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Quality System, Quality User, Quality Information, and Fraud Risk Management of Telecommunication Companies

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ABSTRACT

Fraud cases in Malaysia which involve internet users have been on the rise despite the preventive measures that have been established and implemented in the country. Thus, to prevent fraud, it is critical to investigate Malaysian telecommunications users' perceptions on the important elements of the quality information system for the purpose of fraud risk management. In this study, the elements which are investigated include the quality of the system (QS), the quality of the information (QI), and quality of the users (QU) for fraud risk management (FRM). An online survey was conducted by sending out a survey link to 500 Internet users; however, only 55 people (11%) responded to the survey. Reliability analysis shows that all items on QS, QI, QU, and FRM were reliable because the Cronbach' Alpha is more than 0.900. In terms of the importance of the variables under investigation, there are positive and significant relationships between the dependent variable which is FRM and the independent variables, that is, QS, QI and QU and vice versa. There are also positive and significant relationship between the QS, QI and QU.

Keywords: *Quality, System, Information, Users, Fraud, Risk, Management*

RESEARCH HIGHLIGHTS

The findings show that all six hypotheses are supported, whereby there are positive and significant relationships between the quality of the system and fraud risk management (r=0.877**; p=0.000), the quality of the information and fraud risk management (r=0.876**; p=0.000), the quality of the users and fraud risk management (r=0.717**; p=0.000). The quality of the system and quality of information (r=0.934**; p=0.000), quality of the information and quality of the users (r=0.790**; p=0.000), and quality of the system and quality of the users (r=0.726**; p=0.000). This implies that all the above-mentioned elements are important for fraud risk management.

GRAPHICAL ABSTRACT

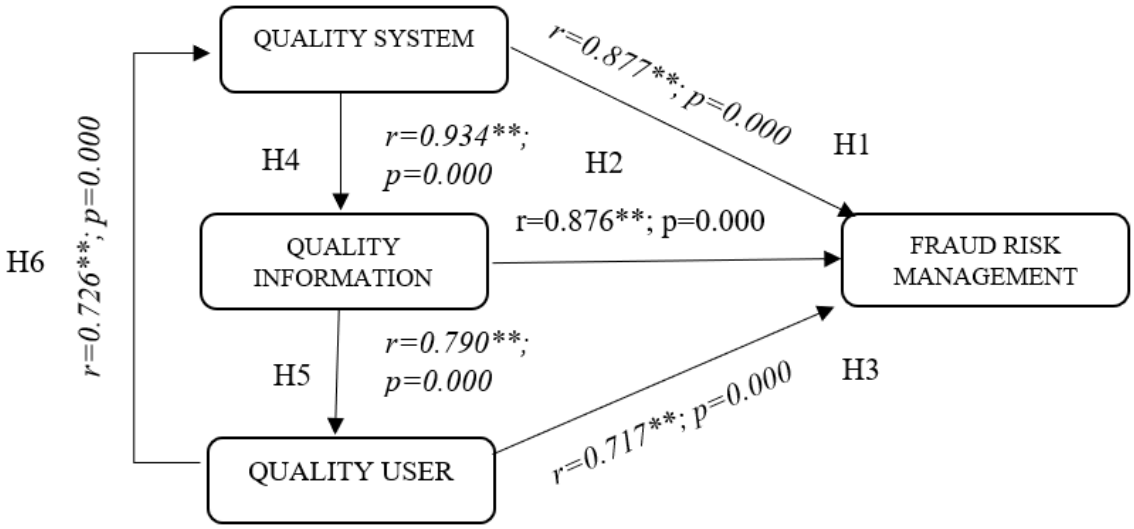

Fig. 1. The Relationship between, Quality of System, Information, User, and Fraud Risk Management

Research Objectives

Despite various measures that have been taken to prevent fraud, fraud cases continue to rise in Malaysia. Hence, it is deemed necessary to explore the perceptions of telecommunication users in Malaysia on the elements which are considered essential to manage fraud risk in Malaysia.

Fraud is defined as any action by which one person aims to gain undue advantage over another (ACFE, 2010). The quality of the system refers to a system that is: error-free, has the consistency of user interface, simplicity of use, documentation quality, and quality and upkeep of the software code. A higher quality system is one which is easier to use and, as a result, would be more helpful to users (Shafiee, Wautelet, Friis, Lis, Harlou, & Hvam, 2021). Quality of information means accuracy, completeness, currency, and format (Mensah, Adams, Adjei, & Mwakapesa, 2022). Quality of Users includes users who are well-trained and technically supported so they can use the system efficiently (Zamir & Kim, 2022).

The six objectives of the study are: to explore the relationships between QI, QS, QU, and FRM (H1, H2, H3), QS and QU (H4), QI and QU (H5), and QS and QU (H6). The study validated the instruments used for this research, and analysed the relationships between QI, QS, QU, and FRM. The significance of this study is that the important elements or variables identified can be taken into consideration as measures in managing fraud risk of telco companies.

