



The Role of AI-Driven Decision Intelligence in Enhancing Business Sustainability and Social Impact: A Moderated-Mediation Model

Hafiza Khizra Massab¹, Hafiza Al Haya Sarfaraz² & Zeeshan Malik³

¹MPhil in Islamic Banking and Finance, Department of Business Administration, University of Karachi,

Email: h.khizra@gmail.com

²PhD Scholar, Department of Public Administration, University of Karachi,

Email: Sarfarazhafizaalhaya@gmail.com

³M.Phil Scholar, Department of Public Administration, University of Karachi, Email: Zeeshan@zeeshanoils.com

ARTICLE INFO

Article History:

Received:	March	07, 2025
Revised:	April	14, 2025
Accepted:	April	17, 2025
Available Online:	April	19, 2025

Keywords:

AI Decision, Decision Making, Business, Business Sustainability, Social Impact

Corresponding Author:

Hafiza Khizra Massab

Email:

h.khizra@gmail.com

ABSTRACT

Purpose: The study aims to review the role of AI-driven decision intelligence in enhancing business sustainability and social impact using a mediated model review. AI plays an essential role in meeting the challenges of the workplace and facilitating leaders in decision-making to avoid risks and failure.

Method: The study has adopted a primary quantitative method where data has been collected from a set of 150 samples using a Google survey form online. The data has been converted into statistical facilitation and Excel analysis into tables and displays with the help of smart PLS software.

Finding: The results show that AI has a positive and pragmatic impact on driving good decision-making to enhance business sustainability and have a positive impact on social aspects. All the hypotheses have been proved and mentioned a positive impact which shows that the aim of the study for AI-driven decision intelligence has been achieved to show a positive impact on social impact and business sustainability context.

Recommendations: the study has positive implications for the managers and policymakers where they can explore good facilitation ideas using AI-driven decision-making to avoid risk and handle challenges in a business sustainability context with a positive social context.



Introduction

It is outlining how AI (artificial intelligence) allows the use of decision-making processes where a background of the data has been provided and research questions have been outlined. This has been reviewed with the significance and scope of the study where a hypothesis will be generated based on the content in the next section.

Background

AI use is increasing with the passage of time and it has been outlined that it has an important role in decision making to enhance the positive impact on society. Keeping in view the pragmatic role of AI-driven forecasting models it has been outlined that customer behaviours can be read and the relevant approaches can be applied to enhance business stability and create positive support for the social paradigm (Turlapati et al., 2024). The specific foundations of AI-driven decision-making are applicable in business stability where data-driven forecasting reveals the supply chain handling and financial performance to enhance the business for anticipation capability and application of adoption expertise (Rane et al., 2024). The ideal approaches are also emphasised when detection of the risk is there and mitigative measures are adopted while decision-making is in progress. Statista (2023) claims a positive role of AI where it has been outlined that performance high-level computation has been applied to solve complex problems where increased accuracy is possible with the decision-making to ensure general-purpose technological implications. It has been mentioned in Figure 1 when the AI-driven decision-making has been displayed in the form of a graph and comparison figures.

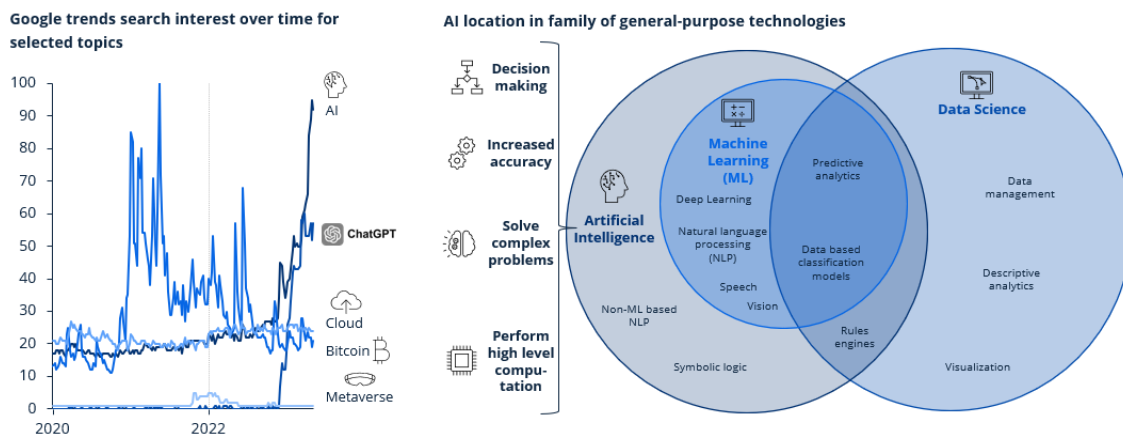


Figure 1: AI-Driven Decision Making (Statista, 2023)

AI's role has increased with the passage of time where agile decision-making has been helpful in the business stability to understand the needs of modern setups for decision making. Project managers are taking advantage of it where AI-driven decisions are found to be more applicable as compared to the general decisions which lack positive social impact (Turlapati et al., 2024). AI is aware of a vast field where it has been agreed that purposeful foundations of sustainability optimization and service encouragement can be applied by inclusive innovation where community-focused projects can be leveraged under the context of AI foundations (Ahmad et al., 2024). Figure 2 outlines the use of AI not only for the common people but also for the technological business environment where relevant approaches have been applied to understand the decision-making demands of executives.

