**POTENTIAL USE OF ISLAMIC FINANCE AMONG MUSLIMS
IN PORT ELIZABETH**

BADROEN ISMAIL

Thesis submitted in fulfilment of the requirements for the degree of

DOCTOR OF PHILOSOPHY (ECONOMICS)

in the

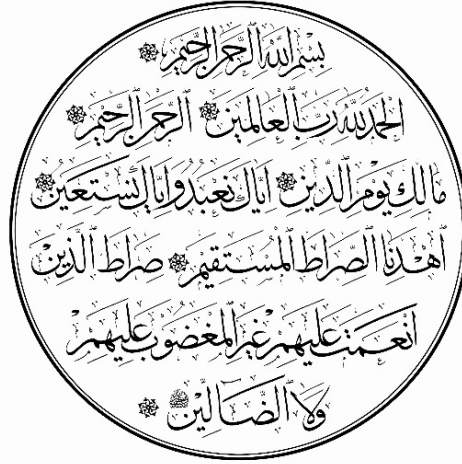Faculty of Business and Economic Sciences

at the

Nelson Mandela Metropolitan University

Promoter: Professor P. le Roux   **Port Elizabeth**
Co-promoter: Professor I.W. Ferreira   **April 2017**

DEDICATION

This thesis is dedicated to my late father, **Hassan Ismail;** my loving mother, **Mariam Ismail**, whose words of encouragement still ring in my ears; and the late **Omaya Allie**, NMMU Campus librarian, whose intellectual stimulation and many hours of identity-forming conversation inspired me to pursue an unconventional dream in which I truly believe. May Almighty *Allah* (s.w.t.) grant them *Jannah Al-Firdous*, *Inshallah*.

ACKNOWLEDGEMENTS

DECLARATION

**POTENTIAL USE OF ISLAMIC FINANCE AMONG MUSLIMS
IN PORT ELIZABETH[1]**

I, Badroen Ismail, hereby declare that this thesis submitted is my own independent work and that the work of others or carried out jointly by me or any other person, have been clearly indicated and acknowledged. This thesis is being submitted for the degree of Doctor of Philosophy (Economics) at the Nelson Mandela Metropolitan University, Port Elizabeth (South Africa). This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree at any other university. I authorise the University to reproduce for the purpose of research either the whole or any portion of the contents in any manner whatsoever.

Badroen Ismail

PORT ELIZABETH
April 2017

ABSTRACT

The resurgence of Islam across the globe combined with the resilience that Islamic financial assets have shown against the onslaught of the current financial crisis, make Islamic finance an attractive alternative financial system. Over the past decade, the Islamic finance sector have shown double digit growth rates beyond the traditional areas of the Gulf Cooperation Council (GCC) regions of Asia as well as other parts of the Middle-East and North Africa (MENA) regions. Research suggests that the future of Islamic finance in Africa depends on business opportunities in South Africa, Kenya, Nigeria and Senegal. The South African government, in conjunction with the national finance authorities, have made their intention clear to position the country as the Islamic finance hub for the rest of the African continent. Despite various marketing campaigns over the past decade to convince the public that Islamic banking and finance is for everyone, non-Muslims generally view Islamic banking as being for Muslims alone. Scepticism towards Islamic finance has resulted in a mere 15 per cent of the estimated 1.5 million South African Muslims currently making use of the sector's banking and retail instruments. This lack of interest is impacting negatively on the country's aspirations to establish itself as the gateway of Islamic finance to the rest of Africa. Generally, people's attitudes toward utilising Islamic finance are regarded as a key obstacle to the development of the Islamic banking and finance system in Muslim-minority countries. A Kuwait Finance House research report (2012) highlighted a lack of awareness and knowledge of Islamic finance products and services as key factors stifling the growth of the Islamic finance sector in South Africa. In this context, it was deemed necessary to analyse how knowledge, awareness, expectations, beliefs, perceptions and ancillary external factors impact on potential users' attitude and decision to adopt or reject Islamic finance.

By means of adapting Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction, a universally-acceptable behavioural-change model, this research explains in a holistic manner how cognitive, affective and environmental measures impact on a Port Elizabethan Muslim's attitude and eventual decision to accept (or reject) Islamic finance. This study has found that *knowledge* was the most important variable influencing *attitude* and *intention* to use (or reject) Islamic finance. Consequently, this thesis proposed that Islamic institutions should focus their efforts on promoting knowledge and awareness of their products among the South African Muslim and non-Muslim population. As the global *Shari'ah* finance industry continues its positive growth trajectory, it is imperative that Islamic finance stakeholders in South Africa ensure that they exploit the benefits derived from online learning platforms and assist, by means of cross-border collaborations, more students to have greater access to Islamic finance courses. Furthermore, universities and training institutions are encouraged to offer courses and qualifications in Islamic finance to close the talent gap that currently exist in this particular field of study.

KEYWORDS:

Consumer behaviour, discriminant function analysis, Integrative Model of Behavioural Prediction, Islamic banking, Islamic finance, structural equation model

EXECUTIVE SUMMARY

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The resurgence of Islam across the globe combined with the resilience that Islamic financial assets have shown against the onslaught of the current financial crisis, make Islamic finance an attractive alternative financial system. Islamic finance encompasses financial banking institutions, products and services designed to comply with the central tenets of *Shari'ah* (Islamic) law which forbids any form of exploitation (Gait & Worthington, 2008). The sector's broad appeal is attributed to its ethical banking theory and practice where *riba'h* (usury or interest) and *gharar* (impermissible contractual uncertainties) are forbidden. Islamic financial institutions are obliged to focus on activities that promote greater social justice by sharing risk and reward (Warde, 2000). This unconventional mode of finance has proven that it is more than just a niche industry. *The Banker* (2011) states that the Islamic finance sector have shown double digit growth rates beyond the traditional areas of the Gulf Cooperation Council (GCC) regions of Asia as well as other parts of the Middle-East and North Africa (MENA) regions. However, opportunities exist for Islamic finance to blossom in Muslim-minority countries (Wilson, 2000). Research suggests that the future of Islamic finance in Africa depends on business opportunities in South Africa, Kenya, Nigeria and Senegal (KFH Research, 2012). The South African government, in conjunction with the national finance authorities, have made their intention clear to position the country as the Islamic finance hub for the rest of the African continent. A number of established conventional banks in South Africa have shown support for this vision by creating Islamic windows at the majority of their retail outlets. The fiscal authorities have introduced tax neutrality laws for Islamic finance products to ensure that the full potential of Islamic finance is realised (Lall, 2013). Despite having access to Islamic banking and finance facilities for more than twenty years, bank patronage and utilisation of this mode of finance among the 1.5 million South African Muslims are estimated at a modest 15 per cent (Kassie, 2012; Saini, Bick and Abdulla, 2011). This lack of interest among the Muslim population in South Africa to utilise Islamic banking and finance retail products is impacting negatively on the country's aspirations to establish itself as the gateway of Islamic finance to the rest of Africa.

Generally, people's attitudes toward utilising Islamic finance are regarded as a key obstacle to the development of the Islamic banking and finance system in Muslim-minority countries (Dixon, 1992; KFH Research 2012). South Africa seems to be a case in point. In order to develop effective theory-based intervention programmes in the behavioural sciences, it is necessary to understand why Muslims in South Africa behave the way they do. Numerous studies (*cf.* Okumus, 2005; Bley & Kuehn, 2004; Hamid & Nordin, 2001; Naser, Jamal & Al-Khatib, 1999; Haron, Ahmad & Planisek, 1994) in the GCC and MENA regions have cited a lack of awareness of Islamic finance products as a key reason why Muslims do not engage with the sector. Other key subjective factors include, *inter alia*, individual cognitive and affective measures as well as other ancillary external factors. This viewpoint was shared in a Kuwait Finance House research report (2012) which highlighted a lack of awareness and knowledge

of Islamic finance products and services as key factors stifling the growth of the Islamic finance sector in South Africa. In this context, it was deemed necessary to analyse how knowledge, awareness, expectations, beliefs, perceptions and ancillary external factors impact on potential users' attitude and decision to adopt or reject Islamic finance.

