

The Influence of Emotional Intelligence and Knowledge Management on Student Attitude toward Implementation of Digital Identification System

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Abstract

Purpose – This study aims to identify the factors influencing the students' readiness to implement DIS in UNIMAS. It investigates the relationship between emotional intelligence and knowledge management in influencing attitude toward change.

Method – The study collected 396 samples using an online survey method, and the data were analyzed with SPSS statistical software.

Findings – The study results reveal that emotional intelligence and knowledge management have significant relationships with attitude toward change. Knowledge management is the most significant factor influencing UNIMAS students' attitude toward change compared to emotional intelligence.

Limitations – This study was conducted in UNIMAS, Sarawak. The variety and quantity of the study sample are not diverse. The respondents of this study are limited to the students of UNIMAS, Kuching, Sarawak.

Implications – The information in this study could contribute to the issues of attitude to change. The finding of this research provides a base and framework of emotional intelligence (EI) and knowledge management (KM) on attitude toward change. Besides, this study contributes to educators, lecturers, and other education-related staff that knowledge management is the key to implementing changes around the education premises.

Originality – There is limited research involving university students as respondents regarding how emotional intelligence and knowledge management influence the attitude toward change. This study is the first to fill this gap.

Keywords: emotional intelligence, knowledge management, attitude toward change, Digital Identification System

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Introduction

Organizations always struggle to blend into a new environment abundant with organizational changes and transformations (Mosadeghrad & Ansarian, 2014). The educational institutions in Malaysia are no exception. Recently, the Digital Identification System (DIS) is being implemented widely in public and private universities in Malaysia. Digital identity refers to a digital representation of a specific individual or organization in terms of information storage, retrieving or accessing company ID, device serial number, driver's license, online browsing records, biometric templates phone numbers, identification card, passport, license, and birth certificate. However, the traditional identification system is inconvenient in storage and transfer, apart from being lost and easily broken. On the other hand, DIS is an effective alternative for physical identity that combines every piece of information in one database with ease of access using the Internet connection.

Universiti Malaysia Sarawak (UNIMAS) had been lauded as the first public university that introduced DIS. During the Silver Jubilee Conference of October 2017, former Higher Education Minister of Malaysia, Datuk Seri Idris Jusoh, claimed that UNIMAS was the first public university in the country that has fully implemented a campus-wide DIS for its students and staff. Students and staff in UNIMAS are required to scan a Quick Response (QR) code on their smartphones to record their attendance before being expanded for other purposes (Elankovan, 2017). The DIS in UNIMAS only took one month to implement fully and has already been considered a new issue to

UNIMAS or even to Malaysians. Although the DIS was launched successfully in a short period, the UNIMAS students and staff have to take their time to adapt to this change. The DIS is a new system that is very different from the old system used in the past 26 years. Furthermore, the experience in adapting the DIS is less than two years and its success rate is still uncertain.

Seventy percent of changes resulted in failures during the implementation stage (Gigliotti *et al.*, 2018). User's attitude toward change, either positive or negative, is the key to success or failure in the long run (Kareem & Kin, 2018). Furthermore, people's emotional intelligence (EI) and knowledge management (KM) may influence their attitude toward change (ATC). The majority of past literature has focused on the effects of either EI or KM on ATC. However, the existing research regarding the effects of both EI and KM on ATC is relatively sparse.

Changes commonly happen interpersonally and intrapersonally. It is difficult for an individual or organization to avoid external uncertainties incurred by government policy changes that affect personal changes or organizational changes indirectly (Kareem & Kin, 2018). When individuals feel uncomfortable with a particular change, they rarely express their feeling explicitly due to emotion or status quo. Hence, although the change is implemented practically and look impressive, failure in a future time because of poor performance can still happen due to people's implicit thought (Oz *et al.*, 2015; Adegboyega *et al.*, 2017; Kareem & Kin, 2018; Paul & Guha, 2018). Furthermore, individual KM can affect personal attitudes toward certain changes. Changes always come suddenly. When people suffer in a change process without notice, they show a reluctant attitude as they are unfamiliar with and have no idea or knowledge of such change. An individual cannot control the knowledge to deal with uncertainty or change. Low KM skills can easily lead to a negative ATC, thus causing failure in the change initiative (Elebiary *et al.*, 2018; Naser & Saleem, 2018; Nwankwo *et al.*, 2018). Therefore, this study attempts to fill this gap and examine whether EI and KM can significantly influence ATC using the DIS change project in Sarawak's context.

