

Consumers' Technology Readiness and the Adoption of ATMs in Zimbabwe

Richard Shambare

Tshwane University of Technology, South Africa,

Email: shambarer@tut.ac.za

The Zimbabwean economy, and in particular, the country's banking sector is an interesting case study. Within the last two decades, banking in Zimbabwe, as described by analysts, is a volatile business. The sector is characterised by successive periods of growth, stagnation, and even decline, which invariably resulted in the emergence of new banks and, sometimes, the collapse of others. While this phenomenon is widely and extensively studied from a macroeconomic perspective, very little research has focused on the effects of this volatility on individual consumers' perceptions of the banking sector and even less on how banks operating in such environments market their products to these consumers. It was therefore opportune for this study to establish not only the usage patterns of banking services, but also the factors influencing the adoption of innovative technologies including Automated Teller Machines (ATMs). Given that the study sought to focus on individual consumers, considering consumers' personality traits as a precursor to adoption was deemed useful. Consequently, the Technology Readiness Index (TRI) was useful for modelling consumer's adoption of ATMs in Zimbabwe. Through a self-completion questionnaire, data were collected from a sample of 770 consumers. Results broadly confirm the efficacy of these personality traits in predicting the adoption of technology-based banking services. This study provides new insights in that it suggests that technology readiness assumptions, regardless of prevailing economic conditions, will generally hold and remain good indicators for adoption even in uncertain and volatile situations similar to those observed in Zimbabwe.

Keywords: Adoption, ATM, banking, eBanking, technology readiness, Zimbabwe

INTRODUCTION

The Zimbabwean retail banking sector presents numerous lessons as well as challenges for the marketing of electronic banking services. Four critical factors are noteworthy. Firstly, the sector operates amidst a difficult political and economic environment (Richardson, 2005). Secondly, the economy has totally dollarised and is using the United States Dollar as its de facto currency (Reserve Bank of Zimbabwe, 2011b:36). Thirdly, owing to the near-collapse of the banking sector in 2004, consumers' trust of the sector appears to have been affected (Shambare, 2012). Lastly, despite the fact that the financial services sector in general depends on market certainty, economic stability and fidelity, Zimbabwean retail banking industry, nonetheless, continues to thrive amid a hostile and uncertain environment (Dube, Chitura and Runyowa, 2009). Of note, industry literature is abounding with reports of increased uptake of banking technologies such as automated teller machines (ATMs), cell phone banking (CPB), and electronic funds transfer at point of sale (EFTPoS) (Reserve Bank of Zimbabwe, 2011a).

In 'unstable' economic environments such as Zimbabwe (Richardson, 2005), it is reasonable to assume that consumers would generally shy away from formal banking, as the risk associated with the sector would usually be high. Despite this, patronage of the formal banking services in Zimbabwe including the adoption of technology-based banking services

reportedly is growing (Dube et al., 2009). This apparent contradiction is deserving of further investigation, and thus forms the *raison d'être* of this paper.

RESEARCH OBJECTIVES

Firstly, are mainstream theories such as the technology readiness (TR) framework useful in explaining conditions in these difficult situations? Secondly, do consumers in volatile economies react differently when selecting and using banking services? Naturally, the Zimbabwean retail banking sector presents itself as an opportune case study for understanding the latter phenomenon. More importantly, it presents numerous lessons as well as challenges for the marketing of electronic banking services such as ATMs especially given that within the last decade, the banking sector was at the brink of collapse.

Against this background, the purpose of this paper seeks to establish the extent to which traditional theories that have been tried and tested in relatively stable economies would fare in explaining the adoption of electronic banking services within the context of 'volatile' developing economies such as Zimbabwe. To achieve this, technology readiness as proposed by Parasuraman (2000) was utilised as a theoretical basis for this study to establish the relationship between personality traits and adoption of electronic banking services. Subsequently, the following hypothesis was developed: Zimbabwean data will yield the same four technology readiness dimensions as initially established by Parasuraman (2000).

