

Technology readiness and consumer intention to use digital platforms: A case of the music industry in South Africa

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ABSTRACT

The COVID-19 pandemic has drastically affected the global economy, with the music industry particularly impacted by the halt in live events and physical sales. This contributed to an increase in the consumption of music through digital platforms, both globally and especially in South Africa. However, the readiness of South African consumers to fully embrace online music platforms remained unclear. This research assessed the technological readiness of South African music enthusiasts and its influence on their attitudes and intentions towards digital music platforms. Utilizing the technology readiness model and theory of reasoned action, data was gathered from 358 respondents (aged 18-60) in Johannesburg using a paper-based self-administered survey. A Structural Equation Modelling (SEM) was conducted using AMOS version 28 where the analysis revealed that optimism and innovativeness positively and significantly impacted attitudes towards digital platforms, whereas insecurity had a significantly detrimental effect. Although discomfort's influence was positive, it was not significant. Crucially, a positive consumer attitude significantly bolstered the intention to use online music platforms.

Keywords: technology readiness index, consumer attitude, behavioural intention, digital music platforms, South Africa

1. INTRODUCTION

The global music industry is an over-50 billion US Dollar income industry, with income streams from live events (ticket sales and live performances), digital platforms (streaming and downloads), physical sales (CD's) and synchronised revenues (e.g., music rights for movies, advertising, games, etc.) (World Economic Forum, 2020). In recent years, various factors have contributed to the shift in music consumption, with digital platforms becoming more relevant. This includes online streaming and downloads which showed a significant surge in recent years, as reported by Tencent Music Entertainment in China (World Economic Forum, 2020). Online music subscriptions and online music paying users increased by 70% and 50.4% respectively, year-on-year in the first quarter of 2020 (Hu, and Kim, 2022).

Recently, the consumption of music through digital platforms in South Africa was also reported to have surged, according to a report by the International Federation of the Phonographic Industry (MyBroadband, 2024, March 31). The Sub-Saharan African (SSA) region recorded a 24.5% increase in music streaming, contributing to the overall increase music revenue for the region by 24.7%, which was higher than the global average 10.2% in the same period. Within the SSA, South Africa recorded a music revenue growth of 19.9% in 2023 (MyBroadband, 2024, March 31). The growth in the streaming market can be attributed to the growth in smartphone penetration and the popularity of local artists, among other factors (Statista, 2023).

In 2019, the Coronavirus disease (COVID-19) outbreak caused disruptions globally, negatively affecting various sectors of business, including airlines, fast food, hospitality, entertainment (e.g., live music events; digital and physical stores of recorded music) (Denk, Burmester, Kandziora & Clement, 2022). South Africa was not spared from the disruption, with various business activities in the entertainment industry (specifically music sector) being disrupted vastly.

As a result of the COVID-19 pandemic, governments globally imposed lockdowns as one of the measures to prevent the spread of the virus, with the South African government-imposed lockdown officially commencing on the 26 March 2020, thus restricting business activities within non-essential sectors such as live events and physical sales (retail stores), (Denk *et al.*, 2022; World Economic Forum, 2020). Live events (including concerts) were cancelled, and some artists delayed releasing their albums due to inability to promote their work through tours (World Economic Forums, 2020). For workers in the live music sector (e.g., booking agents, sound engineers, and other freelancers), 2020 had a devastating effect on their income as about 90% of the surveyed professionals lost income, others had to sell their instruments and equipment, while others (41% of the respondents) had to survive on loans (Ansel, 2020). Consequently, one of South Africa's biggest concert venues, the TicketPro Dome (The Dome), had to be sold to WeBuyCars (Gcingca, 2022). Considering the decline in the sale of physical CDs since the early 2010's, events were important for the sector (Gcingca, 2022; South African Cultural Observatory, 2020).

In a Concerts SA report titled: 'Digital futures Two: Taking music online in South Africa', it was reported that music streaming services presented opportunities for the music industry, with 23% of users stating that they started streaming during the COVID-19 lockdown (Concerts SA, 2022). For those who did not participate in livestreaming, the following reasons were cited: lack of equipment (35%), lack of resources (35%), financial reasons (17%), lack of skills and other reasons (9% each).

Besides the COVID-19 lockdowns contributing to further consumption of music through digital platforms, the increase in the use of digital platforms for music consumption has been witnessed in recent years. For instance, the total market revenue for physical sales in South Africa declined from just under R41 million to R28 million in 2019 (RiSA, 2019). In the same period, revenue from digital platforms grew from R48.5 million to R62.8 million. Internationally, there was a similar trend, with digital platforms growing from R241 million to R305 million while physical channels declined from R54.6 million to R36.7 million. Majority of the activity came from digital streaming, followed by digital downloads and then digital mobile, in both years. For physical sales, compact discs dominated, followed by DVD and then vinyls. In total, the physical sales saw a 32% decline while digital sales saw a 32% increase between year on year (RiSA, 2019). Between 2016-2018, the overall revenue loss from physical sales was 27% (RiSA, 2018). From 2021-2023, there was an ongoing trend of increasing (24.7%) revenue from digital streaming platforms.