Literature Review

Digital Identification System (DIS) in Malaysia

Technology takes over the daily life of Malaysians. Practically, 80% of its population is connected to the Internet, especially via the diverse mobile telecommunication services (Internet World Stats, 2018; Record *et al.*, 2018). Due to the rapid growth of technology and the Internet in Malaysia, the Minister of Communications and Multimedia announced at the e-commerce entrepreneurship

summit 2018 that all Malaysians might soon have a national digital identification (ID) (Koya & Zainal, 2018).

Digital Identification System is gradually introduced in Malaysian higher learning institutions, especially private and public universities. Malaysia higher learning institutions have caught up with the trend and applied the Quick Response (QR) Code Based Attendance Management System (AMS) based on digital identification systems in the private and public universities. The students from University Technology Petronas (UTP) and University Malaysia Sarawak (UNIMAS) have benefitted from such technology. During the Silver Jubilee Conference in October 2017, the Minister of Higher Education, Datuk Seri Idris Jusoh, claimed that UNIMAS was the first public university in the country that fully implemented DIS on campus for personal information storage. The DIS processes integrated cumulative grade point average (i-CGPA), students and staff digital identifications, and QR Code Based AMS (Elankovan, 2017).

QR-Code Based AMS has brought about an advantage to the education field, especially higher education. The extant literature claimed that traditional attendance systems such as logbooks and punch cards are less effective, time-consuming, and even lead to incorrect information. Thus, diverse kinds of attendance systems have been developed, such as fingerprint systems, QR codes, barcodes, Radio Frequency Identification (RFID), and automatic face recognition owing to the rapid growth technology nowadays (Rahman, Rahman & Rahman, 2018; Rjeib *et al.*, 2018; Satpute *et al.*, 2018). These systems may increase the class attendance rate by preventing students from helping their absent friends by signing the attendance logbook (Elankovan, 2017). This behavior can further bring an impact on student performance. Students who have a good attendance rate usually perform better in academic achievement. (Fadellemloula, 2018).

Nevertheless, a DIS could lead to either positive or negative attitudes from consumers as it can influence people's daily routine and ways of transaction. The awareness of Malaysia Higher Learning Institution towards advanced AMS is still low. The sustainability and expansion of the QR Code Based AMS in Malaysia Higher Learning Institution for a long time have depended on users' attitudes towards such technology change. However, 50% and 90% of the change initiatives have failed. Seventy percent failure rate is a rule of thumb for all change plans in general, which means that 70% of the strategic changes will lead to low performance or even failure in practical implementation (Mosadeghrad & Ansarian, 2014; Candido & Santos, 2015; Gigliotti *et al.*, 2018). ATC refers to overall positive or negative feedback, responses, choice of action from those who suffer the change towards a change initiative, and an indicator to determine the success or failure of a change initiative (Kareem & Kin, 2018). The positive and negative reactions and feedback from users act as a highway to improve for success. In order to prevent the "rule of thumb" in terms of change failure, enhancement of user's

EI and KM is relevant and significant as a source to build an optimistic attitude towards such change. Therefore, positive ATC is the key to success for a change initiative.

Attitude Toward Change

According to Kareem and Kin (2018), an attitude is a tendency that promotes an individual's response towards something in a constantly optimistic or pessimistic way. Thus, ATC can be defined as individual positive or negative opinion towards certain transformation. Lewin (1947) published the earliest theory of change, which involved unfreezing (ready for accepting change), changing (take action to change), and refreezing (make the change permanent and make improvement). Thus, a broad instrument for ATC was developed with 52 items involving tri-dimensional psychological aspects: affective, behavioral, and cognitive. The affective aspect of ATC includes neural, feeling, and emotion. The behavioral aspect of ATC consists of readiness, response, action, and dealing. Meanwhile, the cognitive aspect of ATC introduces mental, belief, evaluation, and meaning. Change generally deals explicitly with these tri-dimensional aspects (Dunham *et al.*, 1989; Ahmad, Zakaria & Zani, 2014; Kareem & Kin, 2018).

