

# Back to the future: returning to silver-backed money in Sri Lanka

Back to the future

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## Abstract

**Purpose** – The purpose of this paper is to investigate the drivers of the behaviour intention to use the Silver-Backed Mobile Payment System (SBMPS) among the residents of Kattankudy, Sri Lanka.

**Design/methodology/approach** – Based on technology adoption model theory, a conceptual framework was devised, which was later tested via structural equation modelling (SEM) using valid responses from a survey questionnaire.

**Findings** – The results indicated that perceived usefulness and subjective norms have positive relationships and perceived risk a negative relationship with people's behavioural intention to adopt SBMPS. In addition, the respondents were primarily motivated by faith (Islam) and also by economic advantages to adopt SBMPS.

**Research limitations/implications** – Religion, culture, gender, income level, age and educational level could be used as moderating factors for better understanding of people's behaviour intentions. A Multi-cultural demographic may shed further light.

**Social implications** – This paper not only makes awareness of the importance of real (commodity) money but also provides the understanding of people's willingness and the underlying motivations to practically implement the system without threatening the legal tender.

**Originality/value** – Extant research has mainly focused on the validity and the conceptual ideas to return to gold and silver money. This paper has been an extension to practically implement real money without threatening the legal tender by investigating the determinants of people's willingness to return to silver money and understanding their motivations underlying those decisions

**Keywords** Sri Lanka, Islamic finance, Structural equation model, Mobile payment system, Silver money

**Paper type** Research paper

## 1. Introduction

The subprime crisis in 2008 had so strong an impact on the world that the economies of the west are still to regain favourable macroeconomic environments. The unemployment rates in 2012 for France, the UK and the USA were 9.9, 7.9 and 8.1 per cent, respectively. These nations have not managed to register unemployment rates lower than the average between 2001 and 2006 for the past four years. The inflation rates in France and the UK are especially high ([World Development Indicators, 2014](#)). In reaction to this, some countries are moving away from the dollar to a composition of major currencies and gold. According to [International Financial Statistics \(2014\)](#), Europe increased its gold reserves by 59 per cent between 2010 and the end of 2013, while emerging economies increased their gold reserves by 20 per cent over the same period. Furthermore, the fourth conference of the BRICS countries (Brazil, Russia, India, China and South Africa), held on March 29, 2012, led to



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signed agreements that the development banks in the BRICS countries would start offering credit in the borrowing members' local currency. This facility was perceived as a replacement of the dollar as the main unit of trading between the member countries (Reuters, 2012).

As a result, the drumbeats of the "gold bugs" have increased of late. They are proposing a case for the reintroduction of gold and silver, the traditional real money that was in circulation until the collapse of the Bretton Woods convention. Even though these voices have gained momentum, the case for real money at a macro level is still a dangerous proposition as it is a direct threat to the sovereignty of the world currency, that is, the US dollar. However, there are complementary currencies (the Swiss WIR, LETS, Calgary dollars, etc.) around the globe that do not threaten the legal tender and have been somewhat successful in circumventing the inherent problem of fiat money (Stodder, 2009; Williams, 1996). These success stories of complementary currencies revive the possibility of a return to silver money at a micro level.

At the time of the subprime crisis in 2008, the Vatican's official newspaper, Osservatore Romano, praised the ethical principles of Islamic finance, citing their ability to restore the confidence of clients and advising other banks to consider this (Totaro, 2009). This recognition represented a milestone in the development of Islamic banking and finance. It is undeniable that Islamic economics promotes social justice and welfare. Nevertheless, it has two fundamental, in-built problems, in fiat money and fractional reserve banking. Meera and Larbani (2006, 2009) have argued that the artificial creation of money imposes a hidden tax (inflation) on all people, thus destroying the fundamental function of money, which is to store value. People's labour is gradually eroded and transferred to those who create money, which makes it impossible to attain Maqasid al Shari'ah (the objectives of Islamic Law). The only way out of this misery is to go back to the Prophet's (PBUH) Sunnah on money (Hosein, 2011). We do not wish to undermine the work of scholars who have contributed to the development of Islamic finance. Nevertheless, it is undeniable that we should investigate the issue of returning to the gold dinar and silver dirham, something which will contribute to the existing literature on Islamic finance.

Hence, returning to real money at a micro level, specifically silver money, is the topic considered in this study. Hosein (2011) argued that gold is not a choice because of the explicit prohibition of a return to gold money imposed by the member states of the IMF and documented in the IMF articles of agreement, Article IV, Section 2 (b) (IMF, 2011). It should be understood that, for any change to be permanent and successful, it should be willingly accepted by people. It would be very unrealistic to propose rapid change at a macro level, especially without the awareness of people and/or the backing and support of the ruling elite and intelligentsia. Thus, it is important to investigate the behavioural intention of people to return to real (silver) money.

This study does not propose the use of minted silver coins as money but instead a silver-backed mobile payment system that poses no threat to the legal tender. Under this system, it is proposed that members (voluntary participants at a micro level) would deposit an amount of silver and would receive weight-equivalent silver credits in their respective accounts. Members could then buy and sell using this credit through the mobile payment system. The system would calculate the amount of silver that was equivalent to the price of goods. Hence, people would be able to sell their silver by giving credits in return for products they wished to purchase. Also, whenever necessary, they would be able to withdraw their accumulated silver by surrendering the credit in their account. Essentially, silver would become the medium of exchange between voluntary parties. This is similar to any other mobile payment system with the exception that this system would have real silver backing.

The concept has been adopted from an already-implemented e-dinar project ([e-dinar, 2018](#)). The only difference is that while the e-dinar works at a larger scale, mobile payments are compatible mostly with small-value payments ([Mallat, 2007](#)).

However, before we can implement this concept, it is important to check the pulse of the people to determine whether this project would have any chance of working. For this purpose, the technology adoption model (TAM) is used to test the behavioural intentions of the people of Kattankudy, Sri Lanka.

### 1.1 Problem statement

Inflation is an inherent phenomenon in today's financial system. The only way to overcome this problem is to return to either gold or silver money. Only these precious metals have consistently served as a store of value throughout human history. However, returning to these metals at a macro level is a dangerous proposition. Moreover, the use of gold money would encounter opposition from the IMF. Thus, returning to silver at a micro level promises to be the best option. We should also recognise the importance of financial innovation, which at present mainly concerns mobile banking. Taking the above into consideration, a silver-backed mobile payment system would allow the society to participate in exchanges (as mobile phones have penetrated all sections of society), without threatening the legal tender, while successfully circumventing the problem of inflation.

### 1.2 Objectives of the study

This study seeks to achieve the following objectives:

- to investigate the drivers of the behavioural intention to use a silver-backed mobile payment system (SBMPS) in Kattankudy, Sri Lanka;
- to examine the underlying motivation, whether based on religion or economic benefits, behind the behavioural intention to use SBMPS, among the people of Kattankudy; and
- to explore the barriers and limitations to the aforementioned behavioural intention among the people under study.

## 2. Theoretical background

As already discussed, the proponents of gold and silver money have argued for the importance of real money as a means to solve the current global economic crisis. [Meera \(2004, 2009\)](#) has argued that the only way of attaining Maqasid Al-Shari'ah would be to return to real money. Other Islamic scholars, namely [Hosein \(2011\)](#) and [Vadillo \(1996\)](#), have remarked on the status of the gold dinar and silver dirham in Islam and declared the fiat money to be fraudulent. Austrian economists ([Mises, 1953](#); [Rothbard, 1990](#)) have always maintained that economic freedom can only be attained through real money, opining that fiat money is an injustice.

Many cases of hyperinflation have occurred through history and their investigation will further enlighten our understanding of money and inflation. [Capie \(1986\)](#) investigated the circumstances that had led to hyperinflation throughout history. Interestingly, the chronic inflation during the time of the Roman Empire from 100-200 AD was only about 3-4 per cent per annum. The well-known high inflation in Europe in the sixteenth century was only 3 per cent per annum. Only three incidents of hyperinflation have been recorded outside of the 20th century (during the American War of Independence when Continentals were issued,

during the French Revolution when Assignats were issued, and during the Confederacy when paper money was issued in the south of the USA). All were the direct result of issuing paper money. After investigating all these incidents of hyperinflation, Capie concluded that “The fact that paper currency was rare prior to the 20th century undoubtedly explains why very rapid inflation was rare. All historical episodes of very rapid inflation took place when there was unbacked paper currency which was issued at a time of civil disorder. Further, inflation can hardly be regarded as a wrong choice of policy other than the abandonment of backed currency”. Similar conclusions are arrived at by [Hamilton \(1977\)](#) and [Sargent \(1982\)](#).

