

E-Dinar: Are They Ready?

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Abstract: It is common for people to ask if they own gold or dinar, how can they use it to buy goods or services? The intention of this research is to address this issue by introducing a new concept of a payment system using electronic gold dinar (e-dinar). It is foreseen that if people can keep their money in a form of gold rather than in paper money, they would be able to buy goods or services with greater appreciating value. But before the actual system can be implemented, this research seeks to find out whether or not the public would be ready to adopt this concept of an electronic dinar payment system. The research framework is based on Unified Theory of Acceptance and Use of Technology (UTAUT). It measures the user acceptance based on these constructs; performance expectancy, effort expectancy, social influence, facilitating conditions, behavioral intention to use. In addition, attitude toward using, anxiety and perceived credibility are added as three new constructs. Furthermore, this research intends to investigate whether the moderating variables (e.g., age, gender, and experience) would have an effect on variables used in this study. Data collection is based on a questionnaire survey. A total of 872 samples were accepted for the purpose of this study. Structural Equation Modelling (SEM) is used to analyse the data. The results would be useful for the Malaysian government, local banks, institutions which offer electronic payment services wholesalers, retailers and most importantly the ordinary consumers.

Key words: Structural equation modeling, Gold dinar, e-dinar, UTAUT, Malaysia

INTRODUCTION

Since, its first inception in 1971, it has already been a known fact and being reported in many literatures that paper money is highly inflationary in nature (Lewis, 2007; Turk and Rubino, 2004). Barisheff has reported that US dollar has lost 82% of its purchasing power, as measured by the Consumer Price Index (CPI) since 1971. Mathematics calculation would reveal even more startling figures about paper money's inflation. Back then in 1971 the price of gold was \$35 per ounce (Lewis, 2007). At its highest price (05 September 2011), we need to fork out \$1,896 to buy exactly the same one ounce of gold. Thus, from 1971 to 2011 (in 40 years), in terms of US dollars, the inflation has gone up by 5317%, i.e., $(1896-35)/35 \times 100\%$. Or equivalently, for the duration of 40 years, the US dollar has lost 5317% of its purchasing power. Why comparing US dollar with gold in calculating the purchasing power of paper money? The reason being, gold in the past and will always be in the future regarded as a barometer to measure the performance of fiat money (Lewis, 2007;

Turk and Rubino, 2004). Often times, the gold price goes up in the event of dollar goes down and its (gold) price is lower when the dollar appreciates. The masses will be interested in gold every time there is a problem with the dollars or other fiat currencies. It will always be seen as a competitor to all fiat currencies; it acts as a safe-haven during any economic disaster. The strength of purchasing power in gold (or silver) has long been noted and it is widely discussed in many literatures (Lewis, 2007; Meera, 2002; Turk and Rubino, 2004).

Although gold (dinar) offers very good purchasing power, however there exist a few physical constraints with the precious metal. The first of such constraints is, it is physically heavier and thus difficult to be carried around for normal daily transactions. For instance, to carry around in one's pocket a 10 dinar (42.5 g of gold) would be a reluctant experience for many people. Secondly, due to its softness (malleability), the physical dinar would be subjected to continuing "wear and tear" process if they were to be used repeatedly among the masses; be it to be done intentionally or otherwise. It was reported in

Paarlberg (1993) that during the civilization of the Roman Empire, their ordinary citizens would clip the precious metal from the empire's coins perimeter in order to steal some of the value stored in the coins. He further wrote that slaves during that time "sweated" the coins by jiggling them in woolen bags hour after hour in order to wear-off some of the gold. The bags were then burned to separate the gold from the ashes. The third constraint that needs to be addressed would be how to identify the purity of dinar denominations in each transaction such that fraud and cheating cases would be minimized and if possible, totally prevented. The fourth is divisibility constraint associated with the dinar. In today's price, the value of 1 dinar is in the range of RM800-RM900 a piece, thus making it impractical for buying of small-priced items. The last constraint of physical dinar is the possible consumer losses due to the existence of buying and selling prices (known as spread) imposed by dinar traders. Shop owners will accept the value of physical dinar at buying prices (lower) instead of at selling prices (higher).

