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Scale Validation: A Case of Behavioural Intention to Use Mobile Banking

Marko van Deventer[1]

Abstract: Traditional retail banks face fierce competition from disruptive mobile innovations, consequently driving these conventional banks to invest more resources in mobile channels to maintain and sustain a competitive edge. Among the mobile innovations that revolutionised retail banking is mobile banking, which offers considerable convenience as financial services can be used without the physical access requirements of traditional banking. A validated scale is required to grasp South African consumers' behavioural intention to use mobile banking better. Therefore, this paper aimed to validate a scale measuring mobile banking behavioural usage intention, which, following a comprehensive search of the major academic databases, currently lacks within the South African context. To breach this literature gap, a survey questionnaire was completed by mobile banking consumers (N=334) who use mobile banking. The data was then analysed using analysis of moment structures (AMOS) software. The confirmatory factor analysis results produced in AMOS showed that the behavioural-intention-to-use mobile banking scale is a reliable, valid and well-fitting six-factor structure comprising attitude, perceived behavioural control, self-efficacy, trust, behavioural intention and structural assurances. As the first validated mobile banking behavioural usage intention scale in South Africa, this six-factor scale or structure can be used in path analysis to assess further which factors directly or indirectly predict mobile banking consumers' behavioural tendencies to use mobile banking.

Keywords: Measurement model; confirmatory factor analysis; banking; Generation Y; South Africa

JEL Classification: G20; M31; O30

1. Introduction

Developments in the information and communication field have altered how businesses, including retail banks, operate (Ashique & Rameshkumar, 2022). Traditionally, the banking sector has been controlled by brick-and-mortar retail banks. These traditional retail banks typically rely on employee-customer co-production and are generally known to contribute to increased transactional cost,

[1]PhD, North-West University, South Africa, Address: PO Box 1174, South Africa, Corresponding author: Marko.VanDeventer@nwu.ac.za.

time-wasting long queues, inadequate customer service and poor service quality (Ondiege, 2010; Sadiku et al., 2017). To combat the adverse effects of traditional banking, retail banks have transformed their traditional service delivery methods to include more innovative and advanced internet banking technologies (Ajimon, 2018; Gupta et al., 2019; Tran & Corner, 2016). These innovative banking technologies, including mobile banking, are important in terms of sustainability and survival in an industry that is highly competitive and complex (Ashique & Rameshkumar, 2022).

Mobile banking plays an important role in a digital economy, potentially paving the way toward a cashless economy (Ashique & Rameshkumar, 2022). Mobile banking signifies a revolutionary online banking distribution channel that allows consumers to undertake financial transactions independently, employing a mobile device like a smartphone (Hassan & Farmanesh, 2022). Mobile banking is a cost-effective means of service delivery that facilitates easy transacting anytime and anywhere, thereby offering convenience to consumers (Ashique & Rameshkumar, 2022). Despite the value-adds associated with mobile banking and the growing mobile phone penetration rate and number of internet subscribers, the level of mobile banking adoption is low in emerging economies (Chaouali & Souiden, 2019; Cruz et al., 2010).

In an emerging country such as South Africa, a greater proportion of the banked population still uses traditional banking methods (FinMark Trust, 2019). Of the adult population in South Africa, 80 percent had a bank account in 2018 (BASA, 2019), which is anticipated to reach 83.7 percent in 2022 (Statista, 2022a). Despite the high number of banked individuals in this country, it is expected that a mere 12 percent of South Africans will use mobile banking services in 2022 (Statista, 2022b). Moreover, the rate of mobile phone penetration in this country is close to 100 percent (O'Dea, 2020), yet only 15 percent of mobile users use their device for completing banking activities (Chigada & Hirschfelder, 2017). Fortunately, the Covid-19 pandemic has changed banking consumer behaviour and consequently increased banking consumers' mobile banking usage to about 30 percent (BusinessTech, 2022). In addition, a survey conducted among banking South Africans has found that 42 percent of the participants would be willing to increase their online and mobile banking interactions with their retail banks after the Covid-19 crisis (McKinsey & Company, 2020), possibly increasing mobile banking adoption in South Africa, but this remains to be seen. Taken together, the high smartphone ownership rate, wide internet coverage in South Africa (Burger, 2022), and still modest mobile banking adoption rate in this country pose a threat to the mobile banking channels of South African retail banks in terms of profitability and sustainability. In addition, growing the uptake in mobile banking is key to retail banks in their quest to cut operational costs and improve the banking experience of consumers. Therefore, a better comprehension of the factors that could influence mobile banking adoption in South

Africa is essential. A validated scale is required to grasp better South African consumers' mobile banking behavioural usage intention.

