

# Consumer Intention towards the Use of Bible Application

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## ABSTRACT

The study sort to examine the factors that influence users' attitude towards bible application adoption from the Ghanaian perspective. The study used 300 sample size and a purposive technique to solicit views from respondents. Questionnaires were used to elicit information from respondents. Data analysis was performed using SPSS and SmartPLS application. The study reports that perceived usefulness is not statistically significant in influencing attitude to learn using bible application on mobile devices. Contrary to this, perceived ease of use, social influence and application content have a significant influence on the attitude of bible users. The study, therefore, contributes to the research gap on the lack of mobile application studies in developing countries that have emphasized the use of mobile apps. Efforts must be made to conduct the study in different geographical contexts as well as the usage of a mix method approach to understand the reasons that make people to either adopt or reject innovation.

**Keywords:** Bible app, Consumer intention, Application adoption, Users' attitude, Mobile App, Mobile device.

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### **Highlights of this paper**

- The study sort to examine the factors that influence users' attitude towards bible application adoption from the Ghanaian perspective.
- The study used 300 sample size and a purposive technique to solicit views from respondents.
- The study, therefore, contributes to the research gap on the lack of mobile application studies in developing countries that have emphasized the use of mobile apps.

## **1. INTRODUCTION**

Technology advancement has come to stay especially as it permeates every aspect of human lives. It is very uncommon not to see the deployment of technology in banks, schools, hospitals, and even the churches due to the complexities of consumers. It is observed that consumers of technological platforms like social media, has been addicted to the medium hence, the majority of consumers cannot live without it [Wakefield \(2016\)](#). In stretching this argument, it is imperative that these addictions can be transferred in the usage of bible applications to increase the frequency of reading [\(Phillips, 2018\)](#). In a developing country like Ghana, there is a growing trend of pastors and congregants reading from mobile devices which has bible apps and this phenomenon seems to be spreading very fast. Some scholars concur that the bible app is very interactive and easier to use [\(Hutchings, 2015; Phillips, 2018\)](#). It is realized that the bible app is not the same as the traditional bible, hence the spirituality attached to both cannot be the same. Research in consumer behaviour and technology across various sectors are enormous [\(Foroudi, Gupta, Sivarajah, & Broderick, 2018; Wang, Kung, & Byrd, 2018; Xiang, Magnini, & Fesenmaier, 2015\)](#) however, in the area of church and religion lies few studies. In Ghana, little is known and documented in the growing area of consumers adopting bible apps in influencing church participation. Earlier studies on electronic reading have been on schools and college-aged users but little is known in church circles [\(Hutchings, 2015\)](#). [Phillips \(2018\)](#) believes that a lot needs to be done in determining the efficiency of bible apps compared to the traditional bible in influencing spirituality. [Pridmore and Wang \(2018\)](#) also assert that the reasoning behind how valuable the technology to those who practice ought to be investigated to make concrete conclusions. Hence, this study tries to explore the factors that influence the adoption of bible apps as compared to the traditional way of carrying bible to church. The rest of the sections of the study provide some empirical review, research framework, methodology, data analysis, discussions and findings; and some recommendation for further studies.

## **2. LITERATURE REVIEW**

Encouragingly, adoption of technology has driven a lot of research studies worldwide [\(Kang, Endacott, Gonzales, & Bengtson, 2019; Opoku & Adu, 2016; Phillips, 2018; Pobee & Opoku, 2018; Richardson & Pardun, 2015\)](#). To discuss a few, [Kang et al. \(2019\)](#) explored how adults use information technology in their spiritual and religious lives. The study concluded that the use of technology in spiritual growth is paramount in understanding the scriptures very well. Also, [Kang et al. \(2019\)](#) are of the view that some participants use bible apps which helps them to watch sermons online, subscribe to religious groups, listen to religious podcasts and keeping up with church events. In addition, the study makes a distinct assertion that assisting older folks in assessing church and bible related applications is tedious compared to the youth who are technologically savvy. [Phillips \(2018\)](#) assessed technological advancement in churches and concluded that excessive use of social media has influenced the adoption of church members using bible apps in churches. The author further argues that members as consumers want comfort as a form of lifestyle hence, carrying a bulky book as the traditional bible is obsolete. Lastly, [Phillips \(2018\)](#) is of the view that there are consequences to adopting and adapting to technology which must be of consideration to users. Similarly, [Benjamin \(2019\)](#) examined the influence of smartphones on the faith of Christian young adults and

established that young adults use smartphones generally for religious purposes which also makes them committed to an activity. Furthermore, spiritual needs are met due to the use of smart devices which enables them to get in touch with the Supreme Being.