The primary objective of this exploratory study was to investigate and empirically test how potential use of Islamic finance among Muslims in Port Elizabeth is influenced by an individual's attitude towards it. For the purpose of this study, *potential use* referred to the likelihood that a Port Elizabethan Muslim will accept or reject Islamic finance after evaluating an attitude he/she has formulated from various subjective beliefs and environmental factors. This research objective was achieved by applying and adapting Fishbein's (2000) Integrated Model of Behavioural Prediction (IMBP) to suit the hypotheses of this study. In order for the researcher to achieve the identified research aims and objectives of this study and to provide guidance on the overall execution of the research, the following research questions were formulated: (1) Do Muslims in Port Elizabeth understand the concept, principles and objectives of Islamic finance? (2) What factors influence a Port Elizabethan Muslim's decision to adopt or reject Islamic finance? (3) Are there any significant differences between the socio-economic and demographic factors of those Muslims who intend to use Islamic modes of finance and those who prefer not to? (4) To what extent do cognitive measures (for example, an individual's knowledge and awareness of Islamic finance), affective measures (for example, an individual's behavioural and normative beliefs) impact on a Port Elizabethan Muslim's intention to accept or reject Islamic finance? (5) Is there any correlation between a Port Elizabethan Muslim's attitude towards Islamic finance and his/her intention to engage with the sector? (6) Which environmental factors contribute most to the likelihood among Muslims in Port Elizabeth to engage or disengage with the Islamic finance sector? and, lastly, (7) What can be done to encourage Muslims in Port Elizabeth to change their behaviour towards the Islamic finance sector? In this context, the present exploratory study was a first step towards understanding the perceptions, reservations, and expectations potential users may have of this sector. It was believed that an understanding of these factors would create an opportunity for policymakers to formulate national and institutional marketing strategies that will ensure the sector's potential is realised.

This exploratory study, based on the researcher's positivist stance, adopted a survey research strategy where the viewpoints of Muslim respondents in 18 suburbs of Port Elizabeth were elicited by means of an 82-variable structured interviewer-administered questionnaire. From a sample of 389 Muslims in Port Elizabeth, almost every second respondent (53.2%) have indicated an intention to use Islamic finance. It can thus be concluded that, based on the survey findings, a reasonably strong demand exists among Muslims in Port Elizabeth for Islamic retail products and services. However, the results of the descriptive analyses identified a gap in terms of respondents' knowledge and awareness of Islamic finance. By means of a ten-point self-rating scale, it was established that the level of awareness in terms of the principles and objectives of Islamic finance (M=4.24, SD=1.71, and median=4.00) and what the various Islamic finance retail products entail (M=4.18, SD=1.67, and median=4.0) were low among all the respondents. Nearly all (93.4% and 97.8%) non-potential users of Islamic finance indicated that they possessed a low level of familiarity with the basic principles, objectives and retail products on offer in Islamic finance. This was in

contrast to potential users, where 47.8% and 43.0% respectively indicated that they were familiar with the principles, objectives and retail finance instruments offered by Islamic banks. Respondents to the survey were asked to disclose their attitude, measured on a 10-point scale, towards Islamic finance. While 42.7% (n=166) of the respondents had a positive attitude towards Islamic finance, some 40.1% (n=156) of the 389 respondents harboured a negative attitude towards it. Some 49.6% of the respondents felt that this perceived problem was exacerbated by the fact that Islamic bank administrators are not doing enough to educate the public on the merits of Islamic finance and that the marketing of the Islamic financial brand was weak and unclear. Muslims in Port Elizabeth ranked a lack of knowledge of what Islamic finance retail products entail (M=4.23, SD=0.884, median=4.00) as the most important factor that influenced their decision to reject Islamic finance. The majority of the respondents voiced a strong belief that investing in a conventional bank was in conflict with their religious beliefs and that opening an account at an Islamic bank was the right thing to do as it created an opportunity to harmonise personal and business objectives with religious obligation. However, respondents were divided in their belief whether choosing Islamic finance over conventional banking promoted Islam or whether participating in Islamic banking and finance was more beneficial that participation in traditional Western banking. Scepticism was also raised about whether Islamic bank's methods of finance are interest-free and managed in accordance with *Sharia'h* law. These results should trigger some concern for the various parties that are directly involved in the Islamic banking industry, such as the regulators, industry players as well as institutions that promote Islamic finance within the Port Elizabeth region.

Five types of descriptive and inferential statistical methods were employed to achieve the primary and secondary objectives of the study: (i) factor analysis (EFA and CFA); (ii) CHAID analysis; (iii) binary logistic regression (BLR) analysis; (iv) structural equation modelling (SEM); and (v) discriminant function analysis (DFA). Exploratory factor analysis (EFA principal component method with Varimax rotation) identified six key variables that accounted for 73.19% of the variance in a Port Elizabethan Muslim's decision to accept or reject Islamic finance. The Cronbach-alpha coefficients of the six constructs ranged from 0.702 to 0.963. The factors were all reflective because their indicators were highly correlated, largely interchangeable and the direction of causality was from construct to measure (Jarvis *et al*., 2003). Confirmatory factor analysis (CFA) identified *gender* (R^2=0.424, p<0.01) as the only statistically significant demographic variable in the structural equation model. Confirmatory factor analysis also revealed statistically insignificant differences between potential and non-potential users of Islamic finance across *age*, *marital status*, *education*, *income* and *occupation*. Consequently, these variables were omitted from the subsequent binary logistic regression (BLR) analysis. However, in terms of age, older females between the age categories of 40-44 and 45-49 reflected a greater propensity to adopt Islamic finance retail products compared to younger females. Most of the males who indicated an intention to reject Islamic finance were less than 40 years old. Respondents in the R3201-R6400 monthly income category expressed the strongest (R^2=0.394, p<0.01) intention to use Islamic finance compared to any of the other age categories. No discernible difference or correlation was detected between the occupation (R^2=0.096, p>0.05) of respondents and their intention to use or reject Islamic finance. By means of CFA, it was established that a Muslim's attitude towards Islamic finance was formed after an evaluation of *behavioural beliefs* (BB), *normative beliefs* (NB), *efficacy beliefs* (EB), and *environmental factors* (ENV). The influence of *BB* (R^2=0.201, p<0.01), *NB*

(R^2=0.261, p<0.01), *EB* (R^2=0.041, p<0.05) and *ENV* (R^2=0.099, p<0.05) on *attitude* were positive. Results from the factor analysis were evaluated in terms of reliability, as well as discriminant and construct validity. All KMO values for the individual items (>0.90) were well above 0.5 and the overall KMO measure of 0.910 indicated that the data were sufficient for exploratory factor analysis. The Bartlett's Test of Sphericity (X^2(389)=9891.130, p<0.001) showed that there were patterned relationships between the items. Using an eigenvalue cut-off of 1.0, there were 6 factors that explained a cumulative variance of 73.19%. Accordingly, *knowledge*, *awareness*, *behavioural beliefs*, *normative beliefs*, *efficacy beliefs* and *environmental factors* were (i) complex variables that loaded together as expected; (ii) adequately correlated; and (iii) met the criteria of reliability and validity. In terms of *gender* ($e^{3.083}$), the odds-ratio predicted by the BLR model was 21.817. Muslim females in Port Elizabeth were nearly twenty-two times more likely to accept Islamic finance compared to Muslim males. Knowledge of what Islamic finance entails was identified by CHAID analysis as the best predictor around which to begin segmenting the market of potential users of Islamic finance. For respondents with a mean *knowledge* score greater than 4.00 on a 10-point knowledge scale, 97.7% (172 of 176 respondents) were classified as potential users of Islamic finance. In the event that respondents possessed a mean *knowledge* score less than 4.00 on a 10-point knowledge scale, 35 of the 213 (16.4%) respondents were classified as potential users of Islamic finance. The results from the CHAID Gains Table indicated that, by improving respondents' knowledge of Islamic finance, potential use among Muslims in Port Elizabeth increased fivefold, from 16.9% to 83.1%. A respondent's attitude towards Islamic finance was the second most important predictor of potential use of Islamic finance. Overall, the CHAID model classified 83.1% of potential users and 97.8% of non-potential users correctly.

