# The Challenges of Implementing Gold Dinar in Kelantan: An Empirical Analysis

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*Abstract:* The purpose of this paper is to analyse the challenges of adopting the gold dinar as a currency in Kelantan, Malaysia. This is one of the earliest works to empirically investigate the challenges of using gold dinar currency since its introduction in Kelantan in August, 2010. The paper looks at both the internal and external challenges to the adoption of the new currency. The researchers came up with a model and a survey to validate the model. Structural equation modelling technique was employed to test if the data collected fits the model. It was found out that while the effects of both external and internal challenges were not statistically significant, they are significant in practical terms. All our measurement items were also found to be practical. Though the findings of the study indicate the challenges are not statistically significant, they nevertheless must be addressed if gold dinar is to be adopted in the future.

Keyword: Adoption, External and Internal Challenges, Gold dinar, Kelantan.

JEL Classification: E42, E24

#### 1. Introduction

The financial crisis of 2007-2008 was a blow to the world monetary system. No one predicted the "financial tsunami." What started in the US as a result of a default in securitised subprime loan led to what economists now refer to as the most serious financial crisis after the Great Depression. Trillions of dollars in bailout did not prevent countries such as Dubai, Greece and Ireland from defaulting in their commitment, and more and more are still showing signs of financial distress (Portugal, Italy, Germany, Spain, etc.) with no signs of recovery in sight<sup>2</sup>. Prominent leaders of the world have called for a total overhaul of the world monetary system using the Breton Wood model<sup>3</sup>. Some

countries have begun to look for alternative currency as a stop-gap measure or solution to the credit crunch<sup>4</sup>.

The state government of Kelantan, Malaysia, in August 2010 launched gold dinar as an alternative currency for the state. During the launch, the government announced that more than one thousand business entities and some banks in the state have agreed to accept the new currency. The government had plans to provide employees the option of receiving part of their salary in gold dinar as well as introduce gold bars for large investments. The Kelantan state government also said alms (zakat) can be paid with the coins<sup>5</sup>. Introduction of gold as currency in Kelantan exposed a constitutional issue since Bank Negara (Central Bank of Malaysia) is the only authority empowered by law to issue currency and has the power to confiscate unauthorised currency and punish the offender. Bank Negara has promised to deal with any person and authority wishing to usurp its constitutional power. Thus, despite the enthusiasm created by the launching of gold dinar, its real practicality has not been felt and the euphoria that greeted the launching has gradually faded. Implementing a new idea even when it portends a lot of benefits is difficult. Many innovations need long a period of time before they are widely adopted (Rogers, 2003). Why did the dinar, touted as the people's saviour, gradually go into oblivion? What prevented the people from using the new gold dinar in their day to day transactions? These are the questions this research work attempts to answer. A survey was conducted to determine the factors that contributed to the failure of dinar as a currency in Kelantan.

The specific objectives are:

- 1. To profile the respondents' socio economic characteristics
- 2. Identify the challenges in using gold dinar in Kelantan
- 3. Analyse the challenges in implementing gold dinar in Kelantan.

### 2. Literature Review

#### 2.1 Gold Dinar

Before the advent of Islam, Arabs in Macca and Madina used the silver drahm from the Sasanian Empire of Iran as the official currency. Upon the conquest of Iran (636-651), the Sasanian currency continued to be minted by the Islamic government and they added a short Arabic inscription in the middle of the coin in Persian script. The first purely Islamic coin, gold dinar, was minted in 697 CE. Two years later the silver dirham was introduced.

The Abbasid caliphate that succeeded Umayyad Dynasty in 750 CE replaced the larger "surah Al-Ikhlas" at the back of the coins with "Muhammad

Rasul Allah" (Muhammad is the messenger of Allah). Also, the custom was broken in 762 CE when the heir-designate to the caliphate put his name on dirhams (silver coins) minted under his control. This became the accepted design for all metal coins for general circulation by the Abbasids and other dynasties that accepted their religious authority until the 12<sup>th</sup> and 13<sup>th</sup> century (Hassan, 1999; Anwar, 2002). The Abbasid dynasty was succeeded by the Ottoman Empire in 1299 CE. Gradual reduction of bullion content of both the gold dinar and silver dirham led to severe inflation that reduced the value of the Sultani dinar to Vernice ducat. The Ottomans first introduced paper currency in 1840 CE. This was abandoned 23 years later because of over production. Forty years later, the Ottoman empire re-introduced paper currency with legal tender enforcing its acceptance. This was used until 1924 when the Ottoman Empire finally crumbled (Yacoob *et al.*, 2012). Eight decades later, gold money resurfaced in Kelantan, Malaysia.