In discussing the theoretical background of this study, it is important to emphasise the legitimacy of gold and silver as notions of money preferred by Islamic traditions, as substantial theoretical assumptions of this study spring from the supremacy of gold and silver over fiat alternatives, which have fared disastrously in attaining the higher goals of Shari’ah. Notwithstanding the lack of consensus over the nature of Islamic money and conceding pluralistic possibilities of an Islamic currency, we contend that scriptural foundations exist in Islamic legal discourse in formulating what money can be – and more importantly cannot be – and the eligibility of gold and silver as money championed by Sunnah is not untenable like some experts claim. The crux of such discussion harkens back to a seminal narration of Prophet Muhammad, as recorded in Sahih Muslim: “Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates, and salt for salt. Like for like, payment settled on spot basis. Thereafter, if anyone gives more or demands more, he has engaged in riba, the recipient and the giver being equally culpable”. This narration can be argued to cement precious metals and commodities with shelf-life as money. History of Medinan times backs up this line of reasoning, as the shortage of gold and silver coinage led to dates emerging as the choice of money, as they were abundantly available and not perishable for a considerable duration. Furthermore, Allah, being the dispenser of provisions (Al-Razzaq), consigned value to metals like gold and silver, evidenced through many verses in the Qur’an and prophetic narrations. An expository verse in Surah Ale ‘Imran (Chapter 3, Verse 75) explicitly mentions the term dinar in context of safekeeping of treasures in Judaic history. Similarly, the silver coin of dirham is also mentioned in Surah Yusuf (Chapter 12, Verse 20). Even more categorical is the verse: “Fair in the eyes of men is the love of things they covet: Women and sons; Heaped-up hoards of gold and silver; horses branded (for blood and excellence); and (wealth of) cattle and well-tilled land. Such are the possessions of this world’s life; but in nearness to Allah is the best of the goals (To return to).” (Surah Ale ‘Imran; Chapter 3, Verse 14). Other verses with unambiguous buttress of intrinsic monetary attributes of gold and silver include Chapter 3, Verse 91, Chapter 9, Verse 34, Chapter 43, Verses 33 to 35, Chapter 4, Verse 20, Chapter 76, Verse 21, Chapter 43, Verse 53 and 71, Chapter 35, Verse 33, Chapter 22, Verse 23, Chapter 18, Verse 31 and Chapter 17, Verse 93. In the Sunnah, a prophetic narration on the authority of Abu Sa’id Khudri highlights the significance of gold and silver on the day of recompense, whereby people will be said, “Go back and bring out those in whose hearts you find as much as half a dinar of good”. Summatively, the aforesaid verses and ahadeeth corroborate the primacy of gold and silver as the choice-money supported by Qur’an and Sunnah.

The arguments proffered above in support of metallic Islamic money also carries the element of eschewing riba on various levels, seigniorage, rent-seeking, inequality, injustice, coercive allocation of resources, etc. These issues are integral to discussions of Islamic monetary economics, considering that riba is focal case of discordance Islamic economics has with conventional banking and finance. The forbidding of riba in Islamic sources is indisputable. Admitting several philological and exegetic understandings of riba, we

recognise riba to amount to conventional financial interest, usury, askew exchange of values, synthetic generation of purchasing power through legislative decree, etc. Modern Muslim economists argue that riba is the prime offender behind the unrestrained and recurring ebb and flow of growth and contraction of economies. Although such stance is held by a minority within conventional stream of economists, the notion that supply of money impacts economic growth (or shrinkage) is not alien, as Friedman's monetarist school of thought fittingly testifies through the Quantity Theory of Money. Islamic legal scholars and Economists aside, the vitriol towards usury and financial interest has ancient erudite roots. In his *magnum opus* 'The Republic' Plato famously said (Ferrari and Griffith, 2000):

On the other hand, the men of business, stooping as they walk, and pretending not even to see those whom they have already ruined, insert their sting—that is, their money—into someone else who is not on his guard against them, and recover the patent sum many times over multiplied into a family of children: and so they make drone and pauper to abound in the State.

The proscription of riba in Islam is a permanence of the Abrahamic faiths. It appears unambiguously in multiple chapters in the Qur'an – either in forms of multiplicative usury or simply unequal and imbalanced exchanges. Islam considers charging interest an abusive practice, which disrupts the principle of fair and rightful transaction. The last riba-concerning verses revealed in the last stage of the prophet's life were clear in barring riba from all aspects of Islamic life:

Those who consume interest cannot stand [on the Day of Resurrection] except as one stands who is being beaten by Satan into insanity. That is because they say, "Trade is [just] like interest." But Allah has permitted trade and has forbidden interest. So whoever has received an admonition from his Lord and desists may have what is past, and his affair rests with Allah. But whoever returns to [dealing in interest or usury] - those are the companions of the Fire; they will abide eternally therein. (Qur'an:2:275)." Three verses later: "O you who have believed, fear Allah and forgo what remains (due to you) of interest, if you should be believers. (Qur'an:2:278)

As such, Islamic jurists of all slant are unanimous regarding the ban on riba.

A return to real money would pose immense challenges today. People have lost their awareness of the idea, and the common man is unaware of the economics of money. Hence, creating awareness and reaching out to people about this phenomenon is the first step towards the return of real money. It is, thus, important to measure the behavioural intentions of the people. Price (2012) proposed the smooth injection of silver money at a macro level into the present fiat monetary system. The proposal gives step by step guidelines. However, implementing at a macro level seems to be a dangerous proposition. Moreover, the forcible setting of the price of the silver dirham to fiat money by the government would distort the free and fair market. Cabanillas *et al.* (2014) commented that mobile payments were becoming popular among other wireless payment devices. The mobile payment systems of EZ-Cash, EZ-Pay and M-Cash already exist in Sri Lanka. Hence, the SBMPS is chosen here to test behavioural intentions.

Mobile payments refer to paying for goods and services using mobile devices (Chen & Nath, 2008). Schierz *et al.* (2010) described mobile payments as the transfer of monetary value. Thakur and Srivastava (2014) remarked that mobile payment systems are linked to bank accounts or credit card accounts. Hence, this study too defines the SBMPS as a mobile payment system, whereby silver credits are exchanged for goods and services using a mobile phone linked to a silver deposit account. The system is similar to the e-dinar system with the exception that this study proposes the use of mobile phones.

### 3. Hypothesis development and conceptual framework

There are a number of competing theories in technology adoption, including the theory of reasoned action, the theory of planned behaviour, the TAM, the motivational model, social cognitive theory, etc. Venkatesh *et al.* (2003) empirically studied eight of these well-established competing theories, producing a new theory known as the Unified Theory of Acceptance and Use of Technology (UTAUT). This integrated model has been validated empirically and established as superior to competing theories (Park *et al.*, 2007; Venkatesh and Zhang, 2010). However, according to Zmijewska *et al.* (2004), while the UTAUT is the most suitable model of technology acceptance in companies, it is not easily adapted to the testing of mobile payment systems. Mobile payment systems have a broader scope, making the TAM preferable in this study.

The foremost advantage of using the TAM was recognised by Serenko and Bontis (2004), when they confirmed that it could be a basis for building conceptual frameworks in narrow areas. Moreover, it can be extended through the use of specific constructs when measuring new technologies. Thus, the TAM is flexible for new fields of study Zmijewska *et al.* (2004).

In addition, the TAM and extended TAM have been used extensively in the area of mobile payments (Cabanillas *et al.*, 2014; Thakur and Srivastava, 2014; Tobbin, 2011; Kim, Mirusmonov, and Lee, 2010; Schierz *et al.*, 2010; Dahlberg, Mallat, and Oorni, 2003) and in mobile banking (Dasgupta, Paul, and Fuloria, 2011; Koenig-Lewis *et al.*, 2010; Riquelme and Rios, 2010). Hence, the basis of our conceptual framework is the TAM and additional constructs are integrated with the help of previous literature.

The TAM proposes two important determinants of technology acceptance, perceived usefulness and perceived ease of use. According to Davis (1989), perceived usefulness (PU) can be defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” and perceived ease of use (PEOU) as “the degree to which a person believes that using a particular system would be free of physical and mental efforts”. The most important endogenous variable in the model is behavioural intention (BI) defined as a “person’s intention to perform various behaviours” (Fishbein & Ajzen, 1975).

As the SBMPS is a new concept, we cannot test the actual use of the technology itself. However, previous studies have shown that BI will lead to actual behaviour (Venkatesh *et al.*, 2012; Al-Maghrabi and Dennis, 2011). Hence, we can measure BI as a proxy for actual behaviour. In the case of new technology, the constructs of PU and PEOU were proposed for estimating BI in the TAM by Davis (1989). This is rational because any new technology will depend on consumers’ use of it. If the technology is perceived as being useful and easy to use, then it is more likely to actually be used.

