



IMPACT OF TECHNOLOGY IN MANAGERIAL DECISION MAKING -A COMPREHENSIVE STUDY

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Abstract: Effective decision-making plays a critical role in the success or failure of an organization. In today's competitive world, decision-making has become increasingly complex, particularly within organizational contexts. The decision-making process is intricate, involving various facets that must be carefully navigated. Moreover, with advancements in technology, decisions are often made under uncertainty, with limited information, and in virtual settings where face-to-face interactions are not possible. It is crucial to comprehend the challenges, complexities, and benefits associated with the utilization of technology, particularly information technology, in managerial decision-making. This understanding not only determines the effectiveness of managers and their organizations but also contributes significantly to the development of future management approaches and organizations. The primary goal of this paper is to explore these aspects comprehensively.

Keywords: Artificial intelligence, Big data, Decision accuracy, Decision speed, Technology, Information systems, Decision support systems, Data analysis, Automation, Efficiency, Innovation, Organizational performance, Managerial decision making, Nonverbal communication, Leadership.

1. Introduction

The success and sustainability of organizations are largely dependent on managerial decision-making in the quickly changing business environment of today. The development of technology, particularly information technology (IT), has only increased the complexity and importance of decision-making. Understanding the complex role that technology plays in management decision-making becomes essential as organizations work to remain competitive and adapt to the digital era.

The way managers receive, analyze, and use information to make decisions has undergone a paradigm shift as a result of the integration of technology. Technology has not only broadened the scope of information that is available, but also made it possible for decision-makers to access it instantly and without restriction to a certain location. Decisions may now be taken quickly, enabling businesses to react quickly to changing market conditions.

Additionally, the decision-making environment has been completely transformed by the arrival of sophisticated analytics, machine learning, and artificial intelligence (AI). These technologies offer strong capabilities for pattern identification, predictive modelling, and data analysis, allowing managers to find insightful information and make decisions based on data with more accuracy. Technology integration has also made it easier to prepare scenarios, run simulations, and use optimization techniques, giving decision-makers a wider view and reducing risks.

But using technology in management decision-making is not without its difficulties. Getting useful information out of the enormous amount of data, or "big data," that is readily available, is difficult. To successfully filter, analyze, and understand this data, decision-makers must use sophisticated procedures, avoiding information overload and ensuring that judgements are founded on reliable insights.

A further degree of complexity is added by the virtual aspect of decision-making, which is supported by distributed teams and remote work arrangements. To encourage productive cooperation and preserve open lines of communication among decision-makers, managers must modify their decision-making processes to make use of collaborative platforms, video conferencing tools, and other digital communication channels.

In this technologically advanced era, understanding the complexities, difficulties, and benefits of integrating technology into managerial decision-making is not only crucial for individual managers and their organizations, but it also helps to shape future management approaches and the design of organizations.

The primary contribution of this study is an analysis of Punjab's decision-making processes as they relate to technology. In order to do this, we carried out primary research by creating questionnaires and conducting interviews in Mohali and Jalandhar. The sample size taken into account is 450, and SPSS software is utilized to analyze the data. Additionally, this study does primary, descriptive, and other statistical tests including chi-square, ANOVA, regression, Cronbach's Alpha, and correlation coefficient. The following is a summary of the study's research findings.

- The paper presents the findings of a survey with 450 participants in Punjab, India. Data on numerous demographic and non-demographic characteristics were gathered through the survey. The distribution of respondents by gender, age, and occupation is shown in the primary analysis. The respondents' gender breakdown is displayed as 50.4% men and 49.6% women. The respondents' ages are depicted, with the age group of 40 to 50 years having the highest frequency (34.6%), followed by 30 to 40 years (33.1%) and 50 to 60 years (32.2%). The respondents' allocation by occupation is also revealed, with employees, professionals, and managers each receiving 33.3% of the total.
- The descriptive statistics display the values of mean, SD, skewness, and kurtosis for many elements influencing investor behaviour and preferences. The variables' skewness and kurtosis values show that they have normal distributions, with the majority of them lying between -2 and +2 for skewness and -3 to +3 for kurtosis. 450 valid replies in total were examined by the research.

- Significant findings were obtained using the study's statistical tests, including Cronbach's Alpha, Regression, ANOVA, and Correlation. Excellent internal consistency among the study's variables supports dependability. Regression analysis revealed that the amount of financial literacy, investing behaviour, and demographic and non-demographic variables all had a substantial impact on investors' viewpoints and levels of awareness. The ANOVA results showed a significant distinction between the groups the predictors represented. The correlation test's findings demonstrated the significance of both demographic and non-demographic components.

The remainder of the paper is organized as follows. In Section 2, a literature review is demonstrated. The issue statement is outlined in Section 3, along with the study's objectives, hypothesis, and scope. A comprehensive description of the study methodology is provided in Section 4. The analysis and interpretation section, which includes primary, descriptive, and different statistical tests, is shown in Section 5. Finally, Section 6 defines "conclusion" and "recommendation."

2. Literature Review

In order to examine the effects of an overly dependence on technology on the efficacy of non-verbal communication in organizational leadership decision-making, this research study used a case study exploratory research technique. The research topic was aligned with the design of the qualitative exploratory multiple case study, which allowed for the gathering and analysis of participant answers to learn more about how excessive use of technology might impede leaders within an organization from making right decisions. To examine the effects of information and communication technologies (ICTs) on organizations, earlier studies have used qualitative case study research approaches.

In a joint case study, Semeijn, Gelderman, and de Bruijn (2015) looked at how organizations make decisions about the use of ICTs. In order to obtain information and carry out their review, their study included document analysis and interviews. In their 2013 study, Khalil Moghaddam and Khatoon-Abadi concentrated on figuring out what factors affect how ICTs are adopted by rural consumers. To find trends and instances of commonly utilized ICTs inside the organization, they performed semi-structured interviews with the target demographic. Organizational elements that affect the performance of small and medium-sized firms were categorised by Strielkowski, Krecci, and Čabelkova (2015). Their case study examined the role that ICTs play in the Czech Republic's successful organizations. ICTs and nonverbal communication both have special advantages that can help an organization succeed.