#### 2.2 Review of the Main Challenges of Gold Dinar

Rogers (2003: 12-16) defines innovation as an idea, practice, or object that is seen to be novel by an individual or a unit of adoption. Adopting a new knowledge with all its perceived advantages is not always easy. Many inventions need a long period of time to become generally accepted. Rogers refers to the challenges that hinder adoption of new idea as complexity. Complexity is the extent to which a new idea is perceived to be difficult to understand and use. Some innovations are easy to understand by majority of people in a social system while others are more complicated and will be adopted more slowly. Innovations that are simpler to understand are adopted more rapidly than innovations that require the adopter to develop new skills and understandings.

The idea of gold currency is as old as human history. According to Burns (1996: 18), there is no documented history of early use of gold. Gold has served as a currency/means of exchange from time immemorial until the fall of the Ottoman Empire in 1925. The recent re-introduction/re-invention of gold dinar (money) in Kelantan comes with its own challenges with protests against its adoption as an alternative currency. Naturally, gold as means of exchange has encountered a number of challenges right from its inception until the late 20<sup>th</sup> century when its circulation as was finally prohibited by the World Bank. Historically, people have encountered many challenges using gold as money. These include counterfeiting, clipping, sweating (heat solder until it melts and runs between surfaces to bond them), token money, debasement, issue of legal tender etc. These risks of adopting gold dinar can be categorised under five sub-headings as discussed below.

# 2.3 Physical Risk of Gold dinar

Physical risks of gold dinar involve risk of loss or theft of the precious metal. Man's love for gold dates back to time immemorial (Burn, 1996). Since gold is favoured by the majority of the population' safety issues are important for those who keep gold. Gold needs to be kept securely in a safe place either at home or in the bank. Gold needs to be insured and kept safe all the time. This involves costs to mitigate the risk of theft. Besides safety boxes and personal safes at home, people bury their gold in their compound (midnight gardening). Will this reduce the risks? In some ways yes, as it reduces the likelihood of theft. However, when they die, the gold is lost forever or they become the property of those who excavate the gold years after the demise of the original owner. Also, if the gold is immediately needed, it's probably not possible to access it without exposing its location.

# 2.4 Exchange risks of gold trading

This refers to gold and futures trading risks. The two major gold futures exchanges are the New York Mercantile Exchange and the Tokyo Commodity Exchange. Trading at these and all other exchanges is subject to their rules and regulations. This may not be directly related to gold as currency but whatever happens in these markets has impacted on world gold prices and its availability.

# 2.5 Gold Price Volatility

Although the usefulness of gold to the economy is debatable, people's perception about the economy has a direct impact on the price of gold. There are a number of reasons why the price of gold is volatile. Gold is widely recognised as a hedge against declines in the US dollar and inflation. Devaluation of dollar affects the price of gold at the international market since the market price of gold is quoted in US dollar. Gold is used in small amount as component of most electronic devices. This conflicts with its role as a currency and affects its price and availability. The supply of gold is constant with relatively little changes year in year out, creating a gap between its supply and demand. Since 1930s, persistent rise in the price of gold has been attributed to fractional reserve banking system which is inherently inflationary as a result of gap between the money supply and real growth in products and services<sup>7</sup> (Mishra *et al.*, 2010).

# 2.6 Political Risk

The political risk refers to a situation where the government changes laws and regulations that may harm the investment in gold or its usage as currency. These government interventions can happen in the country of the investor or

in another country. Both would have an impact on the gold price, as supply and demand, or the invisible hand of the market, will be disturbed. The prohibition of gold ownership, where the government banned the possession of gold and required the gold holders to sell their gold asset to the government at a fixed price, happened in the US in 1930s<sup>8</sup>. The government can also pass laws to nationalise gold mines and tax heavily companies that produce and trade in the valuable metal as happened in Venezuela in 2005. Politicians and monetary authorities can also collude to fix the price and limit the amount that can be sold. The IMF in 1978 placed an embargo on the use of gold as money and limits the amount that can be transacted within a given year. Legal tender law is another political risk for adopting gold currency. Every nation has its own currency backed by legal tender law. In Malaysia, the Ringgit is the legal tender. With this, Bank Negara became the sole issuer of Malaysian currency and nobody or authority has the right to issue or import either currency notes or coins in Malaysia without the prior permission of Bank Negara and there is limited to the amount allowed. Bank Negara therefore reserves the right to confiscate any unauthorised money and even fine the issuer as much as RM 5,0009. Creating alternative currency in Malaysia is usurping the right conferred on Bank Negara by the legal tender law.