The remainder of the paper is structured as follows. The literature review is presented next. Following on, the methodology applied to test the above-mentioned hypotheses is described. Thereafter, results and discussions are presented.

LITERATURE REVIEW

In financial services, technology "embraces the systems that underpin the delivery of services, the information systems, and the digital revolution driving fundamental changes in marketing and marketing communications" (Farquhar and Meidan, 2010:14). Technology therefore redefines the concept of banking in that the modern bank can now be represented by a telephone in a customer's home, a plastic magnetic stripe cards, ATMs, or the Internet (Jayamaha, 2008; Prendergast and Marr, 1994). The convergence of these information and communication technologies (ICTs) facilitates the extension of banking services beyond the conventional physical branch (Kumar and Gupta, 2008). In fact, it places remote banking into the mainstream culture (Farquhar and Meidan, 2010).

While these findings are generally true in developed economies, the trend is increasingly being observed in emerging economies including Nigeria, Kenya, and South Africa (Berndt, Saunders and Petzer, 2010; Chen and Li, 2010). Of particular interest, however, is that the electronic banking culture is fast catching up in countries such as Zimbabwe. A cursory review of the literature shows that there are very few studies that consider adoption of banking innovations in such economies (Shambare, 2012).

RETAIL BANKING IN ZIMBABWE

As a direct result of the poor economic performance, the banking sector in 2004 was in much distress. Financial institutions grappled to stay afloat as they battled hyperinflation. The banking sector rebounded in 2009 with the formation of the coalition government between

the country's three major political parties – ZANU PF, MDC-T, and MDC-M. Another positive step realised in 2009 was that the country suspended use of the Zimbabwe Dollar and adopted the American Dollar as the official currency to help ease further economic meltdown and instability (Reserve Bank of Zimbabwe, 2011a). In 2012, three retail banks were placed under curatorship and another's licence being revoked by the country's central bank (Reserve Bank of Zimbabwe, 2012).

Undeniably, the events of the past decade affect customers' trust and confidence in the financial services sector (Farquhar and Meidan, 2010). It would not be unreasonable to assume that risk-averse consumers would rather not associate themselves with such unpredictability. Notwithstanding this, industry literature reports that the numbers of banking customers and among them, the use of electronic banking channels is increasing rapidly (Reserve Bank of Zimbabwe, 2011a; 2011b). While the increase in banking customers is laudable, it is equally astounding given the negative ratings of the economy (Richardson, 2005). Very little explanation to the phenomenon exists owing to the lack of scientific research into the area. What is known, however, is that owing to high unemployment levels, the number of unbanked individuals is still intolerably high (Reserve Bank of Zimbabwe, 2011b). For that reason, the Reserve Bank of Zimbabwe regards extending the reach of financial services by means of remote banking channels to the unbanked communities a high priority (Reserve Bank of Zimbabwe, 2011a). Therefore, understanding the diffusion of banking technologies in Zimbabwe transcends beyond just understanding the bounds of theoretical applications, but also might provide valuable insights into extending the reach of banking services to a critical mass of Zimbabwean consumers.

ATM BANKING IN ZIMBABWE

Commercial banks in Zimbabwe provide a wide array of banking products and services. ATMs were among the first electronic banking services in Zimbabwe. ATMs also known as cash machines are among the earliest of banking innovations. Customers operate ATMs by means of plastic magnetic stripe cards (such as ATM cards, debit cards, or credit cards) together with a personal identification number (PIN). Newer and more advanced ATMs support cardless functionalities, in which users instruct the ATM to perform certain activities (e.g., cash withdrawals) through a series of numerical codes. Common banking activities supported by ATMs include cash deposits and withdrawals, transfer of funds between accounts, balance enquiries, and issuance of mini-statements.

According to the Government of Zimbabwe (GoZ) (1997), by the end of 1996 there were about 200 ATMs spread across the country. In 2011, some 2.9 million ATM payments were recorded, and these totalled US\$593 million. Table 1 provides a summary of the extent of remote banking in Zimbabwe.