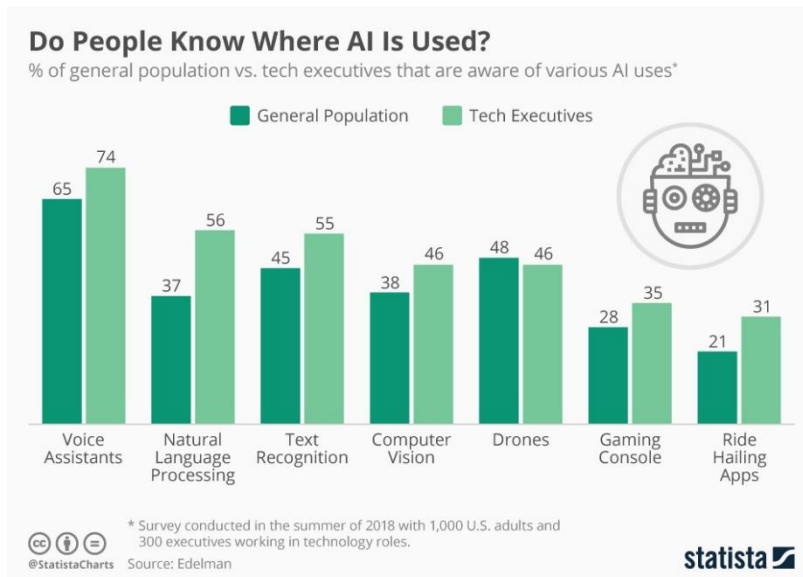


Figure 2 AI Increasing use in Decision-Making for Common People and Experts (Statista, 2019)

Problem Statement

The study is purpose to review the role of AI-driven decision expertise as an intelligence foundation that has a vast memory and an ample knowledge databank (Hao & Demir, 2024; Ahmad et al., 2024). This is applicable in the context of decision making where it has been agreed that the positive impact of AI-driven phenomena exists in decision-making by various mechanisms (Wilson & Van Der Velden, 2024). The study is oriented to understanding the demand for AI in decision-making foundations where the quality of the decision has been reviewed in the context of business stability and its applicability in the positive influence upon the social parameters. The study focuses on revealing the mediated role model review which has been supported with evidence to understand the role of environmental dynamism as a mediating factor to support the idea of how AI-driven decision-making has been showing an impact on the overall context.

Research Aim and Objectives

The study aims to review the role of AI-driven decision intelligence in enhancing business sustainability and social impact using a mediated model review. The main objectives of the study are:

1. To review the impact of environmental dynamism on decision quality in enhancing business sustainability and social impact
2. To review the impact of AI-driven intelligence on decision quality in enhancing business sustainability and social impact
3. To recommend better use of AI-driven intelligence for decision quality to improve business stability with a positive impact on social context

Research Questions

The main research questions are:

1. What is the impact of environmental dynamism on decision quality in enhancing business sustainability and social impact?

2. What is the impact of AI-driven intelligence on decision quality in enhancing business sustainability and social impact?
3. How we explore AI-driven intelligence to improve decision quality and enhance efficiency for business stability in a social context?

Significance of the Study

The study outlines an important project where it has been found that the impact of AI-driven decision-making is essential in understanding the quality parameters and sustainability implications in business foundations (Rane et al., 2024; Turlapati et al., 2024; Ahmad et al., 2024). Though the topic has been reviewed by a couple of previous literature analyses and it has been revealed that relevant data exist in the libraries however critical evaluation is still needed to understand the need for business stability with the privilege of social positive impact where the study is evaluating the environmental dynamism in decision quality enhancement with AI-driven expertise. This is meeting the literature gap and enhancing the validity of the study to make it more significant for the reader.

Scope of the Research

This study has considered an important topic of AI implementation in collaboration with decision-making. Decision-making is an essential concern in every field where it has been agreed that project managers need to understand the importance of decision-making and reveal how the idea can be explored in working efficiency to facilitate the business stability and sustainability parameters. This is helpful to the leaders and managers in various business contexts where they can understand the AI support in risk identification and mitigation to facilitate decision-making and recommend the best strategies to have a positive impact in the social paradigm.

Organization of the Paper

The study is divided into six sections where the introductory section provides a background and problem statement. It has outlined the aim and objective and discussed the main research questions to be answered. The next section evaluates a comprehensive literature review to value the already existing literature from libraries and discuss the theoretical foundations that are tested in the current review. The third section is about the methodological foundations where justifications are added to apply the relevant primary quantitative methodological implications. The fourth section displays the statistical results based on smart PLS to support the evidence and discuss further about hypothetical diagram further. The fifth section compiles the results where data has been outlined from the previous section to answer research queries. The last section has ended the review and added concluding remarks with recommendations and a future outline.

Literature Review

The section has outlined the theoretical foundations where relevant approaches to decision-making have been discussed with the extensive literature. It also reveals the understanding of how the ethical foundations can be emphasized with privileged use of better approaches and understanding of business sustainability within the context of AI-driven decision-making to have a positive impact on society. Conceptual and theoretical frameworks are outlined and the hypothesis and literature gap have also been mentioned.

AI-Driven Decision Making

AI is a popular tool that has increased with the passage of time (Yankovskaya et al., 2022). Its purposeful use has been agreed upon by various authors and it has been found that important aspects of decision-making are under the context of AI. Predictive analytics and decision support in real-time are the modern practices that allow decision-makers to understand the importance of AI mitigation and forecasting expertise (Hao & Demir, 2024). The role of AI is essential in data processing where scaling and structured data sets can be faster reviewed by AI to offer better forecasting decisions. The idea has been further categorized where automation of routine decisions based on low risk and high profit can be generated with the help of AI (Ahmad et al., 2024). In contradiction, Kaggwa et al. (2024) analyses that AI has been further categorized into various divisions where decision-makers can explore them according to their expertise and feasibility for needs. Modern use of accuracy and objectivity is possible where data-driven logical foundations and critical handling are possible to avoid algorithms.

Decision makers agree that AI-driven decision-making is adding quality to their tasks because forecasting can enhance financial risk control management and relevant decisions are proactive in predicting future outcomes (Kaggwa et al., 2024). The use of decision-making can be helpful in handling a large volume of data where AI is aware of machine learning processes using intelligence technology foundation to automate the decision-making process and assist managers (Popescu & Yu, 2024). AI decision-making can privilege the business and allow our managers to facilitate their decisions in the long run their financial stability and social positive impact are possible to enhance the working efficiency of workplaces.