Through the advent of a knowledge-based economy, the world is now seeing how creativity empowers people, societies, and countries with a profound effect on industry, politics, and society. As a result, today's policymakers and business leaders understand the need to build an encouraging environment to promote the adoption of technologies or improvements, test their potential side effects, and distribute their benefits across all sectors. Hence, the importance of innovation readiness, especially at the national level, has gained prominence on the public policy agenda, realizing that the right policies, inputs, and enabling environment can help countries fulfill their national potential and enable their citizens to have a better quality of life.

Some research suggested that identifying attitudes towards innovation and creativity is vital for organizations to encourage innovation across all employees (Basadur & Hausdorf, 1996). A study has been conducted to investigate the effects of gender and age on innovation adoption. The findings showed that men are more optimistic in their attitude to innovation than women and that the attitude to innovation becomes more negative and less creative with age (Rogers, 1995).

Another research studied the relationships of fundamental personal values and innovation attitudes among students in Russia, China, and Canada. The hypothesis tested from the entire sample showed that the high priority given to openness to change values (self-direction, stimulation) was related to positive attitudes toward creativity. In contrast, the high priority given to conservation values (conformity, security) was negatively related (Lebedeva & Schmidt, 2012).

According to Carr (1985), vocational educators in Florida support creativity, educational reform, and versatility. Therefore, the study's findings supported the relationship between receptiveness to change and a positive attitude towards innovation. In addition, the work confirmed a correlation between demographic characteristics and attitude towards innovation, versatility, and innovativeness.

The acceptance of technology by an individual may be affected by different personality traits and attitudes towards innovations. Lo (2014) proposed a parallel model in which personality traits predict individuals' attitudes towards innovation that predicts the acceptance of Quick Response (QR) code services. The results found that laggards and customers in the late majority have unfavorable views towards innovation and are less likely to implement QR code services.

Another research has been carried out to explore the essence of the relationship between business students' attitudes toward innovation and their plans to start their businesses. Multiple regression analysis showed a positive correlation between the US business students' attitude towards the distal and large object of innovation and their intentions to participate in the specific actions of starting up a company. Since attitudes are open to change, educators and practitioners can influence entrepreneurial intention by influencing attitudes toward specific and broad objects, including innovations (Wurthmann, 2014).

Emotional Intelligence

Emotional intelligence is defined as a capability to realize self and others' inner feelings and monitor them in decision making (Ebrahimi *et al.*, 2018). In 1990, Salovey and Mayer had firstly issued the concept of EI. They defined EI as a combination of thoughts and feelings. However, in the early 20th century, intelligence was mainly measured by Intelligence Quotient (IQ). Goleman (1998) built a solid foundation for EI. He claimed that EI is an ability to know self and others' feelings, which can influence others. The EI theory of Goleman gained more attention from the public and was assumed to be more powerful than IQ in predicting success in life (Alhashemi, 2018; Ebrahimi *et al.*, 2018; Kareem & Kin, 2018).

Nowadays, due to the rapid change of environment, intelligence is no longer determined by Intelligent Quotient (IQ), but by Emotional Intelligence Quotient (EQ). EI plays a vital role in influencing individual decision-making, taking action, thinking, and others. Besides, it is believed that the EQ had become one of the factors to success (Alhashemi, 2018; Ebrahimi *et al.*, 2018; Kareem & Kin, 2018). In addition, several recent studies discussed EI's influence on other variables, which proved that its trend is rising abruptly (Giaever & Smollan, 2015; Heddy *et al.*, 2016; Kareem & Kin, 2018).

Knowledge Management

The theory of knowledge started from Epistemology, which was developed by philosophers known as Plato and Aristotle. Knowing is a human capital to investigate, search, and learn something new. Then, the result of “knowing” is “knowledge.” The knowing process refers to an individual’s KM skill to acquire, store, share, and use knowledge. KM is all about justifying the truth or true belief based on rationality and experience (Bolisani & Bratianu, 2018). Thus, KM can be defined as a process to manage the knowing process, which collects and organizes the raw information to make it accessible and useable (Wang *et al.*, 2018).

There is a difference between individual KM and organization KM. Individual KM is a systematic process that fully utilizes self-knowledge for decision-making and achieves a valuable goal. Furthermore, at the organization level, KM refers to the control or management and creation of value from the knowledgeable individual, namely, the employee’s knowledge potential, which means fully utilizing the employee’s idea to achieve company goals. Thus, the individual level of KM can influence the personal attitude, belief, and behavior to make a further decision (Raudeliuniene *et al.*, 2018).