In terms of the structural equation model (SEM), a multiple-indicator-multiple-cause (MIMIC) model was specified and constructed to determine how multiple indicators reflect the underlying latent variables/factors, and how the multiple causes (observed predictors) affect latent variables/factors. The data in the present study contained no missing values or outliers. Data transformation was not possible due to the ordinal scales used in the collection of the data. The results of the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk W confirmed that the data was not normally distributed. Consequently, faced with non-normal data, the default Maximum Likelihood (ML) estimator available in MPlus7 (Muthén & Muthén, 2012) was replaced with Robust Maximum Likelihood (MLR), a rescaling-based estimator that provided standard errors and a X^2 test statistic that were robust to non-normality (Muthén & Muthén, 2012). The discrepancy function criterion for the MLR method of parameter estimation was F_{MLR} = log | Σ(θ) | + tr[Σ(θ)$^{-1}$ S] – log |S| - p. This function provided the guideline to minimise the differences between the population covariance matrix, Σ, as estimated by the sample covariance, S, and the covariance matrix derived from the hypothesised model, Σ(θ) (Wang and Wang, 2012: 61). The SEM constructed with the Robust Maximum Likelihood (MLR) estimator and covariates, resulted in a six-factor SEM that had good fit structure (SRMR=0.062), confirming that the observed variables assessed the theoretical constructs. Confirmatory factor analysis for the modified measurement model showed that all path coefficients were positive and significant at p<0.05, representing a meaningful contribution of each item to the corresponding scale. The six latent constructs were tested for discriminant validity by means of inter-factor correlations between the variables' square root of the AVE. To evaluate discriminant validity (i.e. the distinctness of constructs from each other), Fornell and

Larcker (1981) suggest comparing the square root of the AVE against the inter-construct correlation. All factors demonstrated adequate discriminant validity because the diagonal values were greater than the correlations. The results confirm that the measurement model met discriminant validity and enjoyed construct as well as face validity. Face validity refers to the extent a construct was perceived by the researcher as covering the concept it purported to measure. A strong positive relationship was detected between a Muslim's *attitude* (R^2=3.624, $p<0.01$), *knowledge* (R^2=1.853, $p<0.01$) and *awareness* (R^2=0.896, $p<0.01$) of Islamic finance and his/her willingness to use it. Stepwise discriminant function analysis (DFA) confirmed the rejection of all eight null hypotheses specified in this study in favour of the alternative hypotheses.

In the present study, the Cohen's *d* effect sizes between potential users and non-potential users of Islamic finance in Port Elizabeth (N=389) were large for *gender* (*d*=1.248, $p<0.05$), *age* (*d*=0.994, $p<0.05$), *income* (*d*=0.852, $p<0.05$), *awareness* (*d*=2.012, $p<0.05$), *knowledge* (*d*=2.517, $p<0.05$), *attitude* (*d*=2.279, $p<0.05$), *behavioural beliefs* (*d*=1.319, $p<0.05$), as well as *normative beliefs* (*d*=1.683, $p<0.05$). Relatively high Cohen's *d* effect size values suggested high practical significance. The effect size for *efficacy beliefs* (*d*=0.315, $p<0.05$) and *environmental factors* (*d*=0.650, $p<0.05$) were moderate. However, the correlation between these predictors and the dependent variable were statistically significant ($p<0.05$). Relatively high R^2 values found in the structural equation model also confirmed a statistically significant and positive relationship between the binary dependent variable *intention* and *efficacy beliefs* (R^2=0.346, $p<0.01$) as well as *environmental factors* (R^2=0.804, $p<0.01$). Therefore, the null hypotheses containing these predictors were rejected in favour of the alternative hypotheses. Small effect sizes were found between the dependent variable, *intention*, and the following three independent variables: *marital status* (*d*=0.134, $p<0.05$), *education* (*d*=0.056, $p<0.05$), and *occupation* (*d*=0.194, $p<0.05$). Considering that these three independent variables failed at the significance level ($p>0.05$) and the fact that their calculated Cohen's *d* effect size values were small, suggested low practical significance. These variables also exhibited statistically insignificant relations with the dependent variable in the structural equation model. In this context, the null hypotheses containing these predictors were not rejected in favour of the alternative hypotheses.

This research explains in a holistic manner how Islamic finance policymakers can benefit from the insights provided by social psychological theory and behavioural economics as both provide a deeper understanding of human behaviour. Apart from studies undertaken by Ackermann and Jacobs (2008), Suleman (2011), the Research Division of the Kuwait Finance House (2011) as well as Saini *et al*. (2011), comparatively little research has been done in the field of consumer behaviour in the Islamic finance sector in South Africa. From an academic perspective, this research contributes to the existing body of knowledge on the behavioural aspects, expectations and reservations potential users have in respect of Islamic finance and develops a theory to deal with this problem in the future. These findings will inform Islamic bank managers on the key role subjective norms play in a Port Elizabethan Muslim's decision to adopt (or reject) Islamic finance and create an opportunity for them to incorporate these variables into their marketing strategies to ensure that the country becomes the hub of Islamic finance to the rest of Africa.

The survey results also asserted that religiously motivated respondents with Islamic and Arabic education were more positive about Islamic banking, and as a result, may require less research and marketing effort. Survey results suggest that less religious respondents and users of conventional banking were less positive about Islamic banking practices, products and services. Therefore, instead of embarking on monotonous unimodal marketing campaigns which would be unsuitable to attract the less-pious conventional bank users, it is recommended that Islamic banks, before launching a marketing campaign, intensify their market research efforts to understand the perceptions and expectations potential less-pious users may have of Islamic banks. This will greatly assist marketers of Islamic finance retail products to deliver messages accurately, make accurate forecasts in acquiring new customers, identify issues and accordingly develop new products or service features that new and existing customers require. Previous studies have shown that, with an intimate knowledge of potential customers' behaviour, attitude, profile and demographic, Islamic banks could reach the target market with messages that were more appropriate. In order to reach potential customers, Islamic banks need to conduct thorough analysis of the preferences of different customers, measuring response to product and marketing activities to determine campaign effectiveness. In an attempt to increase potential use of Islamic finance among Muslims in Port Elizabeth, this study made the following recommendations: (i) Islamic banks need to intensify their educative and informative marketing campaigns to increase knowledge and awareness among potential users of Islamic finance in Port Elizabeth; (ii) Islamic banks need to intensify their research efforts to change the attitudes potential users have of Islamic finance; (iii) Islamic banks need to improve customer service quality by means of an expanded branch network managed by staff knowledgeable in all aspects of Islamic finance modes; and (iv) Improve the structure of Islamic bank websites to easily explain the functioning of the different Islamic contracts as well as highlight the benefits of Islamic banking retail products over those available from conventional banks.

Although this study contributes to the literature of Islamic finance research in South Africa, the following limitations and difficulties were faced during the execution of this study: (i) **Sampling problem:** In the present study, viewpoints were elicited from a single location using a systematic (purposive) stratified random sampling technique. Research findings may thus be subjected to regional clustering bias which, in turn, could limit the potential for generalisation of the findings. In order to address this limitation, future research need to replicate the study in other cities in South Africa; (ii) **Limited variables:** The variables employed in the present study focused primarily on the impact subjective norms and other attitudinal components (for example, perceived knowledge and awareness of Islamic finance, behavioural beliefs, normative beliefs, efficacy beliefs, and environmental factors) has on a Port Elizabethan Muslim's intention to use or reject Islamic finance. These are not inclusive of all factors that impact on a Muslim's decision to use Islamic finance. Within this context, an opportunity exists for future studies to expand or create a richer set of variables by including not only the impact of subjective norms but also focus on the importance of 'governmental roles', 'personal experiences', 'perceived financial hardship', and 'corporate image of the bank' as key determinants of potential use of Islamic finance. This will provide policymakers with a better understanding of factors influencing Islamic finance acceptance and usage among Muslims; (iii) **Cost:** There was a high cost involved in this research. This could be a barrier for researchers with financial

constraints. Therefore, if this study were to be replicated, it would be advisable that funding be sought from either an educational research agency (e.g. the National Research Foundation), the research entity of an institution of higher learning or private sector scholarship bodies. In this case, the researcher was fortunate to have received dual funding from the National Research Foundation's (NRF) Thuthuka Programme supplemented with funding from the Nelson Mandela Metropolitan University's Research and Capacity Development (RCD) office; and (iv) **Questionnaire length:** Many respondents complained about the length of the 82-variable questionnaire. However, the nature of the present exploratory study justified the wide scope as well as the length of the questionnaire. Compiling a shorter questionnaire may address this shortcoming in the future. The structural equation model developed in this study benefits future researchers who will be able to eliminate those variables/questions that were statistically insignificant predictors of potential use of Islamic finance in the present study. This will allow future researchers an opportunity to work with a smaller number of variables in a shorter questionnaire.

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GLOSSARY

The Glossary for Arabic terminology used in this thesis is taken from the Encyclopaedia of Islamic Finance authored by Shanmugam, Alam and Zahari (2008) and Dusuki (2005).