ICTs and nonverbal communication both have limitations in organizational settings, nevertheless. Studies on nonverbal communication have frequently been too universal since it is difficult to compare global norms across many cultures and subcultures. This problem was brought up in the study by Janevski and Zafirovska (2015), who also advised against generalizing their findings. The use of ICTs, on the other hand, necessitates user training since insufficiently trained users might have a detrimental influence on organizational efficiency. The integrity and security of the system might be jeopardized by malicious data introduced by untrained users. When dangerous

material is introduced by unskilled individuals, it can impair organizational efficiency. Examples include malware, viruses, and junk communications.

3. Problem Statement

- New technology adoption in manufacturing enhances overall organizational performance through increased productivity, reduced costs, and improved quality control.
- The adoption of new technologies enables quicker and more accurate decision-making through real-time data analytics and predictive modeling.
- Upskilling the workforce in technological skills is crucial for effectively operating and managing advanced systems and contributing to improved decision-making and operational efficiency.
- Technology adoption enables efficient evaluation of organizational performance, benchmarking against industry standards, and identification of areas for improvement.
- Cross-functional collaboration is promoted through technology development, facilitating effective communication, knowledge sharing, and collaborative decision-making processes.

3.1 Objectives of the Study

In this section, the objective of the study is defined, as follows.

- This study's primary goal was to examine how technology is used in decision-making and determine whether doing so may result in abandoning information accuracy in favour of expediency.
- The development of communication technology affects how individuals in organisations employ nonverbal communication techniques to reach choices.
- ICTs allows for the rapid exchange of information between individuals and organizations, enhancing the speed of decision-making and reducing meeting coordination costs

3.2 Hypothesis of the Study

This section shows the hypothesis are taken under consideration for conduct research. We have designed total five null/alternative hypothesis as follows.

Table 1: Hypothesis of the Study**3.3 Scope of the Study**

In this research, the data is collected from the investors of the Punjab. The data is collected while considering all factors regarding role of technology and non-verbal communication and various demographic/non-demographic factors. Further, in this study, 450 participants of the Mohali and Jalandhar, Punjab are interviewed across the city.

Hypothesis	Null Hypothesis	Alternative Hypothesis
H_1	Overuse of technology has no discernible impact on how one makes decisions.	An important link exists between excessive technology use and decision-making.
H_2	Lack of communication has no discernible impact on an organization's success.	Lack of communication has a huge impact on an organization's success.
H_3	There is no relationship between excessive use of technology and performance of employees	There is relationship between excessive use of technology and performance of employees
H_4	Different aspects of the overuse of technology do not influence the management choice.	Several aspects of the overuse of technology influence the management choice.

4. Research Methodology

In this section, research methodology is explained which is designed for conduct research to achieve the desired objectives. To achieve this goal, following research methodology is adapted.

- **Type of Research:** In order to write this work, we undertook descriptive research and used the survey technique to gather primary information from investors in Punjab. According to the intended objectives, questions are created for surveys using a Google form.
- **Sample Method:** Stratified random sampling is the sample technique used in this investigation.

- **Sample Unit:** The respondents who fill out the surveys are defined by the sample unit. According to their occupation, the respondents to this study are divided into three groups: employees, managers, and other professionals.
- **Sample Size:** In this study, we conducted a survey of 450 Punjabi participants using the Cochran method.
- **Data Collection:** Primary data collection method is used for collect data through the structured questionnaires.

4.1 Limitation of the Study

In this section, the limitation of the study is explained.

- Only the state of Punjab is the subject of the study.
- Due of limited resources in terms of time and location, the sample size is limited to 450.
- The study is conducted for check role of technology in decision making in organization in Punjab.

5. Analysis and Interpretation

This section explains the analysis and interpretation of the primary questionnaires created for the role of technology in organizational decision-making in Punjab. For data analysis, we used the Statistical Package for Social Sciences (SPSS) program. We have also carried out primary, descriptive, and different statistical tests to determine whether the intended hypothesis is true or not.

5.1 Primary Analysis

In this section, we have done the primary analysis of the investors based on the gender factor, age factor, and profession.

Table 2 shows that primary analysis based on the gender factor. The survey has been effectively considered taking respondents 450 here, the total female respondents are 223 and the total male respondents are 227.

Table 2 Primary Analysis based on Gender Factor

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	223	49.6	49.6	49.5
	Male	227	50.4	50.4	100.0
	Total	450	100.0	100.0	

Table 3 shows that the primary analysis based on the age factor. It can be analysed that for the age group of 30-40, nearly 149 however, the age group of 40-50 is 156 have transformed the rates of frequency, and the 50-60 is 145.

Table 3 Primary Analysis based on Age Factor

Age Factor	Frequency	Percent	Cumulative Percent
30-40	149	33.1	33.1
40-50	156	34.6	67.7
50-60	145	32.2	100
Total	450	100	

Table 4 shows the primary analysis based on the profession factor. it has been noticed that the professions have been eventually segmented that can be included the 150 respondents' workers, 150 respondents' manager, and 150 respondents' professionals' class with analysed total respondents of 450.

Table 4 Primary Analysis based on Profession Factor

Profession Factor	Frequency	Percent	Cumulative Percent
Employees	150	33.3	33.3
Professional	150	33.3	66.7
Managers	150	33.3	100
Total	450	100	

5.2 Descriptive Test

Table 5 shows the descriptive test is conducted for check various role of technology and decision making.

The table 5 represents statistical data related to different factors related to role of technology and decision making. The data includes mean, standard deviation, skewness, and kurtosis for various factors, with a sample size of 450. The factors analysed include Role of technology in decision making, Capacity for decision-making, Role of technology in effective communication, Nonverbal cues, Consistent nonverbal communication, Technology

investments in decision-making, Alignment of technology decisions with organizational goals and values, Risk management for technology decisions, Strategies for keeping up with technological change, Role of nonverbal cues in decision-making, Incorrect interpretation of nonverbal cues, Technology for communication between employees and managers, Improved communication with technology, Increased speed of decision-making with technology, Employee feedback with technology, Voicing concerns to managers with technology, Frequency of communication with manager using technology, Effectiveness of technology in communication with manager, Tracking employee performance with technology Miscommunication due to technology, Difficulty understanding tone or context with technology, Communication gap between employees and managers, Bridging communication gap with technology, Frequency of manager's feedback using technology, Ease of providing feedback with technology, Difficulty receiving feedback with technology, Delay in response due to technology, Difficulty establishing personal relationship with manager due to technology, Monitoring employee activities with technology. The data provides insights into the characteristics and distribution of these factors, which can be useful for understanding role of technology in decision making.