Underlying Theory

The attitude formation theory (AFT) is a developed theory relevant to this study for measuring how individual emotion, behavior, and cognition can impact attitude or ATC. The AFT, also known as ABC (affect, behavior, and cognition), was developed by Eagly & Chaiken (1993). The AFT explains that individuals’ attitude towards a certain object is influenced by affective, behavioral, and cognitive stimuli. Affective stimulus refers to an inner feeling and emotion preference toward a certain attitude object. Basically, a positive emotion leads to a favorable result and maximum satisfaction, whereas a negative emotion can influence the individual’s decision and lead to an unfavorable result. A behavioral stimulus is related to an individual’s apparent action on a particular attitude object in an activity, in other words, a person’s intention to behave in a certain way. The cognitive stimulus involves an individual’s belief in an attitude object based on direct or indirect experience and a person’s opinion, information, belief, and knowledge. Finally, this theory offers a trendy and famous model used by many scholars to conduct an attitude-related study. It explains how people’s attitude towards a certain presence of an object is affected by stimulus. The model claimed that individuals’ attitudes are formed exclusively in three ways: affective, behavioral, and cognitive; or emotion, action, and knowledge (Eagly & Chaiken, 1993; Ahmad *et al.*, 2014; Jain, 2014).

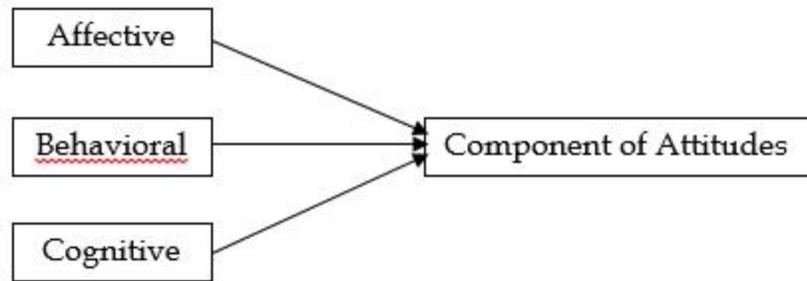


Figure 1: Model of Attitude Formation Theory

Hypotheses Developments

Emotional Intelligence

According to Kareem and Kin (2018), EI is one of the determination criteria to affect ATC in education organizations. ATC can be stimulated by affective, behavioral, and cognitive components (Eagly & Chaiken 1993; Kareem & Kin, 2018). EI is one of the affective stimuli that engender ATC, through which an individual can manage self-inner feelings and respond toward external uncertainty or change in favorable or unfavorable results. The higher the level of an individual's EI, the greater the individual's ATC. Besides, the link between EI and ATC also can occur among two parties with a relationship such as superordinate and subordinate, which means the higher the level of superordinate's EI, the greater the subordinate's ATC (Kareem & Kin, 2018). Therefore, we hypothesize:

H1: Emotional intelligence is significantly related to attitude toward change.

Knowledge Management

Elebiary, Elshenewy, and Abulazm (2018) claimed that KM could enhance the individuals' attitude toward attitude an object, which means the higher the level of knowledge or KM, the greater the probability of developing a positive attitude. A change initiative fails because people react to the change with negative attitudes such as being unaware, untrusty, unknown, or even resisting (Elebiary *et al.*, 2018). People with KM skills can gain the source of information and try to understand the learned information. Then, they manage and utilize the knowledge they learned to face an object with an attitude. The wiser the level of intelligence, the smarter an individual reacts to an object with attitude. In other words, people show a positive attitude towards specific changes with a complicated KM as they are familiar with the coming change (Wang *et al.*, 2018). Hence, we hypothesize:

H2: Knowledge management is significantly related to attitude toward change.

Methodology

Subjects

The quantitative method was employed to examine the relationships between variables. A self-administered survey was used to obtain the primary data. The UNIMAS students were the survey population to fill out the questionnaires. UNIMAS was selected as the targeted research site due to the impressive number of students examining students' attitudes toward the implementation of the DIS UNIMAS. The questionnaire distribution and collection process were carried out for one month and yielded 396 respondents as representatives of the sample, consistent with Roscoe's rule of thumb (1975). Furthermore, according to Sekaran and Bougie (2016), the number of samples between 30 to 500 is sufficient. Finally, the data were analyzed using SPSS statistical software.

