# MANAGEMENT INFORMATION SYSTEMS FOR RISK ANALYSIS AND DECISION MAKING AN EMPIRICAL INVESTIGATION

Korakod Tongkachok, Thaksin University
Rached Halloul, Military Academy
Melanie Elizabeth Lourens, Durban University of Technology
Hasbi Sjamsir, Mulawarman University Kaltim
Heppy Liana, Universitas Nahdlatul
Gautam Huidrom, Rajiv Gandhi University

### **ABSTRACT**

In the introduction chapter of this research paper the complete structure of this paper has been discussed. Along with that the importance of using different MIS related software in the MNCs for maintaining their business has also been discussed. Moreover, it has been identified that decision support systems (DSS) are the interactive software-based system which is intended to help business managers in order to make business improvement related decisions.

The Literature Review Section Is Critically Evaluating the Relationship between Data Analysis, Decision Making and MIS software for multinational organisations. Which station is also analysing the importance of risk analysis for making any type of decisions regarding business development. Moreover, the literature review section is also concerned with the importance of economic risk analysis along with analysing the risk depending on the time and taking decisions regarding the time.

In the research methodology section, it has been identified that the research is based on primary quantitative methods. The snowball sampling method was used in this research paper in order to include different employees from different multinational organisations. The sample size was 50 and the 50 employees belong to 5 different organisations.

From the data analysis section, it has been identified that there is a significant correlation between risk analysis and decision-making process in the multinational organisation along with use of MIS software. From the difference in mean median and mode results of different survey questions it has also been identified that this research paper has significant questions that the employees of multinational organisations found more relatable to their experiences.

**Keywords:** MNCs, MIS Softwares, Survey, Regression Analysis.

# **INTRODUCTION**

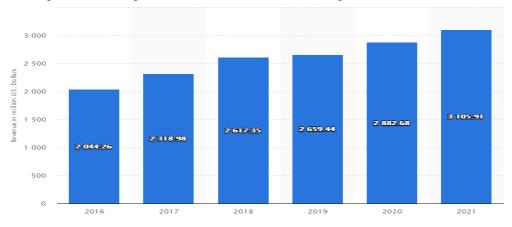
Managing information systems (MIS) is a study of individual technologies organisations and the relationship between these three. The MIS professionals are able to help different forms to realise their maximum benefits from investment in different equipment, business processes and human resources. This is an individual-oriented space with an emphasis on services with the

1939-6104-20-4-797

help of technology. Decision support systems (DSS) are the interactive software-based system which is intended to help business managers in order to make business improvement related decisions. This increases the efficiency of business decisions by accessing large volumes of information generated from vividly related information systems involved in the organisation of business processes. Some of the information systems are such as transaction process systems and office automation systems.

Depending on different information regarding the businesses if the firm information management system enhances the risk-mitigating capabilities of the management. As described by Hamori et al. (2018), information management systems developed a neural network for creating credit risk evaluation of different information obtained by the accuracy rate of the organisational performance. This network helps to experimentally analyse different information regarding the business process of the organisation. Therefore, depending on this risk analysis, the organisational management becomes able to make different business decisions for mitigating the risk. This is a way in which an organisational information management system makes an impact on the risk management and organisational business regarding decisions in a firm.

The management information system includes different variables which analyse different aspects of the organisation before developing any e business-related information and analyse any risk. In order to make a potential risk analysis, the information management system works with different variables. MIS software is dependent on different types of DSS software, due to which different interactive information gets aroused before processing with any specific information. In this context, Sanchez & Terlizzi (2017) have commented on considering different variables at multiple levels such as portfolio network program manager project and steam level for developing any information regarding the business management of any multinational organisation. International organisations that are dependent on MIS Softwares are positively gaining advantages for dealing in the international market (Figure 1).