In South Africa, no validated mobile banking behavioural usage intention scale could be found following a comprehensive search of the major academic databases. As such, the study aimed to validate a scale measuring behavioural intention to use mobile banking within a South African context. To assess the scale's validity and reliability, an original measurement model that includes attitude, perceived behavioural control, self-efficacy, trust, structural assurances and behavioural intention was developed. Generation Y mobile banking consumers were specifically chosen as the target population for several reasons.

Generation Y, the most technologically astute generation (Au-Yong-Oliveira et al., 2018), is frequently also referred to as millennials (Yuen, 2022), the MTV Generation or the youth (Rahman & Azhar, 2011) and make up a cohort of "consumers born between 1986 and 2005" (Markert, 2004, p. 21). Statistics indicate that this generational cohort represents approximately one-third of the population globally (Miller & Lu, 2018) and more than one-third of the people in South Africa (Statistics South Africa, 2021). Therefore, given its size, this generation signifies a rewarding consumer banking segment. In addition, with substantial disposable incomes (Bloomberg, 2018), this generation presents a lucrative market opportunity to promote and increase mobile banking adoption. Moreover, consumers from this generation influence the opinions of others (Werenowska & Rzepka, 2020), are leading in terms of setting trends (3ManFactory, 2015; Doran, 2011), adapt quickly to revolutions in technological innovations (Purani et al., 2019) and are willing to adopt innovative technology (Freestone & Mitchell, 2004; Goi & Ng, 2011). As such, within a mobile banking context, the assumption is that these consumers likely influence the behaviours of others to use mobile banking and could drive digital and mobile banking technologies. Research by White (2021) shows that, compared to other generations, Generations Y and Z are the two cohorts of consumers who use mobile banking the most. This is probably because this generation were born into the digital age (Chivers, 2021), are heavy users of technologies (Van den Bergh & Behrer, 2016) and display the highest level of financial technology awareness than previous generations (Karsh, 2020). For these reasons, it is important to understand Generation Y banking consumers' behavioural intention to use mobile banking. To gain this understanding, a valid measurement instrument is needed. As such, this study will answer the following research question:

Is mobile banking behavioural usage intention among Generation Y consumers a six-factor measurement model that consists of attitude, perceived behavioural control, self-efficacy, trust, structural assurances and behavioural intention?

2. Literature Review

To contextualise the measurement model, the theory of planned behaviour (TPB) was used as the theoretical basis. First developed in 1985 (Ajzen, 1985), the TPB is considered an "extension of the theory of reasoned action" (Ajzen, 1991, p. 181). The TPB makes up three "antecedents of behavioural intention, namely attitude, subjective norms and perceived behavioural control" (Ajzen, 1991, p. 181), of which subjective norms have been found to make the weakest contribution in predicting behavioural intention (Armitage & Conner, 2001; McDermott et al., 2015; Nardi et al., 2019; Paquin & Keating, 2017). As such, this study contextualised the measurement model by extending the TPB. The original TPB factors of attitude, perceived behaviour control and behavioural intention were included as part of the measurement model as well as self-efficacy, structural assurance and trust. Subjective norms were excluded from the model.

Attitude is defined as "a feeling or opinion about something or someone" (Cambridge Dictionary, 2022). This feeling or opinion can be positive or negative (Shanmugam et al., 2014) and will "develop over time and likely change" (Schiffman et al., 2010, p. 247). Consistent with the TPB, attitude is an antecedent of behavioural intention; that is, behavioural intention is influenced by an individual's evaluation of a specific behaviour (Fischer & Karl, 2022). Within a mobile banking context and taken from a TPB perspective, if consumers believe that using mobile banking would deliver the desired outcomes, then they will develop a favourable attitude towards mobile banking, which, in turn, would likely have a positive influence on their behavioural intention to use mobile banking. Many mobile banking studies have proven that attitude is an antecedent of behavioural intention (Akturan & Tezcan, 2012; Munoz-Leiva et al., 2017; Rehman & Shaikh, 2020; Shanmugam et al., 2014).