### 2.7 Gold Scam

Gold scam refers to receiving fake gold on transaction. Gold scam can take different forms. Buying scrap gold for more than its value is a scam. Scam can also take the forms of counterfeiting. Gold scam dates back to time immemorial when the technique to determine gold's purity was not sophisticated and the currency was still circulated by weight. The reputable had to place a seal on the metal ingot to certify its authenticity and the weight. Counterfeiting in early history carried the death penalty (Burn, 1996: 61). Clipping is another form of gold scam. It is an act of trimming or cutting back neatly the metal currency in such a way that the receiver will not be suspicious. Clipping reduces the bullion weight of the currency resulting in fraudulent gains for the clipper. This act is as old as the introduction of currency and led to the serration of gold currency to detect fraudulent acts. Gold scam can also take the form of debasement. Debasement means the reduction in the unit of account value of a coin from a given weight of specie metal whether through a decrease in weight or fineness of a coin, or through an increase in the unit of account value of the coin (the latter is termed an enhancement or "crying up" of the money). Debasement dates back to ancient civilisation. In ancient Greece, Persian and the Roman Republic, debasements were experimented with only briefly. The Romans did however institute a unique form of debasement (Burns, 1996:401).

### 3. Methodology

#### 3.1 Study Area

This study was carried out in Kelantan, a state situated at the north-east coast of peninsular Malaysia facing the South China Sea covering an area of 14,922 sq km. Its state capital is Kota Bharu. It is connected to other major towns in Malaysia and serves as administrative centre and business activities for Kelantan. Kelantan (which means the 'land of lighting') lies between latitudes 4-4.5° and 6.25° north and between longitudes 101.30° and 102.40° east. Kelantan shares a common border with Perak in the west, Pahang in the south, Terengganu in the east and China Sea in the north. Kelantan has a coastal line about 96km long and her total land frontier is about 576km long. It is an agrarian state with abundant paddy fields, rural fishing communities and casuarinas lined beaches. Kelantan is home to some of the most primordial archaeological discoveries in Malaysia<sup>10</sup>.

### 3.2 Questionnaire Development

In developing our questionnaire, many important questions that have to do with the problems of using gold as currency were considered. The respondents were asked to give their response based on a 5-point Likert-scale. The challenges of adopting gold dinar in our questionnaire were outlined under 11 based on the literature review. We used the scale of "1 –strongly disagree" to "5 –strongly agree." This was to give the respondents the opportunity of flexibility when answering the questions. The questionnaire items were translated from English to Malay language to make it accessible to all the respondents. This was administered to the respondents.

### 3.3 Sample

A purposive sampling method was used to select respondents. Participants for this study were individuals who use or intend to use gold as currency, aged above 20 years, citizen or non-citizen and resident or non-resident of Kelantan using purposive sampling method. This method is a non-probability sample that conforms to certain criteria (Cooper and Schindler, 2001). This method was appropriate for our study since some criteria need to be met for a respondent to be selected. As such, valuable responses could be elicited from respondents who meet these aforementioned set criteria as it relates to the subject matter of the study.

A total of 400 questionnaires were distributed to individual respondents out of which 300 were returned. The effective response rate is 75 percent, which is rather high. About 8 respondents were excluded from further analysis due to non-conformity to the requirement (criteria) to be used as samples and excessive missing data. The data in this instance was missing completely at random (MCAR). As suggested by Hair et al (2010), any remedy for missing data could be used. However, given sufficient sample size for the SEM, the authors preferred to exclude affected cases from further analysis. Therefore, the final sample size was 292 respondents.

### 3.4 Dimensions of challenges of gold dinar

This study aims to identify the validity of constructs specified for challenges of implementing gold dinar in Kelantan based on our data. This dimension was sought through principal component analysis (PCA), thereafter, confirmatory factor analysis (CFA) was conducted to confirm the dimensionality obtained through PCA.