Business Sustainability with AI-Driven Decisions

Business stability can be enhanced by AI-driven decision-making intelligence applications where data-driven forecasting is helpful in revealing real-time data predictions to see the market scenario (Wilson & Van Der Velden, 2024). It also allowed the decision makers to understand the financial performance and supply chain concerns by revealing the specific risks and taking preventive measures to get rid of them. It also facilitates enhanced customer experiences where it has been found that improvement of customer services and driving customer retention is possible by using risk identification techniques under AI-driven decision-making. Operational activity can be enhanced by automation of tasks and understanding how workflows can be worked better in a proper mechanism by reducing the risks.

Businesses are exploring the idea of enhancing efficiency and improving the productivity outline where automation and optimization of the workflow are possible and reduction of errors is based on the predictive support of AI decisions. It also emphasises the use of data-driven activities where real-time insights can be provided in data-driven recommendations to understand the avoidance of bias and intuition (Kaggwa et al., 2024). In the link, Ahmad et al. (2024) claim that using the expertise of reliance reduction and enhancing competitive advantage can be helpful to reveal the innovation at the workplace and focus on the decisions for advantage utilization in businesses. The sustainability parameters can be applied with AI leverage activities and can be aligned for the identification of new markets and execution of new markets by understanding the changes in the current market.

Social Impacts of AI-Driven Decisions

Some authors reveal the address social impact of AI-driven decisions is positive to enhance decision-making in the context of understanding the use of better approach use in routine activities.

This can be applied by diversity that can be enhanced by understanding the business development with privilege inclusiveness and dealing with the challenges of diversity in the workplace with correct decision-making (Popescu & Yu, 2024). Corporate social responsibility (CSR) can be aligned with workforce development where learning experiences can be personalized and upscaling of the workforce will be possible using resilient solutions and offering correct training (Turlapati et al., 2024). The idea can be further privileged when community engagement is possible and the targeted programs can be outlined by addressing the social challenges and understanding how risk forecasting can encourage meeting the community needs and develop correct outlines for growth.

Social privilege has been agreed upon by the stakeholder engagement not only to identify the stakeholders but also to let the managers know about the correct measures of adaptation to enhance the interest of the stakeholders for the specific businesses' sustainability and growing timelines (Wilson & Van Der Velden, 2024). This is also emphasized when AI decision-making encourages the phenomenal approaches of data-driven expertise and reviewing the previous data to forecast for the future based on the risks of medication activities (Turlapati et al., 2024). Social impact can be positive if the predictive analysis can be applied in aligning the anticipation and mitigation mechanisms to outline the future trends and identify the future outcomes of any activity under the decision process.

Theoretical Foundations

Some theories are supposed to be tested in the current review where the researcher is a purpose to apply the deductive approach and justify at the end that how the theory has been approved. For this purpose, the CSR theory from 1953 introduced by Howard Bowen has been applicable where policies and decisions can be aligned with society's objectives and important values (Yankovskaya et al., 2022). The theory aims to understand how business responsibilities are the consequences of their actions not only to focus on financial growth (Kumar et al., 2023). The decision-making can be aligned with AI-driven decision-making making can be supported to get the idea that business sustainability and environmental dialysis have been aligned in corrective formation (Kaggwa et al., 2024).

Another theory is decision theory with the four main areas comprised of rational choice to align the agents like humans and AI whereas the second area is uncertainty which discusses the specific scenarios and probabilities (Framling, 2020). The third area outlines the frameworks to apply the utility of theory and the last area is its applications and decision-making. The theory can apply the algorithms in understanding the mechanisms of predictive analysis and emphasizing the autonomous systems to reveal the autonomous vehicles and understand their importance in handling the environment at workplaces (Popescu & Yu, 2024). Further, the support of machine learning and humans in the loop can be aligned to analysis and understanding of the human judgmental approach with supporting of AI tools. According to the needs of a specific process under the optimisation of decision theory.

Conceptual Framework

The conceptual diagram outlines the variables in both dependent and independent variables. It has been outlined that business sustainability and social impact are dependent factors. Independent factors like AI-driven decision-making, environmental dynamism and decision-making quality have an impact on them. The conceptual framework has been outlined in Figure 3 where arrows mention the comparison of all the variables and display their importance.

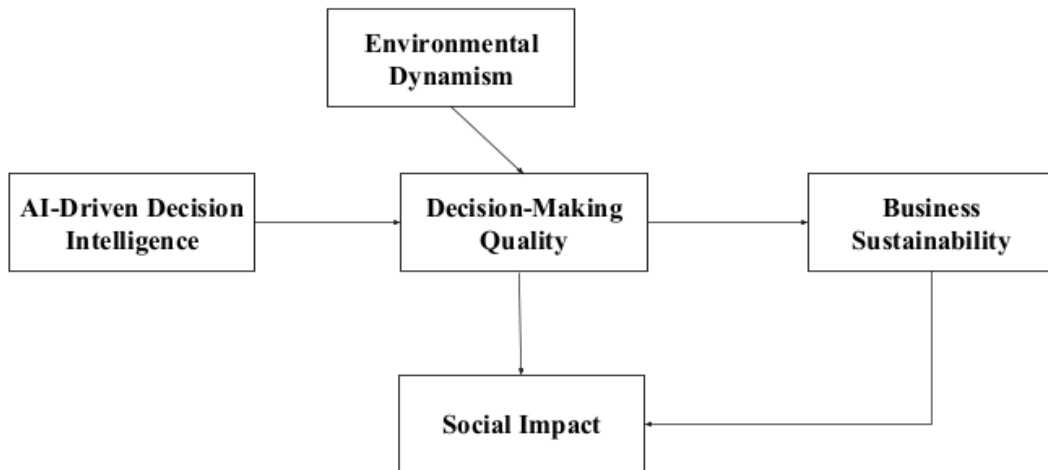


Figure 3: Conceptual Framework

Research Hypothesis

The hypotheses are outlined based on the conceptual framework generated previously. They are tested in sections four and five where data has been taken with the help of relevant methodology provided in the next section.