Benjamin (2019) affirm that the use of information technology tools can strengthen or weaken the faith one has in the Supreme Being if it is not managed well. These concerns are shared by Phillips (2018) who makes a similar argument that information technology can be detrimental despite its huge potential. Richardson and Pardun (2015) conducted a study on the new scroll digital devices and concludes that two-thirds of the respondents use new technologies to read the bible at home. The most common tool for reading the bible according to the study is laptop followed by smartphones and tablets. Moreover, there is a relationship between attitudes towards new technologies and the use of these technologies. Furthermore, Facebook and Twitter users are seen as early adopters which have the propensity to use apps including the bible to influence spiritual growth. Respondents who did not show readiness to adopt these technologies are seen as laggards; primarily as they refuse to change and are primitive. Despite these claims towards expanding knowledge in this budding area of research, respondents have doubts whether the meaning of electronic and traditional bible carries the same meaning. Hutchings (2015) also conducted a study on digital and traditional bible approaches and concludes that digital bible increases the frequency of reading among users. Again, the ability to have ease of access as well as online conversation with friends and families makes digital bible a preferred choice over the traditional bible. However, the study further opines that few of the respondents have a feeling that digital bible has lost its uniqueness and status as a sacred object as well as the loss of symbol of faith. These trepidations have consequences for the Christian faith as the once upon a time book is withering away.

In a study by Ross, Pechenkina, Aeschliman, and Chase (2017) the authors concluded that the mobile app is interactive and easier to use compared to the traditional text. However, respondents are of the view that the use of the app is not the same way as the book due to the meaning attached to the traditional bible. Pridmore and Wang (2018) conducted a study on technology and self-application in the usage of the bible. The study found out that there is a difference in perceived value between the traditional and digital bible and hence, users see the design of the bible app as a component of spiritual value (aesthetics). Bible applications and religious marketing are in an infant stage and though research is inadequate, there seem to be some emerging trends in the sector. A plethora of authors agrees that the digital bible or bible app is not the same as the traditional bible in the context of spirituality and value (Hutchings, 2015; Pridmore & Wang, 2018; Richardson & Pardun, 2015). Other authors also feel that a bible app is a lazy approach to spirituality hence a Christian ought to possess a traditional bible as a way of righteousness and upholding virtues of Christ. Despite these differences, there are some glittering qualities attached to the bible app as it influences reading easily as well as ease of access (Phillips, 2018; Richardson & Pardun, 2015). Even though there are quite some technology adoption studies, it seems with the issues of bible app, less attention has been given. Hence, the study turns to fill the gaps and contribute to the limited existing literature.

### **3. RESEARCH FRAMEWORK AND HYPOTHESES**

Researchers have seen the importance of technology adoption frameworks like Technology Acceptance Model (Davis, 1989) Theory of Planned Behavior (Ajzen, 1991) Theory of Reason Action (Fishbein & Ajzen, 1975) Unified Theory of Acceptance and Use of Technology (Viswanath Venkatesh, Morris, Davis, & Davis, 2003) and PC Utilization (MPCU) (Thompson, Higgins, & Howell, 1991) in explaining technology adoption and its usage from both individuals' perspectives and the organisation perspectives. Some models have also helped researchers to understand the success of an information system deployment or implementation (DeLone & McLean, 1992). These

