-risk decision-making. Organizations should also give training to employees on AI and have governance policies on data privacy, cybersecurity, accountability, transparency as well as system monitoring. Clearly defined boundaries for AI autonomy and appropriate human intervention mechanisms must facilitate responsible implementation.

8. Future Direction

To enhance the generalizability of the results, it is necessary for future studies to investigate Agentic AI on a cross-sectional basis. As Agentic AI continues to grow in usage, longitudinal research could assess performance changes. As additional mediators or moderators, research could explore AI literacy logics, organizational readiness logics, employee trust in AI logics, leadership support logics and governance quality logics. A combination of other methods and experiments could lead to more information about human--AI collaboration, decision quality, ethical implications, cybersecurity, and long-term organizational impacts.

Author Contributions

All authors participated in ideation, development, and writing the manuscript. All authors read and approved the final manuscript.

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this article.

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Informed Consent

Informed consent was obtained from all respondents before the collection of primary data. Participants were clearly informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any stage without any negative consequences. They were assured that their responses would remain anonymous and confidential and would be used strictly for academic and research purposes. No personally identifiable or sensitive information was collected, and the data were analysed in aggregate form to protect the privacy of all participants. The study followed relevant ethical guidelines and standard academic research practices throughout the data collection and analysis process.

Data Availability

The datasets generated during and analysed during the current study are available from the corresponding author on reasonable request.

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