Source: statista.com (2021)

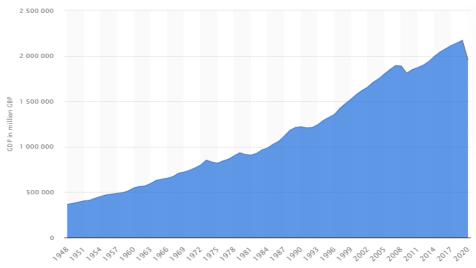
# FIGURE 1 RATE OF MIS SOFTWARES USED BY MNCS

There is different software that is capable of performing management information systems for multinational organisations. Some of this software is EAMBRACE, FSL TECHNOLOGIES, Microsoft Dynamics, Clarity Professional MIS, Fleetmatics WORK and Tharstern Limited. Moreover, Tharstern Limited is a print-based MIS organisation that helps

1939-6104-20-4-797

organisational management to complete workflow management systems. This management information system is generally used by printing companies to automate and speed up their tasks in order to enhance their delivery speed. As highlighted by Leong & Howlett (2017), the software works best on the different intentionally and avoidable phenomena and maintains the delivery time of their clients. Therefore, with the aid of this phenomenon, the organisations become capable of maintaining their deadlines in front of their clients. Furthermore, this software has a market-leading acknowledgement due to its capability to provide clone services to the organisation that is delivering printing services.

Management information software is Clarity Professional MIS that helps the organisational management to make their decisions as this provides a fully integrated suite for estimating shop floor production and electronic proof of delivery software. This drives incremental profit from the core of businesses and maintains accuracy in almost everything when securing margins in the job. As narrated by Paul Victor & Treschuk (2020), this research paper helps maintain additional clarity regarding the beliefs and morality of the customers in any multinational organisation. Along with customers, employee management also becomes easy and reduces the risk of a higher employee turnover rate. With the help of this software, the organisation and management in any multinational company become able to analyse all the different aspects of their CRM fully. This also enhances their capabilities to manage risk as the full analysis of the total work system of the multinational organisation enhances their capabilities of deciding risk mitigation strategies. Fleetmatics work is a software research company concerned with providing solutions of different scores features, including field service management time tracking invoicing and billing (Kalid & Rosli, 2017). This enhances the efficiency of decision regarding risk management in the MNCs (Figure 2).



Source: Statita.com, 2021

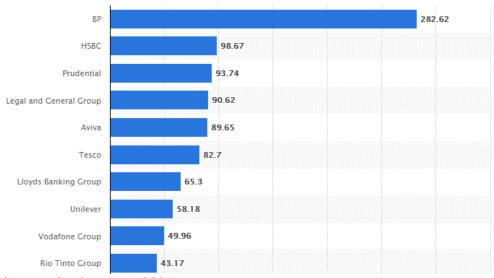
# FIGURE 2 GDP RATE OF UK MNCS

Keeping track of field service management time and dealing along with invoicing is going to help the management of any organisation to manage financial aspects. Therefore, any financial decisions in multinational organisations become easy when the organisation starts using

1939-6104-20-4-797

MIS. Microsoft Dynamics is a customer relationship management and resource planning software application that enhances organisational decision-making capabilities regarding their resources (Kalid & Rosli, 2017). This is a dynamic market application that helps a network of reselling partners to provide specialised services. Due to this software, any Resource management related issues are easily identifiable. Therefore, depending on the customers' demands and available resources and accessibility to the available resources are capable of making an impact on the decisions of the management of MNCs (Figure 3).

As opined by Vahedi & Arvand (2020), interrelated information is also managed by MIS software. In different studies, it has been identified that most of the business decisions are based on the decisions of stakeholders and investors; therefore, when the management becomes available to analyse the stakeholders' decision making and which are associated with their decisions easily get managed. Stakeholder management is essential for any organisation in order to run its business at the multinational level. For this purpose, Albano et al. (2017), depending on appropriate information regarding risk analysis helps the organisational management stay aware of the different consequences of their decisions. These consequences are also calculated by different software of MIS. Therefore, different organisational management is highly dependent on the software for developing their resources related decisions.



Source: Statista.com, 2021

# FIGURE 3 RANK OF MNCS REGARDING THEIR REVENUE

The UK MNCs face different issues in order to satisfy their customers. Such as Vodafone, which is a multinational networking organisation, has implemented for increasing their networking Speed to reduce complexities in the environment for sustaining their business in the 5G era. Tesco, which is a multinational supermarket giant in the UK, has been warned by the government to not block rifle supermarkets by buying or leasing their nearby sites (BBC, 2020). This is a decision-making issue that the super method is facing. British multinational organisations have 1,239.72 registered employees in the year 2020. Approximately 9.5 million employees are not registered in the British MNC (Albano et al., 2017). However, this research

4 1939-6104-20-4-797

paper aims to prove that MIS makes an essential impact on risk analysis and decision making in multinational organisations in the UK.