Therefore those issues of portability, wear and tear, purity concern, divisibility and the dinar spread all of them must be properly addressed in order for dinar to be widely accepted by the public. In particular, this research would focus on using the e-Commerce technology in a form of an electronic payment system to solve a few constraints associated with dinar (gold). The reason to introduce the electronic commerce technology in dinar is because it offers several advantages that the physical (brick and mortar) methods of dinar payments simply could not offer. This research believes that the electronic commerce technology is capable of solving such a few constraints associated with the physical dinar. Firstly, with the use of electronic dinar payment system, the physical movements of dinar would be expected to be very minimal, and thus it is believed it can solve the portability issue. Apart from that, the electronic dinar payment system would also solve the problem with "wear and tear" since users do not keep the dinar at home but rather in the provider's storage vaults with user accounts strictly associated with each of them. Another advantage offered by electronic dinar payment system is the ability to bypass unnecessary checking of purity due to the fact that the dinar is kept at providers' storage vaults whereby their purity is already known beforehand and they are undisturbed by outside parties. As for divisibility constraint, electronic dinar payment system would enable customers to buy small-valued items, e.g., up to 0.001 dinar (equivalent to RM0.80) because data are stored and processed by computers. Furthermore, using electronic dinar payment system would be much safer because we don't carry the expensive gold in our pocket only its electronic

representation. Lastly, the proposed electronic dinar payment system would also be able to solve problems with 'spread' imposed by gold traders. If this electronic dinar payment system could be set-up as identical as possible to credit or debit card system, the 3-5% spread could easily be converted into a transaction fee. This kind of fee (3-5%) is similar to credit or debit card charges (Turban *et al.*, 2006) and it would normally be absorbed by the shop owners. Therefore all in all, the proposed electronic dinar payment system would be able to solve a few constraints with physical dinar, and at the same time it carries with it the great advantage of purchasing power in dinar and gold.

But before the actual system can be implemented in the Malaysian market, this research attempts to find out beforehand whether the public would be willing to adopt the proposed dinar electronic payment system. Furthermore, this research would explore what are the specific factors that influence the acceptance of the electronic dinar payment system. Those factors could be positive factors whereby it will enhance the effect of intention to use or it could as well be negative factors of which in this case it will suppress the effect of intention to use. Moreover, those factors could also have a direct effect on intention to use as well as it could also have an indirect effect via the intervening (or mediating) variables. In addition, among those factors involved, this research would want to determine which ones are dominant. Nonetheless, if the public feel reluctant to use the system; then this research intends to find out what are those factors which influence the negative feeling of the public in this case. Last but not least, this research would want to investigate whether the moderating variables would have an effect on the variables (constructs) involved. Among those moderating variables that would be considered are age, gender and experience of buying dinar.

The general objective of this research is to explore the willingness of Malaysian people to adopt a dinar based electronic payment system. The specific objectives of this research are listed as follows:

- To investigate the perception of Malaysian consumers with regards to the acceptance of the proposed electronic dinar payment system in Malaysia
- To investigate various predictors that influence the willingness of the Malaysian consumers to accept the proposed electronic dinar payment system
- To carry out an investigation into the effect of demographic and moderating variables such as gender, age, and 'experience of buying dinar' on intention to use electronic dinar payment system in Malaysia