It remains critical to understand the drivers of consumer attitudes towards and the readiness to embrace digital platforms for music consumption, considering the trend globally and in South Africa. Thus, the current study seeks to investigate the influence of technology readiness on usage intention of online music platforms among music fans in South Africa, following the growth in the use of digital platforms in recent years, including during the COVID-19 lockdown. This will be done by focussing on the dimensions of technology readiness from both the drivers (optimism and innovativeness) and inhibitors (insecurity and discomfort) of usage, other than the lack of resources and equipment. It is important to understand both sides of the model to establish a balanced view of the predictors of consumer attitude and ultimately the behavioural intention towards usage (Ajzen & Fishbein, 1980). The findings of this study will contribute to the literature on technology readiness and consumer behaviour, specifically from music consumption through digital platforms from an emerging market point of view.

1.1 RESEARCH OBJECTIVES/QUESTIONS

- To investigate the influence of drivers and inhibitors of technological readiness on consumer behaviour among music fans in South Africa.
- To investigate the influence of technological readiness on attitude towards using online music platforms among music fans in South Africa.
- To investigate the influence of user attitude on intention to use online music platforms among music fans in South Africa.

2., LITERATURE REVIEW

2.1 THEORETICAL FRAMEWORK (TECHNOLOGY READINESS INDEX)

This section discusses the theory that grounds the current study, which is the technology readiness index (TRI). This theory or index was developed by Parasuraman and Colby (2001) and Parasuraman (2000) to investigate consumer readiness to adopt technology. Made up of both drivers (optimism and innovativeness) and inhibitors (insecurity and discomfort) of adoption, the model is discussed in detail in the next subsections.

2.1.1 TR – Optimism (TR-OPTI)

Optimism has been defined in literature as positive attitude consumers have towards using technology, and the belief that using such technology will have a positive impact on their lives (Hasheem *et al.*, 2022; Rojas-Mendez *et al.*, 2017). Other studies defined optimism as an individual's positive view of technology, and the beliefs that such technology will enhance flexibility, control, and efficiency over their lives (Lin *et al.*, 2005). Optimistic people trust and expect technology to provide them with more control, flexibility and efficiency in their lives (Costa-Font, Mossialos & Rudisill, 2009; Lin *et al.*, 2007; Parasuraman, 2000).

2.1.2 TR – Innovativeness (TR-INNO)

Innovativeness refers to the tendency to use an idea, including technology, earlier in the market (Lin *et al.*, 2005). Consumers who generally adopt and use new ideas, including new technology, earlier are considered innovative (Buyle *et al.*, 2018). Extant literature characterised such early adopters as influencers or pioneers in the field (Lin *et al.*, 2005; Parasuraman, 2000). For a user to be considered innovative or a pioneer or influencer, they need to use new innovations earlier than the rest of the market (Hasheem *et al.*, 2022; Rogers & Singhal, 2014). Innovative people are early adopters, motivated, believe in, and try new innovations (Hasheem *et al.*, 2022; Ali *et al.*, 2019).

2.1.3 TR – Discomfort (TR-DISC)

Discomfort asserts an individual's overall prejudice towards using a particular technology or technology-based products such as music applications like Spotify, Apple Music, YouTube Music, etc. (Park & Zhang, 2022; Lin & Chang, 2011). People with limited control over, and confidence towards using technology will show higher levels of discomfort thus finding adopting and using the technology overwhelming, and unpleasant (Silva *et al.*, 2022; Park *et al.*, 2019; Lin *et al.*, 2005). Individuals who are not comfortable with using technology tend to avoid using it.

2.1.4 TR – Insecurity (TR-INSE)

Literature defines insecurity as distrust, scepticism, and disbelief about technology's ability to work well (Buyle *et al.*, 2018; Lin *et al.*, 2005; Parasuraman, 2000). Insecurity reduces an individual's readiness to use technology or innovation (Buyle *et al.*, 2018). More literature asserts that individuals who believe that new technology or technology-based products or services may not work properly or accurately, show higher signs of insecurity towards adopting and using the technology or innovation (Silva *et al.*, 2022). This also translates to their lack of readiness to use the technology or readiness.

2.2 ATTITUDE TOWARDS TECHNOLOGY

Consumer attitude is defined as one's inherent tendency to consistently act, whether in a positive or negative manner, towards an object or event or individual (Cheung, 2009; Fishbein & Ajzen, 1975). Other authors define attitude as the extent to which users of technology develop an interest in using such technology (Alfy *et al.*, 2017). Others define the term as both favourable and unfavourable feelings users attach to a subject matter (technology), based on the level of interaction with the subject matter (Patry & Pelletier, 2001; Mick & Fournier, 1998).