The research objective of this research paper is to identify the importance of MIS software in business risk analysis. Therefore, businesses are also aiming to analyse the importance of risk analysis on the decision-making strategies of different multinational organisations. Therefore, in this research paper and other objective is to identify the role management information system on the multinational businesses and to recommend some strategies for incorporating different MIS software for effective decision making and risk analysis. According to Hosain et al. (2020), the management becomes dependent on the information management systems as the software has access to the different aspects of their resources. Therefore, resource management without any risk associated with it is essential for the organisation.

The present research paper follows an empirical investment regarding the management information systems for risk analysis and decision making in a multinational organisation. Therefore, it is structured as follows: at first, a literature review on the subject has been presented. Secondly, the theoretical approach to reach our guiding this research paper is developed. Third, the research methodology followed in conducting the empirical research. In the fourth point, the results of the research paper are reported, and the research is in with a discussion about the findings from the survey that has been conducted with the different employees from different multinational organisations. And finally, a conclusion has been provided.

#### LITERATURE REVIEW

Management of data in the system marks specialist's methods that can be pre-owned as management of information. As demonstrated by Riedl et al. (2017) management information system is the critical part that plays a key role in ensuring the best possible use of information. However, the information is being used for the benefits of the organization. Rolland et al. (2018) have described that the platforms such as Google's Android and Apple's iOS have implemented information management system software.

Depending on these arguments it is justified that the advanced technological mode in terms of digitization requires proper management of information. Literature in this platform is exceedingly multidisciplinary. It includes the study of economies along with engineering and also deals with the study of growing information systems. As illustrated by Riedl et al. (2017) that BISE or Business and Information System engineering has become a critical base of research. BISE thus dealing with digitization in the technological aspect probes that there is a need for accomplishing information system software. Introducing MIS in Google's Android system has proved that the management of information systems is widely applied in almost every well-built organization.

Argument by Sanchez & Terlizzi (2017) establishes that nonetheless the organizations large it might face consequences in the management of time and cost. In order to build Cost and Time Project Management Success, it is significantly demonstrated that the information system has been proved to be successful for larger organizations. Addressing technology can only be achieved by introducing management of information system software in the organizations. The trending brand Apple of advanced digitized technologies deals with management information systems (MIS) to build pioneering models. On the contrary, Rolland et al. (2018) have

5 1939-6104-20-4-797

substantiated that internet protocol or IP is the main source of MIS that takes in the support of rebuilding the evolvability of design. The productivity of the business might decrease when management of cost and time is not positively perceived.

Sanchez & Terlizzi (2017) have opined that the Financial Service Industry or (FSI) is responsible for contributing 13% in US \$ 351 billion in terms of investment in the IT sector. Information system contains multiple teams in which every individual team member contributes in some or few decision-making steps. The idea of conflict management can thus be developed from this statement. The FSI tries to introduce the establishment of MIS software's so that organizations can achieve a propitious success in terms of capital growth.

On the contrary, Riedl et al. (2017) have discussed the extensive view of information management that encompassed strategic tools to build a better competitive advantage in the field of business management. Additionally, it has been illustrated that digital business strategy comprises tasks and typical methods that can lead to the strategic management of the business. As per the exploration of Sanchez & Terlizzi (2017) it can be elaborated that a good quality and better management of Gantt can only be possible by applying MIS in the cost and time management projects. Positive influences can be drawn by inaugurating the MIS system in the organization (Table 1).

Table 1 RELEVANT LITERATURE ON THIS TOPIC REGARDING UTAUT MODEL							
Studies	Involved Methodology	Variables	Findings				
Ijeoma (2018)	Primary Quantitative Research is done with a Survey questionnaire	The Independent variable is MIS, and the dependent variable is service delivery and paperwork.	MIS helps the management to make effective decisions as it is able to measure a disturbance in a system along with determining the course of action that is required.				
Shoimardon kulovich (2020)	Secondary qualitative	Independent variable MIS software and dependent variable film service.	The use of MIS software affects the productivity of human resources and enhances business performance.				
Jumino (2018)	Secondary qualitative	Independent variable decision making dependent variable business information.	Decisions which are depending on MIS software enhance the efficiency level of different decisions.				
Vokshi & Krasniqi (2017)	Statistical analysis	Independent variable importance of accounting within a variable decision-making process	Resource management becomes more effective.				
Riedl et al. (2017)	Secondary qualitative	Independent variable MIS dependent variable digitalization	The transformation of the organization gets enhanced.				
Rolland et al. (2018)	et Primary qualitative Independent variable MIS dependent variable relation		Make the organizations more customercentric.				
Sanchez & Terlizzi (2017)	Primary qualitative	Anyone and variable development and dependent variable time and project management cost.	Extend the capability of organizational management.				