Perceived behavioural control (PBC) is a person's evaluation of how difficult or easy a specific behaviour can be performed and whether the behaviour will attain the anticipated results (Ajzen, 1991). To a large extent, two factors influence PBC, namely self-efficacy, which is an individual's perception about his or her capabilities and facilitating conditions, which represent the technical support and infrastructure necessary to use a technology (Taylor & Todd, 1995; Venkatesh et al., 2012). Within the context of this study, if mobile banking consumers possess high levels of self-competency and have access to the necessary resources to facilitate mobile banking, then they will likely develop a favourable attitude towards mobile banking usage. A few empirical studies in the technological innovations and online systems research field postulate that self-efficacy predicts perceived behavioural control (Ahmed & Ward, 2016; Ashraf, 2021; Gangwal & Bansal, 2016; Lee et al., 2013; Taylor & Todd, 1995), which, in turn, influences attitude towards the technology (Barkhi et al., 2008; Crabbe et al., 2009; Saibaba & Murthy, 2013; Susanto & Goodwin, 2013).

Other studies have found that PBC control has a direct influence on behavioural intention to use a technology (Kumari & Devi, 2022; Lee et al., 2013; Taylor & Todd, 1995; Wang et al., 2022). Given the close association between PBC and self-efficacy (Barkhi et al., 2008; Gangwal & Bansal, 2016), and this factor's inclusion in the measurement model, a more detailed discussion on this factor is provided.

Individuals' perception of their self-efficacy in using technology may boost their PBC, which could pave the way for developing a positive attitude towards using the technology (Susanto & Goodwin, 2013). Self-efficacy is described as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave" (Bandura, 1994:1). Self-efficacy also refers to "an individual's determination in his or her ability to independently act a purposeful behaviour" (Foroughi et al., 2019:1017). Self-efficacy denotes "a person's ability to judge oneself capable of a certain behaviour. Therefore, when an individual perceives that he or she has sufficient capability to perform behaviour; chances are that the individual will execute said behaviour" (Lee et al., 2013:158). As such, self-efficacy denotes a person's self-confidence to use a particular technology (Susanto & Goodwin, 2013). Taken from a mobile banking viewpoint, self-efficacy signifies consumers' belief that they have the capacity and competency to perform mobile banking. Various authors posit that if consumers perceive themselves to be skilled in undertaking mobile banking, then they would likely use mobile banking (Kumar et al., 2020; Singh & Srivastava, 2018) and be more stimulated to engage in usage behaviour (Changchit et al., 2020).

Mobile banking trust and structural assurances concerning mobile banking make up the remaining factors included in the measurement model. Trust in mobile banking among consumers is an essential element to study in mobile banking adoption (Ali et al., 2022) given its online nature (Kim et al., 2009), which presents threats such as account hacking and information disclosure as well as virus and network failure risks (Zhou, 2011). Previous digital platform usage studies also support the assertion that trust is a motivating factor for consumers to communicate their intention to use these platforms (Cao et al., 2018; Merhi et al., 2019). Trust is a person's confidence in and loyalty towards a third party (Kim et al., 2009). Trust is also "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer et al., 1995:712). As such, trust relates to vulnerability (Cox et al., 2016) and reliability (Talwar et al., 2020). Therefore, if consumers distrust mobile banking, they would not be willing to adopt this banking channel (Sharma & Sharma, 2019). However, should consumers display high levels of mobile banking trust, then they are likely to demonstrate a more favourable attitude towards mobile banking, which, in turn, would positively influence their mobile banking behavioural usage intention. Several authors have

evidenced the association between trust and attitude in an online environment (Chauhan, 2015; Munoz-Leiva et al., 2017). Other studies found that trust influences behavioural intention to use a technology (Amaro & Duarte, 2015; Lin & Lin, 2019; Yoo et al., 2019).

To improve consumers' mobile banking trust, structural assurances should be offered. Structural assurances point toward the efficiency of the security mechanisms (Zhang et al., 2019) such as legal protection and regulation and other technicalities (Lin et al., 2011) embodied in mobile banking. These structural safeguards offer consumers protection against privacy risks and reduce the chances of financial and information loss and identity theft (Zhou, 2012). In essence, structural assurances give consumers a sense of security and safety when transacting online (Lin et al., 2011). With the necessary safeguards in order, consumers believe that all commitments will be honoured rightfully, bolstering confidence in consumers (Zhang et al., 2019) and reinforcing trust in mobile banking (Lin et al., 2011). Indeed, several authors agree that structural assurances are an important antecedent of trust in mobile banking (Gu et al., 2009; Kim et al., 2009; Zhou, 2011).