Moreover, the UTAUT proposes that social influence or subjective norms (SN) strongly influence the adoption of new technology. It is defined as “the degree to which an individual perceives how important others believe he or she should use the new system” (Venkatesh *et al.*, 2003). There will always be early adopters and late adopters within a community. Thus, the early adopters will have a strong impact on the late adopters. Hence, new behaviours are mostly shaped by the SN. As this study focuses particularly on a mobile payment system, perceived risk (PR) will also be one of the most important determinants of BI. This has been suggested extensively in the previous literature (Huang *et al.*, 2011; Tobbin, 2011; Mallat, 2007; Dahlberg *et al.*, 2003). PR is “a construct that measures beliefs of the uncertainty regarding possible negative consequences” (Thakur and Srivastava, 2014). According to Bobbitt and Dabholkar (2001), PR is higher in mobile than traditional purchasing modes. Thus, SN and PR are included in our proposed model to extend the initial TAM.

The hypotheses for the study are as follows:

- H1.* Perceived usefulness (PU) has a positive impact on behavioural intention (BI).
- H2.* Perceived ease of use (PEOU) has a positive impact on perceived usefulness (PU).
- H3.* Perceived ease of use (PEOU) has a positive impact on behavioural intention (BI).
- H4.* Subjective norms (SN) have a positive impact on behavioural intention (BI).
- H5.* Perceived risk (PR) has a negative impact on behavioural intention (BI).

#### 4. Research methods

This study aims at predicting the determinants that may influence the BI to use the SBMPS in Kattankudy, Sri Lanka. For this purpose, after reviewing the previous studies, the TAM has been extended using two additional latent variables, namely SN and PR. The quantitative analysis is based on a survey questionnaire developed for this study, validated by previous studies. In all, the research model has five factors and each factor is measured with multiple items. The items were translated from English into Tamil and scrutinised by two experts. Based on comments from the experts, some terminologies were then transliterated into Tamil, as they were deemed to be commonly understood and translation would have made things less clear. Each item was measured by a five-point likert scales ranging from strongly disagree to strongly agree. Then, structural equation modelling was employed to analyse the results.

In this study, we attempt to revive the economic practices of the Holy Prophet (PBUH) and thus our aim is to investigate the people's motivation to return to silver (i.e. whether their reasons are economic or Islamic). As a consequence, two further factors were included in the survey instrument, namely, economic motivations and religious motivations.

Descriptive statistics are employed to interpret the results. The comments of the respondents are also analysed to gain a deeper understanding of the issues regarding the proposed system. Thus, while quantitative analysis is the major research method used, qualitative analysis is used to gain deeper understanding, and hence, this research follows a mixed-mode approach.

##### 4.1 Description of the study area

Kattankudy is a town in the eastern province of Sri Lanka, at latitude North 70 401 and longitude East 810 431. The population of the town comprises 13,344 families, with 23,967 males and 24,907 females, all Muslims. The land area of the town is approximately 2.5 km<sup>2</sup>, making the city densely populated. Most of the people are entrepreneurs but the fisheries sector also employs many people ([Kattankudy Divisional Secretariat Report, 2011](#)). Kattankudy was deliberately selected by the researchers, as it has a growing demand for Islamic banking and Shari'ah-compliant products. Inspired by earlier findings of [Ismail and Shah \(2014\)](#), who observed the city's deep connections to a lifestyle rooted in Islamic principles, the researchers took the liberty to carry out a pilot test to gauge prima facie interest of Muslim inhabitants related to the research topic. The results back up the afore-stated claim of interest in Shari'ah-compliant products. Ipso facto, the researchers believe that a return to silver money will be well received by its people.

#### 4.2 Data collection

The data were collected using the aforementioned self-administered questionnaire, with the general public forming the sample. To form the sample size, a deliberately subjective non-probability technique of purposive sampling was adopted. To this effect, of the target population, investigated samples are based on demographic, religious and availability measures. People were recruited to the study at the market, mosques, religious organisations and their homes. As we were studying a new concept of which the general public was not yet aware, a brief introduction was given to them by the researcher. However, this was carefully controlled so that the researchers would not influence the participants. 400 questionnaires were distributed, out of which 302 were returned. Of those, 29 were dropped because of missing data, leaving 273 (68.25 per cent) questionnaires to be used in the empirical analysis. The rationale for choosing 400 questionnaires is in accordance with previous studies, based on suggestions of [MacCallum et al. \(1999\)](#), who advocate >300 to ensure robustness and validity of findings to qualify for factor analysis.

### 5. Results

First, we explain the sample characteristics using descriptive statistics. To analyse the reliability and validity of the survey questionnaire, explanatory factor analysis and confirmatory factor analysis are used. Then, structural equation modelling is used to test our conceptual model and hypotheses.

#### 5.1 Demographic data

The profiles of the respondents to the survey are set out in [Table I](#). To facilitate interpretation, all information is presented in actual figures and percentages. The sample was made up of 40.3 per cent males and 59.7 per cent females. In all, 90.5 per cent of the respondents were below 50 years of age. 66.3 per cent had at the least, completed the certificate level of education. Married respondents (54.6 per cent) made up a slight majority. Students and professionals made up 76.6 per cent of the sample. In all, 100 per cent of the participants followed Islam.

In all, 74 per cent of the respondents used mobile phones. The majority of those that did not, were students and were familiar with the devices. New mobile users (less than 1 year of use) made up only 16.1 per cent. Moreover, 12.1 per cent of the participants had more than 10 years of mobile usage. Smart phones are not yet popular in Kattankudy, with only 8.1 per cent of the sample using them. However, internet phones are gaining popularity, at 24.2 per cent of the sample; the rest used basic mobiles[1]. In all, 41.8 per cent of the participants had heard about mobile payment systems before, but only 15.4 per cent of the total sample had actually used mobile payments.

#### 5.2 Construct reliability and validity analysis

To test the reliability of each multiple-item construct, Cronbach's alpha was used. This measures the internal consistency of constructs. According to [Nunnally \(1978\)](#), a reliability coefficient of 0.70 or higher is acceptable in the field of social sciences. As depicted in [Table II](#), all the constructs met the criteria of the reliability test except for PR, which had a Cronbach's alpha of 0.692. However, as this figure is close to the rule of thumb (0.70), we deemed it acceptable. Hence, all the constructs from the proposed model were considered for further analysis.

The data were subjected to exploratory factor analysis to establish convergent and discriminant validity for the proposed model, using principal component analysis (PCA) as the extraction method and Varimax rotation with Kaiser normalisation as the rotation



Measure	Items	Frequency	(%)
Gender	Male	110	40.3
	Female	163	59.7
Age	<20	107	39.2
	20-30	38	13.9
	31-40	59	21.6
	41-50	43	15.8
	51-60	17	6.2
Level of study	>60	9	3.3
	Certificate	181	66.3
	Diploma	47	17.2
	Bachelor	37	13.6
	Master	6	2.2
	PhD	1	0.4
Marital status	Other	1	0.4
	Single	124	45.4
	Married	149	54.6
Occupation	Student	110	40.3
	Businessman	20	7.3
	Professional	99	36.3
	Clerical/administrative worker	10	3.7
	Other	34	12.5
Religion	Islam	273	100
Mobile	Yes, I have	202	74
	No, I do not have	71	26
Length of usage	Less than 1 year	44	16.1
	1-5 years	62	22.7
	5-10 years	63	23.1
	More than 10 years	33	12.1
Type of mobile	Basic phone	112	41
	Internet phone	66	24.2
	Smart phone	22	8.1
Heard of M-payment	Yes	114	41.8
	No	122	44.7
	Not sure	37	13.6
Used M-payment	Yes	42	15.4
	No	196	71.8
	Not sure	35	12.8

**Table I.**  
Descriptive statistics  
of the sample –  
frequency and  
percentage

**Note:** This table reports general information about the respondents along with their experience of using mobile phones and mobile payments

method. Two rounds of factor analysis were conducted. In the first round, one item of BI had a factor loading of 0.545 and was cross-loaded in another factor with a loading of 0.439. Hence, this item was removed and a second round of factor analysis was conducted. In this round, there were no cross-loadings of more than 0.40 and the minimum factor loading was 0.590. Five factors were extracted from the analysis with Eigenvalues above 1.0. Hence, the reliability test was employed for the BI construct only as one item was dropped from it. The reliability criteria were met and Table II was revised accordingly. Thus, the initially proposed five-factor model was retained. The Kaiser–Meyer–Olkin measure of sampling adequacy was found to be 0.767. Hence, the application of factor analysis was considered appropriate. The five factors explained 64.868 per cent of the variances of the variables. The

commonality ranged from 0.442 to 0.830. Table III presents the validity of the constructs and their respective factor loadings.

5.3 Measurement model and structural model test

For both the measurement model and the structural model, we generated common model-fit indices. Table IV summarises the fit indices with their recommended values and compares the results obtained for the measurement model and the structural model.