2.3 BEHAVIOURAL INTENTION

Intention to perform a behaviour (e.g., adopt and use new technology) can be defined as an individual's motivations, willingness to try, effort invested, to perform a behaviour (Ajzen, 1991). Behavioural intention refers to a consumer's intention and willingness to acquire (purchase) a product or services (Hasheem *et al.*, 2022). Literature has shown that intention is a good predictor of actual behaviour (Chen & Chang, 2012). From an adoption and usage perspective, behavioural intention refers to consumer intention to start using a product or technology (Ajzen, 1991). Predictors of behavioural intention include consumer attitudes towards performing the behaviour (Park & Zhang, 2022; Alf, Gomez & Ivanov, 2017).

2.4 DIMENSIONS OF MUSIC FANS' READINESS TO USE ONLINE MUSIC PLATFORM (TECHNOLOGY READINESS)

Researchers have studied consumer readiness to use technology in various contexts, including banking, health services, online shopping, etc., using four common constructs in their studies: optimism, innovativeness, discomfort, and insecurity (Park & Zhang, 2022; Silva, Dias & Rodrigues, 2022; Hasheem, Farooq & Shahid, 2022; Buyle, Compennolle, Vlassenroot, Mechant & Mannens, 2018; Lin, Shih, Sher, Wang, 2005). Within the music and entertainment industry, specifically in South Africa, limited, if any, research has been done to determine the consumer readiness to use technology to purchase music (downloads and streaming).

2.5 TECHNOLOGY READINESS, ATTITUDE AND BEHAVIOURAL INTENTION

2.5.1 Driver of Technology Readiness and Consumer Attitude

Research on technology readiness dimensions and their outcome has shown that TR has influence on consumer attitude towards using technology. With attitude defined as a user's beliefs and feelings towards a technology (Patry & Pelletier, 2001), technology readiness shapes a user's view and mindset towards using the technology, thus affecting

user attitude towards using the technology (Parasuraman, 2000). The drivers of technology readiness (optimism and innovativeness) have a positive influence on user attitude, thus encouraging the adoption and use of the technology (Chen & Li, 2010; Patry & Pelletier, 2001). This suggests that users who have positive beliefs and feelings towards technology are likely to intend to use that technology. This is true for the music streaming and download technology. Similar findings came from Taiwan (Chen and Li, 2010), Croatia (Milakovic, 2021) and Spain (Alvarez-Marin, Velázquez-Iturbide & Castillo-Vergara, 2023). Based on this discussion, the study hypotheses are:

- H1: Optimism has positive influence on user attitude towards adoption and use of online music platforms among music fans in South Africa.**
- H2: Innovativeness has positive influence on user attitude towards adoption and use of online music platforms among music fans in South Africa.**

2.5.2 Inhibitors of Technology Readiness and Consumer Attitude

On the contrary, literature has shown a negative relationship between the inhibitors of technology readiness (discomfort and insecurity) and consumer attitude toward such technology (Chen & Li, 2010). This suggests that consumers who have negative feelings and beliefs about a technology would not be likely to use such technology. This is true for music streaming and download technology. Similar findings were evident in South Korea (Park, Ha & Jeong, 2020) and Pakistan (Ali, Ullah, Akbar, Akhtar, & Zahid, 2019). Based on this discussion, it can be hypothesized that:

- H3: Discomfort has negative influence on user attitude towards adoption and use of online music platforms among music fans in South Africa.**
- H4: Insecurity has negative influence on user attitude towards adoption and use of online music platforms among music fans in South Africa.**

2.5.3 Attitude and Intention

According to the Theory of Reasoned Action (TRA), attitude affects behavioural intention (Ajzen & Fishbein, 1980). This suggests that consumers who have positive beliefs and feelings towards a technology are more likely to have intentions to use the technology, and the opposite is true for those who have negative beliefs and feelings about such technology. Based on the above discussions, this study generated the following hypothesis:

- H5: User attitude has a positive influence on the intention to use online music platforms among music fans in South Africa.**

2.6 RESEARCH MODEL

Figure 1: Conceptual model to study the technology readiness and intention to use online music platforms among music fans in South Africa.