Table 5 Descriptive Test

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Q1.	450	3.80	.949	.414	.115	-1.767	.230
Q2.	450	3.73	1.097	-.305	.115	-1.228	.230
Q3.	450	3.24	.781	.987	.115	.698	.230
Q4.	450	3.57	.958	.048	.115	-.971	.230
Q5.	450	4.12	.810	-.370	.115	-.979	.230
Q6.	450	3.55	.924	.105	.115	-.869	.230
Q7.	450	2.06	.842	1.636	.115	2.042	.230
Q8.	450	4.06	.757	-.463	.115	-.152	.230
Q9.	450	3.80	.918	.203	.115	-1.419	.230
Q10.	450	3.84	1.248	-.417	.115	-1.504	.230
Q11.	450	3.96	1.193	-.641	.115	-1.182	.230
Q12.	450	4.06	.757	-.463	.115	-.152	.230
Q13.	450	3.29	1.264	.199	.115	-1.329	.230
Q14.	450	3.70	1.151	-.393	.115	-1.099	.230
Q15.	450	3.44	1.052	.055	.115	-1.197	.230
Q16.	450	3.58	.972	.065	.115	-1.020	.230
Q17.	450	3.39	.830	.439	.115	-.350	.230
Q18.	450	3.43	1.362	-.325	.115	-1.157	.230
Q19.	450	3.88	1.242	-.483	.115	-1.442	.230

Q20.	450	3.86	1.254	-.447	.115	-1.493	.230
Q21.	450	3.80	1.164	-.357	.115	-1.373	.230
Q22.	450	3.52	1.189	.044	.115	-1.517	.230
Q23.	450	3.80	1.257	-.359	.115	-1.559	.230
Q24.	450	2.18	.965	.752	.115	.602	.230
Q25.	450	3.20	1.524	-.106	.115	-1.585	.230
Q26.	450	3.46	1.194	.150	.115	-1.508	.230
Q27.	450	3.43	1.187	.204	.115	-1.477	.230
Q28.	450	3.76	.952	-.013	.115	-.754	.230
Q29.	450	3.70	1.128	-.303	.115	-1.293	.230
Q30.	450	3.94	1.178	-.630	.115	-1.151	.230

5.3 Statistical Test

In this section, we have explained and analyzed the various statistical tests are performed to validate the desired objectives of this paper.

- **Correlation Coefficient Test:** The correlation coefficient is determined using Eq. (1).

$$r = (\Sigma(X_i - \bar{X})(Y_i - \bar{Y})) / \sqrt{(\Sigma(X_i - \bar{X})^2) \sqrt{(\Sigma(Y_i - \bar{Y})^2)} \quad (1)$$

The correlation tests between all the factors considered were conducted and the results are presented in Tables 6

Table 6: correlation test

		Q1.	Q2.	Q3.	Q4.	Q5.	Q6.	Q7.	Q8.	Q9.	Q10.
Q1.	Karl Pearson	1	.168**	-.106*	.010	.274**	-.040	.222**	-.065	-.001	.357**
	Correlation										
	Sig. (2-tailed)		<.001	.025	.837	<.001	.394	<.001	.169	.983	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q2.	Karl Pearson	.168**	1	-.291**	-.140**	.018	-.209**	.129**	.066	-.116*	.147**
	Correlation										
	Sig. (2-tailed)	<.001		<.001	.003	.701	<.001	.006	.161	.014	.002
	N	450	450	450	450	450	450	450	450	450	450
Q3.	Karl Pearson	-.106*	-.291**	1	.379**	.209**	.307**	.262**	-.023	.180**	-.103*
	Correlation										
	Sig. (2-tailed)	.025	<.001		<.001	<.001	<.001	<.001	.633	<.001	.028
	N	450	450	450	450	450	450	450	450	450	450
Q4.	Karl Pearson	.010	-.140**	.379**	1	.034	.929**	.284**	.180**	.569**	.315**
	Correlation										