Transliteration	Translation
Al-Quran :	The Holy Book of the Muslims consisting of the revelations made by Allah to the Prophet Muhammad (p.b.u.h.). The *Qur'an* lays down the fundamentals of the Islamic faith including beliefs and all aspects of the Muslim way of life.
Al-Hadith :	The tradition or collection of traditions attributed to the Prophet Muhammad (p.b.u.h.) that includes his saying, acts, and approval or disapproval of things. Hadith is valued by Muslims as a major source of religious law and moral guidance.
Bai' al- istisna' :	A contract of sale in which a supplier of the goods or services is asked to supply goods of definite specifications at agreed rates, place and time of delivery. The price of the goods is paid in advance, but the goods are manufactured and delivered at a later date.
Bai'al-inah (inah) :	A sale with immediate repurchase. Literally, it means a contract which involves the sale and buys back transaction of an asset by a seller. The seller will immediately buy back the same asset on a deferred payment basis at a price that is higher than the cash price.
Bai' al-salam :	A contract in which advance payment is made for goods to be delivered later. The seller undertakes to supply specific goods to the buyer at a future at a future date in exchange for an advance price fully paid at the time of contract.
Bai' bithaman 'ajil :	This contract refers to the sale of goods on a deferred payment basis. Equipment or goods requested by the clients are bought by the bank which subsequently sells the goods to the client at an agreed price which includes the bank's mark-up (profit). The client may be allowed to settle the payment by instalments within a pre-agreed period, or in a lump sum. Similar to a Murabahah contract, but with payment on a deferred basis.

Fiqh / usul alfiqh :		Islamic Jurisprudence / The Principles of Islamic Jurisprudence. It covers all aspects of life – religious, political, social or economics etc.
Gharar :		Literally it means uncertainty, hazard, chance or risk. *Gharar* is a sophisticated concept that covers certain types of *'haram'* uncertainty in a contract. It is an exchange in which one or more parties stand to be deceived through ignorance of an essential element of the exchange.
Halal :		Permissible according to *Shari'ah*
Haram :		Prohibitions according to *Shari'ah*
Ijarah :		A lease agreement whereby a bank or financier buys an item (like a building, equipment, etc.) for a customer and then leases it to person over a specific period, thus earning profits for the owner of the asset by earning rental income.
Ijma :		The collective views of *mujtahid* or the collective agreement of Islamic jurists at particular instances on issues of law.
Iwad :		Counter-value
Kafalah :		A contract of guarantee, security or collateral. It is also defined as the responsibility of the entrepreneur or manager of a business, that is, one of two basic relationships towards property, which entails bearing the risk of its loss.
Muamalah :		It is an Arabic term means business or commerce.
Mudarabah :		An agreement made between two parties: one which provides 100 percent of the capital for the project and another party known as a *mudarib,* who manages the project using his entrepreneurial skills. Profits are distributed according to a predetermined ratio. Any losses accruing are borne by the provider of capital. The provider of capital has no control over the management of the project.
Mudarib :		Refers to the partner who provides entrepreneurship and management in a *mudarabah* agreement.
Mujtahid :		An expert on Islamic law and in other branches of the religion.
Murabahah :		A contract sale between the bank and its client for the sale of goods at a price which includes a profit margin agree by both parties. As a financing technique, it involves the purchase of goods by the bank as requested by the client. The goods are sold to the client with a mark-up. Repayment, usually in instalments is specified in the contract.

Musharakah :	A partnership contract between two parties who both contribute capital towards the financing of a project. Both parties share profits on a pre-agreed ratio, but losses are shared on the basis of equity participation. Either parties or just one of them may carry out management of the project. This is a very flexible partnership arrangement where the sharing of the profits and management can be negotiated and pre-agreed by all parties.
Qard-al Hasan :	An interest-free loan given mainly for welfare purposes. The borrower is only requires to pay back the amount borrowed. In some cases, a minimum administrative fee may also be charged to the borrower.
Qiyas :	The process of reasoning by analogy of the *mujtahid* with regards to difficult and doubtful questions of doctrine or practice. The process involves comparing the problem with similar issues or cases which have already been solved using the rulings in the Holy *Qur'an* and *Hadith.*
Qur'an :	The Holy *Qur'an* is the authentic and eternal source of the *Shari'ah* laws. It contains the words or messages of the Almighty *Allah* (s.w.t.) that were passed through the Prophet (p.b.u.h.) to guide all mankind. These words and messages are fundamental, all-encompassing and eternal.
Rab-al-Mal :	The owner of capital in a *mudarabah* contract. The owner agrees with the working party to give him an amount of money to be invested such that the profit is distributed among them with known predetermined percentages that are not based on the capital but on the amount of the realized profit itself. As for the loss (if any), is to be borne by the owner of capital alone and the working party suffers the loss of his effort and his time without any compensation.
Riba'h :	Literally means an increase or addition. Technically it denotes any increase or advantage obtained and accrued by the lender in a loan transaction without giving an equivalent counter-value or recompense in return to the borrower. In a commodity exchange it denotes any disparity in the quantity or time of delivery.
Shari'ah :	In legal terminology, *Shari'ah* means the law as extracted by the *Mujtahids* from the sources of law. The term *Shari'ah* can also mean divine guidance as given by the Quran and the *Sunnah* of the Prophet Muhammad (p.b.u.h.) and embodies all aspects of the Islamic faith, including beliefs and practice.

Sukuk :	An Islamic bond. It is defined as an asset-backed certificate which is structured in accordance with the *Shari'ah* and may be traded in the market. A *sukuk* represents the proportionate beneficial ownership in the underlying asset, which can be leased to a client to yield the return on the *sukuk.*
Sunnah :	It refers essentially to the Prophet's (p.b.u.h.) examples as indicated by his practice of the faith. Literally means custom; the habits and religious practices of the Prophet Muhammad, which were recorded for posterity by his companions and family and are regarded as the ideal Islamic norm.
Tabarru' :	A *takaful* donation or a contract where a participant agrees to donate a pre-determined percentage of his contribution (to a *takaful* fund) to provide assistance to fellow participants.
Takaful :	Literally it means guaranteeing each other. It is a system of Islamic insurance based on the principle of *tawun* (mutual assistance) and *tabbaru* (voluntarily) where risk is shared collectively by the group voluntarily.
Tawarurruq :	It is the method of how an Islamic bank is facilitating the demand/supply of cash from/to its customers. The bank's customers (*mutawarriq*) will buy a commodity on deferred payment basis from the bank and sells the commodity for a cash amount less than the deferred price to a third party (authorised commodity trader). The *tawarruq* contract also being use in a deposits product where the bank guarantee a predetermined percentage rate of return to its term-depositor.
Wakala :	Delegation of a duty to another party or agency for specific purposes and under specific conditions. Under this concept, the bank acts as the customers' agent in completing a particular financial transaction. As an agent, the bank will be paid a certain amount of fee for the services it provides.

The Glossary for behavioural change theories and models used in this thesis is taken from Taylor, Bury, Campling, Carter, Garfield, Newbould and Rennie (2006: 18-19).

Term	Definition
Behaviours	The actions or reactions of an individual to a situation. They may be conscious or unconscious, voluntary or involuntary.
Behavioural beliefs*	These guide behaviours. They relate to a) the likelihood that an action might promote or negate a given outcome and b) evaluating outcomes achieved or avoided, in terms of their desirable and negative consequences.
Behavioural attitudes*	These are the multiplicative sum of the individual's relevant outcome likelihood and evaluation related behavioural beliefs. They can also be independently measured.
Behavioural intentions*	These are derived from the combination of behavioural attitudes and perceived (subjective) norms. Intents rather than attitudes are regarded as the main proximal cognitive precursors to acting.
Cognitions	The conscious processes of knowing or being aware of thoughts or perceptions, including understanding and reasoning.
Components	All 4 of the models reviewed contain a plethora of apparently discrete (albeit on occasions conceptually ambiguous, overlapping or identical) components, defined as single concepts.
Constructs	These are complex psychological and sociological concepts (defined as multi-component theoretical concepts) such as attitudes, beliefs and subjective or descriptive norms contained in health behaviour change and other models.
Control beliefs*	These are salient to an individual's perceptions of a) the external factors inhibiting or facilitating an action and b) self-efficacy, the individual's internal, behaviour specific, executional self-confidence.
Health Belief Model	A health specific social cognition model, the key complex theoretical components of which are: perceived susceptibility; perceived severity; perceived threat, the product/sum of severity and susceptibility; perceived benefits; perceived barriers; self-efficacy; expectations, which are the product/sum of perceived benefits, barriers and self-efficacy; cues to action; and demographic and socio-economic variables.