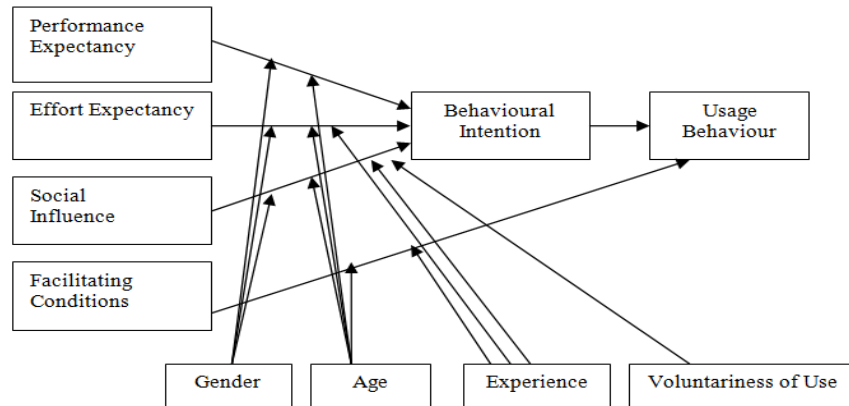


Fig. 1: UTAUT Model by Venkatesh *et al.* (2003)

Moreover, based on the background reviews, this study seeks to answer the following research questions as below:

- What is the perception of Malaysian consumers with regards to the acceptance of the proposed electronic dinar payment system in Malaysia?
- What are the factors that influence the acceptance of the electronic dinar payment system? Which one is/are dominant? What are the negative factors (if any)?
- What is the effect of demographic and moderating variables on intention to use electronic dinar payment system in Malaysia?

Whichever ways the results turn out to be, the outcome of this study is expected to benefit those parties involved in e-commerce industries, payment gateway industries, retail and wholesale industries as it involved payments as well as those in gold and silver trade activities which will directly benefit from it. If the outcome of this research is positively perceived by the public, then the continuing step from this research would be to come up with model and architecture of dinar or dirham based electronic payment system. Then later on it is expected that this idea of using dinar or dirham based electronic payment system will further be taken up by relevant authorities and relevant parties which are involved in a payment system activities. It is hope that the latter will eventually push this idea into a reality.

Literature review: With the objective of introducing a comprehensive model that considers all variables included in the previous eight prominent models, Venkatesh *et al.*

(2003) developed a research to empirically compare and test each of the constructs in those models. Their research has found that the previous eight models were able to explain (between) 17-53 % of the variance in user intentions (that is, to use information technology). Subsequently, their new model, a unified model (UTAUT) that integrates elements across the eight models are thereby formulated and empirically validated. With UTAUT, it is found the model had outperformed the previous eight individual models (adjusted R^2 of 69 %). Later, UTAUT was validated with data from two new organizations; it still gave similar results (adjusted R^2 of 70 percent). Having had this substantial improvement over its predecessors, UTAUT would thus provide a very useful tool in order to assess the likelihood acceptance factors of introducing a new technology. Figure 1 below illustrates the constructs and moderators for UTAUT.

The research framework for this work is adapted from UTAUT with three additional variables added. This study intends to find out the technology acceptance of electronic dinar payment system based on the four original constructs of UTAUT model. Those original constructs are performance expectancy, effort expectancy, social influence and facilitating conditions. This research also intends to find out how significant is the contributions of moderators in this case. Out of four moderators in the original UTAUT model, only three have been applied in this study. Those three moderators are gender, age, and experience while the fourth moderator (voluntariness of use) is not included since the proposed electronic dinar payment system would be purely voluntary in nature and therefore its purpose is irrelevant in this case. The three additional variables are added, i.e., attitude towards using, perceived credibility and