3. Methodology

This study followed a descriptive research design, and a single cross-sectional sample design was used. In accordance with the objective of validating a mobile banking behavioural usage intention scale, the study's population targeted was consumers of the Generation Y mobile banking cohort. More specifically, the target population was defined as female and male 18- to 24-year-old banking consumers registered at public universities in South Africa. Given cost constraints, the sampling frame was limited to university campuses located in the Gauteng Province, the most populated province in South Africa (Statistics South Africa, 2020). Using judgement sampling, three campuses from South Africa's three main types of public universities in this province were selected. One was a university of technology campus, the other a traditional university campus and the third a comprehensive university campus. Employing a mall-intercept approach, fieldworkers administered the survey questionnaire to a convenience sample of 450 mobile banking consumers at each of the three selected university campuses (150 per campus).

A self-reporting survey questionnaire was developed to record the required data. The survey comprised a section dedicated to capturing demographic data and a section designed to measure the mobile banking factors relevant to this study, and included scales from published studies. Mobile banking attitudes, behavioural control as well as mobile banking behavioural usage intention included three items each, adapted from Taylor and Todd (1995). Self-efficacy (three items) was adapted from Compeau and Higgins (1995) and Compeau et al. (1999). The three-item scale used

to measure trust was adapted from Pavlou (2003) and Suh and Han (2002). The last three-item scale used to measure structural assurance was adapted from McKnight et al. (2002). These scales were also used in "an exploratory study into the adoption of internet banking in Malaysia" (Nor and Pearson, 2008). Responses to these 18 scale-response items were indicated on a Likert-style scale consisting of six points.

The captured data were analysed using IBM's SPSS and AMOS, version 27. Data analysis included frequency percentages, descriptive statistics, a one-sample t-test, confirmatory factor analysis (CFA) using the maximum likelihood approach, and measures of reliability and validity.

4. Results

The fieldworkers obtained 334 completed questionnaires from the 450 questionnaires distributed, thereby producing a response rate of nearly 75 percent. A profile of the participants who formed part of the study's sample is provided in Table 1 together with a frequency percentage for each sample descriptor ranked from highest to lowest.

Table 1. Sample Profile

Age	%	Gender	%	Home Language	%	Province	%
20	25.7	Female	58.1	Sesotho	26.3	Gauteng	57.2
21	24.9	Male	41.9	isiZulu	14.7	Limpopo	11.4
22	14.4			Setswana	13.2	Free State	10.8
19	14.1			Afrikaans	9.3	North-West	7.2
23	8.7			Sepedi	8.4	Mpumalanga	6.3
18	6.9			English	7.5	KwaZulu-Natal	2.7
24	5.4			isiXhosa	6.9	Eastern Cape	2.1
				Xitsonga	4.8	Western Cape	1.8
University Campus		**%**		Tshivenda	4.5	Northern Cape	0.6
Traditional		37.0		SiSwati	3.9		
Comprehensive		33.0		isiNdebele	0.3		
Technology		30.0					
Ethnicity		**%**					
African		84.1					
White		10.8					
Indian/Asian		2.7					
Coloured		2.4					

The data laid out in Table 1 show that each age category specified in the description of the target population was represented in the sample data, as well as the three main types of universities and South Africa's 11 official languages. More than half of the sampled participants ticked Gauteng as their province of origin, and more than 80

percent of the participants ticked African as their group of designation. More females than males participated in the study and more participants from a traditional university completed the questionnaire, followed by participants from a comprehensive university.

Following the calculation of the frequency percentages for sample profiling purposes, descriptive statistics [(means ($\bar{X}$) and standard deviations (σ)] were calculated, together with a one-sample t-test ($\bar{X}$ = 3.5) to evaluate whether the computed means were statistically significant. In addition, the Cronbach's alpha (α) values for each latent factor as well as the correlations between each latent factor were computed. These results are captured in Table 2.