- H1:** environmental dynamism has a positive impact on decision-making quality
- H2:** AI-driven decision intelligence has a positive impact on decision-making quality
- H3:** good decision-making quality has a positive impact on business sustainability
- H4:** good decision-making quality has a positive social impact
- H5:** business sustainability has a positive social impact

Literature Gap

A literature gap has been found where the topic has been reviewed for AI-driven decision making however social impact and business sustainability have not been reviewed by various authors on a single platform. The study is purposely to meet the literature gap and add data to the libraries to enhance future readers' understanding of the importance of the topic and underpin the important facts in identifying the role of AI-driven decision-making in risk mitigation and handling.

Methodology

The section has added a comprehensive methodology to justify how the data has been collected and analyzed. It has shared the main area of philosophical and approach foundations where data collection and analysis have been discussed in detail. Reliability and validity parameters are reviewed here to make sure that results have a high potential to discuss and justify their authenticity.

Research Philosophy and Approach

The researcher has reviewed the content with the help of a positivist philosophy which is helpful in aligning the data from primary quantitative content (Verma et al., 2024). Philosophy is helpful not only in revealing the data but also in aligning the content of statistical foundations. It does not

offer to conduct an in-depth analysis and align the relevant data step by step to make sure that content has been emphasised with the justification added. The researcher has supported this philosophy with a deductive approach which is highly suitable to test 2 theories already mentioned in the theoretical foundations. The inductive approach is not encouraging to test the theories however the deductive is suitable to analyze the CSR theory and decision theory to understand the context of AI-driven decision-making in business sustainability and social influences.

Research Design

The researcher has a primary and secondary, quantitative and qualitative research design available (Verma et al., 2024). The study has outlined A statistical paradigm which is highly suitable and recommended with the quantitative paradigm where primary data has been collected from the survey form. This is under the context of primary quantitative research design otherwise researcher would not be able to outline the data and find out the relevant information for AI-driven decision-making and environmental diagnosis in understanding the business suitabilities. Business suitabilities can be best to outline where data has been supported with evidence to see its social impact and generate correct hypotheses to test them.

Data Collection

Primary and secondary data collection plans are available to the researcher however exploring the respondents with a survey form is suitable with the primary data collection method (Pandey & Pandey, 2021). The researcher is exploring the data with the help of a survey form that is able to reach the respondents and collect data with relevant respondent foundations. To ensure its applicability in research, primary data has been made authentic and reliable by identifying the deductive approach implementation and limiting the content.

Data Collection Instrument

Data collection instruments can be literature reviews or surveys through questionnaires in the quantitative paradigm as well however primary plan is suitable for exploring the Google survey form (Verma et al., 2024). Has generated a Google survey form based on the conceptual framework already outlined in the previous section where the data has been aligned in the different sections of the questionnaire and a specific instrument of the Google survey form has been helpful in aligning the data. The data is supporting evidence where content has been taken from the respondent's relevant information and has been categorized in closed-ended questionnaires. The data has been revealed with the help of an Excel sheet which has been further reviewed with the help of statistical operations.

Sampling

Various simple techniques are available however purposive sampling is suitable to align the data (Pandey & Pandey, 2021). The sampling style emphasises reaching the relevant content and making sure that there are chances of being selected from the whole population. The population is comprised of modern firms where decision-making has been aligned and some AI-driven decisions have been outlined to discuss business stability and social influences. A set of 150 samples has been taken from the whole population which is a suitable and ideal size to conduct the analysis in the limited time and availability of limited resources.

Data Analysis

Thematic analysis and various other methods are available to the researcher however researcher is analyzing the data with statistical operations to ensure it's suitable for the analytical context of primary quantitative data (Verma et al., 2024). The data has been further reviewed with the help of justifications that how relevant statistical operations of smart PLS software have supported evidence and tested the hypothesis to generate a hypothetical diagram and make sure that the influence of the variables has been checked out which has been generated in the form of tables. They are critically evaluated and the significant values of P and R are identified to ensure their efficiency. The analysis is helpful in understanding various operations results like path coefficient, outer loading, HTMT, and convex alpha, R adjustment value and others.

Ethical Considerations

Various ethical foundations have been explored including the consent from sending to make sure that human respondents have been informed of Google survey form sending. It was made sure that data had been explored for research purposes only and identification of the respondents has been kept anonymous. This has encouraged the respondents to share correct and exact data to enhance the validity feature of the research.

Reliability and Validity Measurement

Reliability and validity measurements have been conducted with the help of statistical operations where primary quantitative data has been explored (Verma et al., 2024). The justifications show that reliable data has been taken because human instruments have been involved when the data has been taken from the respondents available. Further, it cannot be avoided that the validity is there because statistical operations and the significance of value for 0.7 and other categorizations to compare two or more variables at a single time has added validity context.

Results

The section outlines the results of the statistical and demographic review. It has added the validity and reliability parameters. The data has been further reviewed with the help of justifications that how relevant statistical operations of smart PLS software have supported evidence and tested the hypothesis to generate a hypothetical diagram and make sure that the influence of the variables has been checked out which has been generated in the form of tables.

Statistical Results

Data is critically evaluated and the significant values of P and R are identified to ensure their efficiency. The analysis is helpful in understanding various operations results like path coefficient, outer loading, HTMT, and Cronbach alpha, R adjustment value and others.