Table 1: Research framework core constructs

Core constructs	Definitions
Performance expectance	“The degree to which an individual believes that using the system will help him or her to attain gains in job performance” (Venkatesh <i>et al.</i> , 2003) (in this research) The perception that using e-dinar payment system will benefit its user in terms of purchasing power, asset preservation, and safe haven capability
Effort expectancy	“The degree of ease associated with the use of the system” (Venkatesh <i>et al.</i> , 2003) (in this research) The ease of using e-dinar payment system for payments
Social influence	“The degree to which an individual perceives that important others believe he or she should use the new system” (Venkatesh <i>et al.</i> , 2003) (in this research) The social pressure which influences consumers to use e-dinar payment system
Facilitating conditions	“The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system” (Venkatesh <i>et al.</i> , 2003) (in this research) External factors to accomplish the acceptance of e-dinar payment system such as IT infrastructures, campaigns, cost, government initiatives and others
Anxiety	“Evoking anxious or emotional reactions when it comes to performing a behavior (e.g., using a computer)” (Venkatesh <i>et al.</i> , 2003) (in this research) Refers to the fear of the public in using e-dinar payment system i.e. fear of password/card stolen and fear of gold dinar price fluctuation and fear of gold dinar investment scam
Perceived credibility	“The user’s security and privacy concerns in the acceptance of Internet banking” (Wang <i>et al.</i> , 2003) (in this research) Refers to the data security and privacy, misuse of data, the safety of gold dinar storage
Attitude toward using	“Defined as an individual’s overall affective reaction to using a system” (Venkatesh <i>et al.</i> , 2003) (in this research) Refers to consumers’ positive or negative feeling toward using electronic dinar payment system

anxiety. The three variables are hypothesized to be very relevant to this study and therefore their influence is expected to be significant in the proposed research framework. Attitude towards using is adapted from Davis *et al.* (1989) and Taylor and Todd (1995). Anxiety is adapted from Compeau and Higgins (1995) as well as Venkatesh *et al.* (2003) whereas perceived credibility is adapted from Wang *et al.* (2003). The reason why UTAUT is chosen for this research because the model would be able to offer high adjusted R² (69-70%) compared to other previous models as per studied by Venkatesh *et al.* (2003). Furthermore, UTAUT model also incorporates the investigation of moderating variables which is not being studied by other models. Table 1 explains all constructs included in this research framework.

MATERIALS AND METHODS

This study is a quantitative research whereby an analysis and classification of numerical data were collected from survey questionnaires. The questionnaires was developed based on a research framework which is adapted from the Unified Theory of Acceptance and Use of Technology (UTAUT) model with three) extra variables added (i.e., perceived credibility, anxiety and attitude towards using). The introduction of those three variables is to specifically measure the technology acceptance of electronic dinar payment system. All surveys consisted of closed-ended questions. Respondents would only choose answers which have already been provided with the questions.

In addition, this study carried out the snowballing sampling technique as one of its data collection methods. The reason being, it is difficult to identify respondents

who aware of the importance of gold dinar. It is very likely that those respondents, who already understand the importance of gold dinar, would give positive answers compared to those respondents who are yet to understand it. Furthermore, snowballing technique would be very useful in this case whereby the survey will be guaranteed to reach those respondents within gold dinar social networking circles. Therefore, the study had decided to distribute to at least 1000 samples considering some samples might be rejected due to inconsistencies and incompleteness.

RESULTS AND DISCUSSION

There are three main objectives to be achieved with this study. The first one is to investigate the acceptance of the proposed electronic dinar payment system among consumers in Malaysia. For this objective, this study explores what would be a suitable research framework to be used in order to measure the acceptance of the proposed e-dinar payment system. Also included in this objective is to develop relevant instruments for testing of various constructs used in this research. The second objective of this study is to investigate various factors that influence the willingness of the Malaysian consumers to accept the proposed electronic dinar payment system. For the purpose of the second objective, both the measurement model and the structural model have been investigated in this study. The third objective is to explore the effect of moderating variables such as gender, age, and experience (of buying dinar) on behavioral intention to use the proposed electronic dinar payment system. Based on the three objectives having been investigated, this research is then ready to put forward

recommendations to the relevant authorities (in dinar) and electronic payment system providers in Malaysia. This is so that they could offer highly beneficial, secured and user friendly electronic dinar payment system in the near future.