Table 2. Means, Standard Deviations, Cronbach's α and Correlation Coefficients

Latent Factors	$\bar{X}$	σ	α	Correlation Coefficients				
				F1	F2	F3	F4	F5
F1	4.93	0.91	0.83	-	-	-	-	-
F2	4.71	1.14	0.83	0.53*	-	-	-	-
F3	4.54	1.11	0.78	0.49*	0.52*	-	-	-
F4	4.28	1.26	0.89	0.57*	0.53*	0.62*	-	-
F5	4.47	1.21	0.76	0.56*	0.54*	0.62*	0.68*	-
F6	4.27	1.15	0.88	0.50*	0.43*	0.43*	0.64*	0.55*

* Statistically significant at $p \leq 0.01$ (2-tailed)
F1 = Attitude; F2 = Perceived behavioural control; F3 = Self-efficacy; F4 = Trust; F5 = Behavioural intention; F6 = Structural assurance

The one-sample t-test's computed t-statistics, ranging from 28.75 to 11.37 and its associated *p*-values (p = 0.000 computed for all latent factors) suggest that the recorded scale responses were all statistically significant ($p \leq 0.1$) above the expected mean set at 3.5; that is, the agreement continuum of the scale. Of the means, as outlined in Table 2, attitude towards mobile banking (mean = 4.93) was the highest, indicating that the sample display a favourable attitude towards mobile banking. The second highest mean was recorded for perceived behavioural control (mean = 4.71), meaning that the sampled participants believe using mobile banking is entirely within their control. The next highest mean was recorded for self-efficacy (mean = 4.54), inferring that Generation Y mobile banking consumers view themselves as capable of using mobile banking. With Cohen's d-values ranging between 0.938 and 1.573 (large effect size), attitude towards mobile banking, perceived behavioural control and self-efficacy were all also practically significant (Cohen, 1992). Although behavioural intention (mean = 4.47), trust (mean = 4.28) and structural assurances (mean = 4.27) recorded lower means, these latent factors were still practically significant, with Cohen's d-values ranging between 0.621 and 0.666 (medium effect size) (Cohen, 1992).

For scales to exhibit internal-consistency reliability, Cronbach α values of 0.70 and above are required. The Cronbach α values listed in Table 2 show evidence of internal-consistency reliability, with all values above 0.70 (Hair et al., 2019). Also in Table 2 are Pearson's correlation coefficients. These coefficients were calculated to establish the relationships between the latent factors and to check for multicollinearity issues. The coefficients show statistically significant ($p \leq 0.01$) positive associations between each latent factor, with the strongest relationship recorded between mobile banking trust and mobile banking behavioural usage intention ($r = 0.68$). Not only does the correlation analysis confirm the measurement theory's nomological validity (Malhotra, 2010), it also eliminates multicollinearity between the factors, given that none of the coefficients were above 0.90 (Pallant, 2020).

Once the nomological validity had been established, and issues of multicollinearity had been eliminated, CFA was run in AMOS using the maximum likelihood method. This analysis comprised measures of composite reliability (CR), convergent and discriminant validity measures, and an assessment of model fit indices. For reliability, CR values should be 0.70 or more (Hair et al., 2019). Convergent validity also requires CR values of 0.70 or more, as well as standardised loading estimates (Std. load. est.) and average variance extracted (AVE) values of 0.50 or more (Fornell & Larcker, 1981). As a measure of discriminant validity, especially in multivariate statistical analysis, the heterotrait-monotrait (HTMT) correlation ratios between each latent factor were computed, where ratios below 0.85 are indicative of discriminant validity (Franke & Sarstedt, 2019). An additional indication of discriminant validity is when the maximum shared variance (MSV) value is less than the latent factor's AVE value (Almén et al., 2018). The measurement model specified for testing consisted of the six latent factors (three indicators each) of attitude, perceived behavioural control, self-efficacy, trust, behavioural intention and structural assurances.

Each latent factor's first indicator loading was set at 1.0, which equated to 189 distinct sample moments, 69 distinct parameters to be estimated, and 120 degrees of freedom (df) based on an over-identified as well as a chi-square ($\chi 2$) value of 320.814, with a level of probability equalling 0.001. While the $\chi 2$ value point toward poor model fit, this statistic is notorious for being susceptible to sample sizes that are larger (Byrne, 2010). As such, other model fit index values were computed for this study, including the normed fit index (NFI), the comparative-fit index (CFI), the incremental-fit index (IFI), the Tucker-Lewis index (TLI), the standardised root mean square residual (SRMR) and the root mean square error of approximation (RMSEA). A value above 0.90 for NFI, CFI, IFI and TLI is an acceptable model fit requirement, together with SRMR and RMSEA values below 0.08 (Malhotra, 2020). The statistics returned by AMOS are presented in Table 3, including the standardised

loading estimates, error variance estimates (Err. var. est.), CR, AVE and MSV values, and the HTMT ratios and correlation coefficients.