Table 1 Extent and size of remote banking channels in Zimbabwe as at 30 June 2011
Source: RBZ (2011b)

Banking channel	No. of transactions	% increase from 30 June 2010	Total value of payments (US\$)	% increase from 30 June 2010
Cheque	235, 421	71%	57, 490, 879	64%
POS	2, 454, 528	174%	110, 334, 273	238%
ATM	2, 849, 097	78%	593, 119, 340	225%

CB	934, 318	108%	2, 129, 326	137%
IB	124, 114	54%	345, 171, 455	9%

ATM usage also increased significantly in the same period. There has also been a phenomenal growth in the number of ATM terminals from 200 in 1996 to over 3, 132 terminals in 2011.

TECHNOLOGY READINESS AND CONSUMER ADOPTION OF ATMs

Developed by Parasuraman (2000), technology readiness (TR) models consumers' personality traits and beliefs associated with technology usage. More specifically, it measures consumers' "propensity to embrace and use new technologies" (Parasuraman and Colby, 2001:27). TR is not a measure of competence of using a particular technology, it is an amalgamation of attitudes that determine consumers' disposition to interact with technology in general (Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe and Sanz-Blas, 2009). Many authors including Yi, Tung and Wu (2003), Walczuch et al. (2007), Berger (2009) and later Chen and Li (2010) have found correlations between TR, TAM and TPB. In fact, Berger (2009) proposes that TR is an extension and addition to Davis's TAM in that its four constituent dimensions (optimism, innovativeness, discomfort and insecurity) that essentially measure attitudes.

When faced with a decision whether to adopt or reject a new technology-related product, the literature acknowledges that potential adopters deal with a complex set of emotions, some of which act as psychological barriers and others as enablers to adoption (Berger, 2009). Parasuraman and Colby (2001) illustrate that consumers harbour both favourable and unfavourable beliefs about a technology, with the dominant feeling determining adoption or rejection decisions. Accordingly, the technology readiness index (TRI) is a metric measuring consumer attitudes towards these psychological push and pull factors (Parasuraman and Colby, 2001). The 36-item TRI scale identifies four dimensions of TR which are ultimately responsible for adoption. These dimensions are explored next.

Optimism

Optimism refers to the beliefs that technology will provide increased control, flexibility and efficiency within adopters' lives or work. This point of view therefore acknowledges that technology enhances effectiveness and efficiency; a position proposed in numerous conceptual frames including TPB (Ajzen, 1991) and TAM (Davis, 1989). Optimism ties in very closely with the notions of relative advantage (Meuter, Bitner, Ostrom and Brown, 2005), perceived behavioural control (Ajzen, 1991), user-convenience (Maenpaa, 2006) and perceived ease of use (Berger, 2009). In their research, Parasuraman and Colby (2001) and later Tsikriktsis (2004) found that younger consumers tend to be more optimistic than the elderly.

Innovativeness

In the context of technology in general and TR in particular, to be innovative is the tendency to be a technology pioneer and thought leader within the community. Innovativeness measures people's beliefs of being at the forefront of technology adoption (Walczuch et al., 2007). Parasuraman and Colby (2001) explain that a vast majority of innovative individuals work in ICT-related disciplines, in which the development and use of new technologies integrate well with their life and work. By and large, this trend corroborates earlier findings about innovators and early adopters (Robertson, 1967; Rogers, 1995). For the most part,

innovative individuals tend to be highly motivated and skilled in using technologies (Shivers-Blackwell and Charles, 2006).

Discomfort

While optimism is the trust that technology improves life and work by making it easier and more efficient, discomfort is the direct opposite. It is a general distrust of technology and the fear that it further complicates life (Tsikriktsis, 2004). To a certain extent, feelings of discomfort are comparable to those of perceived complexity or the lack of relative advantage associated with the technology. To this effect, consumers presenting high levels of discomfort fail to see the benefits of using technology in their present circumstances. Parasuraman and Colby (2001:61) articulate that these consumers do not hate technologies per se, but need reassurance that technology can perform as expected. Ideally, they should receive relatively more support, if they are to adopt and use technology.