Health outcomes	A change in the health of an individual, a group of people or a population that is attributable to a health intervention or series of interventions.
Models	These are conceptual descriptions of a system, theory, or phenomenon that account for its known or inferred properties.
Normative beliefs*	These include a) referent beliefs about what behaviours others expect and b) the degree to which the individual wants to comply with others' expectations.
Perceived Behavioural Control (PBC)*	PBC is the product of control beliefs and self-efficacy. It is seen as acting as a determinant of intentions alongside subjective norms and behavioural attitude, and also as a direct influence on behavior additional to intention.
Self-efficacy	Bandura (1977) first introduced this concept of act or task specific self-confidence (i.e. belief in one's ability to execute a given behaviour).
Social cognition models	These examine the social context of cognitions which act as predictors and precursors to health behaviours.
Subjective norms*	These are defined as the multiplicative sum of the two sets of normative beliefs, although these are also independently assessed.
Theories	These are sets of statements or principles devised to explain a group of facts or phenomena that can be scientifically tested.
Theory of Reasoned Action (TRA)	Formulated towards the end of the 1960s, the TRA can in some respects be seen as refining and taking forward approaches embodied in the HBM. As expressed in its final form, the TRA combines two sets of belief variables, described under the headings of 'behavioural attitudes' and 'the subjective norm'.
Theory of Planned Behaviour (TPB)	Its design and dissemination followed Bandura's work on self-efficacy and the publication of his Social Cognitive Theory in 1986. It is differentiated from the TRA by the additional dimension of perceived behavioural control.

Trans-Theoretical Model (TTM)	The TTM was developed by Prochaska and DiClemente at the start of the 1980s. In order to link together concepts drawn from a variety of theories it uses a temporal dimension, the stages of change (SoC) construct, as a basic framework around which other model components relating to the promotion of behavioural change (that is, the processes of change components) and its monitoring and support are located.
Value-expectancy based theoretical concepts	Lewin (1951) argued that making behavioural choices involves assessments of the desirability of achieving specific ends being balanced by predictions about the likelihood of valued outcomes being attained as a result of acting. Such concepts are contained in many health behaviour change models.

* For the purposes of this report the definitions marked with an asterix have been taken from Ajzen (1988).

CHAPTER ONE
INTRODUCTION AND BACKGROUND TO THE STUDY

1.1   INTRODUCTION

The financial system lies at the heart of the modern market economy and has played a key role in the accelerated development of the world economy, particularly after the Second World War (Stiglitz, 2003: 53). According to Howells and Bain (2008: 3) a stream of financial innovations (for example, the introduction of negative-amortisation mortgages, collateralised debt obligations, synthetic CDOs and credit default swaps) in conjunction with a revolution in the information, communications and technology sphere at the beginning of this decade contributed significantly towards the growth and importance of the financial sector in a globalised world. Today, financial innovation, once celebrated by former Federal Reserve chairman Alan Greenspan, stands accused of being complicit in the financial crisis that has created the first global recession since 1929 (Johnson & Kwak, 2012: 1).

Numerous causes for the current financial crisis have been suggested, with varying weights assigned by economic and financial sector experts. A report by the United Nations (2009), examining the regional impact, responses and possible solutions to the 2007 financial crisis, states that several banks were either over-exposed to bad loans or the complex financial assets derived from them. As a result, market participants became risk-averse and when questions arose about the solvency of major financial institutions, a severe credit crunch was triggered that ultimately affected the real economy (United Nations, 2009: 3). The United States Senate's *Levin–Coburn Report* (2011) asserts that the 2007 financial crisis occurred as a result of (i) high risk, complex financial products; (ii) undisclosed conflicts of interest; as well as (iii) the failure of regulators, the credit rating agencies and the market itself to rein in the excesses (extravagance and greed) of Wall Street (Levin & Coburn, 2011). A press release, issued by the Office of the Press Secretary of the White House (2008), blames credit rating agencies and the failure of investors to accurately price the risk involved with mortgage-related financial products for the current financial crisis. Furthermore, governments' failure to adjust their regulatory practices to address 21st-century financial markets, was also highlighted as a key mitigating factor (Office of the

Press Secretary of the White House, 2008: 1). The Organisation of Islamic Cooperation (OIC SESRIC) has published a viewpoint that an unprecedented increase in derivative activity coupled with an increased appetite for excessive risk-taking, disruptive financial innovation and loose regulatory oversight brought the conventional financial system to the brink of collapse in the late 2000s (OIC SESRIC, 2012: 1). Similarly, Murphy (2008: 4) attributes the 2007 financial crisis to banking staff's "blind faith" in financial risk models that were based on unrealistic assumptions. This led to mispricing in the massively unregulated market for credit default swaps that "exploded upon catalytic rises in residential mortgage defaults." (Murphy, 2008: 4).

According to Stiglitz (2003), financial instability is a recurring phenomenon in contemporary economic history. Analysing nearly 100 incidents of regional and global financial crises since the Great Depression, Stiglitz (2003: 54) concludes that the conventional financial system is predisposed to crises. Bookstaber (2007: 4) asserts that financial crises do not arise from economic instability or acts of nature, but stems from the design of the financial markets. Arner and Buckley (2010), Glazyev (2005) as well as Roubini and Uzan (2005) agree with Bookstaber's (2007) viewpoint and appeal for the development and implementation of an innovative new financial architecture that will help prevent the outbreak and spread of new crises or, at least, minimise their frequency and severity. *The Economist* (2008), quoted in Chapra (2008: 9), observes that the world was in need of "new ways of thinking about finance and the risks it involve".

The resurgence of Islam across the globe combined with the resilience that Islamic financial assets have shown against the onslaught of the current financial crisis, make Islamic finance an attractive alternative financial system (Hasan & Dridi, 2010; Farook, Hassan & Lanis, 2011; Samad, Gardner & Cook, 2005). Islamic finance encompasses financial banking institutions, products and services designed to comply with the central tenets of *Shari'ah* (Islamic) law which prohibits any form of exploitation (Gait & Worthington, 2008: 1). According to Abdullah, Sidek and Adnan (2012: 151) the purpose of Islamic finance is primarily to expand the ring of unity between Muslims and to ensure a fair distribution and utilisation of funds in compliance with *Shari'ah* law. Islamic financial institutions are, therefore, geared to operate within a philosophy that prohibits immoral transactions and are obliged to focus on activities that promote

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greater social justice by sharing risk and reward (Warde, 2000: 5). Under *Shari'ah* law, Muslims are prohibited from (i) paying or receiving *riba'h* (usury or interest); (ii) partaking in any form of *gharar* (for example, trading or investing in certain immoral industries, indulging in any financial act of a speculative nature and/or concluding excessively risky contracts); or (iii) undertaking activities that were in contravention of the *Qur'anic* principle of social justice (Amin, Abdul Rahman, Sondoh & Choo Hwa, 2011: 23).

Western financial analysts have taken note of the continued stability of the principles and moral system that underpin Islamic financial services. The International Monetary Fund, in a working paper entitled "*Introducing Islamic Banking into a Conventional Banking System*", acknowledged the enormous potential that Islamic finance present as a viable alternative to the current interest-based system (Solé, 2007: 23). Neil Miller, Head of Islamic finance at Norton Rose and an adviser to the British government, is quoted in Shaffaii (2008: 24) as stating that "Islamic finance demonstrates good banking behaviour that has perhaps been lost over the last 10 years or so". Seznéc, quoted on the HSBC Amanah website, agrees with this viewpoint by stating that

> "… at a time when global economic forces are causing great hardship for people around the world, and the harsh demands of the market seem to supersede concern for the well-being of fellow humans, Islamic banking may serve as a means of re-imbuing modern banking with ethical norms. Within the broader financial system, Islamic finance can play a role in re-establishing a sense of ethics that has been lost and attempt to make its concept and products acceptable to ethically minded Muslims, Christians, Jews and others who are engaged in financial transactions" (HSBC Amanah, 2013).