Questionnaire Design

To test the DIS acceptance model, the current research was conducted through online and offline questionnaire surveys to collect data from the students in UNIMAS. The questionnaire was written in Malay and English since this is a way to reach out to broader respondents to present them with the questionnaires in their preferred language. The questions were designed and presented in two parts. Part-1 described the predictors affecting ATC. All these predictors were adapted from previous literature. Part-2 was to find the descriptive statistics of respondents' characteristics such as gender, age, education degree, year of study, and CGPA.

The questionnaire regarding information systems and empirical research was sent to students in different faculties to enhance its reliability and validity. First, the questionnaire was revised based on remarks. Then, a pilot test was conducted. Fifty students from UNIMAS Business School were invited to participate in the pretest and provide feedback on the validity of the questionnaire's content and the appropriate wording. In the end, ambiguous descriptions were replaced based on feedback from participants. Table 1 summarizes the variables with indicators and supporting sources.

Table 1 Measurement items

Variable	Indicator	Source
	I usually accept new ideas.	

Attitude toward change	I like changes.	Usman <i>et al.</i> (2015)
	Change motivates me.	
	Most changes at the institution are welcomed.	
	I am usually confident to try new ideas.	
	Change usually benefits the institution.	
	Most of my colleagues benefit from changes.	
	I intend to do whatever possible to support changes.	
	I usually support new ideas.	
	I find most changes to be pleasing.	
Emotional Intelligence	By looking at people's facial expressions, I recognize the emotions they are experiencing.	Ansari and Malik (2017)
	I am aware of the nonverbal messages other people send.	
	I can tell when a person is lying to me by looking at his or her facial expression.	
	I can handle stressful situations without getting too nervous.	
	I can handle upsetting problems.	
	I know how to keep calm in difficult or stressful situations.	
	When someone I know is in a bad mood, I can help the person calm down and feel better quickly.	
	I know the strategies to make or improve other people's moods.	
	I am very good at helping others to feel better when they are feeling down or angry.	
	I am the type of person to whom others go when they need help with a difficult situation.	
Knowledge Management	I knew of reliable sources to get knowledge.	Tongsamsi and Tongsamsi (2017)
	I regularly search for information from different reliable sources.	
	I often consult with specialists or experts when having problems or questions about my tasks or jobs.	
	I often suggest appropriate knowledge to my colleagues.	
	I often compile the knowledge from the specialists or experts to produce something such as assignments, articles, newsletters, or blogs.	

I always use my experience to produce something such as assignments, articles, newsletters, or blogs.
I always share my experience with the personnel in my institute.
I always share my experience with the personnel in other institutes.
I often share the knowledge gained from training, seminars, and conferences with my colleagues.
I often disseminate (share) information that I created or collected within my institute.
I always use the knowledge shared within the institute or gained outside in developing working or task performance.

Note: For all constructs, all survey items were measured using a 7-point Likert scale with endpoints labeled 'strongly disagree' (value=1) and 'strongly agree' (value=7) as dictated by the form in which the item was stated.

Findings

Demographic Profile of Respondents

The collected respondents were UNIMAS undergraduate students from Year 1 to Year 4, representing the most potential respondents and representees of the sample in this study. The university students were required to perceive what is important for them and influence them to show their attitudes toward change. A total of 396 UNIMAS students completed a self-administered questionnaire. Descriptive analysis was utilized to gain the respondents' demographic background, such as gender, current year of study, and current CGPA. Among the 396 respondents, female respondents were 221 (55.8%), and male 175 (44.2%). For the current year of study among the respondents, the largest population was Year 3 (105; 26.5%), followed by the respondents studying in Year 2 (103; 26%), Year 4 (95; 24%), and Year 1 (93; 23.5%). As for the current CGPA, the majority gained a CGPA between 3.1 and 3.5, which consisted of 134 (33.8%). Besides, there were 101 (25.5%) respondents having a CGPA between 3.6 and 4.0, 69 (17.4%) having a CGPA between 2.6 and 3.0, 60 (15.2%) having a CGPA between 2.0 and 2.5., and 32 (8.1) with a CGPA below than 2.0.