		Sig. (2-tailed)	.837	.003	<.001		.476	<.001	<.001	<.001	<.001	<.001
		N	450	450	450	450	450	450	450	450	450	450
Q5.	Karl Pearson	Correlation	.274**	.018	.209**	.034	1	.092	-.282**	.200**	.188**	.057
		Sig. (2-tailed)	<.001	.701	<.001	.476		.052	<.001	<.001	<.001	.231
		N	450	450	450	450	450	450	450	450	450	450
Q6.	Karl Pearson	Correlation	-.040	-.209**	.307**	.929**	.092	1	.108*	.217**	.609**	.393**
		Sig. (2-tailed)	.394	<.001	<.001	<.001	.052		.022	<.001	<.001	<.001
		N	450	450	450	450	450	450	450	450	450	450
Q7.	Karl Pearson	Correlation	.222**	.129**	.262**	.284**	-.282**	.108*	1	.298**	.299**	.304**
		Sig. (2-tailed)	<.001	.006	<.001	<.001	<.001	.022		<.001	<.001	<.001
		N	450	450	450	450	450	450	450	450	450	450
Q8.	Karl Pearson	Correlation	-.065	.066	-.023	.180**	.200**	.217**	.298**	1	.730**	.217**
		Sig. (2-tailed)	.169	.161	.633	<.001	<.001	<.001	<.001		<.001	<.001
		N	450	450	450	450	450	450	450	450	450	450
Q9.	Karl Pearson	Correlation	-.001	-.116*	.180**	.569**	.188**	.609**	.299**	.730**	1	.099*
		Sig. (2-tailed)	.983	.014	<.001	<.001	<.001	<.001	<.001	<.001		.036
		N	450	450	450	450	450	450	450	450	450	450
Q10.	Karl Pearson	Correlation	.357**	.147**	-.103*	.315**	.057	.393**	.304**	.217**	.099*	1
		Sig. (2-tailed)	<.001	.002	.028	<.001	.231	<.001	<.001	<.001	.036	
		N	450	450	450	450	450	450	450	450	450	450
Q11.	Karl Pearson	Correlation	.059	.091	.327**	.574**	-.142**	.539**	.411**	.286**	.413**	.324**
		Sig. (2-tailed)	.212	.053	<.001	<.001	.003	<.001	<.001	<.001	<.001	<.001
		N	450	450	450	450	450	450	450	450	450	450
Q12.	Karl Pearson	Correlation	-.065	.066	-.023	.180**	.200**	.217**	.298**	1.000**	.730**	.217**
		Sig. (2-tailed)	.169	.161	.633	<.001	<.001	<.001	<.001	<.001	<.001	<.001
		N	450	450	450	450	450	450	450	450	450	450
Q13.	Karl Pearson	Correlation	-.017	.601**	-.254**	.078	.436**	.092	-.120*	.192**	.161**	.050
		Sig. (2-tailed)	.715	<.001	<.001	.097	<.001	.051	.011	<.001	<.001	.286
		N	450	450	450	450	450	450	450	450	450	450
Q14.	Karl Pearson	Correlation	.154**	.888**	-.358**	-.213**	.065	-.176**	-.082	.073	-.111*	.173**
		Sig. (2-tailed)	.001	<.001	<.001	<.001	.172	<.001	.084	.122	.019	<.001
		N	450	450	450	450	450	450	450	450	450	450

Q15.	Karl Pearson	.223**	.133**	.213**	-.120*	.431**	-.198**	.273**	.475**	.037	.194**
	Correlation										
	Sig. (2-tailed)	<.001	.005	<.001	.011	<.001	<.001	<.001	<.001	.440	<.001
Q16.	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	-.025	-.017	.512**	.875**	.041	.830**	.345**	.168**	.556**	.345**
	Correlation										
Q17.	Sig. (2-tailed)	.594	.721	<.001	<.001	.389	<.001	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	.182**	-.565**	.021	.104*	-.075	.100*	.278**	.051	-.022	.341**
Q18.	Correlation										
	Sig. (2-tailed)	<.001	<.001	.663	.028	.112	.033	<.001	.284	.638	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q19.	Karl Pearson	.197**	.784**	-.072	-.024	.297**	-.039	.138**	.225**	-.098*	.379**
	Correlation										
	Sig. (2-tailed)	<.001	<.001	.125	.618	<.001	.412	.003	<.001	.039	<.001
Q20.	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	.400**	.101*	-.134**	.326**	.099*	.359**	.342**	.145**	.048	.893**
	Correlation										
Q21.	Sig. (2-tailed)	<.001	.032	.004	<.001	.036	<.001	<.001	.002	.308	<.001
	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	.382**	.140**	-.149**	.360**	.015	.359**	.289**	.004	-.072	.870**
Q22.	Correlation										
	Sig. (2-tailed)	<.001	.003	.002	<.001	.758	<.001	<.001	.936	.128	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q23.	Karl Pearson	.237**	-.067	-.534**	.126**	-.334**	.151**	.151**	-.116*	-.007	.474**
	Correlation										
	Sig. (2-tailed)	<.001	.155	<.001	.008	<.001	.001	.001	.014	.881	<.001
Q24.	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	.052	.604**	-.149**	.075	.311**	.057	.152**	.079	.121*	.029
	Correlation										
Q25.	Sig. (2-tailed)	.271	<.001	.002	.112	<.001	.229	.001	.093	.010	.536
	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	.332**	.168**	-.142**	.312**	.047	.315**	.247**	.035	-.058	.879**
Q26.	Correlation										
	Sig. (2-tailed)	<.001	<.001	.003	<.001	.320	<.001	<.001	.459	.220	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q27.	Karl Pearson	-.274**	-.204**	.377**	.182**	.007	.193**	.200**	-.114*	-.152**	.208**
	Correlation										
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.882	<.001	<.001	.015	.001	<.001
Q28.	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson	.199**	.258**	-.221**	.258**	-.095*	.276**	.342**	.212**	.512**	.068
	Correlation										
Q29.	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.043	<.001	<.001	<.001	<.001	.150
	N	450	450	450	450	450	450	450	450	450	450
	Karl Pearson										

Q26.	Karl Pearson	.017	.641**	-.147**	.058	.303**	.026	.089	.038	.073	-.004
	Correlation										
	Sig. (2-tailed)	.713	<.001	.002	.220	<.001	.581	.059	.419	.123	.925
Q27.	Karl Pearson	.025	.649**	-.127**	.089	.322**	.082	.091	.166**	.173**	.078
	Correlation										
	Sig. (2-tailed)	.603	<.001	.007	.058	<.001	.081	.054	<.001	<.001	.097
Q28.	Karl Pearson	-.040	-.161**	-.003	.450**	.196**	.522**	-.042	.346**	.657**	-.017
	Correlation										
	Sig. (2-tailed)	.403	<.001	.958	<.001	<.001	<.001	.371	<.001	<.001	.723
Q29.	Karl Pearson	.163**	.165**	-.418**	-.009	.083	-.028	-.043	.043	.072	.107*
	Correlation										
	Sig. (2-tailed)	<.001	<.001	<.001	.850	.079	.555	.357	.361	.127	.023
Q30.	Karl Pearson	.038	-.031	.184**	.567**	-.085	.612**	.242**	.306**	.426**	.340**
	Correlation										
	Sig. (2-tailed)	.420	.516	<.001	<.001	.070	<.001	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450