Wilson (2006) is of the opinion that, amid growing concerns over the current Euro debt crisis, the outflow of funds from emerging markets as a consequence of tapering in the United States of America's (USA) quantitative easing programme as well as the decision of the British public to support an exit from the European Union, the USA public sector shutdown over its budget deficit fiscal cliff as well as the London Interbank Offered Rate (LIBOR) scandal, opportunities exist for Islamic finance to blossom in Muslim-minority countries. This unconventional mode of finance has proven that it is more than just a niche industry (Wigglesworth, 2011). Statistics issued

by *The Banker* (2011) confirm that the Islamic finance sector has shown growth beyond the traditional areas of the Gulf Cooperation Council (GCC) regions of Asia as well as other parts of the Middle-East and North Africa (MENA) regions. Notwithstanding the fact that *Shari'ah*-compliant financial institutions represented approximately 1 per cent of total world assets at end 2014 (Mohammed, 2014: 2), the sector has demonstrated its resilience by reaching an estimated US$2.1 trillion in assets as at end-2014 (The Economist, 2012), with Islamic banking and the sukuk market accounting for 95 per cent of the industry's assets (KFH Research, 2015). A report published by Ernst & Young (2014) confirms this by stating that the Islamic banking and finance sector has been growing at an average compound annual growth rate (CAGR) of 18.6 per cent. With an estimated growth rate of approximately 15 to 20 per cent per annum (Farook et al., 2011; Hamid & Azmin, 2001; Khattak & Kashif-Ur-Rehman, 2010; Qorchi, 2005; Rustam, Bibi, Zaman, Rustam & Zahid-ul-Haq, 2011; Thambiah, Eze, Santhapparaj & Arumugam, 2011), the Islamic finance sector has outpaced that of traditional banking during the past decade (Saini, Bick & Abdulla, 2011: 298). The Research Division of the Kuwait Finance House (KFH Research, 2015) predicts that the Islamic finance industry will continue with its double digit growth rates across all sectors and expects total Islamic finance assets to reach US$2.8 trillion by the end of 2018 (KFH Research, 2015). Figure 1.1 provides a graphical depiction of the global presence of Islamic finance in 2014. In serving the real economy, the household sector in countries where Islamic finance has a solid presence (e.g. the GCC, Malaysia, Turkey, Indonesia, Pakistan, Bangladesh) have benefitted from the availability of *Shari'ah*-compliant financing for important needs such as home and vehicle purchases. Through the bancassurance channel, Islamic banks facilitated the expansion of *Takaful* services to households in key markets such as Saudi Arabia and Malaysia (Oxford Business Group, 2014), by widening the distribution channels for these protection services. In these more sophisticated markets, household demand for financial services extends to *Shari'ah*-compliant investments; Malaysia and Saudi Arabia are home to 300 and 194 Islamic funds respectively, and collectively account for 67% of total assets under management for the industry (KFH Research, 2015). In some of the more nascent Muslim-majority markets such as Djibouti and Afghanistan, the increasing availability of Islamic banks offering basic savings and financing services supported the overarching goal of enhancing financial inclusion, by catering to the demand for *Shari'ah*-compliant

banking (KFH Research, 2015). These countries, which remain underserved by the financial sector, have taken concrete steps to support the development of Islamic finance as a means to encourage the population to engage in formal financial services.

Figure 1.1: Global presence of Islamic finance – 2014
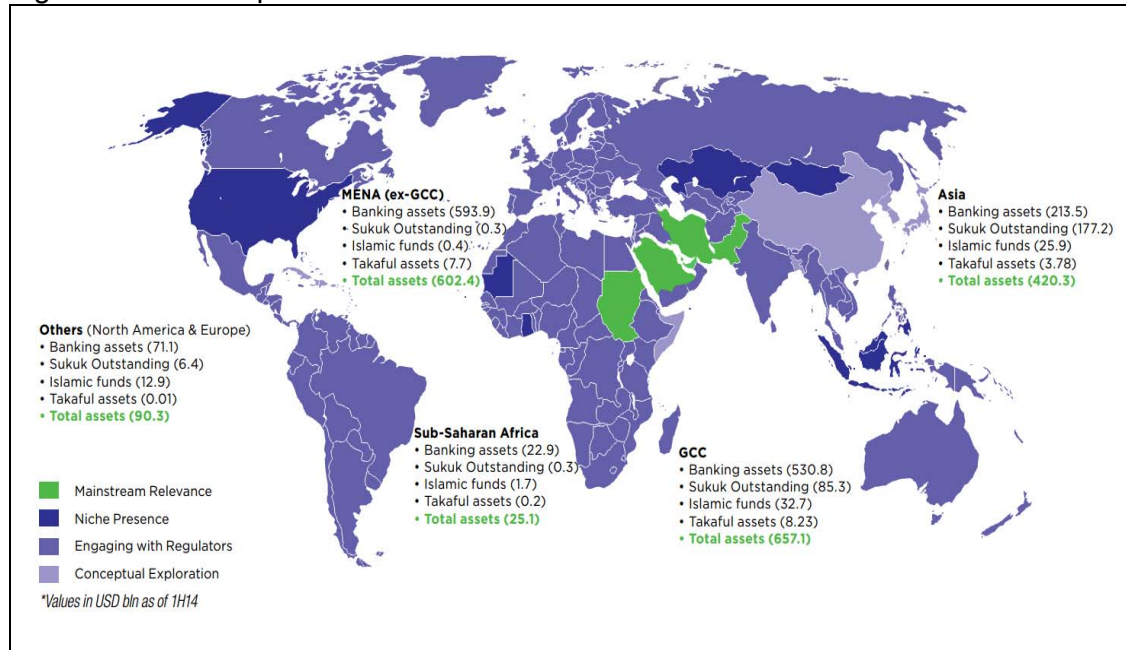
Source: Kuwait Finance House Research, 2015.

From a supply-side perspective, the number of institutions reporting *Shari'ah*-compliant activities has risen from 221 in 2007 to over a thousand at the end of 2012 (ICD-Thomson Reuters, 2013). From a demand-side perspective, it is expected that the desire to engage in Islamic finance would significantly increase over the next twenty years. A report released by the Pew Research Center's Forum on Religion & Public Life (2011) expects the Muslim population to constitute approximately 26 per cent of the world's total projected population of 8.3 billion in 2030. Nigeria and Egypt are expected to spearhead the Muslim growth trend on the African continent (KFH Research, 2015). Given the fact that these are countries with *Shari'ah*-compliant financial sectors and that approximately 80% of Africa's adult population is currently un-banked (Da Silva, 2011), it is realistic to assume that the demand for Islamic retail products in Africa will increase substantially over the next two decades (KFH Research, 2015).

1.2 BACKGROUND TO THE STUDY

Although the Muslim population in South Africa is smaller in comparison to the Muslim population on the rest of the African continent, it still reflects the changes that occur in the international banking landscape. Therefore, it is reasonable to expect pious Muslims to show their preference to engage in banking practices that is in accord with their Islamic principles. With a vision of becoming the hub for Islamic banking on the African continent, the South African finance authorities made its intention clear to use the country's advanced regulatory and legislative structures, strict risk management frameworks as well as governance and compliance structures to its advantage. Harding (2011) reports that Finance Minister, Pravin Gordhan, confirmed this outlook when he stated that

> "… the development of Islamic finance in South Africa is critical to the expansion of National Treasury's strategy to position South Africa as a gateway into Africa. The Treasury envisages South Africa being a central hub for Islamic product development and ensuring the rollout of such products into African markets".

The South African government's commitment to the above vision was confirmed when the fiscal authorities introduced tax neutrality laws for Islamic finance contracts with the aim of realising the full potential Islamic finance has for the country (Lall, 2013). According to Lall (2013: 15) the revised taxation laws bode well for certain Islamic finance contracts such as *Mudarabah* (trust financing), *Murabahah* (cost-plus financing) and diminishing *Musharakah* (diminishing shared ownership). The Finance Minister, in his 2014/2015 Budget Review, announced that the National Treasury was in the process of issuing the country's long awaited debut *sukuk* (Islamic bond) by the end of September 2014 with the intention of raising US$1.5 billion a year in capital markets over the next three years (National Treasury, 2011). Issuing the country's sovereign *sukuk* was a target the South African fiscal and monetary authorities have been working towards since 2011, when the country's National Treasury invited banking institutions to submit proposals for advisory services regarding the structuring and issuance of s*ukuk* (National Treasury, 2011).

The South African financial landscape changed in 1989 when licenses to operate as Islamic deposit-taking institutions were issued to the Islamic Bank Ltd and Albaraka

Bank. However, the perception of Islamic banking in South Africa was tainted with the liquidation of the Islamic Bank Ltd in 1997 (Buksh, 2006). According to Saini, Bick and Abdulla (2011: 299) total deposits and assets at the time of liquidating Islamic Bank Ltd were estimated to be worth approximately R150 million and R190 million respectively. Since then, Albaraka Bank has remained the pioneer of Islamic banking in South Africa (Badroen, 2008). Established conventional banks in the country (for example, HBZ Bank, a subsidiary of Habib Bank AG Zurich, the Amalgamated Banks of South Africa (ABSA) and First National Bank (FNB), a subsidiary of FirstRand Bank Ltd), have created Islamic windows at the majority of their retail outlets (Saini *et al.*, 2011: 299). The concept of "Islamic windows" allows existing conventional banks to introduce Islamic banking products and services to their customers (Ahmad & Haron, 2002; Iqbal, 1997). Standard Bank Ltd, Africa's largest bank in terms of assets, does not offer Islamic banking services in South Africa, but launched its first Islamic savings and current account in Tanzania in 2010 (AfricaTimesNews, 2010). Some of the products and services offered by Islamic banks and Islamic windows include current accounts, savings accounts, as well as motor vehicle and property financing (Saini *et al.*, 2011: 299).