Insecurity

Like discomfort, insecurity inhibits adoption of technologies. The major difference between discomfort and insecurity is that while the former is the distrust of technology in general, the latter is transaction specific. That is to say, consumers may be less willing to engage in certain transactions using technology. By definition, insecurity is in many regards similar to the notion of perceived risk (Brown, Cajee, Davies and Stroebel, 2003; Ho and Ng, 1994).

Collectively, the four TRI dimensions as explained in the foregoing section define individuals' technology readiness. Research demonstrates that behaviours associated with adoption of technologies correlate highly with TR (Berndt et al., 2010). Undoubtedly, one of the clear advantages of the TRI is the realisation that consumers possess a complicated mix of beliefs and emotions about technology.

Research methodology

A survey method was used to collect primary data from students at a Zimbabwean university in Harare. Three undergraduate students were trained as research assistants and helped with administering the instrument. The research assistants were positioned at strategic places within the university campus – close to dining halls, restaurants, libraries, and sports arenas – points where the density of students tends to be high between November 2011 and January 2012. Non-probabilistic sampling techniques were utilised; research assistants solicited volunteers to participate in the study by completing the self-administered questionnaires (Malholtra, 2010). SPSS 19 was used for data analysis (Field, 2009).

Sample

The entire sample comprised of a homogenous group of university students, and hence non-probabilistic sampling was deemed appropriate (Calder, Phillips and Tybout, 1981). In total 1, 000 questionnaires were distributed. Of the 823 questionnaires returned and only 770 were fully completed and used for analysis. Table 1 illustrates the participants' demographic characteristics.

Table 1: Demographic Profile

Demographic Characteristics		Percentage
Gender	Male	63
	Female	37

Age	20 years or below	32
	21 – 30 years	65
	31 years +	2
Education level	1 st year	34
	2 nd year	36
	3 rd year	18
	4 th year	12
ATM Awareness	< 5 years	23
	5 – 10 years	24
	>10 years	53

RESULTS AND DISCUSSION

Technological readiness

To assess respondents' level of technology readiness, the 36-item scale developed by Parasuraman (2000) was utilised. Respondents used a 5-point likert scale (1 = strongly disagree; 5 = strongly agree) to rate the extent to which they agreed with each of the 36 questions. Descriptive analysis was performed on the responses of the 36-item TRI scale. Table 2 indicates that the TRI statement: "I like the idea of banking using this product because I would not be limited to the regular bank hours" was most significant, with a mean of 3.96. This provides further support for customers' need for convenience (Maenpaa, 2006). On the other hand, issues relating to technical support of banking products were observed to be most inhibitive when it comes to adoption, as shown by the lowest mean of 2.50 to the question (Table 2): "When I get technical support from my bank about this product, I sometimes feel as if I am being taken advantage of by someone who knows more than I do."

Table 2: TRI descriptive analysis

TRI Statement	Mean	SD
Other people come to me for advice on technological innovations.	2.78	1.35
It seems my friends are learning more about these banking products than I am.	2.80	1.31
In general, I am among the first in my circle of friends to acquire new banking technologies when they first appear.	2.89	1.31
I can usually figure out new banking products and services without help from others.	3.19	1.31
I keep up with the latest technological developments in banking technologies.	3.05	1.32
I enjoy the challenge of figuring out new banking products and services.	3.24	1.36
I have fewer problems than other people in using banking technologies.	3.48	1.18
I do not consider it safe giving out my credit card number or other banking details over a computer.	3.35	1.51
I do not consider it safe to do any kind of banking using this product.	2.40	1.32
I worry that financial information transmitted using this product will be seen by other people.	2.58	1.31
I do not feel confident doing business with a place that can only be reached online.	2.93	1.39