models/theories have been used to address issues in E-banking (Ghalandari, 2012; Khurshid, Rizwan, & Tasneem, 2014; Oni & Ayo, 2010) internet banking and web-based technology (Foon & Fah, 2011; Szopiński, 2016; Yousafzai, Foxall, & Pallister, 2010) 3G technology (Ahmed & Sathish, 2016; Opoku & Adu, 2016; Velmurugan & Velmurugan, 2014) cloud computing (Arpaci, 2017; El-Gazzar, Hustad, & Olsen, 2016) mobile payment (Kim, Park, Choi, & Yeon, 2016; Oliveira, Thomas, Baptista, & Campos, 2016) E-learning (Boateng, Mbrokoh, & Boateng, 2016) and as well as E-commerce (Hamad, Elbeltagi, & El-Gohary, 2018; Xing, 2018). Some studies have combined factors from two or more models to help understand technology adoption and its usage (Arpaci, 2017; Opoku & Adu, 2016; Yakubu & Dasuki, 2018). The technology Acceptance model which was proposed by Davis (1989) has been seen to be the most widely used model in understanding individual behaviour towards information system usage. According to Davis (1989) Perceived Usefulness and Perceived Ease of Use are the two main factors that can influence people’s attitude in terms of using any technology they come to contact.

Davis, Bagozzi, and Warshaw (1989) further explained that individuals who perceive higher ease of use of any technology ponder the technology would be very easy to use. This will, therefore, generate a positive attitude towards the adoption and usage of such technology or system. Nevertheless, if the perceived ease of use is very low, then users will have a negative behaviour or attitude towards the system. Perceived usefulness on the other hand, is the believe individuals have that, using a particular technology will help them to perform well. However, perceived usefulness is strengthened by perceived ease of use. Hence, the perceived ease of use will have a positive influence on perceived usefulness. Both factors will affect individuals’ attitudes and behavioural intention. To bridge the gap in existing researches, this study aims to develop the Technology Acceptance Model (TAM) that are relevant to the characteristics of mobile app adoption in the Ghanaian environment. The study will use TAM model and incorporate additional variables that can affect the consumer adoption decisions such as Application content quality (Pobee & Opoku, 2018; Yakubu & Dasuki, 2018) and social influence (Chong, Ooi, Lin, & Bao, 2012; Viswanath Venkatesh et al., 2003). Based on the above discussions, the motivations of this research is to examine the factors that influence users’ attitude towards bible application adoption from the perspective of Ghanaian consumers.

Figure 1 shows the research model.

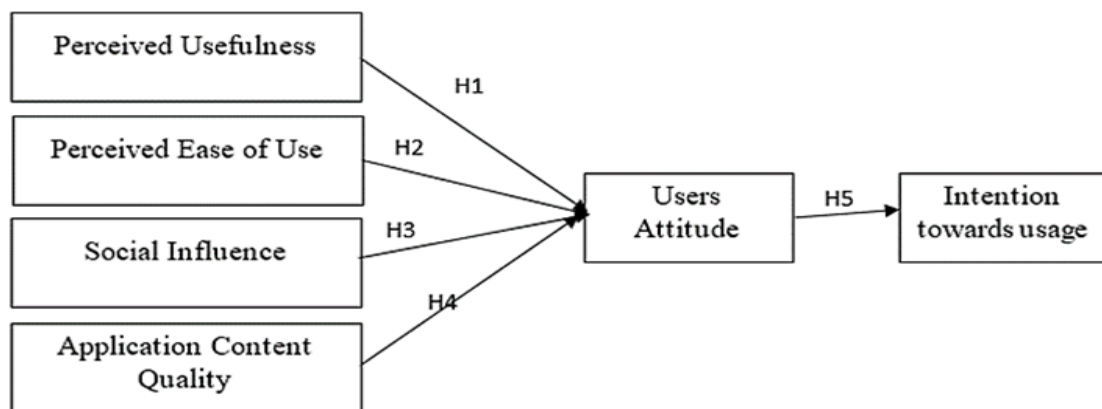


Figure-1. Research model.