The measurement model has better fit indices than the structural model. According to Hooper, Coughlan and Mullen (2008), there is no acceptable ratio for the relative chi-square index. Nevertheless, it is recommended that it should range

Construct	Cronbach's alpha	Mean	SD	No. of Items
PU	0.728	3.5922	0.66709	3
PEOU	0.799	3.3956	0.74247	3
PR	0.692	3.0681	0.66524	5
SN	0.742	3.3687	0.63204	3
BI	0.834*	3.9817	0.83558	2

**Notes:** This table reports the reliability of each construct and their respective descriptive statistics. Multiple items have been used to measure each construct, as reported in the final column. The cut-off point for the reliability coefficient is 0.70 or higher (Nunnally, 1978). PR has been included in the model as it is close to the cut-off point. \*Cronbach's alpha for BI was revised after one item was dropped in an exploratory factor analysis. The Cronbach's alpha for all three items was = 0.824

**Table II.**  
Reliability of model constructs (n = 273)

	Component				
	Perceived risk	Perceived ease of use	Subjective norms	Perceived usefulness	Behaviour intention
PU				0.777	
PU2				0.808	
PU3				0.608	
PEOU1		0.810			
PEOU2		0.782			
PEOU3		0.819			
PR1	0.590				
PR2	0.643				
PR3	0.738				
PR4	0.708				
PR5	0.608				
SN1			0.746		
SN2			0.814		
SN3			0.745		
BI1					0.850
BI2					0.788

**Table III.**  
Exploratory factor analysis – rotated component matrix<sup>a</sup>

**Notes:** This table shows that the items of each factor are loaded in the corresponding factor without any significant cross-loadings with other factors. The extraction method used is principal component analysis and the rotation method is Varimax with Kaiser normalisation. <sup>a</sup>Rotation converged in seven iterations

Fit indices	Recommended values	Measurement model output	Structural model output
Chi-square/degree of freedom	$2 \geq \text{CMINDF} \geq 5$ (Hooper <i>et al.</i> , 2008)	2.159	2.371
Comparative Fit Index	$\text{CFI} \geq 0.95$ (Hooper <i>et al.</i> , 2008)	0.918	0.900
Goodness of Fit Index	$\text{GFI} \geq 0.95$ (Hooper <i>et al.</i> , 2008)	0.919	0.907
Parsimony Goodness of Fit Index	$\text{PGFI} \geq 0.50$ (Huang <i>et al.</i> , 2011)	0.634	0.640
Parsimony Normed Fit Index	$\text{PNFI} \geq 0.50$ (Huang <i>et al.</i> , 2011)	0.673	0.674
Root Mean Square of Approximation	$\text{RMSEA} \leq 0.08$ (Hooper <i>et al.</i> , 2008)	0.065	0.071
Standardised Root Mean Square Residual	$\text{SRMR} \leq 0.08$ (Hu and Bentler, 1999)	0.066	0.077

**Table IV.**  
Fit indices for measurement model and structural model

**Note:** This table depicts the fit indices of both the measurement model and the structural model along with their respective recommended values

between the traditional high value of 5 and the contemporary stringent cut-off value of 2. Both models are within this range and closer to the lower end. Incremental fit indices such as Comparative Fit Index (CFI) and Goodness of Fit Index (GFI) have a traditional cut-off value of 0.90. Some recent studies have recommended one of 0.95 (Hooper *et al.*, 2008), while Mueller and Hancock (2008) maintain that 0.90 suffices. All the fit indices in our model meet the traditional criterion of 0.90 but fail to meet the more stringent approach.

Hooper *et al.* (2008) strongly recommended reporting parsimony indices such as Parsimony Goodness of Fit Index (PGFI) and Parsimony Normed Fit Index (PNFI) as they penalise for the complexity of the model whereas other incremental indices do not. However, they do not suggest recommended values. Huang *et al.* (2011) reported parsimony indices with a cut-off value of 0.50 and we have used the same value to assess our model. Both models have higher values than recommended for both parsimony indices. In the Standard Root Mean Square Residual (SRMSR) index, both our models meet the standards. However, this result is biased because of the high number of parameters and large sample. Finally, Root Mean Square of Approximation (RMSEA) is sensitive to the estimated parameters (Hooper *et al.*, 2008) and is regarded as one of the most informative fit indices (Diamantopoulos and Sigauw, 2000). Both our models meet this criterion as well.

Even though our models do not meet the more recent, stringent cut-off points they do meet the traditional values for incremental indices. However, the thresholds for the parsimony indices and RMSEA, which are superior indices for estimating goodness-of-fit, are all met by our models. Overall, we can conclude that, even though our models do not show a perfect fit, they are still acceptable given the sample size of 273.

#### 5.4 Hypothesis analysis

The correlation matrix is reported in Table V and used to detect multicollinearity. As there was no correlation greater than 0.8 (the highest being just 0.4 between PU and PEOU), the

Factor	PU	PEOU	PR	SN	BI
PU	1				
PEOU	0.400**	1			
PR	-0.009	-0.224**	1		
SN	0.383**	0.350**	-0.145*	1	
BI	0.417**	0.297**	-0.180**	0.385**	1

**Notes:** This table shows the correlation matrix between the factors. \*\* and \* denote significance at the 1 and 5% levels, respectively. None of the absolute values of the correlation coefficients among the exogenous variables exceeds 0.40; thus, there is no problem of multicollinearity, and the signs of the coefficients are as expected

**Table V.**  
Correlation matrix

Causal Path	Hypothesis	Expected Sign	Estimate	P-Values	Assessment of Hypothesis
Perceived Usefulness→ Behaviour Intention	H1	+	0.491	0.00***	Supported
Perceived Ease of Use→ Perceived Usefulness	H2	+	0.545	0.00***	Supported
Perceived Ease of Use→ Behaviour Intention	H3	+	-0.050	0.68	Not Supported
Subjective Norms→ Behaviour Intention	H4	+	0.431	0.00***	Supported
Perceived Risk→ Behaviour Intention	H5	-	-0.370	0.01***	Supported

**Table VI.**  
Results of the proposed model

**Notes:** This table illustrates the causal paths in the structural equation model. \*\*\* denotes that the regression weight is statistically significant at the 1% level. All the hypotheses are supported except for *H3* for which the sign of the regression coefficient is different from what was expected. Nevertheless, it was not statistically significant

problem of multicollinearity was ruled out. As the structural model met the criteria for goodness-of-fit, the estimated path coefficient of the structural model was evaluated to test the hypotheses developed earlier. The estimated path coefficients are reported in [Table VI](#) below.

PU has a positive relationship with BI that is highly statistically significant. Hence, when PU goes up by 1, BI will go up by 0.491. This implies that the higher is the PU, the higher is the probability of adopting the SBMPS. This confirms the original TAM relationship between PU and the intention to adopt new technology. Thus, *H1* is supported in our model. Further, the path coefficient between PEOU and PU is the highest of all at 0.545 and is highly statistically significant. This indicates a strong and positive relationship between the two variables. Thus, *H2* is also supported.

However, the relationship between PEOU and BI is negative in contrast to our expectation. Nevertheless, the path coefficient is small (-0.05) and not statistically significant. Thus, *H3* is not supported. This finding is contrary to the original TAM. Meanwhile, the structural links between SN and BI and PR and BI are statistically significant at 1 per cent with path coefficients of 0.431 and -0.37, respectively. This confirms the theory that SN affects BI positively, and PR affects BI negatively.

As we can see from [Table VII](#), the direct effect of PEOU on BI is negative; the indirect effect was further investigated to determine whether PEOU affects BI through PU. The indirect path coefficient between PEOU and BI is 0.268. Hence, the total effect (both direct and indirect) of PEOU on BI is 0.217. This confirms the theory that PEOU has a positive relationship with BI. Interestingly, the same observation was made in [Huang et al.'s \(2011\)](#) study on electronic bill payment. Hence, this gives scope for further research using the TAM to investigate mobile payment systems.

### 5.5 Religious motivation and economic motivation

The above model is restricted to studying the factors that influence BI but does not reveal whether religious motivation or economic motivation is important. Islamic banking gained prominence as a way to preserve the faith of Muslims, although it also preserves wealth; the two are the pillars of Maqasid Al Shari'ah [Chapra, 2000](#). Further, non-Muslims are also attracted to Islamic finance as its principles promote social justice for all. Hence, conventional practitioners are attracted by economic motivation and Muslims are attracted by both religious and economic motivation. However, the proposed SBMPS also promotes social justice and Islamic teachings. Thus, it is necessary to investigate which motivation has the biggest impact among Muslims. To measure economic and religious motivation, the researchers developed new items that were not based directly on previous studies.