Any business transaction I do electronically should be confirmed later with something in writing.	3.69	1.34
Whenever something gets automated, I need to carefully check that the machine or computer is not making mistakes.	3.65	1.30
The human touch is very important when banking.	3.31	1.36
When I call a business, I prefer to talk to a person rather than a machine.	3.45	1.42
If I provide information to a machine or over the Internet, I can never be sure it really gets to the right place.	3.15	1.40
Technical support lines (and Call Centres) are not helpful because they don't explain things in the language I understand.	2.53	1.32
Sometimes, I think this product was not designed for use by ordinary people.	2.56	1.29
The manuals and instructions for this service are not written in plain language.	2.55	1.24
When I get technical support from my bank about this product, I sometimes feel as if I am being taken advantage of by someone who knows more than I do.	2.60	1.29
If I use this product, I prefer to use the basic model (or version) over one with a lot of extra features.	2.95	1.30
It is embarrassing when I have trouble with this service while people are watching.	3.24	1.38
There should be caution in replacing important people-tasks with technology because this technology can breakdown or get disconnected.	3.36	1.29
This product like many new technologies has health or safety risks that are not discovered until after people have used them.	2.87	1.24
This technology makes it too easy for governments and companies to spy on people.	3.11	1.33
This product always seems to fail at the worst possible time.	2.97	1.32
This product gives me more control over my finances.	3.54	1.24
This product much more convenient because it uses the newest technologies.	3.52	1.19
I like the idea of banking using this product because I would not be limited to the regular bank hours.	3.81	1.19
I prefer to use this product because it is the most advanced banking technology available.	3.53	1.18
I like this product because it allows me to tailor my finances to fit my own needs.	3.56	1.11
This product makes me more efficient in my job and life.	3.59	1.18
I find this product to be mentally stimulating.	3.37	1.21
This product gives me more freedom of mobility.	3.52	1.24
Learning about this product can be as rewarding as the technology itself.	3.56	1.16
I feel confident that this product will perform the functions I command it to do.	3.63	1.18

As previously mentioned, TRI consists of four distinct factors (i.e., optimism, innovativeness, discomfort, and insecurity); of these, innovativeness and optimism are considered to be enablers of adoption. Discomfort and insecurity are recognised as inhibitors and are reverse-scored. In calculating the overall TRI score, the item mean scores of TRI items (Table 2) are computed into averages. Table 3 summarises the results of the TRI dimensions as well as the overall TRI, which is 3.13. This score compares favourably to other developing countries such as South Africa at 2.53 (Berndt et al., 2010).

Table 3: TRI descriptive analysis

Dimension	Mean	Standard Deviation
Innovativeness	3.10	.81
Optimism	3.57	.80
Insecurity	3.27	.85
Discomfort	2.88	.76
Overall TRI*	3.13	.45

*TRI overall = (optimism + innovation + [6-discomfort] + [6-insecurity])/4.

Having established a moderate to high level of TR among the respondents (Table 3), it was instructive to conduct further analysis in order to test hypotheses. Hypothesis 1 sought to establish whether Zimbabwean (i.e., from a developing country) data would yield a similar structure of TR comparable to the evidence found in past works (e.g., Berndt et al., 2010; Chen and Li, 2010; Parasuraman, 2000; Parasuraman and Colby, 2001; Tsikriktsis, 2004). Factor analysis using the principal components analysis (PCA) utilising Varimax rotation was used to test this hypothesis (Parasuraman, 2000; Tsikriktsis, 2004).

Table 4: TR Factor analysis summary

	Optimism	Discomfort	Insecurity	Innovativeness
OPT4	.745			
OPT8	.698			
OPT3	.694			
OPT6	.682			
OPT2	.674			
OPT9	.670			
OPT5	.666			
OPT7	.621			
OPT10	.603			
OPT1	.580			
DIS2		.693		
DIS3		.675		
DIS4		.634		
DIS5		.546		
DIS9		.545		
DIS10		.536		
DIS1		.522		
DIS8		.507		
DIS6		.481		
DIS7		.433		
INS8			.683	
INS9			.638	
INS5			.636	
INS6			.627	
INS7			.574	
INS1			.546	
INS4			.544	

INS3		.314	.407	
INS2				
INN5				.731
INN6				.685
INN3				.601
INN4				.554
INN7				.525
INN1				.513
Eigenvalues	5.065	4.372	2.184	2.046
% of variance	12.825	9.588	8.934	6.615
Cronbach's α	.865	.777	.759	.680

As indicated in Table 4, a four-factor structure, accounting for approximately 38 per cent of variance, emerged. All the four TR dimensions loaded uniquely as single factors onto each of the four resultant factors, with no cross-loadings. The measure of internal consistency of these factors was assessed by means of Cronbach's alpha. All four factors were observed to have good measures of reliability above the minimum .6 threshold (Ozer and Gunluk, 2010). Therefore, it was concluded that all the emergent factors were consistent with the theory (Parasuraman and Colby, 2001).