### 3.1. Perceived Usefulness (PU)

Perceived Usefulness is seen as one of the most influential determinants to influence individuals’ attitude and intention towards the use of technology (Holden & Karsh, 2010; Park, Rhoads, Hou, & Lee, 2014). Davis (1989) defined the construct as “the extent to which a person believes that using a particular technology will enhance her/his job performance”. Many scholars have seen this determinant very useful (e.g. (Liaw & Huang, 2013; Park et

al., 2014; Racherla & Friske, 2012; Willemsen, Neijens, Bronner, & De Ridder, 2011)). The construct perceived usefulness has also been used in different technological studies like electronic text (Baker-Eveleth & Stone, 2015) e-learning adoption (Lin & Wang, 2012) online tools (Joo, Lim, & Kim, 2011) mobile Application usage (Normalini, Lurudusamyb, & Arokiasamy, 2017) e-government (Hamid, Razak, Bakar, & Abdullah, 2016) mobile service provider (Abbas & Hamdy, 2015) etc. Joo et al. (2011) investigate the structural relationships among variables like perceived usefulness and ease of use of the online learning tools, in an online university located in South Korea. The study found perceived usefulness as a strong predictor to influence learners' satisfaction. However, if learners can understand the use of online tools and believe that using it will help them to perform, their perceived usefulness will increase. A study by Guritno and Siringoringo (2013) on online airline ticket purchase shows that perceived usefulness influence the attitudes towards usability of airlines ticket reservation stronger than perceived ease of use. Previous research conducted in Malaysia by Hamid et al. (2016) on e-government adoption, found perceived usefulness to have a positive influence on users' continuance intention to use e-governance. In the same regards, individuals using bible application on their mobile devices will perceive the usefulness of such applications if they found such application very useful. Concerning this literature the study derives the first hypothesis as follows:

*H1: Perceived usefulness will have a positive influence on Users' attitude towards bible app usage.*

### *3.2. Perceived Ease of Use (PEOU)*

Perceived ease of use is also seen as a good predictor towards individual technology usage. Davis (1989) define perceived ease of use as "the degree to which the user believes that using technology should free him/her from effort". However, if the technology is easy to operate and well understood by the users the perceived ease of use would be high (Normalini et al., 2017). Quite a number of studies have also seen that perceived ease of use has a positive effect on both attitude and intention towards technology usage (Hamid et al., 2016). Moreover, if bible application is relatively easy to use individuals will be more willing to learn about its features and finally intend to continue using it. Joo et al. (2011) explored on online university students' satisfaction and persistence. The authors found perceived ease of use as a significant predictor of learner satisfaction. A study by Almahamid, Mcadams, Al Kalaldehy, and Mo'taz (2010) on the relationship between perceived ease of use and intention to use e-government in Jordan found a significant positive relationship between ease of use and intention to use. Although perceived ease of use has been seen as a good predictor of technology adoption, some studies like Chong et al. (2012) found it to have insignificant influence on intention to use 3G mobile technology. In the context of bible application, if users learn to use the application quickly and understand its functionalities, their level of usage will increase. This will allow them to prefer the bible apps over the traditional way of carrying a bible to church. Hence, the following hypothesis was derived.

*H2: Perceived ease of use will have a positive influence on Users' attitude towards bible app usage.*

### *3.3. Social Influence (SI)*

The construct social influence plays a key role in technology acceptance. Other researchers have seen the importance of this determinant and relating it to subjective norms (Venkatesh & Morris, 2003; Yu, 2012). However, Chong et al. (2012) defined the determinant as "the degree to which an individual user perceived the importance others believe he or she should use an innovation". Many research studies have seen the importance of this determinant (e.g. (Chong et al., 2012; Wang, & Lin, 2011; Yu, 2012)). It is believed that friends, family and culture have a great influence on individuals' decision making (Opoku & Adu, 2016). Aside peers and families, other channels like the mass media which include radio, television, newspapers, magazines as well as the internet are all

ways to influence individual attitude towards technology usage (Wei, Marthandan, Chong, Ooi, & Arumugam, 2009). Some studies have also established a positive relationship between social influence and individuals' intention and attitudes towards innovation. Chong, Darmawan, Ooi, and Lin (2010) explored on 3G adoption services in Malaysia and found social influence to have a significant influence on consumers' adoption. Wang and Lin (2011) researched on the effect of social influence on bloggers usage intention. They found social influence to have a significant effect on usage intention. Chong et al. (2010) in a study also found social influence as a significant predictor of usage intention. It is also believed that the determinant social influence is likely to influence users' intention towards bible apps usage. We, therefore, state the following hypothesis.