[Tables VIII](#) and [IX](#) show the descriptive statistics of economic as well as religious motivation respectively. Religious motivation has a higher overall mean (4.1) than

Construct	Direct effects	Indirect effects	Total effects
PU	0.491	–	0.491
PEOU	–0.050	0.268	0.217
SN	0.431	–	0.431
PR	–0.370	–	–0.370

**Notes:** This table illustrates the direct and indirect effects of each construct on behavioural intention (BI). Only PEOU has an indirect effect as PU is the mediating variable. The total effects of all constructs are as expected in the conceptual framework. PU, PEOU and SN have positive effects while PR has a negative effect on BI

**Table VII.**  
The impact of the constructs on behavioural intention

Item	Mean	SD
This system will provide a means of accessing funds from anywhere	3.61	0.89
Using this system will provide a successful way to avoid inflation	3.50	0.95
Using this system would enable me to set small coins aside	3.73	1.01
This system will allow me to keep record of my transactions	3.75	0.86
This system is a possible and practical alternative for the existing paper currency system	3.75	0.93
Overall	3.67	0.59

**Notes:** This table depicts the descriptive statistics of the items attempting to explain the economic motivation for using the SBMPS. The overall mean of 3.67 is taken to be the overall score for economic motivation across the respondents

**Table VIII.**  
Descriptive statistics of economic motivation

economic motivation (3.67). However, both fall into the range for “agree” (3.5-4.5). The items of economic motivation with the highest scores are “This system will allow me to keep a record of my transactions” and “This system is a possible and practical alternative to the existing paper currency system”, with mean values of 3.75. Nevertheless, the former has a lower standard deviation which implies that it is more popular among the respondents. The lowest mean value is obtained for “Using this system will provide a successful way to avoid inflation”, at 3.5, the lower limit of the “agree” scale. This implies that people may be unsure about the monetary system or already aware of today’s monetary phenomenon. This finding is dealt with more deeply in the findings and discussion section.

Interestingly, the highest mean (4.45) with the lowest standard deviation (0.79) is “This system allows me to practise the Prophetic Sunnah of using silver money”, which shows that the respondents lie just between agreement and strong agreement (4.5-5.0) with that statement. However, the participants differed regarding whether or not this system would represent an act of worship. Nevertheless, people agreed that religion would motivate them to use the SBMPS. In conclusion, the participants recognised that the SBMPS would be beneficial both economically and religiously. However, their religious motivation for using the system would be higher than their economic motivation.

#### 5.6 Qualitative analysis

The respondents were enthusiastic in filling out the questionnaire; 57 per cent (155 of 273) of them made comments and suggestions. The researchers found that some of these gave the research depth and, thus, included them to improve the study. The qualitative analysis presented here sheds more light on the topic and adds value to the quantitative analysis.

About the proposed system, 91 respondents were positive, which constituted 58.71 per cent of those who commented. We can safely conclude that the majority of the respondents were strongly positive about the concept. Positive comments were recorded if the respondents used explicit words to express their positivity. Where there was a conditioned response, even if the system was acknowledged to be positive, this was still recorded as the participant having mixed feelings towards the system. Negative comments were recorded when respondents showed strong negative feelings towards the implementation of such a system.

First, we analyse the positive comments. The respondents cited different reasons for their positivity, requiring further analysis. In total, 41 respondents (45.05 per cent of those who commented positively) appreciated the ideas behind the research and wished the researchers well in general. They did not give a specific reason for their positivity;

Item	Mean	SD
This system allows me to practice the Prophetic Sunnah of using silver money	4.45	0.79
Using this system is an act of worship	3.88	1.01
Overall, my religion motivates me to use this system	3.97	0.96
Overall	4.10	0.80

**Table IX.**  
Descriptive statistics  
of religious  
motivation

**Notes:** This table shows the descriptive statistics of the items attempting to explain the religious (Islamic) motivation for using the SBMPS. The overall mean of 4.10 is taken to be the overall score for religious motivation across the respondents

nevertheless, they perceived the system to be practicable and felt it would be implemented in the future. Some of the general comments were similar to the following: “Good project and it is beneficial”; “I will contribute to this system”; “Good solution”; “I accept; “I appreciate it”; “It is very useful to all”; “I will use if implemented”; “We pray”; and “I want to use this system”. Furthermore, comments concerning the system’s practicality and applicability resembled the following: “This system can be implemented in the future”; “This will be beneficial in the future”; “We are expecting silver backed mobile money”; “People will welcome this project”; and “It will be beneficial for the coming generations if implemented”, all of which showed that the people welcomed the concept in general and, most importantly, perceived it to be practical.

Islam was the driving force for 29 of the respondents who commented positively. This constituted 18.71 per cent of those who commented and 31.87 per cent of those who commented positively. Some respondents felt that this system would eliminate Riba: “This system aims to be in line with Islam and abolishes the interest based regime” and “if this is implemented correctly, we can avoid Riba and will be able to follow the Sunnah”.

However, most of these comments driven by Islamic sentiments expressed a willingness to revive the economic tradition of the Prophet (PBUH). They said, “The Prophet (PBUH) has advocated the dinar and dirham on many occasions”; “using this system would be similar to following the Prophet (PBUH) himself”; “I would accept this system as this is the way of the Prophet (PBUH)”; “It should be appreciated as it is based on Islam. This would be beneficial”; “This will be an opportunity to revive the Sunnah of the Prophet (PBUH)”; and “It is important to follow the Sunnah of the Prophet (PBUH)”. All of the above comments simply show how influential Islam is in Kattankudy, and the love of the Prophet (PBUH) is conspicuously evident.

The rest (21 respondents, 23.08 per cent of those who commented positively) had other reasons for their positivity. They mentioned that the system would fight inflation. For example, “this could reduce inflation”; and “this should be implemented; it would solve the inflation problem and would be beneficial”. Further, some expressed a preference for the SBMPS over the existing fiat monetary system, commenting as follows: “Good effort. Better than the existing system”; and “I would prefer this system over paper money”. This shows that they recognise the relative advantages of the SBMPS over the existing system.

Of the respondents, 28 explicitly stated that the SBMPS was not a good idea, which constituted 18.06 per cent of those who commented. As with the positivity, the negativity involved various viewpoints; however, there was no particular opinion which stood out on its own. All of the reasons were distributed evenly among the sample. Some assumed that the SBMPS would be expensive and would have a high risk factor, commenting as follows: “It is expensive and risky”; “The system is fragile to hacking as it is an electronic system”; and “There is a high risk factor in this system”. They felt that knowledge would be a barrier, that only the technology savvy would be able to use the system and not the common man (especially those in Kattankudy as opposed to those in metropolitan cities). They said things like, “What happens when someone does not know how to use this technology?”, “This is not applicable as it will be used by the educated only.”, “It will be understood only by the educated and will not be grasped by others.” and “It will be difficult to implement in towns where the education level is low”.

Some had clearly not understood the concept, and this was obviously the reason for their negativity. This shows that the SBMPS may be somewhat complicated. A minority stated that implementing this system where Muslims were in the minority would not be possible, hence

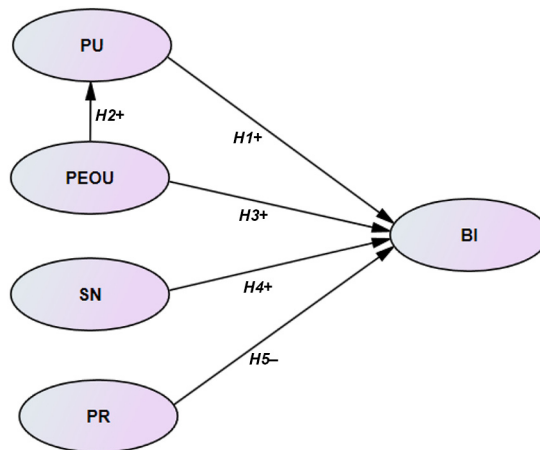
ruling out Sri Lanka. Other comments included, “There will be a problem when the demand for silver diminishes. And this will be used inside Kattankudy only”; and “This is not possible for Kattankudy. People value gold more than silver and usury can happen in this system too”. Three important issues are raised by the above comments: gold is identified as being worth more than silver; it was felt that the circulation of silver credits would only happen within the community; it was believed that Riba could happen in this system. These are interesting points that we discuss under the findings and discussion section.

We further investigated the mixed responses. Of all the respondents, 36 (23.23 per cent of those who commented) were skeptical about the SBMPS while identifying it to be beneficial. The reasons for their doubt included the government’s support and approval for the system, the need for cooperation among people, practical issues and, finally, the risk factor. The first two reasons predominated. These comments suggest that the willingness of these participants to use such a system would not be unconditional.