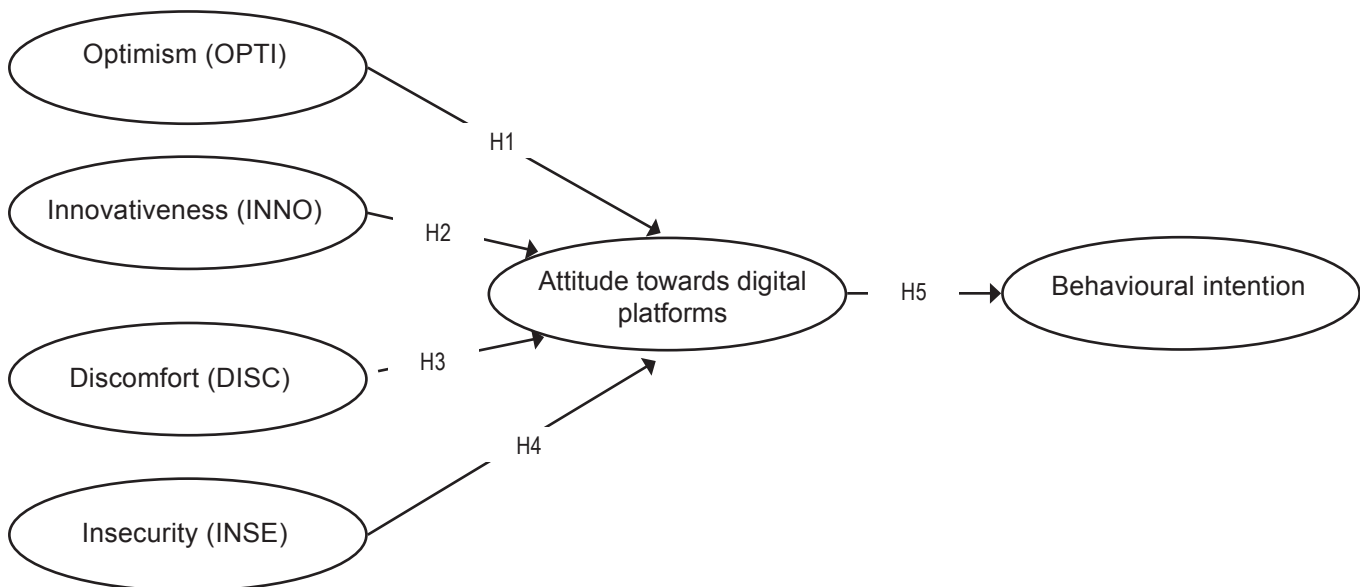


FIGURE 1: PROPOSED CONCEPTUAL MODEL.

3. METHODS

3.1 MEASUREMENT

To measure the constructs, the scale items were adopted from (Parasuraman, 2000). Each construct was measured on a 7-point Likert scale, ranging from 1-strongly disagree to 7-strongly agree. The research instrument was assessed and approved by the research ethics committee which also granted the clearance for the study (ethics number: 2023SCiiS002).

The reliability of the measurement scale of the research instrument was assessed using the Cronbach's Alpha, whose results presented in Table 3 ranged between 0.901-0.976, above the 0.7 threshold, thus confirming the reliability of the latent construct measures (Maduku, Rana, Mpinganjira, Thusi, Mkhize & Ledikwe 2024).

Thirty (30) respondents meeting the specified criteria were surveyed as part of a pilot study to address any possible issues, after which the final version of the research instrument was deployed to the final sample of 358 usable respondents.

3.2 DATA GATHERING

A non-probability convenience sampling technique was used to collect usable responses from 358 respondents, aged 18-60 years and residing within the Johannesburg Metropolitan Municipality. The sample size was based on the nature of the study being quantitative, with the structural equation modelling being used for data analysis, where a minimum of 200 responses is adequate for this technique (Babin & Savenson, 2012). Also, studies in technology acceptance use sample sizes ranging between 300 and 600 (Verissom, 2016; Baptista & Oliveira, 2015). A paper-based, self-administered, personal survey was used to collect the data in June 2023, using a research company to do so. The ethics code of conduct, as stipulated in the ethics certificate, was observed, and followed.

3.3 COMMON METHOD ANALYSIS

The study utilised the Harman's one-factor to assess the impact of common method variance in the data, to ascertain whether a single factor accounted for most the correlation in the relationship between the outcome and the independent variables (Nhlabathi, 2021). After conducting this factor analysis, all the 24 items and 6 factors with eigenvalues greater than 1 emerged and 40% was the highest percentage of variance accounted for by a single

factor, within the recommended threshold of 50% (Nhlabathi, 2021). This suggests that no single factor accounted for more than 50% of the variance, leading to the conclusion that common method variance was not a threat to the present study.

3.4 DATA ANALYSIS AND RESULTS

Data analysis is an important aspect of the research journey, unravelling the relationships between constructs within the study while also testing for the proposed relationships in preceding sections (Maduku, 2021; Nhlabathi, 2021). Various data analysis methods (PLS-SEM, AMOS SEM, etc.) are used by researchers, including the structural equation modelling (SEM), which was used in this study. The AMOS Version 28 tool was used to analyse both the measurement and structural model. Table 1 shows the descriptive statistics of the constructs.