- RO1: To investigate the perception of Malaysian consumers with regards to the acceptance of the proposed electronic dinar payment system in Malaysia

First and foremost, the author must identify the most suitable user acceptance model to be used as a research framework for this study. There are various user acceptance models available with each one offers its own strengths and weaknesses. Venkatesh *et al.* (2003) has analysed a total of eight models prior to introducing their own UTAUT model. The eight previous models are the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model (MM), the Theory of Planned Behavior (TPB), the Model of PC Utilization (MPCU), the Innovation Diffusion Theory (IDT) and the Social Cognitive Theory (SCT). It has already been validated by his team that those previous eight models are able to explain only between 17%-53% of the variance in user intentions to use information technology. Whereas their model (UTAUT) has been shown to outperform the previous eight models; by being able to explain 69% (adjusted R²) of the variance in user intentions to use information technology. When tested with new data from two new organizations, UTAUT was able to explain 70% (adjusted R²) of the variance in user intentions to use information technology. Because of this strength of explaining the variance in user intentions to use information technology, this study has therefore decided to adopt and adapt the UTAUT model in order to measure user acceptance to use electronic dinar payment system. In addition to taking constructs from the UTAUT model, this research has also introduced 3 new constructs which have not been included in its original model. Those 3 new constructs are anxiety, perceived credibility and attitude toward using. These new constructs are included in order to capture additional factors which may have specifically influenced users' intention to use electronic dinar payment system. The goodness-of-fit for the final structural model used in this study is shown in Table 2.

In this objective also, this thesis seeks to find out new measurement items (indicators) for the study of user acceptance in electronic dinar payment system. Several new questions have been added to the original constructs in order to tailor specifically to the usage of dinar payment systems. Please refer to Table 3 discussion of this issue.

Table 2: Goodness-of-fit indices for structural model

Indices	Accepted model (final)
χ ²	849.531
Degrees of freedom (df)	325
p-value	0.000
2/df	2.614
TLI	0.967
CFI	0.972
RMSEA	0.043
GFI	0.935
AGFI	0.919
R ² (BI)	0.513 (51%)

Table 3: Observed variables and their latent constructs (final and accepted)

Latent constructs	Observed variables
Behavioral intention Type: Endogenous	BI1: intend to use BI2: predict to use BI3: plan to use
Performance expectancy Type: Exogenous	PE2: gold's purchasing power PE3: protection against inflation PE4: protection during currency crisis
Effort expectancy Type: Exogenous	EE1: easy to use EE2: easy to learn EE3: easy to interact EE4: compatibility
Facilitating condition Type: Exogenous	FC1: safe (to carry) FC2: safety (banks keep it) FC3: 'wear and tear' issue FC4: protected from rubbing, clipping
Social influence Type: Exogenous	SI1: people who influence SI2: people who are important SI3: family factor SI4: friends factor
Anxiety Type: Exogenous	ANX1: gold investment scam ANX2: computer hacking ANX3: gold price fluctuation
Perceived credibility Type: Exogenous	PCR6: backed by physical dinar coins PCR7: physical dinar coins
withdrawal allowed	PCR8: widely accepted
Attitude toward using Type: Endogenous	ATT1: e-dinar is a good idea ATT2: (e-dinar) another option to make payment ATT3: like to see e-dinar is used as payment ATT4: interesting to use e-dinar

The table also shows the final factors which have been used and accepted by this research. For performance expectancy construct, three parsimonious items PE2, PE3, and PE4 are the new measurement items which reflect the usage of gold (or dinar). For facilitating conditions construct, four parsimonious items FC1, FC2, FC3 and FC4 are the new measurement items to capture the usage of electronic dinar payment system. In anxiety construct, ANX1, ANX2, and ANX3 are the new measurement items which specifically tailored to capture the user acceptance

Table 4: Goodness-of-fit indices for measurement model

Indices	Model 16 (final)
χ^2	825.472
Degrees of Freedom (df)	321.000
p-value	0.000
2/df	2.572
TLI	0.968
CFI	0.973
RMSEA	0.042
GFI	0.937
AGFI	0.920

of electronic dinar payment system. In perceived credibility construct, PCR6, PCR7 and PCR8 are the new items added to suit the user acceptance of electronic dinar payment system. For attitude toward using construct, ATT2 and ATT3 are the two newly introduced items. The rest of the measurement items for effort expectancy, social influence and behavioral intention to use; the items are directly taken from existing or original constructs available in several literatures.