#### 4. Results and Discussion

### 4.1 Respondents' Profile

Analysis of the demographic characteristics of the respondents showed that more than half of the respondents were aged below 30 years and only 10 percent were age 50 years and above. The gender distribution showed that 58 percent were male while the rest were female. In terms of ethnic background, majority are Malays (95.9 percent), 2.4 percent Chinese and the remaining 1.7 percent are categorised as others. Out of this, 98.3 percent are Muslims, 0.7 percent Buddhist and 1 percent Christian. Majority (54 percent) of the respondents earn less than RM3,000 a month, while only 4.5 percent have monthly income above RM10,000 ringgit a month. However, it can be observed that 70 percent of the respondents have diploma-level education and above, with only 2 percent having not more than standard 6 certificate.

The respondents came from almost all the states in Malaysia, with the exception of Sarawak. However, majority are from Kelantan (65%). In terms of political affiliation, most of the respondents are PAS (58.5 percent) supporters followed by BN (14.3 percent) and the remaining 30 percent support other political parties. The demographic characteristics also revealed that the respondents belong to various categories of employment which include civil service, lecturing, business, teaching, farmer, private among others. There were also pensioners and housewives.

#### 4.2 Reliability of the questionnaire

The response obtained from the returned questionnaire was analysed using SPSS for internal consistency and principal component analysis (PCA) and AMOS

for confirmatory factor analysis (CFA). The scale to measure challenges of gold dinar in Kelantan has good internal consistency, with a Cronbach alpha coefficient of 0.920.

#### 4.3 Exploratory Factor Analysis (Principal Component Analysis)

The underline dimension of the challenges of adopting gold dinar in Kelantan was explored using PCA. The 11 challenges of adopting gold dinar in Kelantan were subjected to principal component analysis (PCA) using SPSS version 18.0. Before performing PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix showed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklin value was .906, more than the recommended .6 and Bartlett's Test of Sphericity reach statistical significance [ $\chi^2$  (55) = 2031.631,  $\rho < .001$ ], supporting the factorability of the correlation matrix (Pallant, 2007).

Principal component analysis revealed the presence of two components with eigenvalues exceeding 1, which explains the 55.9 percent and 9.5 percent of the variance respectfully. An inspection of screeplot revealed clear break after the second component. Following Catell's (1966) scree test, two components for further investigation were used. This was further supported by the results of Parallel Analysis which showed only two components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (11 variables x 292 respondents).

The two component solution explained a total of 65 percent of the variance, with component 1 contributing 55.9 percent and component 2 contributing 9.5 percent. To assist our interpretation of these two components, oblimin rotation was performed. The rotated solution revealed the presence of simple structure (Thurstone, 1947), with both components showing a number of strong loadings and all variables loading substantially on only one component. Following the guideline provided by the scholars (Byrne, 2010; Hair *et al.*, 2010, and Kline, 2011) to consider higher factor loading and adequate number of items, the two factors are named internal and external challenges. External challenges refer to the threat that results from other sources apart from the nature and availability of gold, while internal challenges result from gold metal and its availability.

### 4.4 Research Hypotheses

The hypothesised measurement model of challenges facing adoption of gold dinar is explained by two dimensions: external and internal challenges (Figure 1). The following serves as the research hypotheses for the model.

 $H_1$ : External challenges is hypothesis to have negative effect on adoption  $H_2$ : Internal challenges is hypothesis to have negative effect of adoption of gold dinar



Figure 1: Hypothesised Model of challenges to adoption of gold dinar in Kelantan.

#### 4.5 Model specification

The two factors extracted from the results of the PCA were hypothesised as the unobserved variables of challenges. The hypothesised measurement model contains the two latent variables loaded with the 11 indicators as shown in figure 1. The first latent variable is external challenge with internal consistency of .893 and the second factor is internal challenge with internal consistency of .850 based on the data collected from 292 respondents in Kelantan (n = 292).

The relationship among the 11 measurement items of Challenge of Adoption of gold dinar were examined and the indices were found to be statistically significant. Also, the normality of the data was examined, using AMOS (version 18.0), and there was no serious violation of the normality assumption as indicated by the indices of skewness and kurtosis. All the values of skewness were negative and smaller than 0.1. We also examined the presence of outlier in our data by the Mahalanobis distance. There was no outlier in our data which justifies the use of CFA to address our research hypothesis.