Islamic asset management began in the country in 1992, with the launch of South Africa's first Islamic mutual fund, Futuregrowth Albaraka Equity Fund. Initially managed by Element Investment Managers from 2000-2005, it was then managed by Futuregrowth, which has since become a member of the Old Mutual Investment Group. To date there are 11 asset management companies in South Africa offering *Shari'ah*-compliant investment schemes or mutual funds. Oasis Group Holdings (Pty) Ltd, a non-deposit-taking investment management and fund administration institution, currently manages the largest number of Islamic funds in the country and provides its Muslim customers with *Shari'ah*-compliant products and services related to the management of equity funds, institutional investment as well as retirement fund portfolios (Oasis Group Holdings, 2016). On the *takaful* (Islamic insurance) front, Takafol SA was established in 2003 to tap into South Africa's emerging Islamic insurance market, which is estimated at R3 billion in annual premiums (Islamic Finance News, 2012). However, in comparison to the GCC and MENA regions, is the Islamic banking and finance sector in South Africa still in its formative stage (Saini *et al.*, 2011: 299).

1.3   PROBLEM STATEMENT

It can be inferred from the above that the South African government, the fiscal authorities as well as the conventional banking and finance sectors are committed to establish South Africa as the hub of Islamic finance to the rest of Africa. However, the size and growth of the domestic Islamic financial sector is dependent on the number of people who are willing to engage with it, *ceteris paribus*. Anwar (2009) states that it is not possible for Islamic banking in a non-Muslim country to grow on the strength of Muslim participation alone and urges that the sector be made attractive to non-Muslims as well. In the South African context, despite having access to Islamic banking and finance facilities for more than twenty years, bank patronage and utilisation of this mode of finance among the 1.5 million South African Muslims are estimated at a modest 15 per cent (Kassie, 2012; Saini *et al.*, 2011: 298). The Research Division of the Kuwait Finance House (KFH) considers negative perceptions of Islamic finance among Muslims as well as a lack of awareness and knowledge about the various Islamic bank retail products as key obstacles to the development of the Islamic banking and finance system in South Africa (KFH Research, 2012). The aforementioned finding is in line with Dixon's (1992: 35) assertion that people in Muslim-minority countries have failed to adopt a positive attitude towards Islamic finance due to a lack of understanding thereof. In this context, South Africa seems to be a case in point.

Problem statement: The South African government's aspiration to develop the domestic Islamic finance sector and establish the country as the gateway of Islamic finance to the rest of Africa is being stifled by negative attitudes and perceptions local Muslims have of Islamic banking and finance.

To address this intractable problem, Vawda (2013: 36) contends that "general attitudes are relatively good predictors of general behavioural likelihoods and, thus, it would seem of particular importance to understand the customers' thinking or attitudinal behaviour as it relates to their perceptions of Islamic banking." Similarly, in the context of Islamic finance, Hassan and Kabir (2011) contend that the customer's attitude, perception and the overall customer behaviour will have a significant impact on the survival of Islamic banks. Consequently, Haque (2010) argues that it is vital for Islamic

banking service providers to be aware of the psychological and/or behavioural attitudes potential customers have of Islamic banking services.

The aim of reviewing subject literature on a specific research area is to extract normative criteria (Saunders, Lewis & Thornhill*, 2012: 30). These normative criteria enable the researcher to (i) take note of similar studies undertaken within the specified field of study; (ii) identify key sources which are still unknown to the researcher; (iii) draw on different points of view; and (iv) provide a yard-stick against which the researcher can evaluate results. In this context, a comprehensive literature study serves as a source for the development of theories, concepts and research approaches. The following publication databases were used to find previous studies relating to Islamic finance as well as behavioural-change models used to analyse consumers' bank selection strategies: The Business Source Premier, Academic Source Premier, EBSCO Publishing, the Index of South African Periodicals (ISAP), Sabinet Online Ltd, Proquest, Dissertation Abstracts, and SACat, a national union catalogue reflecting the stock of libraries in Southern Africa. The researcher also made use of internet search engines such as Google Scholar and IslamicSearch to obtain information from accredited academic journals specialising in Islamic finance. While it is acknowledged that these databases are not the only sources of information pertaining to behavioural-change models and Islamic finance, as far as could be ascertained, no similar research study has previously been undertaken in South Africa. Extensive and focused bibliographic searches on the abovementioned databases revealed the following information pertaining to customer behavioural studies in Islamic finance:

(i)   Religiosity

The formation of the Islamic banking and finance sector is principally based on the belief among Muslims to avoid conventional banks for religious reasons. In this context, it is theoretically expected that the motivation for selecting Islamic banks should primarily be based on religious reasons, especially for Muslim customers (*cf.* Omer, 1993; Kader, 1993, 1995; Metwally, 1996; Metawa & Almossawi, 1998; Naser, Jamal & Al-Khatib, 1999; Al-Sultan, 1999; Khoirunnissa, 2003; Bley & Kuehn, 2004; Yusuf & Kusumastutie, 2006; Billing, 2008; Haque *et al.*, 2009; Rashid *et al.*, 2009;

Khattak & Rehmen, 2010; Abduh & Omar, 2010; Haque, 2010). However, Subhani, Hasan, Rafiq, Nayaz and Osman (2012) cautions that Islamic banks should not dwell on religion as the primary motivating factor for choosing a bank. In fact, some studies undertaken among predominantly Muslim communities, suggest that 'religious motivation' is a less significant factor in respondents' bank selection decision. In Jordan, Erol and El-Bdour (1989, 1990) used self-administered questionnaires to examine the behaviour of Islamic and conventional bank customers. Interestingly, the studies found that Islamic bank customers in Jordan were generally aware of Islamic banks and their methods, but religious motivation did not appear to be very important in bank selection. More detail on these studies is provided in Chapter 3 of this thesis.

(ii)   Demographic and socio-economic variables

Studies by Rashid and Hassan (2009), Kabir and Rashid (2009), Okumus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2001), Naser, Jamal and Al-Khatib (1999) and Hegazy (1995) have found demographic and socioeconomic variables to be key factors that influence the patronage decisions of Islamic bank customers. In general, the results of these studies, conducted mostly in the GCC and MENA regions, suggest that the elderly and public officials prefer to deal with Islamic banks as opposed to conventional banks, as did those with relatively low incomes (Metwally, 2001; Zainuddin *et al.*, 2004) and a moderate level of education (Metwally, 2001). In analysing the attitudes of customers of Pakistan's Meezan Bank (the first full-fledged Islamic bank), Hassan (2007) found that (i) Islamic banking was more popular among the young, highly educated and high-income segment. A survey by Bley and Kuehn (2004) investigated the knowledge of 700 graduate and undergraduate students of the American University of Sharjah (UAE) in terms of conventional and Islamic banking products. The results showed that Muslim male students and students with a high level of Arabic fluency perceived Islamic finance more favourably than conventional finance. The use of Arabic language terminology for Islamic finance products seemed difficult for the non-Arabic consumers to understand. Chapter 3 provides extensive detail on the findings of these empirical studies.

(iii)   Awareness and knowledge

Consumers' awareness and knowledge of Islamic methods of finance is a common research focal point of past studies on attitudes towards Islamic banking. Most of these studies (*cf.* Okumus, 2005; Bley & Kuehn, 2004; Hamid & Nordin, 2001; Naser, Jamal & Al-Khatib, 1999; Haron, Ahmad & Planisek, 1994), completed in the GCC and MENA regions, have found that consumers are aware of the existence of Islamic banks. However, it was found that consumers and potential consumers were generally unaware regarding the use of specific Islamic methods of finance. A study by Haron, Ahmed and Planisek (1992), for example, found that almost all Muslims and 75% of non-Muslims in Malaysia were aware of the existence of Islamic banks but expressed a desire to have a better understanding of the system. A study by Gerard (1997) found that, although the Muslim respondents were aware of the fundamental term in Islam, they were unaware of the meaning of specific Islamic financial terms such as *Mudarabah*, *Musharakah*, *Murabahah, Bai Salam, Bai Muajjal, Istisnah, Takaful* and *Ijarah*. Similarly, Abdul Halim and Norizaton (2001) found that Malaysian commercial bank customers had a high level of awareness of Islamic banking, but possessed poor self-reported knowledge of specific Islamic products as well as a poor understanding of the difference between Islamic and conventional banking. The aspect of "poor knowledge" in Islamic banking was supported by a study from Norafifah and Sudin (2002) whereby 60% of the respondents admitted to having limited knowledge of Islamic banking. However, respondents in the Norafifah and Sudin (2002) study believed the concept had a good potential in the Malaysian market. Chapter 3 provides more detail on these studies.