Table 1: Path coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
ADDM -> QDM	0.379	0.387	0.102	3.707	0.000
BS -> SI	0.624	0.629	0.085	7.357	0.000
ED -> QDM	0.397	0.400	0.113	3.509	0.000

QDM -> BS	0.785	0.784	0.034	22.777	0.000
QDM -> SI	0.091	0.094	0.088	1.035	0.301

Notes: Business Stability: BS, environmental dynamism: ED, social impact: SI, AI-driven decision intelligence: ADDM, quality decision making: QDM

Path coefficient values have been displayed where it has been identified that the value of significance is only for one parameter in comparison including QDM for BS. It is above 0.7 however the other values are below it which shows that quality decision-making is an essential concern that outlines the business stability.

Table 2: Outer loading

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
ADDM 1 <- ADD	0.527	0.514	0.156	3.373	0.001
ADDM 2 <- ADDM	0.589	0.578	0.110	5.378	0.000
ADDM 3 <- ADDM	0.780	0.769	0.077	10.151	0.000
ADDM 4 <- ADDM	0.491	0.478	0.153	3.217	0.001
ADDM 5 <- ADDM	0.726	0.722	0.063	11.453	0.000
BS 1 <- BS	0.728	0.719	0.060	12.148	0.000
BS 2 <- BS	0.562	0.555	0.103	5.434	0.000
BS 3 <- BS	0.850	0.848	0.020	41.764	0.000
BS 4 <- BS	0.444	0.442	0.114	3.892	0.000
BS 5 <- BS	0.430	0.431	0.099	4.336	0.000
ED 1 <- ED	0.804	0.791	0.066	12.238	0.000
ED 2 <- ED	0.517	0.514	0.100	5.188	0.000
ED 3 <- ED	0.421	0.420	0.133	3.152	0.002
ED 4 <- ED	0.853	0.843	0.045	19.097	0.000
ED 5 <- ED	0.842	0.846	0.033	25.444	0.000
QDM 1 <- QDM	0.654	0.653	0.097	6.750	0.000
QDM 2 <- QDM	0.564	0.557	0.135	4.167	0.000
QDM 3 <- QDM	0.506	0.496	0.130	3.906	0.000
QDM 4 <- QDM	0.540	0.531	0.129	4.195	0.000
QDM 5 <- QDM	0.619	0.613	0.086	7.165	0.000
SI 1 <- SI	0.869	0.866	0.024	35.510	0.000
SI 2 <- SI	0.405	0.399	0.126	3.215	0.001
SI 3 <- SI	0.697	0.692	0.047	14.924	0.000
SI 4 <- SI	0.687	0.688	0.053	12.881	0.000
SI 5 <- SI	0.713	0.710	0.060	11.850	0.000

The outer loading value has been found high for some variables however it has been low for the impact of ADDM in individuality and SI in individuality.

Table 3: R square value

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
BS	0.616	0.616	0.054	11.519	0.000
QD					
M	0.442	0.471	0.058	7.580	0.000
SI	0.488	0.502	0.067	7.275	0.000

R square value is high for only one ingredient including BS however it is also below 0.7.

Table 4: R square adjustment

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
BS	0.614	0.614	0.054	11.400	0.000
QD					
M	0.434	0.465	0.059	7.360	0.000
SI	0.481	0.495	0.068	7.083	0.000

R square adjustment value is high for only one ingredient including BS however it is also below 0.7. It is exploring that value is less in for others including this variable that justifies the lack of significance for these variables.

Table 5: AVE value

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
ADD					
M	0.400	0.402	0.039	10.261	0.000
BS	0.390	0.393	0.028	14.120	0.000
ED	0.505	0.505	0.027	18.819	0.000
QDM	0.335	0.342	0.021	16.341	0.000
SI	0.477	0.478	0.028	17.105	0.000

AVE value has been reviewed which justifies that a variety of values are showing low for most of the variables because all of them lack significance for being below 0.7. However, the maximum value has been mentioned for ED which shows its significance in the context of AVE value.

Table 6: RHO c

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
ADAM	0.764	0.756	0.037	20.381	0.000
BS	0.749	0.746	0.029	26.011	0.000
ED	0.827	0.824	0.022	37.934	0.000
QDM	0.714	0.711	0.023	31.181	0.000
SI	0.813	0.811	0.021	39.652	0.000

RHO c value is a comparison for most of the variables where it has been found significant for almost all the variables. A maximum has been recorded for SI justifying the social impact image in collaboration with ED for mentioning the role of environmental dynamism.

Table 7 RHO a

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
ADAM	0.669	0.669	0.063	10.700	0.000
BS	0.663	0.667	0.043	15.586	0.000
ED	0.861	0.874	0.073	11.872	0.000
QDM	0.498	0.526	0.048	10.437	0.000
SI	0.795	0.793	0.029	27.474	0.000

RHO a value has been outlined significant for two variables including Ed and SI above the 0.7 however it is low for the rest of the variables. Here, again SI justifying the social impact image in collaboration to ET for mentioning the role of environmental dynamism.

Table 8: Corn batch alpha

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
ADDM	0.627	0.622	0.058	10.792	0.000
BS	0.593	0.589	0.054	11.072	0.000
ED	0.753	0.752	0.027	28.344	0.000
QDM	0.508	0.505	0.047	10.759	0.000
SI	0.715	0.713	0.033	21.647	0.000

Corn batch alpha value has been outlined and it has been mentioned that it is significant for SI and ED as compared to others. The two variables are quoted as dominant as compared to the rest of the variables for improving in future and justifying their significance.

Table 9: HTMT

	Original sample (O)	Sample mean (M)	2.5%	97.5%
BS <-> ADDM	0.945	0.947	0.804	1.088
ED <-> ADDM	0.620	0.655	0.530	0.796
ED <-> BS	0.986	0.998	0.897	1.097
QDM <-> ADDM	0.944	0.974	0.821	1.152
QDM <-> BS	1.281	1.287	1.149	1.440
QDM <-> ED	0.935	0.953	0.778	1.153
SI <-> ADDM	0.671	0.697	0.577	0.818
SI <-> BS	1.041	1.037	0.926	1.148
SI <-> ED	0.633	0.639	0.534	0.744
SI <-> QDM	0.868	0.886	0.770	1.006

HTMT value has compared some of the variables and it has been found that maximum value is recorded for BS in comparison with ADDM and QDM in comparison with ADDM. However, it has been narrated that QDM is dominating for DS with value above 1.0. The value of SI in contrast to BS is also above 1.0.