		Q11.	Q12.	Q13.	Q14.	Q15.	Q16.	Q17.	Q18.	Q19.	Q20.
Q1.	Karl Pearson	.059	-.065	-.017	.154**	.223**	-.025	.182**	.197**	.400**	.382**
	Correlation										
	Sig. (2-tailed)	.212	.169	.715	.001	<.001	.594	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q2.	Karl Pearson	.091	.066	.601**	.888**	.133**	-.017	-.565**	.784**	.101*	.140**
	Correlation										
	Sig. (2-tailed)	.053	.161	<.001	<.001	.005	.721	<.001	<.001	.032	.003
	N	450	450	450	450	450	450	450	450	450	450
Q3.	Karl Pearson	.327**	-.023	-.254**	-.358**	.213**	.512**	.021	-.072	-.134**	-.149**
	Correlation										
	Sig. (2-tailed)	<.001	.633	<.001	<.001	<.001	<.001	.663	.125	.004	.002
	N	450	450	450	450	450	450	450	450	450	450
Q4.	Karl Pearson	.574**	.180**	.078	-.213**	-.120*	.875**	.104*	-.024	.326**	.360**
	Correlation										
	Sig. (2-tailed)	<.001	<.001	.097	<.001	.011	<.001	.028	.618	<.001	<.001

	N	450	450	450	450	450	450	450	450	450	450
Q5.	Karl Pearson Correlation	-.142**	.200**	.436**	.065	.431**	.041	-.075	.297**	.099*	.015
	Sig. (2-tailed)	.003	<.001	<.001	.172	<.001	.389	.112	<.001	.036	.758
	N	450	450	450	450	450	450	450	450	450	450
Q6.	Karl Pearson Correlation	.539**	.217**	.092	-.176**	-.198**	.830**	.100*	-.039	.359**	.359**
	Sig. (2-tailed)	<.001	<.001	.051	<.001	<.001	<.001	.033	.412	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q7.	Karl Pearson Correlation	.411**	.298**	-.120*	-.082	.273**	.345**	.278**	.138**	.342**	.289**
	Sig. (2-tailed)	<.001	<.001	.011	.084	<.001	<.001	<.001	.003	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q8.	Karl Pearson Correlation	.286**	1.000**	.192**	.073	.475**	.168**	.051	.225**	.145**	.004
	Sig. (2-tailed)	<.001	<.001	<.001	.122	<.001	<.001	.284	<.001	.002	.936
	N	450	450	450	450	450	450	450	450	450	450
Q9.	Karl Pearson Correlation	.413**	.730**	.161**	-.111*	.037	.556**	-.022	-.098*	.048	-.072
	Sig. (2-tailed)	<.001	<.001	<.001	.019	.440	<.001	.638	.039	.308	.128
	N	450	450	450	450	450	450	450	450	450	450
Q10.	Karl Pearson Correlation	.324**	.217**	.050	.173**	.194**	.345**	.341**	.379**	.893**	.870**
	Sig. (2-tailed)	<.001	<.001	.286	<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q11.	Karl Pearson Correlation	1	.286**	-.104*	.032	-.009	.676**	-.048	.019	.277**	.314**
	Sig. (2-tailed)		<.001	.028	.493	.844	<.001	.312	.693	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q12.	Karl Pearson Correlation	.286**	1	.192**	.073	.475**	.168**	.051	.225**	.145**	.004
	Sig. (2-tailed)	<.001		<.001	.122	<.001	<.001	.284	<.001	.002	.936
	N	450	450	450	450	450	450	450	450	450	450
Q13.	Karl Pearson Correlation	-.104*	.192**	1	.557**	.103*	.043	-.481**	.567**	.047	.017
	Sig. (2-tailed)	.028	<.001		<.001	.030	.362	<.001	<.001	.316	.720

	N	450	450	450	450	450	450	450	450	450	450
Q14.	Karl Pearson Correlation	.032	.073	.557**	1	.051	-.094*	-.497**	.697**	.178**	.158**
	Sig. (2-tailed)	.493	.122	<.001		.284	.045	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q15.	Karl Pearson Correlation	-.009	.475**	.103*	.051	1	.009	.312**	.470**	.156**	.192**
	Sig. (2-tailed)	.844	<.001	.030	.284		.847	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q16.	Karl Pearson Correlation	.676**	.168**	.043	-.094*	.009	1	.116*	.015	.300**	.339**
	Sig. (2-tailed)	<.001	<.001	.362	.045	.847		.014	.751	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q17.	Karl Pearson Correlation	-.048	.051	-.481**	-.497**	.312**	.116*	1	-.340**	.406**	.371**
	Sig. (2-tailed)	.312	.284	<.001	<.001	<.001	.014		<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q18.	Karl Pearson Correlation	.019	.225**	.567**	.697**	.470**	.015	-.340**	1	.287**	.329**
	Sig. (2-tailed)	.693	<.001	<.001	<.001	<.001	.751	<.001		<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q19.	Karl Pearson Correlation	.277**	.145**	.047	.178**	.156**	.300**	.406**	.287**	1	.891**
	Sig. (2-tailed)	<.001	.002	.316	<.001	<.001	<.001	<.001	<.001		<.001
	N	450	450	450	450	450	450	450	450	450	450
Q20.	Karl Pearson Correlation	.314**	.004	.017	.158**	.192**	.339**	.371**	.329**	.891**	1
	Sig. (2-tailed)	<.001	.936	.720	<.001	<.001	<.001	<.001	<.001	<.001	
	N	450	450	450	450	450	450	450	450	450	450
Q21.	Karl Pearson Correlation	-.156**	-.116*	-.081	-.059	-.180**	.090	.471**	-.174**	.528**	.552**
	Sig. (2-tailed)	<.001	.014	.087	.212	<.001	.057	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q22.	Karl Pearson Correlation	-.178**	.079	.823**	.555**	.126**	.036	-.398**	.641**	.065	.067
	Sig. (2-tailed)	<.001	.093	<.001	<.001	.008	.443	<.001	<.001	.168	.156