MIS software provides regular information to the managers and allows them to make decisions based on the statistical numerical data sets rather than guesses. Some data analyses are able to play an essential and useful role in decision-making regarding Business development about where and when to use the human resources along with other resources for achieving the vision and mission of the firm. As mentioned by Ijeoma (2018), management information systems facilitate decision making for management-related decisions by determining the extent to which the organisation is going to control and implement different operational functions to enable their planning for improvement.

Depending on proven statistical data sets are more reliable for the organisations that are operating at the international level in order to sustain the competitive market. In addition to this, Ijeoma (2018) has stated that decisions that are dependent on the available external and internal market-related data sets are more effective for the improvement of any organisation. The utilisation of the available resources along with the human resources becomes easy and more effective when the organisation starts using mission management information related software in their organisational setup. In contrast to this, Shoimardonkulovich (2020), with the aid of different MIS software, circulation of decisions that depend on the social-economic factors of the organisation along with the national economy becomes easier.

Business decisions related to the economic condition of the most and parent country of the multinational organisation is more effective for their business improvement. As well as all of these are more relevant to the organisational business operations, the management also becomes able to take effective decisions regarding their resources as they are aware of the availability of the resources along with they are aware of the accessibility to the resources. On the other hand, Jumino (2018) has mentioned that decision making is required to be dependent on enough relatable information along with the time. Therefore, Association between information and the time when the data has been gathered is essential for making decisions regarding the business improvement in any multinational.

Therefore, the MIS software is capable of keeping track of the time when the data are being gathered. Moreover, this software is also able to make changes on the difference in decision making related skills of the managers. The studies of Vokshi&Krasniqi (2017) has identified that decisions that are related to the data sets of accounts are more efficient to change the business formals of the organisation in a positive way. Therefore, the organisations that are taking their decisions depending on the data sets that their management information systems are providing them are more capable of positively changing their business decisions.

# **Hypothesis**

- $H_1$  MIS have a significant correlation with the different market-oriented changes and management knowledge about those changes.
- $H_{01}$  MIS Software does not have any significant correlation with market-oriented changes and management knowledge about these changes.
- $H_2$  Management information system has a significant correlation with organisational risk assessment and decision making.
- $H_{02}$  Management information system does not have any correlation with organisational risk assessment and decision making.

#### **METHODOLOGY**

This study was designed for gathering information about the role of MIS software investment analysis and the decision-making process in MNCs. From middle managers to the hierarchy of MNCs are gathered together for conducting this research. This paper is using a survey questionnaire as the instrument to reach has been made with prepaid return envelopes in medium to large size in MNCs. In reception, the description of instrument development and validation sampling size sampling method. Data collection along with the data analysis process is critically described.

# **Instrument Development and Validation**

For conducting the present research, a survey has been used as an instrument for developing valid and reliable research. As described by Belov et al. (2018), surveys help to gather data from a wide range of individuals. This side recreation has developed depending on how it's still measured for studying the factors of MIS software so that influence the management of different MNCs is used for analysing risk and developing any decisions regarding their business. The language of this survey questionnaire has been kept in English. This Research survey questionnaire has been sent to the participant after measuring both its face and content validity. As highlighted by Connell et al. (2018), the validity of the instrument enhances the capabilities of the research paper to analyse different factors. First, the questionnaires were provided to the MBA students for gathering their recommendations. After getting their recommendations, some changes depending on their recommendations have been made on the wordings and distribution of the questions. As the instrument has already tested its content and face validity, the research does not perform a pilot test with a small sample. However, the evaluation of MBA students gives the researcher some confidence that their questionnaire is relatable with the topic and able to identify different relationships between all the research variables. The survey has provided options to the five-point Likert scales starting from strongly agree to disagree strongly.

# **Sample and Data Collection**

First, in this research paper, survey questionnaires have been sent to the employees of different MNCs. Then, the survey questionnaires were emailed to the employees. Here the questionnaires have been emailed to the samples depending on the *snowball sampling method*. As this is a non-probability sampling method and the subject provides our referral for recruiting other samples. As mentioned by Ghaljaie et al. (2017), snowball sampling is most convenient as this helps to keep all the variables in the sample. This makes it easy to get access to the employees of different MNCs by email and convince them to take part in the survey. Therefore, the researcher seeks to get access to the employees who play the role of risk analytics in their company's along with being connected with the organisational decisions for mitigating risk. Our population size was 190, from which we have selected 50 employees from 5 different multinational organisations to participate in the research.