TABLE 1: DESCRIPTIVE STATISTICS

Demographic Type	Descriptor	Percentage
Gender	Male	175 (49%)
	Female	175 (49%)
	Preferred not to say	7 (2%)
Age	18-23	235 (66%)
	24-29	78 (22%)
	30-35	23 (6%)
	36-41	12 (3%)
	42-47	6 (2%)
	48+	1 (1%)
Occupation	Student	238 (66%)
	Unemployed	43 (12%)
	Employed Fulltime	36 (10%)
	Employed part-time	19 (5%)
	Self-employed	22 (6%)
Level of education	No formal education	5 (1%)
	Some education but did not complete matric	13 (4%)
	Completed Matric	184 (51%)
	University/College undergraduate degree	123 (34%)
	Postgraduate degree	33 (9%)
Preferred residence	On-campus	147 (27%)
	Off-campus	199 (37%)
	Off-campus not accredited	196 (36%)
Average Monthly Income	Below R1500 pm	150 (42%)
	R1501 – R3500 pm	125 (35%)
	R3501 – R5000 pm	22 (6%)
	R5001 – 7500 pm	23 (6%)
	R7501 – R10000 pm	8 (2%)
	R10001 – R15000 pm	10 (3%)
	R15001 – R25000 pm	11 (3%)
	Over R25000 pm	9 (3%)

3.4.1 Measurement model analysis

Measurement items for the study were validated through the assessment of the measurement model. Discriminant and convergent validities were conducted to validate the measurement model, with the latter confirmed through

standardized indicators factor loadings, average variance extracted (AVE) and composite reliability (Maduku *et al*, 2024; Maduku, 2021). The results for the convergent validity are presented in Table 2. The final measurement model produced all significant values at 0.001 level, and above the acceptable 0.7 threshold (standardized factor loadings), 0.7 (composite reliability) and 0.5 (AVE) (Maduku, 2021; Hair, Howard & Nitzl, 2020).

TABLE 2: RELIABILITY AND CONVERGENT VALIDITY OF THE MEASUREMENT MODEL

	Loading	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Optimism		0.916	0.918	0.691
OPTI1	0.811			
OPTI2	0.879			
OPTI3	0.901			
OPTI4	0.758			
OPTI5	0.799			
Innovativeness		0.933	0.934	0.701
INNO1	0.734			
INNO2	0.815			
INNO3	0.876			
INNO4	0.879			
INNO5	0.863			
INNO6	0.849			
Discomfort		0.901	0.902	0.606
DISC1	0.743			
DISC2	0.819			
DISC3	0.791			
DISC4	0.794			
DISC5	0.797			
DISC6	0.724			
Insecurity		0.938	0.938	0.685
INSE1	0.755			
INSE2	0.780			
INSE3	0.883			
INSE4	0.839			
INSE5	0.861			
INSE6	0.814			
INSE7	0.855			
Consumer Attitude		0.976	0.976	0.873
ATT1	0.930			
ATT2	0.946			
ATT3	0.926			
ATT4	0.955			
ATT5	0.956			
ATT6	0.891			
Intention		0.959	0.893	0.737
BI1	0.921			
BI2	0.943			
BI3	0.943			
BI4	0.890			

The discriminant validity was tested using the heterotrait-monotrait (HTMT) method and the results are presented in Table 3. As suggested by Henseler, Ringle and Sarstedt (2015), any HTMT correlation ratios below the 0.85 threshold are acceptable and confirm discriminant validity between any two constructs. Table 3 showed that all ratios met the requirements of a discriminant validity.

TABLE 3: DISCRIMINANT VALIDITY USING THE HTMT CRITERIA

	Attitude	Optimism	Innovativeness	Discomfort	Insecurity	Intention
Attitude						
Optimism	0.48					
Innovativeness	0.50	0.72				
Discomfort	0.30	0.30	0.33			
Insecurity	0.36	0.27	0.27	0.54		
Intention	0.81	0.47	0.45	0.29	0.35	

3.4.2 Testing for goodness of fit

To test for the goodness of fit for a proposed model, the suggested thresholds for the fit indices are as follow: Chi-squared/degrees of freedom (CMIN/DF) of below 3; TLI above 0.9; RMSEA between at 0.05-0.06 and CFI above 0.95 (Hair, Howard & Nitzl, 2020). The results of the model fit test are presented in Table 4. As indicated, model fit was achieved from the initial run, without any need for modification on the model. This means that the proposed model is fit for the data collected.