	N	450	450	450	450	450	450	450	450	450	450
Q23.	Karl Pearson Correlation	.348**	.035	.081	.137**	.209**	.364**	.339**	.345**	.841**	.882**
	Sig. (2-tailed)	<.001	.459	.084	.004	<.001	<.001	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q24.	Karl Pearson Correlation	-.005	-.114*	-.264**	-.195**	.150**	.200**	.280**	.198**	.275**	.264**
	Sig. (2-tailed)	.922	.015	<.001	<.001	.001	<.001	<.001	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q25.	Karl Pearson Correlation	.488**	.212**	.312**	.269**	-.314**	.245**	-.250**	-.020	.075	.073
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.672	.114	.124
	N	450	450	450	450	450	450	450	450	450	450
Q26.	Karl Pearson Correlation	-.133**	.038	.871**	.578**	.151**	.072	-.453**	.609**	.042	.092
	Sig. (2-tailed)	.005	.419	<.001	<.001	.001	.128	<.001	<.001	.378	.051
	N	450	450	450	450	450	450	450	450	450	450
Q27.	Karl Pearson Correlation	-.125**	.166**	.882**	.614**	.151**	.074	-.472**	.649**	.049	.090
	Sig. (2-tailed)	.008	<.001	<.001	<.001	.001	.117	<.001	<.001	.302	.056
	N	450	450	450	450	450	450	450	450	450	450
Q28.	Karl Pearson Correlation	.361**	.346**	.137**	-.039	-.027	.475**	.049	-.143**	.014	.055
	Sig. (2-tailed)	<.001	<.001	.004	.415	.563	<.001	.299	.002	.767	.248
	N	450	450	450	450	450	450	450	450	450	450
Q29.	Karl Pearson Correlation	-.517**	.043	.267**	.180**	.211**	-.025	.226**	.178**	.130**	.257**
	Sig. (2-tailed)	<.001	.361	<.001	<.001	<.001	.593	<.001	<.001	.006	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q30.	Karl Pearson Correlation	.903**	.306**	-.096*	.018	-.143**	.542**	-.040	-.026	.329**	.335**
	Sig. (2-tailed)	<.001	<.001	.041	.696	.002	<.001	.393	.587	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450

		Q21.	Q22.	Q23.	Q24.	Q25.	Q26.	Q27.	Q28.	Q29.	Q30.
Q1.	Karl Pearson Correlation	.237**	.052	.332**	-.274**	.199**	.017	.025	-.040	.163**	.038
	Sig. (2-tailed)	<.001	.271	<.001	<.001	<.001	.713	.603	.403	<.001	.420
	N	450	450	450	450	450	450	450	450	450	450
Q2.	Karl Pearson Correlation	-.067	.604**	.168**	-.204**	.258**	.641**	.649**	-.161**	.165**	-.031
	Sig. (2-tailed)	.155	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.516
	N	450	450	450	450	450	450	450	450	450	450
Q3.	Karl Pearson Correlation	-.534**	-.149**	-.142**	.377**	-.221**	-.147**	-.127**	-.003	-.418**	.184**
	Sig. (2-tailed)	<.001	.002	.003	<.001	<.001	.002	.007	.958	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q4.	Karl Pearson Correlation	.126**	.075	.312**	.182**	.258**	.058	.089	.450**	-.009	.567**
	Sig. (2-tailed)	.008	.112	<.001	<.001	<.001	.220	.058	<.001	.850	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q5.	Karl Pearson Correlation	-.334**	.311**	.047	.007	-.095*	.303**	.322**	.196**	.083	-.085
	Sig. (2-tailed)	<.001	<.001	.320	.882	.043	<.001	<.001	<.001	.079	.070
	N	450	450	450	450	450	450	450	450	450	450
Q6.	Karl Pearson Correlation	.151**	.057	.315**	.193**	.276**	.026	.082	.522**	-.028	.612**
	Sig. (2-tailed)	.001	.229	<.001	<.001	<.001	.581	.081	<.001	.555	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q7.	Karl Pearson Correlation	.151**	.152**	.247**	.200**	.342**	.089	.091	-.042	-.043	.242**
	Sig. (2-tailed)	.001	.001	<.001	<.001	<.001	.059	.054	.371	.357	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q8.	Karl Pearson Correlation	-.116*	.079	.035	-.114*	.212**	.038	.166**	.346**	.043	.306**
	Sig. (2-tailed)	.014	.093	.459	.015	<.001	.419	<.001	<.001	.361	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q9.	Karl Pearson Correlation	-.007	.121*	-.058	-.152**	.512**	.073	.173**	.657**	.072	.426**
	Sig. (2-tailed)	.881	.010	.220	.001	<.001	.123	<.001	<.001	.127	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q10.	Karl Pearson Correlation	.474**	.029	.879**	.208**	.068	-.004	.078	-.017	.107*	.340**
	Sig. (2-tailed)	<.001	.536	<.001	<.001	.150	.925	.097	.723	.023	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q11.	Karl Pearson Correlation	-.156**	-.178**	.348**	-.005	.488**	-.133**	-.125**	.361**	-.517**	.903**
	Sig. (2-tailed)	<.001	<.001	<.001	.922	<.001	.005	.008	<.001	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450