Demographics

The demographics have reviewed and the population has been covering the demographic data for about sample set of 150. A set of 150 samples has been taken from the whole population which is a suitable and ideal size to conduct the analysis in the limited time and availability of limited resources.

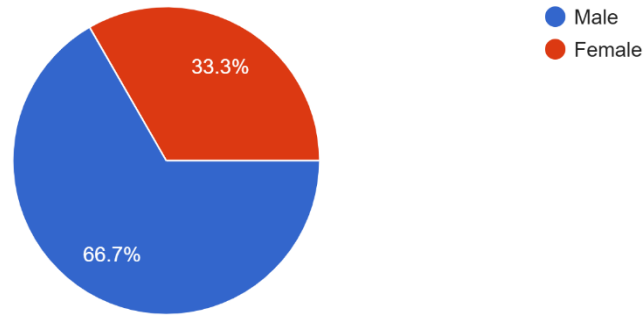


Figure 4: Gender data

Gender data is outlined that minimum number of females have been included comprised of 33.3% where the males are comprising about 66.7% of the sample population.

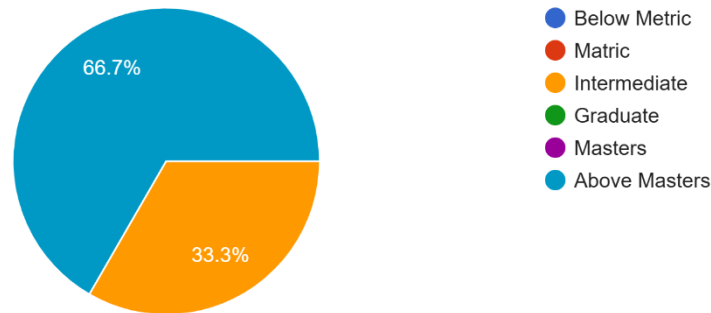


Figure 5: Educational data

Educational data reporting that maximum number of the respondents were below metric however some had been mentioned above intermediate and good education for comprising 33.3%.

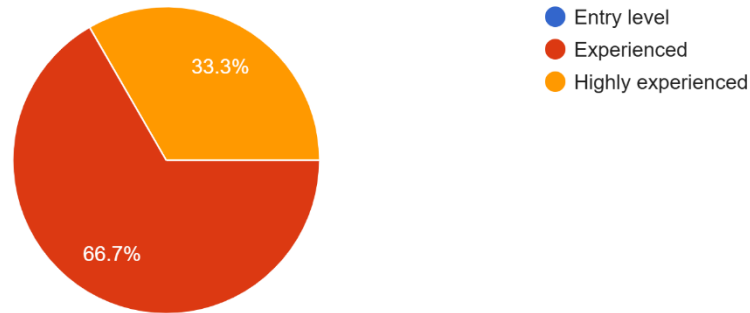


Figure 6: Professional data

The professional data narrates that experienced individuals have been traced for about 66.7% however the highly experienced were covered with 33.3%.

Validity and Reliability

A validity factor exists in the result because it has been found that the data is authentic and justifies the progressing approaches in outlining the data and facilitating the idea. The validity factor is high because a variety of statistical operations have been conducted and the comparison analysis of variables like BS and SI have been done to contrast one another and with themselves. These and other examples justify that validity has been added to the research by using this kind of instrument. The reliability factor has been traced in the study where it has been revealed that data is taken from the human resources which is improving the importance of the data from the primary participation of active and experienced members of the population. Interest in the research topic has encouraged the respondents to share correct and exact data to enhance the validity feature of the research.

Discussion

Results have been executed with the help of relevant tables and data taken from the excel sheets that have been generated based on the data from the respondents through online survey process. In the present section this data has been further categorized with the help of relevant resources that are helpful to the hypothesis review and justifying that how research questions have been answered with the privilege of data check in from this content.

Hypothetical Discussion

About 5 hypotheses were generated based on the conceptual framework and it has been outlined that the direct impact and positive impact especially have been reviewed for most of the parameters of the statistical operations. A graphical view has been generated where the impact of various parameters and dear connection to the research has been outlined in understanding the impact. The diagram has been displayed here to understand the relevant approaches and reveal how darling has been developed between various variables.