In order to be more specific as shown in the below Table 2 190 questionnaire was sent to the person responsible for snowball sampling and individuals successfully gathered data from 50 employees from 5 different National organisations. The final response was from 19.3 8% of the population.

Table 2 DISTRIBUTION OF THE QUESTIONNAIRES SENT AND RECEIVED								
Enterprises	Enterprises Questionnaires Sent Questionnaires Received Percentage							
E1	36	9	3.24					
E2	26	8	2.08					
E3	41	10	4.1					
E4	39	12	4.68					
E5	48	11	5.28					
Total	190	50	19.38					

For mentioning the anonymity of the organisations, they have been mentioned as E1 to E6 The questionnaire received has been withdrawn, given too much information was lacking.

# **Data Analysis Process**

The primary quantitative data collected with the help of survey questionnaires are analysed by regression analysis and descriptive statistics. In addition, statistical analysis has been done in SPSS. Depending on the statistical analyses, analytical data gathered from the SPSS are going to be critically evaluated in order to draw a conclusion. Using the special software is able to enhance the reliability and validity of the statistical data self-induced research paper. Therefore, a better relationship between risk analysis and decision making with the MIS software has been identified.

#### RESULTS

The below regression analysis shows that the two variables have a correlation coefficient of 0.23 and a standard error of 0.14. Here the value of the correlation coefficient is lower than the correlation coefficient value, which is known as 0.05. Therefore, it is able to state that the null hypothesis is rejected here. Also, the scatter plot graph shows the R value and it mainly reflects the relationship between two prime and specific numeric variables in relation to this research. As per the scatter plot graph, the variables are correlated as it falls along a line. The null hypothesis stated that the management information system does not have any significant correlation with the management knowledge about different market-oriented changes. Hence, the regression analysis states that the eternal hypothesis is not significant as the alternative hypothesis is accepted here. The regression analysis is capable of stating that the MIS software has a significant correlation with the knowledge of multinational company management regarding their market-related changes. From the normal probability plotting, it is also visible that most of the employees of multinational organisations who have taken part in the survey of this research paper believe that the multinational organisation uses different MIS software for gathering different information about their market and keep the management acknowledged about different market-related issues (Table 3a & b).

Table 3a REGRESSION STATISTICS					
Multiple R	0.223567				
R Square	0.049982				
Adjusted R Square	0.03019				
Standard Error	1.277827				
Observations	50				

Table 3b TABLE FOR REGRESSION ANALYSIS (HYPOTHESIS 1)								
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.175186	0.376459	5.778	5.46E-07	1.418264	2.932109	1.418264	2.932109
X Variable	0.234292	0.147433	1.5891	0.118594	-0.06214	0.530726	-0.06214	0.530726

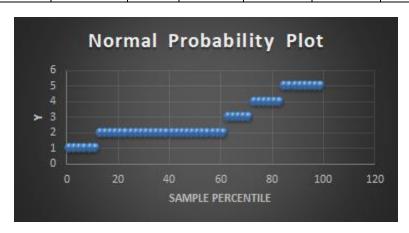


FIGURE 4 NORMAL PROBABILITY PLOTTING FOR THE HYPOTHESIS 1

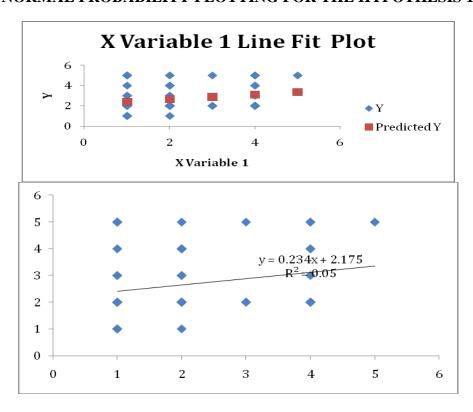


FIGURE 5
X VARIABLE 1 LINE FIT PLOT (HYPOTHESIS 1)

In this chapter of this research paper, the results of the survey are reported. Beginning with the present some characteristics of the research survey questionnaire, regression analysis has been done between different variables along with implementing descriptive statistics regarding the different variables of this research paper (Figures 4 & 5).