Assessment of Measurement Model

Convergent validity and discriminant validity were checked for evaluating the measurement model. Convergent validity was achieved by Composite Reliability (CR)

and Average Variance Extracted (AVE). CR is used to measure the extent to which items are free of random error and yield consistent results. The composite reliability value can vary from 0 to 1 with a cut-off point of 0.70 recommended by Hair, Ringle, and Sarstedt (2013). AVE consists of the variance of its variables collected by the construct concerning the total sum of variance, including the amount of variance due to measurement error. To indicate convergent validity, the AVE value must be at least 0.5. To prove discriminant validity, the AVE's square root for a given construct was compared with the correlations between the construct and all other constructs (Voorhees *et al.*, 2016).

As displayed in Table 2, all CR have met the recommended value (0.7), and Cronbach's alpha values surpassed the threshold value (0.7) as recommended by Ramayah *et al.* (2018). Furthermore, each model construct's AVE exceeded the acceptable level of 0.50, and each construct's item loading range lies between 0.611 to 0.788, exceeding the acceptable value of 0.50, as recommended by Hair, Ringle, and Sarstedt (2013). In summary, this study's model constructs achieved strong convergent validity (Bagozzi & Yi, 1988), with evidence of indicators loading on the hypothesized factors being much higher than other factors.

Table 2 Summary results of the Measurement Model

	Measurement Items	Cronbach's Alpha	Factor Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
Attitude toward change	ATC1	0.790	0.775	0.915	0.518
	ATC2		0.748		
	ATC3		0.729		
	ATC4		0.742		
	ATC5		0.734		
	ATC6		0.737		
	ATC7		0.704		
	ATC8		0.613		
	ATC9		0.736		
	ATC10		0.667		
Emotional intelligence	EI1	0.785	0.683	0.910	0.504
	EI2		0.671		
	EI3		0.702		
	EI4		0.643		
	EI5		0.611		
	EI6		0.692		
	EI7		0.791		
	EI8		0.788		

	EI9		0.715		
	EI10		0.782		
Knowledge Management	KM1	0.739	0.683	0.926	0.511
	KM2		0.700		
	KM3		0.737		
	KM4		0.710		
	KM5		0.727		
	KM6		0.689		
	KM7		0.736		
	KM8		0.760		
	KM9		0.708		
	KM10		0.740		

Notes: ^aAll factor loadings for items that are above the recommended value 0.5.

^bComposite Reliability (CR) = (square of the summation of the factor loadings) / {(square of the summation of the factor loadings) + (square of the summation of the error variances)}

^cAverage Variance Extracted (AVE) = (summation of the square of the factor loadings) / {(summation of the square of the factor loadings) + (summation of the error variance)}

Table 3 shows that the diagonal values in bold were the AVE's square roots for the construct, while other values were the correlations between the respective constructs. Discriminant validity is achieved when the diagonal value is higher than the values in its row and column. Thus, the values in Table 3 show that discriminant validity was achieved.

Table 3 Fornell-Larcker Criterion for Discriminant Validity of Constructs

	Emotional intelligence	Knowledge management	Attitudes toward change
Emotional intelligence	0.710		
Knowledge management	0.634	0.715	
Attitudes toward change	0.650	0.529	0.720

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations

Analysis of the Correlations

Table 4 summarizes the means and standard deviations of EI, KM, and ATC derived from 396 respondents. The major variable was the ATC, with the highest mean of 4.7760, which means that the respondents agreed with the ATC dimension. However, the respondents had slightly different opinions toward the ATC variable with a standard deviation of 1.50008. Subsequently, KM has the second-highest mean of 4.7748 with a standard deviation of 1.47550. Lastly, most respondents thought that EI would not be the primary influence of ATC, with the lowest mean score of 4.6525 and standard deviation of 1.46279.

Table 4: A Summary of Means and Standard Deviations

Variables	Mean	Standard Deviation
Emotional Intelligence	4.6525	1.46279
Knowledge Management	4.7748	1.47550
Attitude toward Change	4.7760	1.50008

Analysis of Variance

Table 5 shows the multiple correlation coefficient (R) from multiple linear regression analysis. The R-value of 0.922 shows a nearly perfect positive relationship between the independent variables (EI and KM) and the dependent variable (ATC). In addition, the R-Square in this analysis was 0.85, indicating that EI and KM explained 85% of ATC's variation. The other 15% remained unexplained because other unconsidered additional variations can be used to explain the ATC.