#### 4.6 Measurement Model Estimation

A confirmatory factor analysis was conducted on the 292 sampled data collected from gold dinar users in Kelantan through Structural Equation Modelling in AMOS (Version 18), using Maximum Likelihood (ML) estimation (Byrne, 2010). The measurement model of the three latent constructs revealed that the overall data model fit was  $\chi^2(74) = 406.602$ , p = .000 (figure 2). The model is an indication of a misfit between the covariance matrix of the observed data and the implied covariance matrix of the model. Following the recommendation of researchers (Byrne, 2001, 2010; Hair et al., 2006, 2010) that at least one absolute fit index and one incremental fit index should be used in addition to the chi-square and its associated degree of freedom, we chose the Normed chi-square (CMIN/DF), the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA).

All the fit indices, CFI = .855 (below the threshold of 0.9 and above), CMIN/DF = 5.495 (above the recommended  $\leq$  3 cut- off point) and RMSEA = .124 (above the recommended  $\leq$  .08) were found to be inappropriate (Byrne, 2001, 2010; Hair et al, 2006, 2010). However, all the loading values of observed variables of the model are above .50 showing that they are all statistically significant. However, the overall fit of the model shows that the model did not fit the data well.

Figure 2: Measurement Model



Because of the inappropriateness of the data to our hypothesised model, we tried to search for a better model fit for the data by examining the model fit. Examination of all the indicators shows that none of them has a serious flaw. We then turned to the post hoc modification index (MI) to identify a more parsimonious model. Our examination showed that there were correlations between errors (e6 & e7) for indicators D10 and D11, and that of D1 and D2 (e1 & e2) of the variable for external challenges. A plausible explanation of these is that there is a high possibility that respondents might have answered

these questions in a similar manner, hence the correlation of the errors. The model was estimated again after correlating the four inter-correlated errors as suggested by the parameter of Modification Indices.

#### 4.7 The Revised Measurement Model

As shown in Figure 3, the goodness- of-fit indices show that the overall fit of the revised model is consistent with the data. The new chi square was statistically significant,  $\chi^2(72) = 194.338$ , p = .000, meaning that there is no difference in the covariance matrix of the observed data and the implied matrix of the revised model. The change in chi square statistics between hypothesised model and revised model is also significant,  $\chi^2(2) = 212.264$ .

chi-square=194.338 38 D1 e7 df= 72 normed chi-square = 2.699 D2 e6 cfi = 947 32 D3 🗨 57 e5 rmsea= 076 74 D8 <del>4</del>86 External Challenges e4 77 D9 4.88 e3 51 D10 e2 45 D11 67 e1 89 (e11 48 D4 69 e10 42 D5 4.65 -.47 Internal Challenges 68 D6 -82 e9 73 D7 4.86 e8 46 59 01 -77 (e14 .59 02 .77 (e13) Adoption .25 O3 4.50 (e12)

Figure 3: Revised Measurement Model

The fit indices show that the revised model fits the data. The Normed chi square (CMIN/DF) was 2.699, below the recommended cut-off point of 3 for  $\chi^2$ /df to reflect good model fit. Also the Comparative Fit Index (CFI) of .947 and the Root Mean Square Error of Approximation (RMSEA) of .076 indicated that the data fit the revised model well (Byrne, 2010; Hair et. al., 2010). Furthermore, all the parameter estimates are also statistically significant (Figure 3). They all showed logical signs with no offending estimates. The variance explained by the 11 observed indicators as shown by the squared multiple correlations (SMC) provided reasonable values, ranging from .320 (D3) to .773 (D9). The revised model therefore, best suits the data compared with the originally hypothesised model.

#### 4.8 Analysis of the Structural Model

The hypothesised model (Figure 1) was evaluated using AMOS version 18.0 based on the following indexes: the chi-square test, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). In addition, the path coefficients were assessed for statistical significance at p < .05.