TABLE 4: MODEL FITNESS TEST STATISTICS

Fit Indicator	Threshold adapted from Hair <i>et al.</i> (2020: 579-580)	Measurement model
CMIN/DF (Chi-square/degree of freedom)	Below 3 (good) From 3 to 5 (acceptable) Over 5 (bad)	2.309
RMSEA (Root Mean Square Error of Approximation)	Below 0.05 (good) From 0.06 to 0.1 (acceptable) Over 0.1 (bad)	0.061
CFI (Comparative Fit Index)	Below 0.90 (bad) Over 0.90 (good)	0.945
TLI (Tucker Lewis Index)	Below 0.80 (bad) From 0.80 to 0.90 (acceptable) Over 0.90 (good)	0.940

Source: Hair, Howard & Nitzl (2020)

3.4.3 Hypothesis testing

The hypothesis testing phase was preceded by the test for collinearity between exogenous constructs to identify and rectify any potential threat. This was done using the variance inflation factors (VIF), as suggested by Nhlabathi (2021). This was done in two phases, the first one involving independent (optimism, innovativeness, discomfort, and insecurity) and dependent variable (attitude). The second phase involved independent variable (attitude) and dependent variable (behavioural intention). The outcomes of the test showed VIF values below the recommended threshold of 3, thus disputing any potential collinearity issues.

The results of the structural model and the hypotheses are presented in Figure 2 and Table 5.

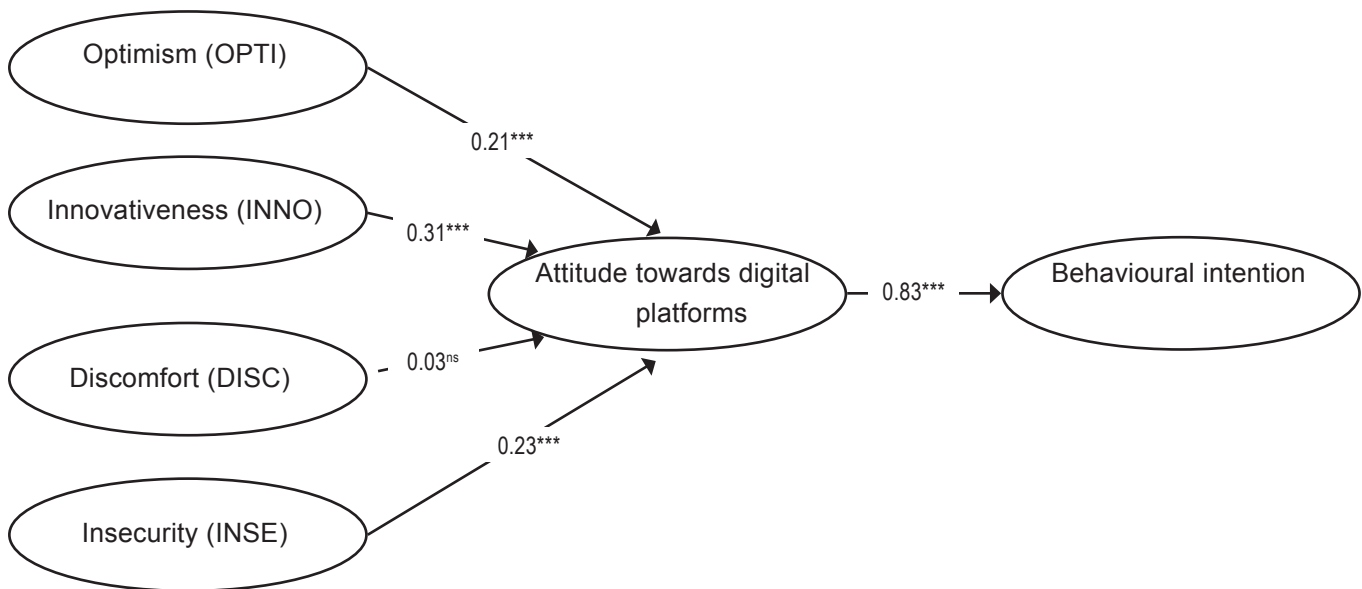


FIGURE 2: RESEARCH MODEL WITH PATH COEFFICIENTS

*p<0.05; **p<0.01; ***p<0.001, ns Not significant (p>0.05)

As presented in Figure 2 and Table 5, all the proposed hypotheses were confirmed at different significant levels. This was based on their beta values and significance levels. The findings on H1-H2 and H4 confirm that optimism ($\beta=0.209$; $p<0.01$) and innovativeness ($\beta=0.308$; $p<0.01$) have a positive influence and insecurity ($\beta=0.228$; $p<0.01$) has a negative influence on consumer attitude toward digital musical platforms. The findings further confirmed that consumer attitude (H5) has a positive influence on the intention to use digital musical platforms. For H3, discomfort’s level of influence on consumer attitude was positive but insignificant ($\beta=0.03$; $p=0.574$). The findings showed that the level of influence was significant for four hypotheses (H1, H2, H4 and H5) but insignificant for H3.