## 6. Findings and discussion

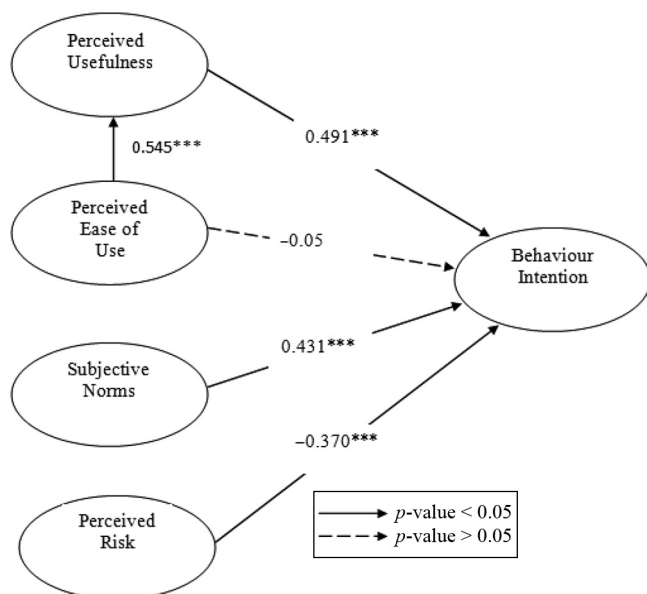
The objective of this study was to investigate the determinants of the BI to use the SBMPS, based on an extended TAM. This study does not only focus on the use of technology in mobile payments but actually proposes the implementation of silver money, which could eliminate the economic deficiencies caused by the existing fiat monetary system. Hence, the BI measured by the extended TAM does not justify the reasons and rationales for consumer adoption. Thus, descriptive statistics on additional factors such as economic motivation and religious motivation were analysed. Also, the comments and suggestions of the survey participants were investigated to add value to the study. The model proposed in this study explained 65 per cent of the variance in the BI to adopt the SBMPS, which is much higher than the 40 per cent usually found in TAM studies (Venkatesh and Davis, 2000). Figure 1 shows the conceptual framework and the expected signs associated with the hypotheses developed in this study.

BI had a mean value close to 4, which descriptively shows that the people had the intention to adopt the system. Nevertheless, other statistical techniques were also used to test the hypotheses. All the hypotheses were supported with the exception of the third



**Figure 1.**  
This figure presents the conceptual framework and the expected signs associated with the hypotheses





**Notes :**  $\chi^2/df = 2.371$ ;  $GFI = 0.907$ ;  $PNFI = 0.674$ ;  $RMSEA = 0.071$ ; \*\*\*denotes statistical significance at 1%

**Figure 2.** This figure presents the results of the research model

(PEOU has a positive impact on BI) which was supported only partially, a similar result to the findings of Huang *et al.* (2011) and Koenig-Lewis *et al.* (2010). Therefore, PEOU had only an indirect effect ( $\beta = 0.217$ ) on BI, mediated through PU. Further, the variable with the highest influence on BI was PU ( $\beta = 0.491$ ), followed by SN ( $\beta = 0.431$ ) and PR ( $\beta = -0.370$ ). PR and SN, which were added to the typical TAM model, were found to have a significant influence on BI. This confirms that the technology used in payment systems and online banking has a perceived high level of risk. Further, the behaviour of important and influential people in the society will encourage more people to adopt the SBMPS. Figure 2 shows the results of the research model.

Hence, this study recommends that the SBMPS should be made easy to use and that people will need to relate to the technology in their day-to-day lives so that its usefulness will encourage more people to use it. Marketing this concept to important and influential people will propagate “word of mouth”, which will be a strong driver of BI. However, risk should be given the highest priority; the transactions will need to be very secure. As this system is dealing with money, the most secure platforms available will need to be used, which will increase the transaction cost. Even though there are practical problems in implementing a system such as the SBMPS, this research represents a stepping stone and gives some direction as to how real money can be implemented without threatening the legal system.

This study stands on its own as it additionally investigates the underlying motivation of the respondents through descriptive statistics on two factors: economic motivation and religious motivation. It is evident from the means that the religious motivation (4.10) is

stronger than the economic (3.67). While economic motivation has five items compared to religious motivation's three, which could have contributed to the lower overall mean, the lowest item mean for religious motivation was higher than the highest item mean for economic motivation. Hence, we can confidently conclude that religious motivation is stronger than economic in the case study area.

"This system will allow me to practise the Prophetic Sunnah of using silver money" scored highest with a mean value of 4.45 and the lowest standard deviation of 0.79 out of all items. Hence, the respondents strongly believe that the SBMPS would give them the opportunity to revive the economic/monetary tradition of the Prophet (PBUH). However, perceiving this system as an act of worship had the lowest mean (3.88) among the items for religious motivation and the highest standard deviation among them. Hence, people differed in their opinions of whether this system would be an act of worship even though it was strongly felt that it could revive the lost Sunnah of the Prophet (PBUH). This result is rather baffling to the researchers as the two items are highly connected to each other. The reason may be that the SBMPS will give people an opportunity to revive the Sunnah but not in the true form in which the Prophet (PBUH) used it. Embezzlement could occur if the trustees were to create more silver credits than had really been deposited. This happened in the past when gold-backed currencies were issued and led to the eventual collapse of Bretton Woods. However, it should also be understood that gradualism is promoted in Islam because radicalism may bring more harm than good, with the whole idea of returning to a fully-fledged dinar and dirham system ultimately being lost.

The other interesting observation is that the participants rated all of the economic motivation items similarly, with the exception of "using this system will provide a successful way to avoid inflation", which had the lowest mean of 3.5. This result could either reflect that people do not understand the mechanism or that they understand it very well. As we mentioned above, there is a possibility of fractional reserve in this system too, which could prevent it from circumventing inflation. Therefore, people may understand this, or alternatively they may not understand how inflation occurs, believing it to be a natural phenomenon. For that reason, we recommend future research should include items testing the knowledge of the respondents regarding inflation and fiat money, such as "I believe that the Central Bank prints money according to its gold reserve" or "I believe that I can redeem gold for paper money in the Central Bank", etc. On a related note, in a seminal modern contribution to the theory of money creation, [Werner \(2014\)](#) (continuity from previous work by [Turner \(2012\)](#)) dispels several misconceptions of monetary economics by highlighting the insidious function of circulatory bank-credit which performs as *de facto* money. Various studies have linked this bank money with misappropriated investments and speculative bubble cycles, in addition to corrosion of purchasing power and coercive redistribution of income. Despite such documented effects of fiat bank money, deflationary pressures have arisen in recent times in several advanced economies like Japan and some western states. This phenomenon is neither aberrant nor does it undermine the role of fiat money in propagating inflation. It is merely a transitory state where original influx of fiat money leaks through the economic system and exerts deflationary pressure. This state of affair is different than that of a gold/silver-backed monetary system. In a metallic system, money supply can diminish if economic agents shuffle metals away from monetary to non-monetary (or non-productive) avenues – arguably in conjunction with fraudulent financial practices. This deflation too should cease under a gold/silver regime when arrear claims on money are realigned with money supply linked to consumer deposits in the banking

system. In a nutshell, deflation recalibrates an inflated monetary supply to optimum levels. This self-disciplinary aspect is absent from fiat-regime, which partially explains why little attention is paid to rightful level of money supply and near-ubiquitous fear of central bankers of slightest hints of deflation.

The qualitative analysis of the comments and suggestions confirms the findings of the quantitative analysis. The majority of the respondents were positive and indicated that Islam was their major motivation, supported by economic motivation. However, there were some negative views expressed too. Two main reasons for the negativity were the belief that people did not have the competency to use the technology and the perception of the high risk involved in mobile transactions. A minority emphasised three other issues: that gold is more valuable than silver, that the circulation of silver credits would only work within the community and that Riba could happen with this system. All of the negative comments can be cited as deficiencies of this system. It is undeniable that mobile payments are not popular among the masses that live outside of cities. The reasons are a lack of knowledge, a lack of partners for mobile payments in locations where not many outlets offer such transactions (outside of cities) and the risk involved in such transactions.

Hence, the majority recognised issues common to all mobile payment systems, while a minority dealt with the SBMPS particularly. It is true that gold is more valuable than silver. However, the use of silver is more likely to encourage people to participate in the system, as it is more affordable. Other reasons for using it were cited earlier in this paper. It is also true that, initially, silver credits will be circulated within the community. However, it is hoped that the success of the system will attract others to participate. The system will become more and more appealing as the number of participants increases. Finally, direct Riba can exist in the system. Nevertheless, it would be recognizable and is avoidable, whereas the injustice caused by fiat money is unrecognizable and unavoidable. Nevertheless, protecting the system from fractional reserve is very important as it is a form of embezzlement that would cause inflation at a higher rate than the printing of money. Hence, the accountability of the trustees and the management of the system are very important issues. There should always be excess silver in the vault compared to the silver credits circulating in the system. In addition, we propose that when we implement this system initially, a few (may be 50) entrepreneurs could trial it. Their experiences could be studied and the smooth running of the system could be ensured before it is introduced to the common man in the community. This would further encourage people to adopt the system as the entrepreneurs would serve as early adopters, influencing the late adopters through SN.

In their study of mobile services in India, [Thakur and Srivastava \(2014\)](#) suggested that, to generalise the results of their sample to the population, surveys should be conducted based on people's perceptions rather than their actual behaviour. Hence, they said, future research should involve various groups, including inexperienced users and rural consumers with very limited experience of using formal financial services. This study serves as such an extension as our survey participants had very little experience of using mobile payment systems: only 15.4 per cent had used them and only 42 per cent had even heard of them. Furthermore, we measure their perceptions and not their actual behaviour.