As indicated in Figure 4, the chi-square test was significant,  $\chi^2$  (72, N=292) = 194.33, p = 0.000,<sup> $\Box$ </sup> nonetheless, the results yielded acceptably high goodness-of-fit indexes. This indicated that the hypothesised model fits the observed data well. This was established with a Normed chi-square (CMIN) value of 2.699 which is well below the value of 5 often indicated as the benchmark in SEM literature. The CFI also yielded an impressive index of 0.947, also the RMSEA value of 0.076 is below the 0.08 cut-off point. All these show a good fit of the model. The two path coefficients indicated that both are not statistically significant (p < .05) but practically significant (standardised  $\beta > .2$ ) with logical sign (negative), indicating that the two forms of challenges (External and Internal) are inversely related to the adoption of gold dinar in Kelantan (Figure 4).



Figure 4: Structural Model

Table 1 presents the result of the analysis of the structural model. As could be seen from the table, the two path coefficients are more than 0.20 (H1 = -0.29 and H2 = -0.21), showing that they are practically significant with the correct negative signs. However, none of them reached the 5 percent level of statistical significance.

Hypotheses	Causal Path	Estimate	Standard Error	t- Value	Р	Results
H1	Ext Chall $\rightarrow$ Adoption	29	.168	-1.469	1 1 4 7	Not Supported
H2	Int Chall $\rightarrow$ Adoption	21	.145	-1.038	299	Not Supported

Table 1: Results of the structural model

#### 4.9 Discussion

The research question on the indicators of challenges of adoption of gold dinar in Kelantan was addressed based on the measurement model output. All the indicators have factor loadings from 0.5 and higher, the threshold mentioned in most literature. Furthermore, as shown in Table 2, all the indicators have critical ratios more than 1.96, which implies that they are all statistically significant.

Table 2: Regression Weights: (Group number 1 – Default model)

			Estimate	S.E.	C.R.	Р
Adoption	<	Ext. Challenge	247	.168	-1.469	.142
Adoption	<	Int. Challenge	150	.145	-1.038	.299
D7	<	Int. Challenge	1.000			
D6	<	Int. Challenge	.952	.057	16.778	***
D5	<	Int. Challenge	.734	.061	12.006	***
D4	<	Int. Challenge	.773	.059	13.110	***
01	<	Adoption	1.000			
02	<	Adoption	1.010	.113	8.935	***
O3	<	Adoption	.591	.082	7.190	***
D11	<	Ext. Challenge	1.000			
D10	<	Ext. Challenge	1.024	.056	18.267	***
D9	<	Ext. Challenge	1.168	.089	13.065	***
D8	<	Ext. Challenge	1.174	.091	12.858	***
D3	<	Ext. Challenge	.732	.082	8.890	***
D2	<	Ext. Challenge	.893	.088	10.168	***
D1	<	Ext. Challenge	.767	.080	9.632	***

Source: Authors' computation

Looking at the factor loadings of the threat of internal challenges to adoption of gold dinar in Kelantan, fear of people failing to collect their dinar, hoarding dinar and counterfeiting dinar has factor loading from highest to lowest respectively. It should be noted that the highest factor loading is the fear of not getting people to transact in gold dinar. This is very important since the essence of the new currency is for it to be used in the day-to-day transaction and failure to get others to accept this currency will reduce the wealth of the user. This point is also important in the face of threat by the central bank which may make people shy away from accepting the dinar in order not to incur the wrath of the law.

The next important indicator of internal challenges is fear of people hoarding the dinar and thereby taking it out of circulation. This threat is important in the situation whereby gold dinar (good money) is in circulation with paper currency (bad money). Following the Gresham law which states that bad money drives out good money, people prefer to spend bad money and to hoard good money so that they will not lose their wealth in case the fiat money collapses. In other words, people see gold dinar as a good source of investment, thereby holding on to it.

Fear of collecting counterfeit dinar had the third highest factor loading for internal challenges. Counterfeiters fake all forms of currency and gold dinar is not an exception, especially when the currency is still new and few people have access to determine authenticity of the precious metal. However, the concern of collecting fake dinar, though significant, is not as important as the challenges of rejection and hoarding of gold dinar based on the responses received from the users. This may be connected to good technology that makes it difficult to manufacture counterfeit dinar as well as the punishment.

In terms external challenges of gold dinar, confiscation of gold dinar by federal government, concerns of paper money driving out gold dinar in circulation, volatility of dollar price of gold, proscription of gold dinar, fear of using gold dinar and legal tender law were rated in decreasing order of significance. It is not surprising that the item with highest factor loading under external challenges is the fear of confiscation by federal government. As noted earlier, the legal tender law stipulates that Ringgit as the legal tender in Malaysia and only Bank Negara has the right to issue currency notes or coin, and those it delegates the authority to. Bank Negara has the right to confiscate any currency circulating in Malaysia without its authority. Thus, it is understandable why confiscation of gold dinar by federal government is the greatest fear people have towards the dinar; an attempt to safeguard ones wealth should not lead to one completely losing it.