Using the UTAUT model with the addition of the three new constructs, the research has discovered that most of the respondents would agree with the idea of using electronic dinar payment system, with intention to use score is above 4.00 (average score = 4.08):

- RO2: To investigate various predictors that influence the willingness of the Malaysian consumers to accept the proposed electronic dinar payment system

For the purpose of this objective, both the measurement and structural models have been employed in order to determine which predictors may have an influence on user acceptance to use electronic dinar payment system. It is common in Information System (IS) study that certain predictors may exert stronger influence on intention to use while other predictors may exert lesser influence on intention to use. Using AMOS (Version 18) software, the Structural Equation Modelling (SEM) technique has been applied in this research to analyse the measurement and structural models of the electronic dinar payment system. Table 4 depicts the goodness-of-fit indices for the final measurement model.

Having carried out several re-specification steps from the initial model, the model number 16 has been found to be the most parsimonious among all other models. In this model 16, seven predictors have been found to have influence on behavioural intention to use electronic dinar payment system based on the acceptable goodness-of-fit indices. Those predictors are performance expectancy, effort expectancy, facilitating conditions, social influence, anxiety, perceived credibility and attitude toward using. There are a total of 28 observed variables accepted for this measurement model. Of those 28 observed variables;

Table 5: Goodness-of-fit indices for structural model

Indices	Accepted model (final)
χ^2	849.531
Degrees of freedom (df)	325.000
p-value	0.000
2/df	2.614
TLI	0.967
CFI	0.972
RMSEA	0.043
GFI	0.935
AGFI	0.919
	0.513 (51%)

effort expectancy, facilitating conditions, social influence, and attitude toward using consist of 4 observed variables each. Meanwhile performance expectancy, perceived credibility, anxiety, and behavioural intention to use consist of 3 observed variables each.

As for analysis of the structural model (Table 5), this study has discovered that the seven predictors act as independent variables whereas behavioural intention to use acts as the only dependent variable. The seven independent predictors are performance expectancy, effort expectancy, facilitating conditions, social influence, anxiety, perceived credibility and attitude toward using. It is to be noted that attitude toward using act as intervening (mediating) variable whereby it is functioning as an independent predictor as well as a dependent predictor at the same time. Of the seven independent predictors, anxiety is found to have a negative relationship with attitude toward using and behavioural intention to use whereas three predictors are found to have a positive relationship with behavioural intention to use electronic dinar payment system. The other two predictors (effort expectancy and perceived credibility) are found to be related to attitude toward using but not with intention to use, where in this case the relationship between effort expectancy and perceived credibility with the latter is found to be non-significant. Among the four predictors which are found to have influence on intention to use, attitude toward using predictor appears to have the strongest influence on behavioural intention to use with standardized beta coefficient value of 0.503. This is followed by social influence and facilitating conditions where the influence of these two constructs on intention to use is relatively lower. In terms of overall performance these seven predictors would able to explain 51% (R^2) of the variance in user intention to use electronic dinar payment system:

- RO3: To carry out an investigation into the effect of demographic and moderating variables such as gender, age, and ‘experience of buying dinar’ on intention to use electronic dinar payment system in Malaysia

Table 6: Testing the effect of gender as a moderator (SI --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1325.085	1326.514	1.429 ^{NS}
χ^2			
Df	650.000	651.000	1.000
TLI	0.958	0.958	-
CFI	0.964	0.964	-
RMSEA	0.035	0.035	-
Path estimate (SI --> BI)	0.111* (female)	0.191*** (male)	
	0.156*** (combined)		

Table 7: Testing the effect of gender as a moderator (FC --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1325.085	1326.425	1.340 ^{NS}
χ^2			
df	650	651	1
TLI	0.958	0.958	-
CFI	0.964	0.964	-
RMSEA	0.035	0.035	-
Path estimate (FC --> BI)	0.065 (female)	0.152*** (male)	
	0.124*** (combined)		