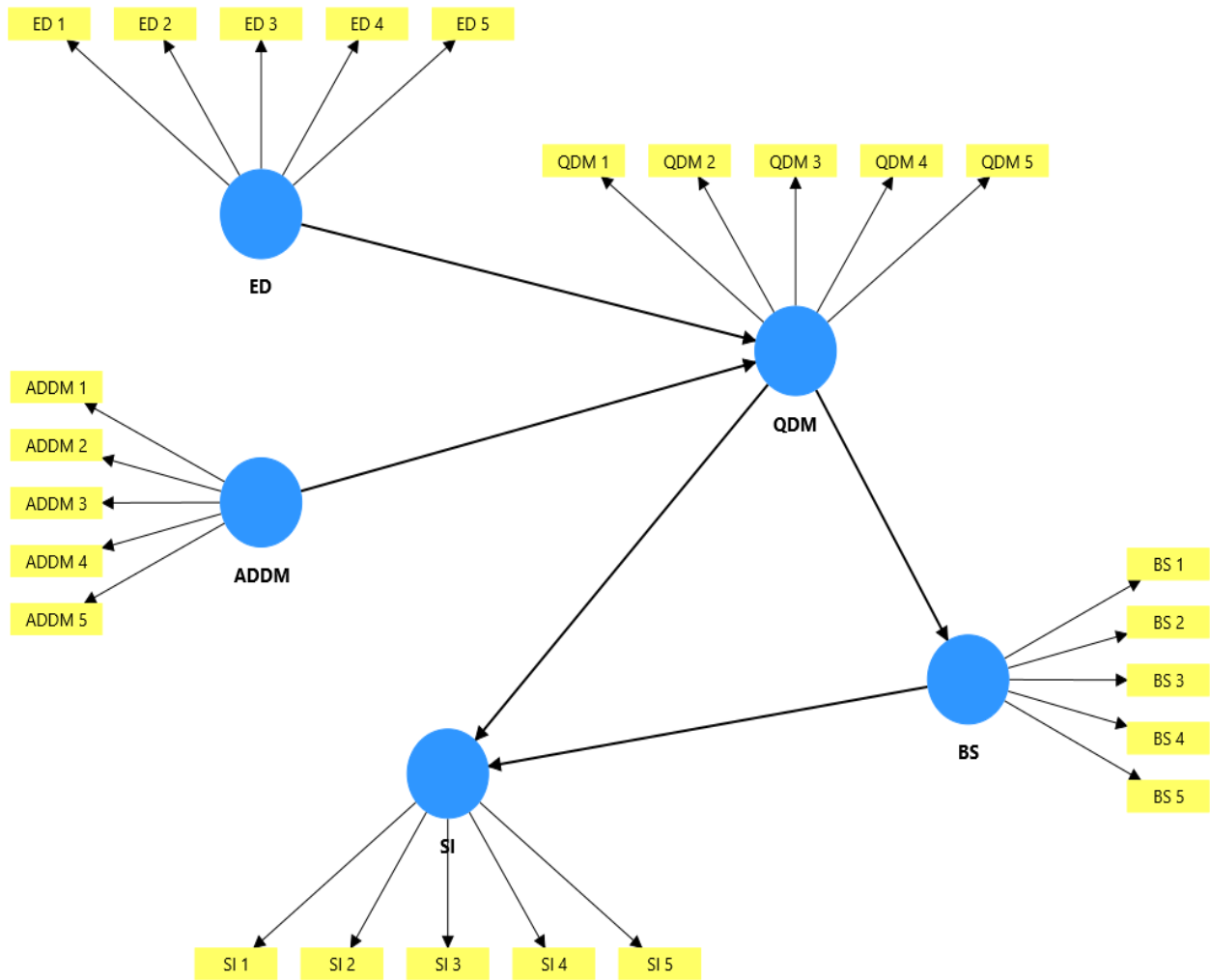


Figure 7: Hypothesis Diagram

The hypothetical review has been done where it has been analysed in the initial stages for H1: environmental dynamism has a positive impact on decision-making quality. It has been justified by various approaches where it has been outlined that environmental dynamism exists as a positive impact on decision-making making where Ed is showing a dominant parameter in most of the results. AVE value has been reviewed which justifies that a variety of values are showing low for most of the variables because all of them lack significance for being below 0.7. However, the maximum value has been mentioned for ED which shows its significance in the context of AVE value. AI's role has increased with the passage of time where agile decision-making has been helpful in the business stability to understand the needs of modern setups for decision making. Project managers are taking advantage of it where AI-driven decisions are found to be more applicable as compared to the general decisions which lack positive social impact (Turlapati et al., 2024).

The other hypothesis has been reviewed as H2: AI-driven decision intelligence has a positive impact on decision-making quality. This has been outlined as how the decision-making has and positive impact if it is under the privilege of AI where a dominance of ADDM value has been recorded in most of the cases. However, the lack has been found and the hypothesis has been found to be justified with weak decisions because the outer loading value has been found high for some variables however it has been low for the impact of ADDM in individuality and SI in individuality. The use of decision-making can be helpful in handling a large volume of data where AI is aware of

machine learning processes using intelligence technology foundation to automate the decision-making process and assist managers (Popescu & Yu, 2024). AI decision-making can privilege the business and allow our managers to facilitate their decisions in the long run their financial stability and social positive impact are possible to enhance the working efficiency of workplaces.

The next hypothesis is outlined in the process of H3: good decision-making quality has a positive impact on business sustainability. This has been outlined where it has been clearly understood that how DMQ can be influenced under the context of BS. Path coefficient values have been displayed where it has been identified that the value of significance is only for one parameter in comparison including QDM for BS. It is above 0.7 however the other values are below it which shows that quality decision-making is an essential concern that outlines the business stability. This is narrating direct and pragmatic influences while justifying the evidence-based content in the outline. The other hypothesis has further investigated the connection between DMQ and SI for H4: good decision-making quality has a positive social impact. Corn batch alpha value has been outlined and it has been mentioned that it is significant for SI and ED as compared to others. The two variables are quoted as dominant as compared to the rest of the variables for improving in future and justifying their significance. This is also helpful to prove H5: business sustainability has a positive social impact. Hence all the hypothetical foundations are reviewed and it has been clearly understood that they have a positive connection in revealing the data and enhancing the working efficiency of open parameters for AI-based decision making.

Research Questions Reviewed

The researcher has reviewed the research questions and it has been outlined that they have been answered with the help of statistical output and the justification added from library data in the early stages of research. The first research question has reviewed the impact of environmental dynamism in the context of decision making and it has been analyzed how it can impact business sustainability in the social impact paradigm. The role of Ed as a factor has been found dominant. This is why it is justifying its influence in the context of BS with collaboration with an SI. The outer loading value has been found high for some variables however it has been low for the impact of ADDM in individuality and SI in individuality. Businesses are exploring the idea of enhancing efficiency and improving the productivity outline where automation and optimization of the workflow are possible and reduction of errors is based on the predictive support of AI decisions. It also emphasises the use of data-driven activities where real-time insights can be provided in data-driven recommendations to understand the avoidance of bias and intuition.