Methodology

The questionnaire is divided into two (2) parts: Part A is on respondents' profile, and Part B, is on the variables which are Quality System (QS), Quality Information (QI), Quality Users (QU), and Fraud Risk Management (FRM) which are measured using a 5-point Likert scale. A survey link was sent out to five hundred (500) respondents using WhatsApp and e-mail, and after about thirty (30) days, fifty-five (55) respondents responded to the survey (11%).

The respondents were mostly females (70.9%), followed by males (29.1%). About 63.6% were from Malays and Bumiputras, 29.1% 'others' (French, Morocco, Pakistan), 5.5% Indians, and 1.8% Chinese. About 45.5% of them were aged in their twenties, 32.7% in their thirties, 14.5% of the respondents in their forties, and 7.3% at the age of the fifties and more. Most of the respondents, that is 36.4% had a bachelor's degree, 20% with PhD, 29.1% with a master's degree, 9% had a high school education, and 5.5% had a Diploma.

The respondents' jobs range from the Clerk to 'others', where most of the respondents about 42% fall under the category of 'others', 29% were executives, 17% were clerks, 8% were senior managers, and 4% were CEO/Directors. In terms of work experience, about 43.6% of the respondents had less than 5 years of working experience, and 56.4% had more than 5 years' work experience. As for income earned per year, most of them earned less than RM50, 000 per year with 67.3%, followed by RM50, 000 to RM150, 000 per year with 23.6%, and more than RM150, 000 per year with 9.1%.

Results

In short, the respondents' profiles are well distributed across gender, age, education level, job position, income per year, and working experience. Only 27.3% of the sample had experienced internet fraud, while 72.7% had not experienced any internet fraud.

Correlation analysis was performed to examine the relationship between age, gender, and education level with the respondents who had experienced internet fraud. From the analysis, it was found that there is no significant relationship between age, gender, and education level with those who had experienced internet fraud.

Reliability analysis of all items for each variable shows that all the variables have high reliability. The three variables identified are quality of information (QI) (19 items) with Cronbach's Alpha=0.963, quality system (QS) (11 items) with Cronbach's Alpha = 0.941, and quality users (QU) (5 items) with Cronbach's Alpha = 0.925. There are five (5) items on Fraud Risk Management (FRM) with Cronbach's Alpha = 0.930. Hence, all items have high internal consistency as the Cronbach's Alpha values are more than 0.900 and be used for the study.

Findings

The findings from the analysis are as follows:

There is a significant and direct relationship between QS and FRM (Supported; r=0.877**; p=0.000) (H1), Quality Information and Fraud Risk Management (Supported; r=0.876**; p=0.000) (H2), and Quality Users and Fraud Risk Management (Supported; r=0.717**; p=0.000) (H3). Between the independent variables, there is a significant and direct relationship between Quality System and Quality Information (Supported; r=0.934**; p=0.000) (H4), Quality Information and Quality Users (Supported; r=0.790**; p=0.000) (H5), and Quality Users and Quality System (Supported; r=0.726**; p=0.000) (H6).

All six hypotheses are supported. In short, most of the respondents who agreed with the independent variable (fraud risk management), also agreed with the dependent variables, (quality system, quality information and quality users) and vice versa. Similarly, previous studies also show that the internal control, such as quality system, quality information and quality users, were critical for fraud risk management initiatives in any company (Ruiz-Canela López, 2021; Rani, Krishnan, Suda & Fatimazahra, 2021; Thiruchelvam, tam, Hasan, Bastaki, & Bosakowski, 2020). The limitation of this study is the small sample used in this study; thus, generalization could not be made for the whole Malaysian population, as the study is an exploratory study.

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References

Association of Certified Fraud Examiners (ACFE) (2010). Fraud Examiners Manual (Intentional) Association of Certified Fraud Examiners (ACFE). London: McGraw Publishers.

Mensah, I. K., Adams, S., Adjei, J. K., & Mwakapesa, D. S. (2022). Drivers of egovernment adoption amidst COVID-19 pandemic: The Information Adoption Model (IAM) approach. *Information development*, *38*(4), 494-509.

Rani, N. S. A., Krishnan, K. S., Suda, K. A., & Fatimazahra, C. (2021). An effective model for fraud risk management in mitigating telecommunication fraud incidences. *Asia Proceedings of Social Sciences*, *8*(2), 112-116.

Ruiz-Canela López, J. (2021). How can enterprise risk management help in evaluating the operational risks for a telecommunications company? *Journal of Risk and Financial Management*, *14*(3), 139.

Shafiee, S., Wautelet, Y., Friis, S. C., Lis, L., Harlou, U., & Hvam, L. (2021). Evaluating the benefits of a computer-aided software engineering tool to develop and document product configuration systems. *Computers in Industry*, *128*, 103432.

Thiruchelvam, V., Tham, K. F., Hasan, M. S., Bastaki, B. B., & Bosakowski, T. (2020). Recent cyber breaches in Malaysia and possible countermeasures. *Solid State Technology*, *63*(6), 297 - 306.

Zamir, Z., Kim, D. (2022). The effect of quality dimensions of information systems on knowledge sharing and user satisfaction. *International Journal of Entrepreneurial Knowledge, 10* (1), 1-19.

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