TABLE 5: HYPOTHESES ANALYSIS AND EFFECT SIZES

Hypotheses	Relationship	Beta values	p-value	Decision
H1	Optimism → Attitude	0.209	***	Confirmed
H2	Innovativeness → Attitude	0.308	***	Confirmed
H3	Discomfort → Attitude	0.028	0.574ns	Confirmed
H4	Insecurity → Attitude	0.228	***	Confirmed
H5	Attitude → Intention	0.829	***	Confirmed

*p<0.05; **p<0.01; ***p<0.001, ns Not significant (p>0.05)

4. DISCUSSION AND IMPLICATIONS

The objective of his study was to investigate the influence of technology readiness on the intention to use digital platforms to for music consumption in South Africa, using the technology readiness model. It was also important to determine the level of influence for each dimension of the multifaceted concept of technology readiness had on consumer attitude towards digital platforms, and ultimately behavioural intention.

The overall results showed that technology readiness had a positive influence on consumer intention to use digital platforms for music consumption in South Africa. Consumer attitude and innovativeness, respectively, showed the highest strength as predictor variables while discomfort and optimism, respectively, showed the least strength. The results also showed that only discomfort had no significant influence on consumer attitude. These results gave important insights on the application of the model in the context of the South African music industry.

4.1 DISCUSSION OF THE FINDINGS

The following sections discuss the outcomes of the data analysis against the research objectives, questions, and hypotheses relationships between constructs.

4.1.1 TR – Optimism and consumer attitude

The literature reviewed on the influence of optimism and consumer attitude had suggested a positive relationship between the constructs in various sectors such as banking, e-commerce, etc. (Bilici and Turkoglu, 2024; Hasheem *et al.*, 2022; Hulse, Xie and Galea, 2018; Chen & Li, 2010). The results of the current study corroborated the findings from extant literature which showed that optimism had a positive influence on consumer attitude towards technology (Bilici and Turkoglu, 2024; Hasheem *et al.*, 2022). These studies were conducted in China and Turkey, in different industries (i.e., solar photovoltaic technology and driverless vehicles). Not only was the hypothesized relationship positive, but also significant, representing a strong relationship between the two constructs. These findings suggest that consumers who showed confidence and belief in digital platforms also showed a positive attitude towards adopting and using the platforms. As suggested by Alfy *et al.* (2017), for consumers to use any new technology, they needed to have confidence and a positive attitude towards the technology.

4.1.2 TR – Innovativeness and consumer attitude

The findings related to innovativeness showed that innovative consumers tend to have a positive attitude towards new technologies. This is in line with extant literature which labelled innovative consumers as early adopters and users of new technology, also referred to as influencers or pioneers of such technology (Bilici and Turkoglu, 2024; Buyle *et al.*, 2018; Payre, Cestac, Delhomme, 2014; Chen & Li, 2010). This is also true in the context of the digital musical platforms where the pioneers of the technology tend to show positive attitude and support towards the technology, and ultimately the intention to use it.

Innovative consumers are important in any sector as they take the risks of trying out new technologies in the very early stages of the technology, fully aware of the potential risks attached to their actions (Ali *et al.*, 2019). This tends to develop benchmarks for late adopters of the technology who use the innovators as their benchmark through reviews and testimonies, thus shaping their attitude toward the new technologies accordingly (Hasheem *et al.*, 2022). Consequently, late adopters of the digital music platforms rely on earlier adopters when deciding whether to or not use the technology.

4.1.3 TR – Discomfort and consumer attitude

The findings of the current study were in line with extant literature (Bilici and Turkoglu, 2024; Silva *et al.*, 2022; Salonen and Haavisto, 2019; Nordhoff, Winter, Kyriakidis, Arem and Happee, 2018; Ali, Amin and Cobanoglu, 2016) which showed that consumers who are not comfortable with adopting and using new technology are likely to have negative attitude and behavioural intention towards the technology. Although the relationship between discomfort and consumer attitude is not significant in the current study, the hypothesized relationship is confirmed. This means that consumers need a certain level of self-belief that they can use the technology, to develop positive attitude towards, and ultimately the intention to use the technology. This is true for new technologies in various sectors such as online shopping apps, banking apps, e-commerce, etc. (Chen & Ali, 2010). This is also supported by the theory of planned behaviour which asserts that consumers who believe that they have control over the technology (e.g., necessary knowledge, device, etc.) tend to have a positive attitude towards adopting and using it (Chen & Ali, 2010).

4.1.4 TR – Insecurity and consumer attitude

As part of the inhibitor towards the adoption and use of technology, the findings on insecurity were in line with extant literature which asserts that consumers who feel that using the technology is unsafe become reluctant or have less intention to adopt and use the technology (Bilici and Turkoglu, 2024; Silva *et al.*, 2022; Salonen and Haavisto, 2019; Nordhoff, Winter, Kyriakidis, Arem and Happee, 2018; Ali, Amin and Cobanoglu, 2016). The intended behaviour

is preceded by consumer attitude towards the behaviour which is negatively affected by the sense of insecurity towards the technology (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

The findings further showed that the relationship between insecurity and consumer attitude is significant, confirming that consumers who are reluctant to take risks (i.e., in fear of cybercrimes like phishing, online scams, etc.) will likely have negative attitude towards the adoption and use of the online music platforms. This is true for new technologies in various sectors such as online shopping apps, banking apps, e-commerce, etc. (Chen & Ali, 2010).