Table 8: Testing the effect of gender as a moderator (ANX --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1325.085	1325.310	0.225 ^{NS}
χ^2			
df	650	651	1
TLI	0.958	0.958	--
CFI	0.964	0.964	--
RMSEA	0.035	0.035	--
Path estimate (ANX --> BI)	-0.050* (female)	-0.066** (male)	
	-0.059*** (combined)		

Table 9: Testing the effect of gender as a moderator (PE --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1325.085	1325.554	0.469 ^{NS}
χ^2			
df	650	651	1
TLI	0.958	0.958	-
CFI	0.964	0.964	-
RMSEA	0.035	0.035	-
Path estimate (PE --> BI)	0.071 (female)	0.122* (male)	
	0.098** (combined)		

Table 10: Testing the effect of gender as a moderator (ATT --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1325.085	1325.262	0.177 ^{NS}
χ^2			
df	650	651	1
TLI	0.958	0.958	-
CFI	0.964	0.964	-
RMSEA	0.035	0.035	-
Path estimate (ATT --> BI)	0.510*** (female)	0.479*** (male)	
	0.492*** (combined)		

NS: Not Significant, *Significant at 0.05 level, **Significant at 0.01 level, ***Significant at 0.001 level

This study looks into 3 moderating variables which may have influenced the relationship between intention to use and several main constructs. The three moderators are gender, age, and experience (of buying gold dinars). One of the applications for investigating moderating variables

Table 11: Testing the effect of age as a moderator (SI --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1361.097	1361.977	0.880 ^{NS}
χ^2			
Df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (SI --> BI)	0.161*** (junior)	0.141* (senior)	
	0.156*** (combined)		

NS: Not Significant, *Significant at 0.05 level, **Significant at 0.01 level, ***Significant at 0.001 level

is for the purpose of market segmentation whereby service providers would focus on certain group of people to market their products. The gender moderating effect between main constructs and intention to use are shown here again in Table 6-11. The Chi-square differences for all paths are below 3.84 (for 1 df) and therefore the moderating effect of gender is not supported in this case. The tables therefore indicate that the gender factor will have no influence on the outcome of this study. The perception of respondents with regards to the relationship between main constructs and intention to use does not have any bearing on gender issue; male and female respondents are equally interested to use the proposed electronic dinar payment system. This could be due to many benefits that the electronic dinar would bring in the foreseeable future.

Similarly, the age moderating effect between main constructs and intention to use electronic dinar payment system is shown in Table 6-11. A cut-off point of 40 years has been used to separate one age group to another. Respondents with below 40 years old of age have been categorized as juniors whereas those of above 40 years old have been categorized as seniors. Again here the moderating effect of age has not been supported for all paths between main construct and behavioral intention to use. Table 11-15 show that the chi-square difference between constrained and unconstrained models is below 3.84 (for 1 df), thus the effect of age moderator is not significant in this case. Therefore the test of age moderating effect shows that the two age groups are indifferent in their intention to use electronic dinar payment system. They are equally interested to use the proposed payment system.

The moderating effect of experience (buying dinar) on intention to use electronic dinar payment system is shown in Table 15-20. The respondents were asked whether they have had experience of buying physical dinars prior in the beginning of the survey. This experience is measured by a nominal scale whereby 1 represents having “experience” of buying the physical dinars, while 2 represents having “no experience” of buying the physical dinars previously. Out of 5 main constructs which have a direct relationship with behavioural intention to use, only one path, i.e.,

Table 12: Testing the effect of age as a moderator (FC --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1361.097	1362.228	1.131 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (FC --> BI)	0.136*** (junior)	0.080 (senior)	
	0.128*** (combined)		

Table 13: Testing the effect of age as a moderator (ANX --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1361.097	1363.976	2.879 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (ANX --> BI)	-0.071 (junior)***	-0.016 (senior) ^{NS}	
	-0.058 (combined)***		