The mean median and mode have been calculated depending on the survey results. The mean median and mode value for each question has been identified and used to calculate the conclusion. The first question is whether the MIS software keeps the management well informed about their organisations and their required changes. In this case, the mean value of the responses is 2.23, which is the lowest among all the other responses. However, maximum numbers have stated that their organisations mainly follow a management reporting system with the help of different MIS software. Hence, it has also been identified that 32% of the respondents think this. However, 30% of the respondents think that multinational organisations use their management information systems for keeping their office system automatic.

Table 4 DESCRIPTIVE STATISTICAL ANALYSIS FOR TEN SURVEY QUESTIONS								
Questions Mean Median Mode								
Q1	2.23	2	1					
Q2	2.7	3	3					
Q3	4	5	5					
Q4	3.8	5	5					
Q5	4.36	5	5					
Q6	4.42	5	5					
Q7	4.24	5	5					
Q8	4.26	5	5					
Q9	4.12	5	5					
Q10	3.7	5	5					

The mean value of this question is 2.7, which is also very low. However, this is a highly significant question for this research paper. With the mean value of 4.42, question 6 is trying to state that management information systems are useful for identifying any kind of issues in the organisation (Table 4). Therefore, 64% of the survey respondents have also agreed that for identifying any kind of issues, management information systems are the most useful in their organisation. The median and mode value of this question states that most of the respondents employed in the multinational organisations in the position where they analyse and make decisions regarding their organisational businesses mostly choose a strongly agreed option in that question. Both median and mode value in question number 6 is 5. This signifies that the question has a high level of significance and a normal probability curve (Tables 5a & b).

Table 5a					
REGRESSION STATISTICS					
Multiple R	0.066511				
R Square	0.004424				
Adjusted R Square	-0.01722				
Standard Error	1.261074				
Observations	48				

Table 5b TABLE FOR REGRESSION ANALYSIS (HYPOTHESIS 2)								
	Coefficients Standard Error t Stat P-value Lower 95% Upper 95% Lower 95.0% Upper 95.0							
Intercept	2.0427	0.5364	3.808	0.0004	0.9629	3.1224	0.9629	3.1224
2	0.0567	0.1254	0.4521	0.6533	-0.1958	0.3093	-0.1958	0.3093

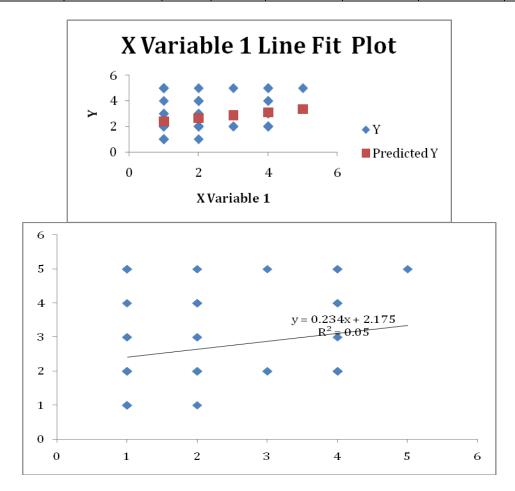


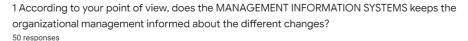
FIGURE 6 X VARIABLE 1 LINE FIT PLOT (HYPOTHESIS 2)

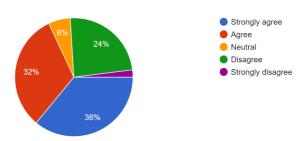
A regression analysis has been conducted with the data sets of question 1 and question 3. The question of this survey was concerned about whether the MIS showed the capabilities to make the management informed about different changes in their organisations. Moreover, question 3 in this survey was concerned about whether the software is able to enhance the decision-making capabilities of the management (Figure 6). Therefore, the hypothesis that has been formed in this research paper is concerned with whether the MIS is connected with an assessment of a multinational organisation and their decision-making system or not connected with that. The regression analysis table here shows a *Pvalue of 0.0004*, and the *correlation coefficient* of the *standard error is 0.53*. Hence it is able to state that the organisational information management system has a significant correlation with their decision-making and risk analysis process.