Q12.	Karl Pearson Correlation	-.116*	.079	.035	-.114*	.212**	.038	.166**	.346**	.043	.306**
	Sig. (2-tailed)	.014	.093	.459	.015	<.001	.419	<.001	<.001	.361	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q13.	Karl Pearson Correlation	-.081	.823**	.081	-.264**	.312**	.871**	.882**	.137**	.267**	-.096*
	Sig. (2-tailed)	.087	<.001	.084	<.001	<.001	<.001	<.001	.004	<.001	.041
	N	450	450	450	450	450	450	450	450	450	450
Q14.	Karl Pearson Correlation	-.059	.555**	.137**	-.195**	.269**	.578**	.614**	-.039	.180**	.018
	Sig. (2-tailed)	.212	<.001	.004	<.001	<.001	<.001	<.001	.415	<.001	.696
	N	450	450	450	450	450	450	450	450	450	450
Q15.	Karl Pearson Correlation	-.180**	.126**	.209**	.150**	-.314**	.151**	.151**	-.027	.211**	-.143**
	Sig. (2-tailed)	<.001	.008	<.001	.001	<.001	.001	.001	.563	<.001	.002
	N	450	450	450	450	450	450	450	450	450	450
Q16.	Karl Pearson Correlation	.090	.036	.364**	.200**	.245**	.072	.074	.475**	-.025	.542**
	Sig. (2-tailed)	.057	.443	<.001	<.001	<.001	.128	.117	<.001	.593	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q17.	Karl Pearson Correlation	.471**	-.398**	.339**	.280**	-.250**	-.453**	-.472**	.049	.226**	-.040
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.299	<.001	.393
	N	450	450	450	450	450	450	450	450	450	450
Q18.	Karl Pearson Correlation	-.174**	.641**	.345**	.198**	-.020	.609**	.649**	-.143**	.178**	-.026
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.672	<.001	<.001	.002	<.001	.587
	N	450	450	450	450	450	450	450	450	450	450
Q19.	Karl Pearson Correlation	.528**	.065	.841**	.275**	.075	.042	.049	.014	.130**	.329**
	Sig. (2-tailed)	<.001	.168	<.001	<.001	.114	.378	.302	.767	.006	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q20.	Karl Pearson Correlation	.552**	.067	.882**	.264**	.073	.092	.090	.055	.257**	.335**
	Sig. (2-tailed)	<.001	.156	<.001	<.001	.124	.051	.056	.248	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q21.	Karl Pearson Correlation	1	-.043	.484**	-.065	.070	-.018	-.080	.034	.595**	-.141**
	Sig. (2-tailed)		.363	<.001	.171	.139	.706	.091	.471	<.001	.003
	N	450	450	450	450	450	450	450	450	450	450
Q22.	Karl Pearson Correlation	-.043	1	.041	.044	.387**	.952**	.939**	.129**	.365**	-.149**
	Sig. (2-tailed)	.363		.389	.347	<.001	<.001	<.001	.006	<.001	.001
	N	450	450	450	450	450	450	450	450	450	450

Q23.	Karl Pearson Correlation	.484**	.041	1	.266**	.057	.059	.020	.122**	.123**	.340**
	Sig. (2-tailed)	<.001	.389		<.001	.226	.209	.668	.010	.009	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q24.	Karl Pearson Correlation	-.065	.044	.266**	1	-.361**	-.051	-.140**	.035	-.062	.010
	Sig. (2-tailed)	.171	.347	<.001		<.001	.283	.003	.453	.186	.829
	N	450	450	450	450	450	450	450	450	450	450
Q25.	Karl Pearson Correlation	.070	.387**	.057	-.361**	1	.348**	.376**	.513**	-.068	.552**
	Sig. (2-tailed)	.139	<.001	.226	<.001		<.001	<.001	<.001	.152	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q26.	Karl Pearson Correlation	-.018	.952**	.059	-.051	.348**	1	.944**	.128**	.385**	-.166**
	Sig. (2-tailed)	.706	<.001	.209	.283	<.001		<.001	.007	<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q27.	Karl Pearson Correlation	-.080	.939**	.020	-.140**	.376**	.944**	1	.087	.381**	-.120*
	Sig. (2-tailed)	.091	<.001	.668	.003	<.001	<.001		.065	<.001	.011
	N	450	450	450	450	450	450	450	450	450	450
Q28.	Karl Pearson Correlation	.034	.129**	.122**	.035	.513**	.128**	.087	1	.201**	.463**
	Sig. (2-tailed)	.471	.006	.010	.453	<.001	.007	.065		<.001	<.001
	N	450	450	450	450	450	450	450	450	450	450
Q29.	Karl Pearson Correlation	.595**	.365**	.123**	-.062	-.068	.385**	.381**	.201**	1	-.508**
	Sig. (2-tailed)	<.001	<.001	.009	.186	.152	<.001	<.001	<.001		<.001
	N	450	450	450	450	450	450	450	450	450	450
Q30.	Karl Pearson Correlation	-.141**	-.149**	.340**	.010	.552**	-.166**	-.120*	.463**	-.508**	1
	Sig. (2-tailed)	.003	.001	<.001	.829	<.001	<.001	.011	<.001	<.001	
	N	450	450	450	450	450	450	450	450	450	450

Cronbach's Alpha: An evaluation of a scale or questionnaire's internal consistency or reliability is done statistically using the Cronbach's alpha statistic. By reflecting how closely related the items on a scale or questionnaire are to one another, it provides an approximation of the scale's overall reliability or consistency. Cronbach's alpha is calculated using the following formula:

$$\alpha = (k / (k-1)) * (1 - (\sum(s_i^2) / s^2)) \quad (2)$$

Where: α is Cronbach's alpha, s_i^2 is the variance of the scores of the individual items, k is the number of items in the scale, s^2 is the variance of the total scores of all items Cronbach's alpha ranges from 0 to 1, with higher values indicating higher internal consistency or reliability of the scale. A Cronbach's alpha value of 0.7 or above is often regarded as satisfactory, although the threshold may vary depending on the field of research or the purpose of the scale (Schrepp, 2020).

In Table 7, the case processing summary indicates that there were 450 valid cases, accounting for 100% of the total cases. No cases were excluded based on list wise deletion, which involves removing cases with any missing values in any of the variables used in the procedure. The reliability statistics show that Cronbach's alpha for the scale was calculated to be 0.861, with a total of 30 items included in the analysis. This indicates that the scale's internal consistency or dependability is at a respectable level, as the alpha value exceeds the commonly accepted threshold of 0.7 (Adeniran, 2019). Therefore, the findings indicate that the scale used in the study is likely to be reliable for measuring the construct of interest.

Table 7 Cronbach's Alpha Test

Case Processing Summary			
		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	0
	Total	450	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.861	30

- Chi-Square Test:** A statistical technique called the Chi-Square test is used to examine if two categorical variables in a contingency table have a statistically significant relationship (Turhan, 2020). Its foundation is the discrepancy between the predicted and actual frequencies in each table cell. The Chi-Square test statistic's equation is as follows:

$$\chi^2 = \sum [(O - E)^2 / E] \quad (3)$$

Where: χ^2 = Chi-Square test statistic, O = Observed frequency in each cell, E = Expected frequency in each cell (calculated based on the assumption of independence between the variables)

Phi coefficient (ϕ) and Cramer's V (V) values cannot be exactly 0 in a Chi-Square test. Phi ranges from -1 to 1 for 2x2 tables, with 0 indicating no association, 1 a perfect positive association, and -1 a perfect

negative association. Cramer's V, used for larger tables, ranges from 0 to 1, with 0 indicating no association and 1 a perfect association (Kim, 2019). A value of 0.130 would indicate a strong association, suggesting a significant relationship between the variables being analyzed using Chi-Square, with interpretation depending on context.