The next research question has reviewed the process of AI-driven intelligence formulations on the decision quality for understanding its indirect influence on business sustainability and social concern. This has revealed the idea of how the researcher is able to emphasise the foundations of sustainability and apply the correct paradigm in understanding the handling of the sis an important concern in dealing with the challenges of BS. CSR can be aligned with workforce development where learning experiences can be personalized and upscaling of the workforce will be possible using resilient solutions and offering correct training (Turlapati et al., 2024). Social impact can be positive if the predictive analysis can be applied in aligning the anticipation and mitigation mechanisms to outline the future trends and identify the future outcomes of any activity under the decision process. Decision-making is an essential concern in every field where it has been agreed that project managers need to understand the importance of decision-making and reveal how the idea can be explored in working efficiency to facilitate the business stability and sustainability parameters.

This is helpful to the leaders and managers in various business contexts where they can understand the AI support in risk identification and mitigation to facilitate decision-making and recommend the best strategies to have a positive impact in the social paradigm. The last research question has reviewed how AI-driven intelligence can improve decision-making and enhance efficiency in business stability for social scenarios. The idea can be further privileged when community engagement is possible and the targeted programs can be outlined by addressing the social challenges and understanding how risk forecasting can encourage meeting the community needs and develop correct outlines for growth. This has been justified by the evidence provided in the review of the hypothesis and revealing the content by handling how it enables the researcher to answer the research question. Ahmad et al. (2024) claim that using the expertise of reliance reduction and enhancing competitive advantage can be helpful to reveal innovation at the workplace and focus on the decisions for advantage utilization in businesses. The sustainability parameters can be applied with AI leverage activities and can be aligned for the identification of new markets and execution of new markets by understanding the changes in the current market.

Theoretical Testing

The CSR theory aims to understand how business responsibilities are the consequences of their actions not only to focus on financial growth (Kaggwa et al., 2024). This has been found positive as it has been agreed by the respondents that the decision-making can be aligned with AI-driven decision-making making can be supported to get the idea that business sustainability and environmental dialysis have been aligned in corrective formation. The other theory is the decision-making theory which has been also reviewed in the same paradigm. It has been also approved that the support of machine learning and humans in the loop can be aligned to analysis and understanding of the human judgmental approach with supporting of AI tools. According to the needs of a specific process under the optimisation of decision theory has been hence proved.

Conclusion

The section has reviewed the main findings based on the objectives of the research question and also added some recommendations and future prospects of research.

Main Findings

The findings elaborate the objective in the sequence where it has been found that most of the hypotheses are justified by the positive and significant impact so it has been already proved that AI-driven decision-making cannot be ignored because it has a potential impact on business sustainability major social impact. The first objective has elaborated on how the impact of environmental dynamism has been existing in decision quality where the enhancement of business sustainability is required and it is essential to understand how the social impact is there. The decision-making can be aligned with AI-driven decision-making making can be supported to get the idea that business sustainability and environmental dialysis have been aligned in corrective formation. Social impact of AI-driven decisions is positive to enhance decision-making in the context of understanding the use of better approach use in routine activities.

The next objective is executing the idea of how AI-specific driven decisions with the intelligence paradigm applications are enhancing business stability and have a potential role in social influences. The objective has been justified in the hypothetical foundations when an influencer and a significant impact of AI-driven decision-making have been agreed upon by the participants and it has been justified that it has been influential in a social context. The role of AI is essential in data

processing where scaling and structured data sets can be faster reviewed by AI to offer better forecasting decisions. The idea has been further categorized where automation of routine decisions based on low risk and high profit can be generated with the help of AI. This can be applied by diversity that can be enhanced by understanding the business development with privilege inclusiveness and dealing with the challenges of diversity in the workplace with correct decision-making.

The last objective has offered some recommendations to make sure that AI-driven decision-making has been privileged in the context of understanding social positivity and revealing better approaches for good output on business stability. AI has been further categorized into various divisions where decision-makers can explore them according to their expertise and feasibility for needs. Modern use of accuracy and objectivity is possible where data-driven logical foundations and critical handling are possible to avoid algorithms. The study is oriented to understanding the demand for AI in decision-making foundations where the quality of the decision has been reviewed in the context of business stability and its applicability in the positive influence upon the social parameters. The study focuses on revealing the mediated role model review which has been supported with evidence to understand the role of environmental dynamism as a mediating factor to support the idea of how AI-driven decision-making has been showing an impact on the overall context. It is recommended that AI should be explored and the idea can offer better exposures in revealing the context of decision-making and enhancing sustainability with the privilege of social positive impact.

Recommendations

AI-driven decision-making plays an essential role in forecasting the risks and making sure that corrective measures have been adopted timely and correctly to enhance the efficiency of any plan. This needs to be further privileged with the understanding of how the idea can be encouraged when the paradigm of understanding is outlined by using specific decision-making using AI expertise. Managers need to employ it in the context of facilitation where business sustainability parameters can be enhanced and additionally social impact can be positive. AI-driven decision-making is most of the time errorless however managers can make them better by exploring the expertise of human input.

Implications

The study has implications for project managers and leaders where they can use AI for better decision-making practices and enhancing business stability in social paradigm as well. The policymakers can also use the idea in modification of compliance and regulations to facilitate project managers and workplaces to deal with the challenges of decision-making and handle risk management better. Future research is also possible with the support of this review because it offers an authentic piece of data which is valid and reliable based on the statistical primary data foundations. Though the topic has been reviewed by a couple of previous literature analyses and it has been revealed that relevant data exist in the libraries however critical evaluation is still needed to understand the need for business stability with the privilege of social positive impact where the study is evaluating the environmental dynamism in decision quality enhancement with AI-driven expertise. This is meeting the literature gap and enhancing the validity of the study to make it more significant for the reader.

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