Optimism loaded onto Factor 1 followed by Discomfort, Insecurity, and lastly Innovativeness (Table 4). Since optimism refers to the beliefs that technology provides the potential adopter with increased control, flexibility and efficiency, in this context, this suggests that using ATMs has considerable relative advantages over traditional forms of banking.

Clearly, this consistent with past research findings that observed that the convenience associated with remote banking services is an important determinant of adoption (Ho and Ng, 1994; Kumar and Gupta, 2008; Maenpaa, 2006). Discomfort (an adoption inhibitor) was observed on Factor 2. This is consistent with the TR theory, which presupposes a combination of both favourable and unfavourable beliefs about technology to influence its adoption (Parasuraman and Colby, 2001). The findings suggest that optimism appears more dominant and thus has greater effect than the inhibiting variables. Overall, these results, therefore, provide evidence that the four TR dimensions, as postulated by Parasuraman (2000), are indeed applicable and useful in predicting adoption behaviour even within developing nations' contexts. Thereby providing support for studies undertaken in other developing nations such as Berndt et al. (2010). More importantly, the findings indicate that TR assumptions are also applicable to economies characterised by market volatility such as Zimbabwe.

CONCLUSION

The objective of this paper was to establish the extent to which the technological readiness theory is applicable first in the financial services sector of a developing economic context and second, within a market described as volatile. Lack of research in this area was therefore seen as an opportunity to conduct this study, as most of the literature reports on the Western and developed world context (Berger, 2009; Parasuraman, 2000; Parasuraman and Colby, 2001; Tsikriktsis, 2004).

Generally, the results conform to previous studies, wherein the four TR dimensions hypothesised by Parasuraman (2000) and later by Parasuraman and Colby (2001) were observed to be associated with adoption behaviour. The latter was also demonstrated in studies such as that undertaken by Berndt and colleagues as well and by Chen and Lin, which specifically reported on developing nations' context. The implication of this is that technology readiness is indeed an important predictor of technology usage. Of particular importance is the fact that regardless of the market dynamics at play within the economy, consumers' level technology readiness remains an important indicator of technology usage even in the context of banking technologies.

Overall, the implications for financial institutions operating in difficult economic environments are that they should place more attention on understanding consumers' needs and bank patronage motives together with their technology readiness, which can best be estimated by consumers' usage patterns of other hi-tech products (Parasuraman and Colby, 2001).

REFERENCES

Ajzen, I. (1991). "The Theory of Planned Behaviour." *Organizational Behavior and Human Decision Processes* 50: 179-211.

Aldas-Manzano, J., Lassala-Navarre, C., Ruiz-Mafe, C. and Sanz-Blas, S. (2009). "The role of consumer innovativeness and perceived risk in online banking usage." *International Journal of Bank Marketing* 27(1): 53-75.

Berger, S. (2009). "Self-service technology for sales purposes in branch banking: The impact of personality and relationship on customer adoption." *International Journal of Bank Marketing* 27(7): 488-505.

Berndt, A. D., Saunders, S. G. and Petzer, D. J. (2010). "Readiness for banking technologies in developing countries." *Southern African Business Review* 14(3): 47-76.

Brown, I., Cajee, Z., Davies, D. and Stroebel, S. (2003). "Cell phone banking: predictors of adoption in South Africa - an exploratory study." *International Journal of Information Management* 23: 381-394.