*H3: Social Influenece will have a positive influence on Users' attitude towards bible app usage.*

### *3.4. Application Content Quality (ACQ)*

With regards to mobile application (mobile app), the futures of the application, interface design and response time play a major role in users' intention (Lin & Lu, 2000). Application content in this study is the ability of how users can read and understand the content of the application on their mobile device. It is very important to decide which content you are reading and how the content can give you adequate information. According to Cheng (2012) content quality usually consists of both content richness and regular content update. Mtebe and Raphael (2018) conducted a study on key factors in learners' satisfaction with e-learning system adoption in Tanzania and found an insignificant relationship between course content and user satisfaction. A study by Yakubu and Dasuki (2018) found e-learning content as statistically significant to behavioural intention. Some past studies have shown that content quality has a positive significant influence on user intention (e.g. (Mohammadi, 2015; Ramayah, Ahmad, & Lo, 2010; Ramayah. & Lee, 2012; Yakubu & Dasuki, 2018)). It is therefore hypothesized that:

*H4: Application content quality will have a positive influence on Users' attitude towards bible app usage.*

### *3.5. Users Attitude (ATT) and Behavioural Intention (ITU)*

Users' attitude towards technology adoption has been seen in most literature to influence behavioural intention towards usage (Kuo & Yen, 2009; Suki, 2011). Many people today are likely to have been exposed to mobile applications and to have formed an attitude towards using them. Suki (2011) investigated subscribers' intention towards 3G mobile technology and realized that individuals' attitudes have an effect of behavioural intention. Kuo and Yen (2009) also researched on users understanding towards 3G mobile technology service and found attitude as the most important factor to influence behavioural intention. Using the Technology Acceptance Model in understanding academics' behavioural intention to use learning management systems (LMS), a study by Alharbi and Drew (2014) in Saudi Arabia, found a positive significant relationship between faculty members' attitude and behavioural intention to use LMS. Since individuals' behaviour is influenced by their attitudes, the possibility of them using a particular technology would be very high. It is therefore hypothesized that;

*H5: Users' attitude will have a positive influence on behavioural intention towards the usage of bible application.*

## **4. RESEARCH METHODOLOGY**

The study utilizes a cross-sectional survey to collect data from ten various Christians' denomination. This was done to reach a large number of respondents and to evaluate the above-formulated hypotheses. The purposive sampling method was used in sample selection to ensure that only Christians' who have been using biblical applications and those who intended to use such applications were included. Questionnaire development and data collection: Respondents were surveyed using a two-section questionnaire, comprising of the scale of measurement

and demographic background. Demographic questionnaires were measured using a nominal scale, whereas Scale of measurement section of the questionnaire was obtained using a five (5) point Likert scale to show the extent to which the respondents agreed or disagree with the statements used to measure the six (6) constructs for the study. The scales include Strongly Disagree = 1, Disagree= 2, Neutral = 3, Agree = 4, strongly agree = 5. Data for the study were analyzed using SmartPLS application. A Structural equation model was employed to predict the relationship among variables. Several aspects of technology adoption variables were explored which includes; perceived usefulness, perceived ease of use, social influence, application contents, behavioural intention and attitudes. Out of 340 questionnaires distributed to all Christians denomination, 320 (91.43%) were returned to the author (s), were 300 (85.71%) were fully completed. However, 20 (5.72%) of the questionnaires were not used for the analysis due to missing responses. 186 (62.0%) of the students were found to be female 114 (38.0%) were males, which fairly represent the selected students as presented in Table 1.