The next concern people have vis-a-vis gold dinar is its usage in a dual currency environment, with ringgit known to be inferior (bad money) to it. As such, it may drive out the good money (gold dinar) because people will tend to hoard it. The volatility of gold price due to excessive depreciation of dollar as a result of the financial crisis which makes people invest more in gold is another threat . The last, though the most important threat, that is the root of all others, is the issue of legal tender. It is the legal tender that enforced the use of fiat money (ringgit). It is also the backbone of the Gresham law. Without legal tender law, good money will drive out bad money from circulation because nobody will collect it. However, the least threat to gold dinar, as rated by people, though significant, is the legal tender law. This could be due to the fact that most people do not understand what legal tender is and thus its threat is not as apparent as those of other challenges mentioned above.

The path coefficients are not statistically significant. The plausible reasons may be that there are factors that affect the use of gold dinar other than those analysed in this study. However, the two paths are practically significant and exhibit logical (negative) signs. This shows that challenges have reduce effects (inverse) on the adoption of gold dinar in Kelantan.

#### 5. Conclusion

The main objective of this study was to assess the challenges of gold dinar as a legal tender in Kelantan. Based on our findings, all the indicators to measure the challenges are statistically significant. For this reason, it may be concluded that external and internal challenges have negative effects on the adoption of gold dinar in Kelantan. However, the three most significant indicators are banning of gold dinar by federal government, people's refusal to accept gold dinar and hoarding of gold dinar. The two path diagrams are also practically significant which explains some of the challenges to adoption of gold dinar in Kelantan. The external challenges account for 29 percent of the threat while internal challenges account for the remaining 21 percent.

A rather unexpected result is the statistically insignificance of the two paths on adoption of gold dinar. As such, it may be concluded that though these threats are present, they do not prevent people from adopting gold dinar in Kelantan. However, these are serious challenges to the eventual adoption and wide acceptance of gold dinar in Kelantan; thus a lasting solution must be sought.

Finally, the findings of this study and the conclusion need to be subjected to further analysis as this is one of the earliest works on gold dinar adoption in Kelantan and the authors may have omitted certain important indicators that are relevant to the study. Also, it is obvious that other factors may be present that pose threats to adoption of gold dinar in Kelantan that our study did not capture. Moreover, it will be interesting to do the invariance analysis to see the effects of demographic and political divides on the challenges facing adoption of gold dinar in Kelantan.

### Notes:

- <sup>1</sup> Corresponding Author.
- <sup>2</sup> The US is on the verge of default.
- <sup>3</sup> French President Nicholas Sarkozy, on 26 September, 2008 has called for a rethink of the financial system from scratch, as done in Breton Wood (George Parker, Tony Barber and Daniel Dombey, October 9, 2008). British Prime Minister Gordon Brown on October 13, 2008 said world leaders need to discuss a new economic system (Agence France-Presse (AFP), October 13, 2008). Russian Prime Minister Vladimir Putin on February 9, 2009 said the present world monetary system has allowed the wealth of the world to concentrate in a country and as such there is a need to study its implications (Democratic Underground.Com. Jun 16, 2009).
- <sup>4</sup> Aceh in Indonesia and the Kelantan state have started minting gold as a means of wealth preservation and possible alternative currency. The state of Utah has passed a bill on gold currency as a backup, while North Carolina is debating the issue.
- <sup>5</sup> The Malaysian Insider: http://www.themalaysianinsider.com/malaysia/ article/kelantan-launches-gold-dinar/
- <sup>6</sup> International Monetary Fund Fact Sheet: http://www.imf.org/external/np/ exr/facts/gold.htm
- <sup>7</sup> Refer to http://www.helium.com/items/1329439-gold-price-volatility
- <sup>8</sup> Refer to http://goldratefortoday.org/risks-benefits-gold/
- 9 Refer to http://www.bankinginfo.com.my/system/media/downloadables/ illegal\_transactions.pdf
- <sup>10</sup> Refer to http://tic.kelantan.gov.my/ and http://en.wikipedia.org/wiki/ Kelantan

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