## 7. Contributions of the study and future research

Mobile payment systems making use of wireless devices have gained importance recently ([Cabanillas et al., 2014](#)). Hence, this study is a timely one, coupling the concept of silver backing with such a system, to create a completely new concept. Therefore, the contributions and implications of this study are manifold.

### *7.1 Significance to Islamic finance*

Islamic finance has been creating products that can be argued to be either creative innovation or blind imitation. Nevertheless, this research takes a modern perspective on this context and also provides a solution to revive the monetary Sunnah of the Prophet (PBUH). This study proposes a practical solution which was accepted by the people of Kattankudy in our survey. What was encouraging was that the concept of the SBMPS was well received by the respondents primarily for religious reasons. Hence, this study is a stepping stone in the direction of returning to real money. Moreover, all forms of direct and indirect Riba can be avoided if our proposed system is implemented properly.

### *7.2 Significance to the government*

Some of our respondents felt that this system could not be implemented in Sri Lanka, as it would require strong backing from the government. However, the proposed SBMPS would not threaten the legal tender. It is a system that could co-exist with legal tender. It can be participated in only by those who wish to do so. Hence, outside of this circle, the participants will continue to use fiat money. Hence, there is no issue that might cause the government to prohibiting this system. Moreover, complementary currencies are circulating in many societies around the world, as discussed earlier. In addition, the SBMPS would help the government to collect more taxes. As all transactions would be recorded in the system, tax evasion could be minimised and taxes collected for a much lower cost. This would certainly increase the revenues of the government and gives an incentive for governments to implement the system, especially in developing countries.

### *7.3 Significance to the society*

People are financially excluded in rural areas. Exchanges promote human activity and have always been the basis for human specialisation and development (Rothbard, 1990). People in rural areas deposit their savings in the cities and there is unbalanced growth between cities and villages as the money circulates mainly in the cities. This has made more people migrate from the villages to the cities. According to Mas and Radcliffe (2010), the poor are trapped in poverty in countries such as Kenya, especially in rural areas, because of inadequate and inaccessible financial services. However, this system would enable people to circulate their money among themselves, which would promote transactions among them. The more people exchange, the greater is the possibility of developing the rural areas. Hence, people would be able to take advantage of this system and it would promote more equitable growth.

People would also be able to save and increase their wealth using this system. This would create a new avenue for savings apart from the traditional bank deposits. Even though there would be no interest or returns on these savings, the value of people's money would not be eroded with time as it would be real silver that was being deposited. The sweat and labour of the people would be protected from the hidden tax of inflation if the system was properly implemented. Even during trying times, people using the SBMPS would have an added advantage over those using only fiat money. We have experienced many currency crashes, and gold and silver have time and again proved to be the safest investments.

### *7.4 Significance to the mobile service provider*

The success story of M-Pesa offers a great incentive to other mobile service providers. In 2010, there were 9 million registered users for M-Pesa and on average \$320mn were transferred per month (Mas and Radcliffe, 2010). Hence, our findings should also encourage

service providers to invest in the development of such a system to take advantage of this new market. This system will surely appeal to many consumers as it is advantageous to them. Even a small transaction fee would produce large profits considering the number of transactions that would eventually take place.

### 7.5 Significance to the existing literature

From an academic perspective, this study has enriched the existing discussion of a return to real money, while providing practical solutions that can be implemented at a micro level without threatening the legal tender and demonstrating people's willingness to return to silver money. Unless people welcome an idea, it will stay as an idea. This study has taken one step further by not only investigating the determinants of people's willingness to return to silver money but also the motivation behind them. This study has taken the academic discussion to the next level, from conceptualising real money towards its implementation. Hence, this study is a stepping stone towards implementing real money again in the society.

### 7.6 Limitations of the study

Although there are many implications to be drawn from this study, there are also limitations. This research is religiously biased as it takes only Muslims into account. We have not inquired into the willingness of people from different groups to accept this system. This study was conducted within a Muslim community as we felt that Islam as a religion encourages people to return to real money. Nevertheless, future studies could be conducted including moderating factors such as religion, culture, gender, income level, age and educational level. Cross-boundary research would help us to understand people's willingness to return to silver money, and a theory could be generalised. It is important to consider different groups to determine whether there are significant differences between them.

Second, we did not measure the actual behaviour but the intention, although there is substantial evidence regarding the causal link between intention and usage (Venkatesh and Davis, 2000). However, people's behaviour could change over time and, when implemented, this system may not yield the results implied by our findings. Third, other variables may exist that could affect the BI to use this system. In future studies, variables such as compatibility, complexity and convenience could be included in the research model. Despite these limitations, the findings of this study further our understanding of people's BI to return to silver money and provide useful guidelines for the revival of the monetary Sunnah of the Prophet (PBUH).

## 8. Conclusion

This study has been conducted primarily in order to investigate the drivers of the BI to use the SBMPS among the residents of Kattankudy, Sri Lanka. For this purpose, a conceptual model was developed by extending the TAM with the constructs of PR and SN. Everything told, the model has five constructs with multiple items developed from prior literature. Questionnaires were self-administered and distributed among the people of Kattankudy. In all, 273 usable questionnaires were collected and were subjected to further analysis. After establishing the validity of the constructs, it was found that PR, PU, PEOU and SN were all useful factors, PEOU having indirect effects on BI and all the other constructs having significant direct effects. PR was the only factor to exhibit a negative relationship with BI, which supports the traditional view that risk affects the usage of financial services (Tobbin, 2011).

This research is considerably different from the existing studies on mobile payments because of its examination of whether the underlying motivation to return to silver money is economic or Islam-based. This objective was achieved through the development of multiple items to measure economic and religious motivation. The minimum score for the items on religious motivation was higher than the maximum for economic motivation. Hence, the respondents were deemed to be motivated primarily by Islam, but also by economic advantages, and agreed with the adoption of the SBMPS.

Moreover, to explore the topic further, the comments of the respondents were analysed. It was found that the majority of those who commented were positive about the concept, primarily because of its links to Islam. However, those who commented negatively cited that the risk factor should be minimised, as it was a mobile payment system and that prior knowledge about the system would be important. Hence, implementation in rural areas may be a farfetched ambition. Nevertheless, this study has been a stepping stone towards providing a practical way of implementing silver money without threatening the legal tender.

Future research may be undertaken to include variables such as compatibility, complexity and convenience in the research model. Further, competing theories for technology adoption should be explored and conceptual models could be developed in the area of mobile payment systems, as the nature of this particular technology is significantly different from other technologies.

#### Note

1. Here, basic mobiles are classed as those phones that are neither smart phones nor internet phones.

#### References

- Al-Maghrabi, T. and Dennis, C. (2011), "What drives consumers' continuance intention to e-shopping?: Conceptual framework and managerial implications in the case of Saudi Arabia", *International Journal of Retail & Distribution Management*, Vol. 39 No. 12, pp. 899-926.
- Bobbitt, L. and Dabholkar, P. (2001), "Integrating attitudinal theories to understand and predict use of technology-based self-service: the internet as an illustration", *International Journal of Service Industry Management*, Vol. 12 No. 5, pp. 423-450.
- Cabanillas, F.J., Fernandez, J.S. and Leiva, F.M. (2014), "Role of gender on acceptance of mobile payment", *Industrial Management and Data Systems*, Vol. 114 No. 2, pp. 220-240.
- Capie, F. (1986), "Conditions in which very rapid inflation has appeared", *Canegie-Rochester Conference Series on Public Policy*, Vol. 24, pp. 115-168.
- Chapra, M.U. (2000), *The Future of Economics: An Islamic Perspective*, The Islamic Foundation, Leicester.
- Chen, L. and Nath, R. (2008), "Determinants of mobile payments: an empirical analysis", *Journal of International Technology and Information Management*, Vol. 17 No. 1.
- Dahlberg, T., Mallat, N. and Oorni, A. (2003), "Consumer acceptance of mobile payment solutions – ease of use, usefulness and trust", *The Second International Conference on Mobile Business, Vienna, Austria*.
- Dasgupta, S., Paul, R. and Fuloria, S. (2011), "Factors affecting behavioural intentions towards mobile banking usage: empirical evidence from India", *Romanian Journal of Marketing*, Vol. 3 No. 1, pp. 6-28.