**Table-1. Demographic variables (n = 300).**

Demographic variables	Frequency	Percentage
Gender		
Male	114	38.0
Female	186	62.0
Age		
18-25	91	30.3
26-35	96	32.0
36-45	59	19.7
46-55	37	12.3
Highest Academic Qualification		
Primary School/JHS	3	1.0
Senior High	46	15.3
Diploma/Higher Diploma	76	25.3
Degree	113	37.7
Masters	51	17.0
PhD	11	3.7
Primary School/JHS	3	1.0

## 5. DATA ANALYSIS AND RESULTS

### 5.1. Internal Consistency

Cronbach's alpha ( $\alpha$ ) was employed to test the internal consistency (reliability) of the various constructs. However, the generally accepted value for internal consistency should be equal to or exceed the threshold value of 0.70 (Hair, Ringle, & Sarstedt, 2012; Wu & Chen, 2017). In this study, the reliability of the constructs ranged from 0.8836 to 0.7522 which indicated excellent reliable construct as shown in Table 2. Besides, the sample adequacy was measured using Kaiser–Meyer–Olkin (KMO) and Bartlett's test of sphericity. The results indicated significant statistics of  $\chi^2 (561) = 5066.383$  ( $P = 0.000 < 0.05$ ) and KMO measure = 0.896 > than the recommended threshold of 0.500. Therefore, the data obtained is adequate and appropriate for further analysis.

### 5.2. Convergent and Discriminant Validity

Composite reliability (CR), factor loadings and Average variance extracted (AVE) were tested to measure the convergent validity. Recommended AVE value > 0.5, factor loadings values > 0.5 and CR value > 0.7 are acceptable values for convergent validity (Hair et al., 2012; Wu & Chen, 2017). The construct values of AVE Table 3, factor loadings Table 2 and CR Table 2 display in the study satisfy the acceptable level.

Table-2. Summary of exploration factor analysis (EFA) results.

Construct	Measurement	Factor loadings	Cronbach's Alpa	Composite Reliability
Application Content Quality(ACQ)	ACQ 1: Information on the bible app is well organized, accurate and up to date	0.749	0.883	0.909
	ACQ 2: The app loads very fast when it is launched on my gadget	0.728		
	ACQ 3: The bible app has useful and reliable information	0.795		
	ACQ 4: I easily find what I need	0.771		
	ACQ 5: There are updates which helps me use the app better	0.741		
	ACQ 6: The bible app has adequate information which helps me to enjoy it	0.785		
	ACQ 7: The bible app is well organized for easy access	0.795		
Attitude (ATT)	ATT1: Using multimedia material in class is good.	0.845	0.797	0.881
	ATT2: My using multimedia material in class is favourable.	0.827		
	ATT3: It is a positive influence for me to use multimedia material in class.	0.857		
Intention towards usage (ITU)	ITU1: I will use the bible app when it is available	0.805	0.790	0.819
	ITU2: I will use the bible app once it is free to download	0.848		
	ITU3: I expect the app to influence me to worship better	0.788		
Perceived Ease of Use (PEU)	PEU1: Learning to operate the gadget would be easy for me	0.884	0.852	0.832
	PEU2: I would find the electronic device to be flexible to interact with	0.805		
	PEU3: I would find the gadget easy to use	0.651		
	PEU4: I would find it easy to get the system to do what I want it to do	0.682		
	PEU5: Electronic bible enables me to accomplish tasks more quickly	0.705		
Perceived Usefulness (PU)	PU1: Using the bible app would enable me to accomplish tasks more quickly	0.729	0.800	0.856
	PU2: The device would improve my performance	0.799		
	PU3: The app would enhance my understanding of the bible	0.810		
	PU4: Using the app would make it easier for me than the traditional bible	0.607		
	PU5: Using the bible app would increase my likelihood to meditate	0.632		
	PU6: The usage of the bible app enables me to get close to God often	0.642		
Social Influence (SI)	SI1: It is important to use apps other people are using	0.754	0.807	0.856
	SI2: often follow advice and comments placed on the internet	0.744		
	SI3: I believe opinions on products and services on social media are a reliable source of information	0.661		
	SI4: People watch and ask me questions on how to install apps on their gadget	0.682		
	SI5: I buy products that are accepted in my environment	0.685		
	SI6: I often rely on information from family and friends	0.709		

Discriminant validity is said to be achieved if the square root of the Average Variance Extracted (AVE) for individual construct are higher than the inter-factor correlation between the construct in the model or when the

Square root of the AVE's exceed its correction values (Hair et al., 2012; Kurfalı, Arifoğlu, Tokdemir, & Paçin, 2017; Wu & Chen, 2017).