The Durbin Watson test reported a test statistic with a value from 0 to 4, where 2 represents no autocorrelation, a value less than 2 represents positive autocorrelation (common in time series data). In contrast, a value more than 2 represents negative autocorrelation (less common in time series data). The Durbin-Watson test showed a value of 1.819, which indicated that the respondents were slightly and positively autocorrelated toward the sample.

Table 5: A Model Summary of Multiple Correlation Coefficient

Model	R	R-Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.922 ^a	.850	.850	.58183	1.819

Analysis of variance (ANOVA) is an instrument to determine the differences between two or more means. If the *p*-value or significant value in the ANOVA test is less than 0.01, it means that the potential differences between dependent variables and independent variables are low (Field, 2015; McCormick & Salcedo, 2015).

As shown in Table 6, *p* = 0.000 < 0.01; thus, all independent variables were very significant and the model fit was confirmed. Furthermore, the overall regression model with the two predictors of EI and KM has explained the ATC variation well. In other words, EI and KM are important factors that influence ATC.

Table 6: A summary ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	755.803	2	377.901	1116.323	.000
Residual	133.040	393	.339		
Total	888.842	395			

Note: Dependent Variable: ATC; Predictors: (Constant), KM, EI.

Multiple Linear Regression Analysis was conducted in this study to determine the relationship between the independent variables (EI and KM) and dependent variable (ATC). In the analysis, the relationship between EI and ATC was influenced by KM. Thus, it can be stated that EI influences the relationship between KM and ATC.

The following linear equation is formed based on the Table 7,

$$ATC = 0.224 + 0.417 (EI) + 0.547 (KM)$$

where

- ATC = Attitude toward change
- EI = Emotional intelligence
- KM = Knowledge management

Table 7: Result of Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.224	.101		2.222	.027
EI	.417	.047	.407	8.932	.000
KM	.547	.046	.538	11.810	.000

Note: Dependent Variable: ATC.

There was a significant relationship between EI, KM, and ATC. Based on the linear equation, the regression coefficient of EI was 0.417. Therefore, the ATC level will increase by 0.417 units when EI is increased by one unit while others remain. Besides, the regression coefficient of KM was 0.547. Therefore, the ATC level will increase by 0.547 units when KM increases by one unit while others remain.

The KM variable demonstrated the strongest influence on ATC, where unstandardized beta was equal to 0.547 among the two independent variables. Moreover, KM was an important predictor of ATC, followed by EI (0.417).

Discussion and Implications

Through an extensive literature review, a myriad of factors affecting ATC was identified. This study investigated the factors that drive an individual's ATC. The findings discovered that EI and KM have a significant relationship with ATC, supported by the previous findings. According to Kareem and Kin (2018), when individuals are first exposed to a specific change, they express different feelings and emotions toward the change. The inner feeling of those prepared to face the change mainly concerns the importance level of the change, the solution to the change issues, the probability of success for the change, the advantage of change, and the interaction between change and the audience. The different sources of information or inference may trigger negative or positive influences on one's emotions, which in turn may affect the individual's tendency toward change (Kareem & Kin, 2018). One of the elements that motivates an individual to perform better is having a positive effect on people (Hejase *et al.*, 2017). EI is a powerful instrument to positively affects one's attitude (Njoroge & Yazdanifard, 2014; Hejase *et al.*, 2017). The EI can help an individual understand how people feel and react, besides making sound judgments and solving problems (Hejase *et al.*, 2017). Thus, individuals

with EI will contribute positive thinking toward a specific change and try to accept the change.

Through the findings of this study, there was a significant relationship between KM and ATC. The present research aimed to ascertain this relationship. The KM will influence personal attitude towards specific changes as it increases the individual's positive ATC. This is because the individual can manage his or her knowledge to struggle with uncertainty, unawareness, untrusty, unknown, or even resistance against the change, which allows him or her to face the change positively (Elebiary *et al.*, 2018). If a person is equipped with the skill to acquire, store, share and use knowledge, the person who faces specific change will have more interest and encouragement to deal with the change (Nwankwo *et al.*, 2018; Raudeliuniene *et al.*, 2018).