- Davis, F. (1989), "Perceived usefulness, perceived ease of use and user acceptance of information technology", *MIS Quarterly*, Vol. 13 No. 3, pp. 319-340.
- Diamantopoulos, A. and Siguaw, J. (2000), *Introducing LISREL*, Sage Publications, London.
- e-dinar, (2018), "E-Dinar", available at: [https://www.e-dinar.com/cgi/?page=edinaranda=\\_1](https://www.e-dinar.com/cgi/?page=edinaranda=_1) (accessed 28 March 2014).
- Ferrari, G.R. and Griffith, T. (2000), *Plato: 'The Republic'*, Cambridge University Press.
- Fishbein, M. and Ajzen, I. (1975), "Belief, Attitude, Intention, and behavior: an introduction to theory and research", in Reading, M.A.-W., (Ed.), *Philosophy Rhetoric*, Addison-Wesley, Vol. 10, p. 578.
- Hamilton, E.J. (1977), "The role of war in modern inflation", *The Journal of Economic History*, Vol. 37 No. 1, pp. 13-19.
- Hooper, D., Coughlan, J. and Mullen, M. (2008), "Structural equation modelling: guidelines for determining model fit", *Electronic Journal of Business Research Methods*, Vol. 6 No. 1, pp. 53-60.
- Hosein, I.N. (2011), *The Gold Dinar and Silver Dirham: Islam and the Future of Money*, Masjid Jamiah, San Fernando, Trinidad and Tobago.
- Hu, L. and Bentler, P. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling*, Vol. 6 No. 1, pp. 1-55.
- Huang, Y.-C., Tsay, W.-D., Huang, C.-H., Lin, Y.-H. and Lai, M.-C. (2011), "The influence factors of electronic bill presentment and Payment – a case study of mobile phone bill", *2nd International Conference on Artificial Intelligence, Management Science and Electronic Commerce (AIMSEC)*, IEEE Computer Society, Zhengzhou, China, pp. 844-847.
- IFS (2014), "International financial statistics public data", (accessed 25, March 2014), available at: International Monetary Fund: <http://elibrary-data.imf.org/DataReport.aspx?c=1449325&dd=33061&de=169393>
- IMF (2011), "Articles of agreement", available at: [www.imf.org/external/pubs/ft/aa/pdf/aa.pdf](http://www.imf.org/external/pubs/ft/aa/pdf/aa.pdf) (accessed 6 April 2014).
- Ismail, S. and Shah, M.I.A. (2014), "A genre analysis of abstracts in islamic journals", *Middle-East Journal of Scientific Research*, Vol. 20, pp. 75-82.
- Kattankudy Divisional Secretariat Report (2011), available at: [www.kattankudy.ds.gov.lk/index.php?option=com\\_content&view=article&id=4&Itemid=63&lang=en](http://www.kattankudy.ds.gov.lk/index.php?option=com_content&view=article&id=4&Itemid=63&lang=en)
- Kim, C., Mirusmonov, M. and Lee, I. (2010), "An empirical examination of factors influencing the intention to use mobile payment", *Computers in Human Behavior*, Vol. 26 No. 3, pp. 310-322.
- Koenig-Lewis, N., Palmer, A. and Moll, A. (2010), "Predicting young consumers' take up of mobile banking services", *International Journal of Bank Marketing*, Vol. 28 No. 5, pp. 410-432.
- MacCallum, R.C., Widaman, K.F., Zhang, S. and Hong, S. (1999), "Sample size in factor analysis", *Psychological Methods*, Vol. 4 No. 1, pp. 84.
- Mallat, N. (2007), "Exploring consumer adoption of mobile payments – a qualitative study", *Journal of Strategic Information Systems*, Vol. 16 No. 4, pp. 413-432.
- Mas, I. and Radcliffe, D. (2010), March. "Mobile payments go viral: M-PESA in Kenya", The World Bank Group, available at: [http://siteresources.worldbank.org/AFRICAEXT/Resources/258643-1271798012256/MPESA\\_Kenya.pdf](http://siteresources.worldbank.org/AFRICAEXT/Resources/258643-1271798012256/MPESA_Kenya.pdf) (accessed 25 April 2014).
- Meera, A.K. (2004), *The Theft of Nations: Returning to Gold*, Pelanduk Publications, Kuala Lumpur.
- Meera, A.K. (2009), *Real Money: Money and Payment Systems from an Islamic Perspective*, IIUM Press, Kuala Lumpur.
- Meera, A.K. and Larbani, M. (2006), "Part I: Seigniorage of fiat money and the maqasid al-Shari'ah: the unattainableness of the maqasid", *Humanomics*, Vol. 22 No. 1, pp. 17-33.

- Meera, A.K. and Larbani, M. (2009), "Ownership effects of fractional reserve banking: an islamic perspective", *Humanomics*, Vol. 25 No. 2, pp. 101-116.
- Mises, L.V. (1953), *In the Theory of Money and Credit*, Yale University Press, New Haven.
- Mueller, R. and Hancock, G. (2008), "Best practices in structural equation modeling", in Osborne, J. *Best Practices in Quantitative Methods*, Sage Publications, London.
- Nunnally, J.C. (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Park, J., Yang, S.J. and Lehto, X. (2007), "Adoption for mobile technologies for chinese consumers", *Journal of Electronic Commerce Research*, Vol. 8 No. 3, pp. 196-206.
- Price, H.S. (2012), "The silver dirham for Malaysia", *3rd World Riba Conference, Kuala Lumpur*.
- Reuters (2012), (March 29). "BRICS nations sign pacts to promote trade in local currency", available at: [www.indianexpress.com/news/brics-nations-sign-pacts-to-promote-trade-in-local-currency/929984/](http://www.indianexpress.com/news/brics-nations-sign-pacts-to-promote-trade-in-local-currency/929984/) (accessed 15 November 2013).
- Riquelme, H.E. and Rios, R.E. (2010), "The moderating effect of gender in the adoption of mobile banking", *International Journal of Bank Marketing*, Vol. 28 No. 5, pp. 328-341.
- Rothbard, M.N. (1990), *What Has Government Done to Our Money?*, Ludwig von Mises Institute, Auburn AL.
- Sargent, T.J. (1982), "The ends of four bif inflations", In Hall, R.H. *Inflation Causes and Effects*, Chicago University Press, Chicago, pp. 41-97.
- Schierz, P.G., Schilke, O. and Wirtz, B.W. (2010), "Understanding consumer acceptance of mobile payment services: an empirical analysis", *Electronic Commerce Research and Applications*, Vol. 9 No. 3, pp. 209-216.
- Serenko, A. and Bontis, N. (2004), "A model of user adoption of mobile portals", *Quarterly Journal of Electronic Commerce*, pp. 69-98.
- Stodder, J. (2009), "Complementary credit networks and macroeconomic stability: Switzerland's wirtschaftsring", *Journal of Economic Behavioural and Organization*, Vol. 72 No. 1, pp. 79-95.
- Thakur, R. and Srivastava, M. (2014), "Adoption Readiness, Personal Innovativeness, Perceived Risk and Usage Intention Across Customer Groups for Mobile Payment Services in India". *Internet Research*, Vol. 24 No. 3.
- Tobbin, P. (2011), "Adoption of mobile money transfer technology: structural equation modeling approach", *European Journal of Business and Management*, Vol. 3 No. 7, pp. 59-77.
- Totaro, L. (2009), March 4). "Vatican says islamic finance may help Western banks in crisis", BLOOMBERG L.P., available at: [www.bloomberg.com/apps/news?pid=newsarchive&sid=aOsOLE8uiNO&refer=italy](http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aOsOLE8uiNO&refer=italy) (accessed 15 April 2014).
- Turner, A. (2012), "Credit creation and social optimality", *International Review of Financial Analysis*, Vol. 25, pp. 142-153.
- Vadillo, U.I. (1996), *The Return of Gold Dinar: A Study of Money in Islamic Law*, Madinah Press.
- Venkatesh, V. and Davis, F.D. (2000), "A theoretical extension of the technology acceptance model: four longitudinal field studies", *Management Science*, Vol. 46 No. 2, pp. 186-204.
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003), "User acceptance of information technology: toward a unified view", *MIS Quarterly*, Vol. 27 No. 3, pp. 425-478.
- Venkatesh, V., Thong, J. and Xu, X. (2012), "Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology", *MIS Quarterly*, Vol. 36 No. 1, pp. 157-178.
- Venkatesh, V. and Zhang, X. (2010), "Unified theory of acceptance and use of technology: US vs China", *Journal of Global Information Technology Management*, Vol. 13 No. 1, pp. 5-27.
- Werner, R.A. (2014), "Can banks individually create money out of nothing? The theories and the empirical evidence", *International Review of Financial Analysis*, Vol. 36, pp. 1-19.



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Williams, C. (1996), "The new barter economy: an appraisal of local exchange and trading systems (LETS", ). *Journal of Public Policy*, Vol. 16 No. 1, pp. 85-101.

World Development Indicators (2014), "The world bank group", (accessed 10, March 2014), available at: <http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators#>

Zmijewska, A., Lawrence, E. and Steele, R. (2004), "Towards understanding of factors influencing user acceptance of mobile payment systems", *IADIS International Conference*, on available at: WWW/Internet, *Madrid, Spain*, pp. 270-277.

### Further reading

Steiger, J. (2007), "Understanding the limitations of global fit assessment in structural equation modeling", *Personality and Individual Differences*, Vol. 42 No. 5, pp. 893-898.

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