As presented in Table 3, the square root of AVE value (bold) is consistently greater than its respective correlations values, suggesting acceptance discriminant validity among constructs.

Table-3. Correlation matrix of the constructs.

Construct	AVE	ACQ	ATT	ITU	PEOU	PU	SI
ACQ	0.588	0.7671					
ATT	0.711	0.521	0.843				
ITU	0.564	0.428	0.510	0.751			
PEOU	0.600	0.718	0.484	0.406	0.775		
PU	0.641	0.641	0.433	0.479	0.681	0.801	
SI	0.699	0.568	0.568	0.495	0.593	0.638	0.836

Note: The bold diagonal values are the Square roots of AVE.

### 5.3. The Structural Model

The study confirmed that the measurement model was valid and reliable. The next step was to assess the structural model. This included observing the relationship between the constructs, evaluating the coefficient of determination and the Goodness-of-fit (GOF) index.

#### 5.3.1. Measuring the Value of R<sup>2</sup>

The coefficient of determination usually measures the model predictive accuracy of the structural model. In this study, two values of R<sup>2</sup> were obtained. The first (R<sup>2</sup> = 0.655) measures the relationship between application content quality, perceived ease of use, perceived usefulness, social influence and attitude. The other (R<sup>2</sup> = 0.728) also measures the relationship between attitude and intention to use. R<sup>2</sup> = 0.655 indicates that the four independent variables substantially explain 65.6% of the variance in individuals attitudes towards technology adoption. Similarly, R<sup>2</sup> = 0.728 indicates that individual attitudes towards bible application usage can explain 72.8% of individuals intention towards usage. According to Hair, Black, Babin, and Anderson (2010) an R<sup>2</sup> value of 0.75 is considered substantial whereas a value of 50 is regarded as moderate, and a value of 0.26 is considered as weak. Hence, the R<sup>2</sup> value in this study was substantial.

#### 5.3.2. Model Fit Test

The study went further to test the model if it has a good fit with the sample collected. This was done by performing Confirmatory Factor Analysis (CFA). However, eight model fit measures were evaluated as presented in Table 4.

Table-4. The model fit results.

Fit Index	Recommended Value	Research Results
Adjusted Goodness of Fit Index (AGFI)	≥ 0.80	0.913
Chi-Square/Degree of Freedom ( $\chi^2$ /d.f.)	≤ 3.00	2.603
Comparative Fit Index (CFI)	≥ 0.90	0.955
The goodness of Fit Index (GFI)	≥ 0.80	0.941
Normed Fit Index (NFI)	≥ 0.90	0.947
P-Value	< 0.05	0.011
Root mean square error of approximation (RMSEA)	≤ 0.08	0.049
Standardized root mean square residual (SRMR)	≤ 0.05	0.027

Verifying from the table, it is found that all the fit indices exceed the accepted threshold as indicated in some researcher studies (e.g. Hair et al. (2010)). Therefore, it can be concluded that the measurement model has a good fit with the sample data collected for the study.

5.3.3. Hypotheses Tests

Table-5. Model path analysis.

Hypothesized Path	Standardized Beta ( $\beta$ )	T-Statistics	P-value	Decision
H1: PU $\rightarrow$ ATT	-0.054	0.449	0.138	Rejected
H2: PEU $\rightarrow$ ATT	0.300	3.219	0.000**	Accepted
H3: SI $\rightarrow$ ATT	0.496	5.720	0.000**	Accepted
H4: ACQ $\rightarrow$ ATT	0.258	2.827	0.013**	Accepted
H5: ATT $\rightarrow$ BI	0.320	3.752	0.000**	Accepted

Table 5 presents the results of the hypothesis of the participants. From the results, hypothesis H1 was not supported. Thus, there was no statistically significant influence between perceived usefulness and Attitude to learn using or use bible application on mobile devices ( $\beta = 0.054$ ,  $P = 0.138$ ). However, hypotheses H2, H3, H4 and H5 were supported. Thus, perceived ease of use (PEU) ( $\beta = 0.300$ ,  $P = 0.000$ ), social influence (SI) ( $\beta = 0.496$ ,  $P = 0.000$ ) and application content quality (ACQ) ( $\beta = 0.258$ ,  $P = 0.000$ ) were found to be important in predicting individuals' attitude towards bible application usage. Also, the respondents' attitude was found to influence their intention towards usage. Among all these influential factors, social influence has the largest impact of  $\beta = 0.496$  on respondents' attitudes. This suggested that social influence is the most significant factor to influence respondents' attitudes towards bible application usage.