Table 14: Testing the effect of age as a moderator (PE --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1361.097	1361.919	0.882 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (PE --> BI)	0.087 (junior)*	0.098 (senior) ^{NS}	
	0.088 (combined)*		

Table 15: Testing the effect of age as a moderator (ATT --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1361.097	1361.991	0.894 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	--
CFI	0.962	0.962	--
RMSEA	0.035	0.035	--
Path estimate (ATT --> BI)	0.495 (junior)***	0.470 (senior)***	
	0.490 (combined)***		

Table 16: Testing the effect of experience as a moderator (SI --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1341.783	1341.797	0.014 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (SI --> BI)	0.147 (exp)***	0.155 (no exp)***	
	0.151 (combined)***		

NS: Not Significant, *Significant at 0.05 level, **Significant at 0.01 level, ***Significant at 0.001 level

between anxiety (ANX) and behavioural intention to use (BI), is being moderated by experience. This is shown in Table 13 with Chi-square difference is equal to 6.045 which is greater than 3.84 (for 1 df). In this case, it is found that the relationship between ANX and intention to

Table 17: Testing the effect of experience as a moderator (FC --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1341.783	1342.782	0.999 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
path estimate (FC --> BI)	0.075 (exp) ^{NS}	0.147 (no exp)*	
	0.100 (combined)**		

Table 18: Testing the effect of experience as a moderator (ANX --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1341.783	1347.828	6.045 (significant)
χ^2			
df	650	651	1
TLI	0.956	0.955	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
path estimate (ANX --> BI)	-0.021 (exp) ^{NS}	-0.107 (no exp)***	
	-0.057 (combined)***		

Table 19: Testing the effect of experience as a moderator (PE --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1341.783	1342.251	0.468 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (PE --> BI)	0.103 (exp) ^{NS}	0.048 (no exp) ^{NS}	
	0.076 (combined) ^{NS}		

Table 20: Testing the Effect of experience as a moderator (ATT --> BI)

Model characteristic	Unconstrained group model	Constrained group model	Model differences
Model fit	1341.783	1342.544	0.761 ^{NS}
χ^2			
df	650	651	1
TLI	0.956	0.956	-
CFI	0.962	0.962	-
RMSEA	0.035	0.035	-
Path estimate (ATT --> BI)	0.520 (exp)***	0.456 (no exp)***	
	0.493 (combined)***		

NS: Not Significant, *Significant at 0.05 level, **Significant at 0.01 level, ***Significant at 0.001 level

use is moderated by experience (of buying dinar) such that respondents with 'no experience' would be more afraid in their intention to use electronic dinar payment system. Apart from ANX, the relationship of other main constructs with intention to use is not being moderated by experience, which is shown by the rest of the tables below. Except for ANX, both groups with and without experience equally agree in their intention to use electronic dinar payment system. The experience factor simply has no influence on intention to use, except for ANX only.

CONCLUSION

This study discovered that most of the respondents generally agree to accept the idea of using the proposed electronic dinar payment system. Apparently, it is found that certain predictors are perceived to have stronger influence than the others. This is generally expected in any Information System (IS) acceptance studies whereby different predictors do exert different degree of influence on various variables. This research has also successfully introduced several new measurement items (indicators) for the study of user acceptance in e-dinar payment system. In this case, several new items (indicators) have been added to the original constructs in order to correctly reflect the usage of dinar payment systems. This research has also managed to identify a total of seven predictors that actually affect user acceptance of e-dinar payment system. The effect of moderating variables has also been investigated in this study. It is found that gender and age have no moderating effect on main constructs. Experience (of buying dinar) was found to have no moderating effect on main construct except for anxiety (ANX) construct. In the latter case, the relationship between ANX and intention to use is being moderated by experience such that respondents with “no experience” of buying gold dinar would be more afraid in their intention to use the electronic dinar payment system compared to those already having had “experience” of buying gold dinar.

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