#### DISCUSSION AND CONCLUSION

The hypothesis of von proves that the null hypothesis is not true in this case as from the regression analysis, the value of the correlation coefficient is found to be 0.23, which makes the null hypothesis projected as the correlation coefficient value is known as P = 0.05 from the statistical analysis, it has been identified that the MIS software does have a significant correlation with different market-related issues for multinational organisations and its use by the management to stay acknowledged about different market-related issues. Furthermore, the statistical analysis, along with the normal probability curves analysis it is visible that most of the employees in multinational organisations are also agreed with the fact that their management uses different MIS software to stay knowledgeable about different market-related issues.

The present research paper aims to prove that the MIS makes an essential impact on the risk analysis and decision-making capabilities in multinational organisations in the UK. Therefore, the research paper has also selected some specific objectives, which are to identify the importance of MIS software in business risk analysis. Therefore, from the server analysis, it has been successfully identified that the management of multinational organisations uses their information management systems to hanker after different organisational issues regarding market customers and economic conditions. In addition to this, it has also been identified that the mean of 3.8 shows that a wide range of participants who also work in international organisations agreed with the fact that the information management systems of their organisations are being used.





# FIGURE 7 GRAPHICAL ILLUSTARION OF SURVEY QUESTION

The above graphical illustration (Figure 7) of the survey question is indicated that MIS is highly influential for keeping organizational management informed as 68% of participants are agreed with the respective facts. In order to develop and manage different organisational issues regarding customers market and economic factors. The regression analysis has been done, which has a *P-value of 0.0004*, and the *correlation coefficient* of the *standard error is 0.53*. From these analyses, it is able to comment that the null hypothesis of this research paper is significantly acceptable, and it proves that the organisational risk analysis and their business-related decisions to mitigate different business-related issues are highly connected with their management information system. The median and who don't value the statistical analysis is also proving that most of the employees in the multinational organisations agreed with the fact that incorporating

different MIS software in their organisations is capable of increasing their business performance by enhancing the efficiency level of their management regarding different data sets. It has also been identified that MIS software capable of tracking the time. Therefore, tracking time recording date data sales provide more capabilities to make reliable decisions regarding the data sets.

From the inside assertion in semi concluded that the MIS software in the multinational organisations has a significant value in order to enhance their risk analysis capability along with increasing their decision making. Primary research has been done in order to identify the different aspects of the relationship between MIS software and decision making and risk analysis factors of multinational organisations. A snowball sampling method was incorporated in August, including the employees of the multinational organisations who are working at the positions where they analyse risk and are capable of making decisions regarding business development. Therefore, with the help of 50 samples, different phenomena have been identified, and statistical analyses have helped to demonstrate the relationship between this phenomenon with the decision making and risk analysing factors of MNCs. With the help of regression analysis, it has been identified that the information management systems have significant correlation analysis and decision-making capabilities of the management in multinational organisations. Moreover, it has been identified from statistical analysis that the management of multinational organisations uses the MIS software in order to increase their efficiency level for decision making regarding market and customer demands. The survey is incorporated as a data collection method, and it is more reliable and increases the topic relevancy of this research paper.

From the hypothesis testing, it is being identified that the multinational organisation significantly uses different management information system related software in order to stay acknowledged about the different related issues. Along with that, management of the multinational organisations also uses the MIS software for identifying challenges in their market along with taking any decisions depending on the market situations. Therefore, with the aid of both hypotheses in this research paper, it is said that there is a high correlation between MIS software and decision making in the MNCs.

For future improvements, it is being recommended that the multinational organisations are capable of using the MIS software in order to manage their different resources whatever it is human resources or any other kind of resources. Multinational organisations are capable of using the MIS software to keep balance with the economic condition of the different countries where they are operating in order to create a balance.

It is also being recommended to the multinational organisations that they are also capable of using MIS software in order to manage the supply chain as the software is capable of tracking time. Keeping track of the time of gathering resources is capable of enhancing the organisation and management to balance the supply chain along with creating a balance between their resources and production. Depending on the data related to their production, the management is also capable of designing training programs for enhancing the efficiency level of their employees.

The future readers of this research paper are going to have a brief idea about the different uses of MIS software in different kinds of international organisations and the viewpoints of employees regarding this. Therefore, this paper is also able to highlight the relationship between MIS software and risk analysis of the multinational organisation along with their decision-making capabilities.