6. DISCUSSION OF FINDINGS

The results of the current study presented no significant relationship between participants perceived usefulness and attitude ( $\beta = 0.054$ ,  $t = 0.138$ ,  $P = 0.138$ ). This finding could be as a result of the infrequent use of the bible application. As indicated, participants don't see the usage of such applications as part of their daily routine. However, the frequent use of a system is likely to increase usage intention as compared to infrequent use (Davis, 1989). Although some studies have shown a positive and significant relationship of perceived usefulness and attitude (e.g. (Guritno & Siringoringo, 2013; Hamid et al., 2016)) this study did not. Secondly, the study found a significant positive relationship between perceived ease of use and users attitude ( $\beta = 0.300$ ,  $t = 3.219$ ,  $P = 0.000$ ). Thus, users of bible application adopt more positive attitudes towards usage of the service when they perceive higher ease of use. This finding suggests that users find it quickly to learn bible applications and also easy to use. This finding corroborates with findings of other research works like Normalini et al. (2017); Hamid et al. (2016); etc. The relationship between social influence and users' attitude exhibited a significant positive relationship ( $\beta = 0.496$ ,  $t = 5.720$ ,  $P = 0.000$ ). This indicates that users' are influenced by their peers, families; and friends to use the bible application. A leader in the Christian domain who has adequate knowledge of technology usage is likely to speak positively about the application. By encouraging members with this approach, their intention to use the application should be increased. This finding is consistent with the work of Opoku and Adu (2016); Chong et al. (2010); Wang and Lin (2011) etc. The study also found a significant relationship between Application Content Quality and Users attitudes ( $\beta = 0.258$ ,  $t = 2.827$ ,  $P = 0.013$ ). If users can read and understand the content of bible applications, their attitude towards usage would be high. This finding supports the work of Ramayah and Lee (2012); Yakubu and

Dasuki (2018); Mohammadi (2015); Ramayah et al. (2010) etc. Users' attitude on the order hand was found to have a positive significant influence on individual behavioural intention ( $\beta = 0.320$ ,  $t = 3.752$ ,  $P = 0.000$ ). Individual intention to use any system is based on their attitude. When the individuals accept to use any device or system, the possibility of using it becomes high. This finding, however, substantiates with other research studies (e.g. (Kuo & Yen, 2009; Suki, 2011)).

## 7. CONCLUSION

A cursory look at the phenomenon of bible application usage is on the increase and efforts are being made by content developers to increase the patronage and make life simpler. Some of the reasons ascribed to the usage of the bible application vary and this is dependent on the education and income of consumers. These characteristics predict the basic knowledge of usage as well as the ability to afford handheld devices. It is essential to note that, perceived usefulness by consumers is not high in the Ghanaian context, however, frequent use of the bible application can lead to attitudinal change. Some are of the view that the traditional bible is the symbol of authority for Christians, and hence, one cannot use the bible app to fight the devil in critical conditions or when the battery is low. Furthermore, the youth use bible app predominantly due to the social attachments that are linked to influence and trends within society. Technologically advanced pastors and ministers read from their handheld devices and that is where the majority of the influence comes from. In Ghana, these pastors are seen as demi-gods and therefore, the influence they wield is very high resulting in a sway regardless of the object of interest. Practitioners within the technological space can take advantage of the gap that exists in churches and sanctuaries to develop a user-friendly app that suits their style of worship. This presents an opportunity also to create contents for the churches who have embraced information technology. The study opens a debate on bible app and it related auxiliary from a developing country. The factors elucidated presents further clarity on theory and the budding literature. Efforts must be made to conduct the study in different geographical contexts as well as the usage of a mix method approach to understand the reasons that make people to either adopt or reject innovation.

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