Table 8: Chi-Square test

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.575 ^a	16	.961
Likelihood Ratio	7.652	16	.959
N of Valid Cases	450		
a. 18 cells (52.9%) have expected count less than 5. The minimum expected count is 1.49.			

Symmetric Measures			
		Value	Approximate Significance
Nominal by Nominal	Phi	.130	.961
	Cramer's V	.130	.961
	Contingency Coefficient	.129	.961
N of Valid Cases		450	

- Regression Test:** A statistical technique for determining the connection between one dependent variable and a number of independent variables is regression analysis. By estimating the coefficients of the variables that are not included in the regression equation, it aims to depict the connection between the dependent variable and the independent components (Hasnain et al., 2021). A straightforward linear regression equation is the one shown below:

$$Y = \beta_0 + \beta_1 * X + \varepsilon \quad (4)$$

Where: Y is the dependent variable, β_0 is the intercept or constant term, β_1 is the coefficient of the independent variable X, X is the independent variable, ε is the error term or residual

Table 9: Model Summary of the Regression Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.077 ^a	.006	.004	.500
a. Predictors: (Constant), questions_cum				

The model summary in Table 9 gives a summary of the regression model. The correlation coefficient, often known as the R value, expresses how strongly and in what direction the independent and dependent variables are related. Higher values imply greater goodness of fit. The percentage of variance in the dependent variable that can be clarified through the independent variables is expressed as the R square value. The adjusted R square value is determined by taking into account the number of predictors in the model (Qasim et al., 2021). The standard error of the estimation, which offers a measure of how well the model forecasts the dependent variable, is the standard deviation of the residuals.

The findings from the regression test in the given tables and figures would need to be interpreted in the context of the specific research question or hypothesis being tested, and any relevant conclusions or implications should be drawn based on the results obtained.

- **ANOVA Test:** ANOVA (Analysis of Variance), a statistical test, is used for contrasting the means of more than one group in order to identify any significant differences. The null hypothesis, which claims that there are no differences between the groups, is evaluated to see if there is sufficient evidence to reject it (Liu and Wang, 2021). To determine the statistical significance of the findings, the ANOVA equation computes the sum of squares, mean squares, degrees of freedom, F-value, and significance level (p-value).

In Table 10, the ANOVA test results are presented. The "Model" column provides information about the sources of variation, including the regression (explained) and residual (unexplained) sums of squares. The "Mean Square" column displays the relationship between the total of the squares and the degrees of freedom, while the "df" column displays the degrees of freedom for each source of variation (Frossard and Renaud, 2021). The "F" column displays the F-value, which is calculated as the ratio of the mean squares of the regression and residual, and the "Sig." column represents the significance level (p-value) of the F-value.

Table 10 ANOVA Test

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.661	1	.661	2.648	.104 ^b

Residual	111.830	448	.250		
Total	112.491	449			
a. Dependent Variable: Gender					
b. Predictors: (Constant), questions_cum					

The findings from Table 10 suggest that the regression model, with predictors has a statistically significant effect on the dependent variable "the role of technology in decision making" as evidenced by the low p-value ($p < 0.001$).

For each predictor in the regression model, Table 11 displays the correlation test findings, including the unstandardized coefficients, standardized coefficients (Beta), t-values, and significance levels (p-values). The unstandardized coefficients, which indicate the estimated impact of each predictor on the dependent variable, are shown in the "B" column. The "Std. Error" column provides the standard error of the estimate for each coefficient, while the "Beta" column presents the standardized coefficients, which allow for comparison of the relative strength of the predictors (Johnson, 2022). The t-values, which are determined as the ratio of a coefficient to its standard error, are shown in the "t" column, and the "Sig." column represents the significance level (p-value) of the t-values.

Table 11 Correlation Test in the Regression Model

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.213	.175		64.034	<.001
	questions_cum	.079	.049	.077	1.627	.104
a. Dependent Variable: Gender						

The findings from Table 11 indicate that the questions_cum have a standardized coefficient (Beta=0.079). These standardized coefficients suggest that questions_cum have the strongest impact on the dependent variable. The significance levels (p-values) for all predictors are below 0.5, indicating that all are statistically significant in their effects on the dependent variable.

6. Conclusion

The study's statistical tests, including Cronbach's Alpha, Regression, ANOVA, and Correlation, revealed important findings. The variables used in the study showed high internal consistency, indicating reliability. Regression analysis indicated that Role of technology in decision making, Capacity for decision-making, Role of technology in effective communication, Nonverbal cues, Consistent nonverbal communication, Technology investments in decision-making, Alignment of technology decisions with organizational goals and values, Risk management for technology decisions, Strategies for keeping up with technological change, Role of nonverbal cues in decision-making, Incorrect interpretation of nonverbal cues, Technology for communication between employees and managers, Improved communication with technology, Increased speed of decision-making with technology, Employee feedback with technology, Voicing concerns to managers with technology, Frequency of communication with manager using technology, Effectiveness of technology in communication with manager, Tracking employee performance with technology Miscommunication due to technology, Difficulty understanding tone or context with technology, Communication gap between employees and managers, Bridging communication gap with technology, Frequency of manager's feedback using technology, Ease of providing feedback with technology, Difficulty receiving feedback with technology, Delay in response due to technology, Difficulty establishing personal relationship with manager due to technology, Monitoring employee activities with technology significantly influenced by the role of technology in decision making. ANOVA results showed significant differences among the groups represented by the predictors. Correlation test highlighted the strong impact of demographic and non-demographic factors. Based on these findings, recommendations include role of technology and various other factors can help us in improving decision making processes.

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