#### **REFERENCES**

- Albano, R., Mancusi, L., Sole, A., & Adamowski, J. (2017). FloodRisk: a collaborative, free and open-source software for flood risk analysis. *Geomatics, Natural Hazards and Risk*, 8(2), 1812-1832.
- BBC. (2020), Tesco told not to block rival supermarkets, from: https://www.bbc.com/news/business-51505773
- Belov, A., Eroshenko, E., Yanke, V., Oleneva, V., Abunin, A., Abunina, M., Papaioannou, A., & Mavromichalaki, H. (2018). The global survey method applied to ground-level cosmic ray measurements. *Solar Physics*, 293(4), 1-23.
- Connell, J., Carlton, J., Grundy, A., Buck, E.T., Keetharuth, A.D., Ricketts, T., Barkham, M., Robotham, D., Rose, D., & Brazier, J. (2018). The importance of content and face validity in instrument development: lessons learnt from service users when developing the Recovering Quality of Life measure (ReQoL). *Quality of Life Research*, 27(7), 1893-1902.
- Ghaljaie, F., Naderifar, M., & Goli, H. (2017). Snowball sampling: A purposeful method of sampling in qualitative research. *Strides in Development of Medical Education*, 14(3).
- Hamori, S., Kawai, M., Kume, T., Murakami, Y., & Watanabe, C. (2018). Ensemble learning or deep learning? Application to default risk analysis. *Journal of Risk and Financial Management*, 11(1), 12.
- Hosain, S., ManzurulArefin, A.H.M., &Hossin, M. (2020). The role of human resource information system on operational efficiency: evidence from MNCs operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, 18(2), 29-47.
- Ijeoma, M. (2018). Importance of management information system in service delivery and paper work in Nigeria University. *Journal of Business and Management*, 20(9), 30-38.
- Jumino, J. (2018). The importance of decision making for information and library managers. *Anuva: Jurnal Kajian Budaya, Perpustakaan, dan Informasi*, 2(3), 307-315.
- Kalid, K.S., & Rosli, N. (2017). KidBus. Tracker: The development of a schoolchildren identification and transportation tracking system. *International Journal of Innovative Computing*, 7(2).
- Leong, C., & Howlett, M. (2017). On credit and blame: Disentangling the motivations of public policy decision-making behaviour. *Policy Sciences*, 50(4), 599-618.
- Paul Victor, C.G., & Treschuk, J.V. (2020). Critical literature review on the definition clarity of the concept of faith, religion, and spirituality. *Journal of Holistic Nursing*, 38(1), 107-113.
- Riedl, R., Benlian, A., Hess, T., Stelzer, D., & Sikora, H. (2017). On the relationship between information management and digitalization. *Business & Information Systems Engineering*, 59(6), 475-482.
- Rolland, K.H., Mathiassen, L., & Rai, A. (2018). Managing digital platforms in user organizations: The interactions between digital options and digital debt. *Information Systems Research*, 29(2), 419-443.
- Sanchez, O.P., &Terlizzi, M.A. (2017). Cost and time project management success factors for information systems development projects. *International Journal of Project Management*, 35(8), 1608-1626.
- Shoimardonkulovich, Y.D. (2020). The importance of management in the field of service. *Вопросынауки и образования*, (14 (98)), 16-19.
- statista.com, (2021), *Number of private sector businesses in the United Kingdom (UK) in 2020, by employment size*, from: <a href="https://www.statista.com/statistics/675750/number-of-businesses-by-number-of-employees-in-the-united-kingdom/">https://www.statista.com/statistics/675750/number-of-businesses-by-number-of-employees-in-the-united-kingdom/</a>
- Statista.com. (2021). Customer-Relationship-Management (CRM) market revenue in United Kingdom from 2016 to 2021 (in million U.S. Dollars) https://www.statista.com/forecasts/966707/crm-software-market-revenue-in-united-kingdom
- Statista.com. (2021). *Gross domestic product of the United Kingdom from 1948 to 2020*, From: https://www.statista.com/statistics/281744/gdp-of-the-united-kingdom/
- Statista.com. (2021). Largest companies in the United Kingdom based on revenue in 2020, from: https://www.statista.com/statistics/1111246/largest-uk-based-companies-revenue/
- Vahedi, M., & Arvand, H. (2020). The role of information systems in decision-making and public policy making. *Journal of management and accounting studies*, 8(2).
- Vokshi, B.N., & Krasniqi, X.F. (2017, October). Role of accounting information in decision-making process, the importance for its users. In *Proceedings of the ENTRENOVA-ENTerpriseREsearchInNOVAtion Conference*, *3*(1) 276-283.