4.1.5 Consumer Attitude and intended behaviour

According to the TPB, consumer attitude precedes the intended consumer behaviour (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Findings on the influence of consumer attitude towards the intended behaviour showed a positive relationship between the two constructs. Furthermore, the influence proved significant. This suggests that the intention to use online music platforms strongly and significantly depends on the attitude consumers have towards the technology (Chen & Ali, 2010). The path coefficient between attitude and intended behaviour was the highest, explaining the level of influence attitude has on intended behaviour.

4.2 IMPLICATIONS OF THE STUDY

The findings of this study have academic and management implications. Firstly, the study contributes to the literature explaining the use of technology readiness model, theory of planned behaviour on the consumer intention to use online music platforms in South Africa. Various sectors have been studied using this theory, but very limited literature is available in the context of online music platforms and the South African market. The findings further imply that the theories are relevant to the current study and can be used to expand it in the future.

From a managerial perspective, the findings of the study have several implications. Firstly, the findings on optimism and innovativeness suggest that managers should closely monitor those consumers who show positive attitude towards new technologies, thus creating strategies to leverage such opportunities. Online music businesses can develop marketing strategies targeting consumers with positive outlook on new technologies to encourage them to try and promote that positive work of mouth about the technology to late adopters and users. Such strategies can include providing incentives to innovators such as discounts on subscriptions, brand ambassadorship, and other related incentives.

Part of innovation includes the development of interesting features on the online music platforms such as loyalty points on music streaming and downloads, encouraging early adopters to benefit from early bird pricing and so on. This can also include customised user-friendly modern designs of the platforms such as sorting music by genre, date, artist, etc. Advanced features such as setting alerts can also be included where users can be notified when their favourite artist has new music uploaded on the platform. Furthermore, managers can allow users to create and join e-communities of like-minded users to interact with one another. Feedback from innovators can be another important platform to improve the platforms.

From the inhibitors' perspective, managers need to pay close attention to the factors making consumers reluctant to use new technologies. Based on the current findings, managers should find ways to provide consumers with assurance that the online music platforms are safe to use. This can include providing safer ways of making payments without the consumer providing their banking details online, which can make them victims of cybercrimes. This is especially important considering the rising cybercrime incidents in South Africa, according to BusinessTech (2023, September 10) which puts online consumers at risks of exposure to cybercrimes when companies such as Sportify, YouTube Music, Google Music, etc are attacked.

Consumers also need to be assured that they have control over the use of the digital platforms, such as customising their consumptions of the music. This can be done by enabling consumers to create folders with their preferred music, rename folders, search for specific songs using lyrics, etc. All of these are part of a strategy to give consumer control over their use of the digital platforms. The current results show that control is not important in changing consumer attitude towards the digital platforms.

4.3 LIMITATIONS AND FUTURE RESEARCH

Despite the positive findings from the study, there were limitations which are also inherent. Firstly, the study was only limited to the South African market. The results of this study cannot therefore be generalized beyond the South African context, which is a developing market. The study also did not target any specific age group. The analysis also aggregated across all age groups. Future studies can segment the respondents by age group, music genre, level of educations.

The study also focussed on two theories, i.e., technology readiness and theory of reasoned action. Future studies can use the more advanced model on technology adoption and usage, the UTAUT3. This theory can add other factors such as social influence, performance expectancy, facilitating conditions, hedonic motivations, etc. The study was also limited to the music industry. Future research can therefore replicate the study in other sectors such as online banking, online shopping, etc.

5. CONCLUSION

The aim of the study was to investigate the relationship between consumers' technology readiness and the intention to use digital music technologies. The hypotheses were that a consumer's optimism and innovativeness would have a positive and significant influence on consumer attitude, and ultimately their behavioural intention. Inversely, it was also proposed that a consumer's discomfort and sense of insecurity towards the technology would have a negative influence on their attitude towards the adoption and usage of such technology. The findings showed that optimistic and innovative consumers tend to have a positive attitude towards, and intention to use new technology. It was also confirmed that consumers who feel that the technology is not safe to use tend to have a negative attitude towards, and refrain from adopting and using the technology.

Public interest statement

This paper analyses the influence of technology readiness on the intention to use digital music platform in South Africa. The main constructs for the study were optimism, innovativeness, discomfort, insecurity, attitude and intended behaviour. Following the recent government-imposed COVID-19 lockdowns in South Africa, this study found that consumer attitude was positively and significantly influenced by optimism and innovation, and negatively and significantly influenced by insecurity. Discomfort showed no significant influence on attitude. Ultimately, Attitude positively and significantly influenced intention to use the technology. The findings of this study contributed important insights for the digital industry and academic sector in general.

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