Table 3. AMOS Output

Latent Factors	Std. load. Est.	Err. var. est.	CR	AVE	MSV	HTMT Ratios				
						F1	F2	F3	F4	F5
F1	0.76	0.58	0.83	0.62	0.45					
	0.79	0.63								
	0.80	0.65								
F2	0.78	0.61	0.84	0.63	0.47	0.64				
	0.81	0.66								
	0.79	0.62								
F3	0.69	0.47	0.78	0.55	0.54	0.61	0.65			
	0.72	0.51								
	0.81	0.66								
F4	0.86	0.74	0.89	0.73	0.60	0.66	0.62	0.74		
	0.84	0.71								
	0.87	0.75								
F5	0.62	0.38	0.81	0.60	0.59	0.71	0.69	0.78	0.82	
	0.82	0.67								
	0.86	0.74								
F6	0.82	0.67	0.88	0.72	0.52	0.59	0.50	0.51	0.72	0.65
	0.90	0.81								
	0.82	0.67								
F1 = Attitude; F2 = Perceived behavioural control; F3 = Self-efficacy; F4 = Trust; F5 = Behavioural intention; F6 = Structural assurance										
Correlations	F1→F2: 0.63; F1→F3: 0.61; F1→F4: 0.65; F1→F5: 0.67; F1→F6: 0.57 F2→F3: 0.65; F2→F4: 0.62; F2→F5: 0.68; F2→F6: 0.49; F3→F4: 0.74 F3→F5: 0.72; F3→F6: 0.50; F4→F5: 0.78; F4→F6: 0.72; F5→F6: 0.60									
Model Fit Indices	CFI: 0.95; NFI: 0.92; IFI: 0.95; TLI: 0.93; SRMR: 0.05; RMSEA: 0.07									

The estimates of the measurement model outlined in Table 3 provide evidence of composite reliability (CR > 0.70). These CR values, together with estimates of the standardised loadings and AVE values above 0.50 verify convergent validity. The HTMT ratios confirm discriminant validity of the latent factors, given that all these ratio values are below 0.85. In addition, the AVE values exceed the MSV values of each respective latent factor, thereby providing additional evidence of discriminant validity. All the model fit indices suggest a good model fit. As such, the findings from the CFA affirm that Generation Y consumers' mobile banking behavioural usage intention is a reliable, valid and well-fitting six-factor structure that comprises attitude, perceived behavioural control, self-efficacy, trust, behavioural intention and structural assurances, which can be used in path analysis to determine which of these

latent factors have a direct or indirect influence on Generation Y mobile banking consumers' mobile banking behavioural usage intention.

5. Discussion

To address the aim of this study of validating the mobile banking behavioural usage intention scale, CFA was run. The CFA results infer that the scale or proposed model comprises six factors: attitude towards mobile banking, perceived behavioural control, self-efficacy, mobile banking trust, mobile banking behavioural usage intention, and structural assurances concerning mobile banking. None of the scale's latent factor standardised loading estimates were problematic. In addition, the lowest CR value of 0.78 was computed for self-efficacy, indicating that the measurement scale has good composite reliability. Furthermore, all the AVE values surpassed 0.50. As such, convergent validity is established. Moreover, the calculated HTMT values were all below 0.85, which, in combination with the CR and AVE values, suggests the discriminant validity of the scale. Lastly, the CFA results confirmed that the scale encompasses an acceptable model fit, with the CFI, NFI, IFI and TLI above 0.90 and the SRMR and RMSEA below 0.08. Overall, the findings suggest that the measurement scale is reliable and valid in measuring mobile banking behavioural usage intention. This original and validated scale is suitable for path analysis to determine factors' direct and indirect effects on behavioural intention to use mobile banking. Retail banks and scholars can also use this scale to improve their understanding of mobile banking behavioural usage intentions among a specific target market.

6. Conclusion

The purpose of this study was to validate a mobile banking behavioural usage intention scale. The confirmatory factor analysis concluded that the mobile banking behavioural usage intention scale is a reliable and valid six-factor structure made up of the following latent factors, namely attitude towards mobile banking, perceived behavioural control, self-efficacy, mobile banking trust, mobile banking behavioural usage intention and structural assurances concerning mobile banking. This scale is the first valid and reliable behavioural-intention-to-use scale within the South African mobile banking context. Retail banks are encouraged to use this scale to analyse further their target markets' behavioural intention to use mobile banking, thereby gaining deeper insights into mobile banking adoption.

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