This research achieved the objectives of testing the influence of EI and KM on ATC. It has validated that both EI and KM have direct impacts on ATC. These abilities allow individuals to recognize and manage inner feelings and then motivate themselves to recognize and manage others' inner feelings. Hence, these abilities determine the personal positive or negative attitudes toward certain uncertainty or change. A person decides on a specific change based on the person's inner emotion, thought, and impression toward the change. In addition, an individual's ability to acquire, store, share, and utilize knowledge can also influence one's ATC. The knowledge and information about specific changes can affect the person's ATC. This study has identified the priority of ATC's determinants. Meanwhile, this study's research framework enhanced the understanding of how EI and KM affect ATC in the UNIMAS context. Furthermore, the AFT can help researchers understand better an individual's attitude driven by stimuli. Thus, AFT plays a vital role in this study to explain the effect of EI and KM on ATC.

In this study, the university students perceive what drives them to show an ATC. EI plays an essential role in forming ATC, especially the positive ATC. Change always concerns emotion because people enjoy everyday comfort, but change disrupts this comfort and creates an environment filled with uncertainty and anxiety. Alongside this, an individual will most likely react emotionally due to fear or anxiety of the unknown towards the change when change touches on issues close to the hearts of those influenced. In addition, when change impacts an individual's values, beliefs, assumptions, and identity, the change can make the change recipients reluctant to accept the proposed status (Issah, 2018). Therefore, a positive ATC is the key to the success of a change issue. The EI is associated with psychosocial functioning aspects, which involve intrapersonal factors, e.g., better optimism, and interpersonal factors, e.g., better social relationships (Bhullar & Schutte, 2018). Thus, EI is the driver of ATC.

In this era of big data and information, there is a great interest in understanding the effects of KM on ATC. Everyone is equipped with the skills to collect, store, share and

utilize knowledge. However, some people show negative attitudes such as unawareness, uncertainty, untrusty, unknown, and resistance toward a change as they are unaware of the change. On the other hand, KM is instrumental in increasing the change recipient's experience, information, solution, and detail regarding the change. Hence, everyone will show a positive ATC to cope with or even accept the change (Elebiary *et al.*, 2018).

Conclusion

In conclusion, this study presents evidence about the influence of EI and KM on ATC. When a person is faced with a change, they will express an attitude, either positive or negative. A positive ATC is the key to the success of a change initiative. The inner feeling and cognition of a change recipient can contribute to a positive ATC. An EI training is needed to increase the EI skill and build an optimistic ATC. The change information should be disclosed to the change recipient in advance to let him/her know more about the change. In addition, the influence of EI and KM on ATC has been explained by AFT. The interrelationship between independent variables and dependent variables has been discussed in this study. The EI and KM have a significant relationship with ATC.

Lastly, this study is beneficial for academics and future researchers to have a deeper understanding and consciousness about the effects of EI and KM on ATC. It can also help future researchers construct a more inclusive, complete, and broader theoretical framework to reinforce the knowledge about EI, KM, and ATC.

Limitations and Future Research

There are several limitations throughout the entire procedure in conducting this study. First, this study focused on the influence of two independent variables, namely EI and KM, on students' attitudes toward implementing DIS, which excluded other possible factors that may affect students' attitudes. Second, Malaysia has a myriad of higher education institutions with many potential DIS users, making this study necessary. However, the findings may differ if the model is examined in countries with different cultures, languages, and histories. Therefore, it is helpful to test whether or not the present results hold in other regions. Third, this study only surveyed UNIMAS students; it did not consider other workers in UNIMAS (e.g., faculty and staff members) who might give different results. Future studies could expand the groups of study subjects.

According to AFT (Eagly & Chaiken, 1993), the individual attitude towards attitude object can be affected by affective, behavioral, and cognitive stimuli. The EI refers

to the affective aspect, while the KM represents the cognitive aspect. The behavioral aspect, which refers to a person's attitude toward doing something, is needed in the future study. The model of analysis can be extended to a wider area with a more detailed model for analysis. Hence, this study's three constructs should be expanded into a detailed model for analysis in future studies. Future studies in this field should be divided into groups according to different DIS users and be extended to several higher learning institutions. Thus, future research is meaningful with different kinds of databases. Lastly, empirical studies in other nations are needed for extending the application of the results.

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