Calder, B. J., Phillips, L. W. and Tybout, A. M. (1981). "Designing Research for Application." *The Journal of Consumer Research* 8(2): 197-207.

Chen, S. and Li, S. (2010). "Consumer adoption of e-service: Integrating technology readiness with the theory of planned behaviour." *African Journal of Business Management* 4(16): 3556-3563.

Davis, D. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." *MIS Quarterly* 13(3): 319-340.

Dube, T., Chitura, T. and Runyowa, L. (2009). "Adoption and Use of Internet Banking in Zimbabwe: An Exploratory Study." *Journal of Internet Banking and Commerce* 14(1): 1-13.

Farquhar, J. D. and Meidan, A. (2010). *Marketing Financial Services*, 2nd ed. London, Palgrave MacMillan.

Field, A. (2009). *Discovering Statistics Using SPSS*, 3rd Edition. Thousand Oaks, CA, Sage.

GoZ (1997). *National Payment System*, GOZ. 1997.

Ho, S. S. M. and Ng, V. T. F. (1994). "Risk Perceptions of Electronic Payment Systems." *International Journal of Bank Marketing* 12(8): 26-38.

Jayamaha, R. (2008). *The Impact of IT in the Banking Sector*. Colombo.

Kumar, A. and Gupta, H. (2008). "Branchless banking and financial inclusion." *Silicon India* August 2008: 40-42.

Maenpaa, K. (2006). "Clustering the consumers on the basis of their perceptions of the Internet banking services." *Internet Research* 16(3): 304-322.

Malholtra, N. (2010). *Marketing Research: An Applied Orientation*, 6th Edition. Upper Saddle River, NJ, Pearson.

Meuter, M. L., Bitner, M. J., Ostrom, A. L. and Brown, S. W. (2005). "Choosing among alternative service delivery modes: an investigation of customer trial of self-service." *Journal of Marketing* 69 (April 2005): 61-83.

Ozer, G. and Gunluk, M. (2010). "The effects of discrimination perception and job satisfaction on Turkish public accountants' turnover intention." *African Journal of Business Management* 4(8): 1500-1509.

Parasuraman, A. (2000). "Technology Readiness Index (TRI): A multiple-item scale to measure readiness to embrace new technologies." *Journal of Service Research* 2(4): 307-320.

Parasuraman, A. and Colby, C. (2001). *Techno-ready Marketing*. New York, The Free Press.

Prendergast, G. and Marr, N. (1994). "Towards a Branchless Banking Society." *International Journal of Retail & Distribution Management* 22(2): 18-26.

Reserve Bank of Zimbabwe (2011a). *Monetary Policy Statement*, January 2011, RBZ. January 2011.

Reserve Bank of Zimbabwe (2011b). *Monetary Policy Statement*, July 2011. RBZ. Harare. July 2011.

Reserve Bank of Zimbabwe (2012). *Surrender of licence and closure of Royal Bank Zimbabwe Limited*. Harare.

Richardson, C. (2005). "How the loss of Property Rights caused Zimbabwe's Collapse." *Economic Development Bulletin* 4.

Robertson, T. S. (1967). "The process of Innovation and the Diffusion of Innovation." *The Journal of Marketing* 31(1): 14-19.

Rogers, E. (1995). *Diffusion of Innovations*, 4th edition. New York, The Free Press.

Shivers-Blackwell, S. L. and Charles, A. C. (2006). "Ready, set, go: examining student readiness to use ERP technology." *Journal of Management Development* 25(8): 795-805.

Tsikriktsis, N. (2004). "A Technology Readiness-Based Taxonomy of Customers: A replication and extension." *Journal of Service Research* 7(1): 42-52.

Walczuch, R., Lemmink, J. and Streukens, S. (2007). "The effect of service employees' technology readiness on technology acceptance." *Information & Management* 44 (2007): 206-215.

Yi, Y., Tung, L. L. and Wu, Z. (2003). Incorporating technology readiness (TR), into TAM: "are individual traits important to understand technology acceptance? Diffusion Interest Group in Information Technology (DIGIT) Workshop. Seattle, WA, DIGIT.