Among the research undertaken of Islamic finance in non-Muslim-majority countries, the United Kingdom (UK) has been subject to a number of studies aimed at surveying the level of awareness, knowledge, and understanding among the participants of Islamic banking. Based on a review of the available literature, it is found that a major hindrance to the development of the Islamic banking sector in the UK is the low level of awareness among British Muslims (Dar, 2004; Haque, 2007; Karbhari *et al.*, 2004; Omer, 1992; Tameme, 2009; Warsame, 2009). Subsequent studies (*cf.* Okumus, 2005; Bley & Kuehn, 2004; Hamid & Nordin, 2001; Naser, Jamal & Al-Khatib, 1999; Haron, Ahmad & Planisek, 1994; Omer, 1992) in the GCC and MENA regions have

cited a lack of awareness of Islamic finance products as a key reason why Muslims do not engage with the sector. More detail on this is provided in Chapter 3 of this thesis.

(iv)   Beliefs and norms

Studies by Zainuddin, Jahys and Ramayah (2004), Bley and Kuehn (2004), Gerrard and Cunningham (1997), Metwally (1996), Hegazy (1995), as well as Haron, Ahmad and Planisek (1994) have shown that an evaluation of one's beliefs is a motivating factor that influences a retail consumer's attitude towards Islamic finance. These studies have found that a consumers' religion (or extent of religious obligation or degree of piety) plays a significant role in their preferences for Islamic methods of finance. Amin *et al.* (2010), using the Theory of Reasoned Action framework, examined the factors that determine *Qard-ul- Hassan* financing acceptance among Malaysian bank customers. The study found that the constructs "attitude", "subjective norm" and "pricing" are important determinants that influence bank customers' perception of accepting *Qard-ul-Hassan* financing (Amin *et al.*, 2010: 12). Abduh *et al.* (2011), investigating factors that influence depositors' withdrawal behaviour from Islamic banks in Malaysia, applied the Theory of Reasoned Action framework. Using a total of 368 respondents from the Klang Valley, they have found that normative beliefs, subjective norms, behavioural beliefs, and attitude towards behaviour are perceived to be distinct constructs influencing respondents' bank selection. In addition, the structural equation model also verified the structural relationship between subjective norms, attitude towards behaviour and behavioural intention. In Abduh *et al.*'s (2011) study, subjective norms give more influence to depositors' decision on deposit withdrawal compared to attitude towards behaviour (Abduh *et al.,* 2011: 2078). Chapter 3 provides more detail on the findings of the aforementioned empirical studies.

(v)   External influences and environmental factors

According to Park and Lessing (1977), the influences of society, family and reference groups on consumer behaviour are profound. Conforming to such social influences and pressures, consumers consciously engage in certain types of consumption patterns that are acceptable to the social groups to which they belong. Such group influences are also captured in the normative component of attitude-behaviour models

(Miniard & Cohen, 1983; Ryan, 1982; Sheth, Newman & Gross, 1991). In a study undertaken in Singapore into the factors that motivated individuals to select a bank, Tan and Chua (1986) have found that advice from friends, neighbours and family members has a stronger influence on respondents' decisions compared to other variables. This finding is consistent with the ethos of oriental culture that emphasises social and family ties. Chapter 3 provides more detail on these studies.

(vi)   Service-quality factors

Research undertaken by Erol and El-Bdour (1989) is considered to be the first study of individual consumers' attitudes towards Islamic banking in Jordan. The main finding of their study was that fast and efficient customer service, the bank's reputation and image, as well as confidentiality were the primary criteria for the choice of bank, whether Islamic or conventional. In a study conducted among Libyan retail consumers, Gait (2009) found several correlated factors that motivate consumers to use Islamic banking services and products. These variables include, *inter alia*, profitability, religious obligation and unique services offered by Islamic banks. Kaynak (1991), investigating the influence of demographic and socio-economic status on respondents' bank selection criteria in Turkey, observed that Muslim males attached a greater weighting to the Islamic bank's reputation, business hours, parking facilities, and the availability of a wide range of services compared to Muslim female respondents. In contrast, female customers placed more emphasis on longer term aspects related to organising their finances to become more financially secure. For customers younger than 40 years old, "convenience" and "bank location" were regarded as important factors that influenced their decision to patronise Islamic banks. In terms of socio-economic status, educated customers of Islamic banks ranked "fast and efficient transactions" as well as "location of the Islamic bank" higher than uneducated respondents. Chapter 3 provides more detail on these studies.

In the context of the problem statement stated above and evidence provided in the previous paragraphs, the following sub-problems emanate:

Sub-problem 1: Demographic, subjective, and environmental factors play a key role in influencing an individual's attitude, perceptions and behaviour toward Islamic

finance. These factors could partly explain the slow uptake of Islamic finance retail products among the South African Muslim and non-Muslim population.

Sub-problem 2: If South Africa fails to use its advanced financial system to exploit the growing and untapped market for Islamic financial services in the country, it will forfeit a lucrative opportunity to position itself as the Islamic finance powerhouse on the continent.

The Pew Research Center's Forum on Religion & Public Life (2011) expects the Muslim population in the MENA and sub-Saharan African regions to increase to approximately 825.4 million by 2030. As home to a quarter of the world's Muslims, Africa represents a golden, and largely untapped, opportunity for the Islamic finance sector (Abdiseid, 2011). With approximately 80 per cent of Africa's adult population currently un-banked (Da Silva, 2011) coupled with the region's burgeoning middle class, rising economic momentum (Omoyibo & Ajayi, 2012: 39), and a pipeline of large-scale infrastructure projects, the stage is set for the significant growth of Islamic finance and investment in key markets across the continent (Abdiseid, 2011). New products have been introduced and financial institutions are playing an increasing role in financial intermediation, especially in terms of cross-border financial flows (Omoyibo & Ajayi, 2012: 39). Therefore, from a demand-side perspective, Vawda (2013: 12) is of the opinion that Islamic finance could be used as a vehicle to finance cross-border infrastructure projects that may contribute positively to the growth of the South African economy. However, after more than two decades of having access to Islamic finance retail products, a mere 15 per cent of South African Muslims have shown an interest in this unconventional mode of finance. According to Vawda (2013: 36) research studies in Muslim-majority countries where Islamic banking is prevalent have shown that non-Muslims perceive conventional banking as superior to Islamic banking. Some of the products and services offered by Islamic banks are very similar to those offered by conventional banks (Doraisamy *et al*., 2011; Hassan and Kabir, 2011) and this may negatively affect the customer's attitude towards Islamic finance. Consequently, despite the aggressive campaigns in the last decade to convince the public that Islamic banking is for everyone, non-Muslims generally view Islamic banking as being for Muslims alone (Loo, 2010). Hassan and Kabir (2011) state that customers' attitudes toward Islamic finance not only influence their behaviour towards it, but also

significantly impact on the survival of Islamic banks. Accordingly, Mosad (1996, quoted in Vawda, 2013: 36) reiterates the need to "reinforce or modify customers' perceptions of Islamic finance by investigating their attitudinal behaviour and the way they perceive Islamic banks." Against this dynamic backdrop, it has become necessary to analyse the factors that inhibit the sector's growth and devise strategies that will enable the local Islamic finance stakeholders to take advantage of the untapped market for Islamic financial services that currently exist in the country as well as on the African continent.

1.4   KEY QUESTIONS PERTAINING TO THE RESEARCH

In order for the researcher to achieve the identified research aims and objectives of this study and to provide guidance on the overall execution of the research, the following research questions (RQs) were formulated:

RQ_1:   Do Muslims in Port Elizabeth understand the concept, principles and objectives of Islamic finance?

RQ_2:   What factors influence a Port Elizabethan Muslim's decision to adopt or reject Islamic finance?

RQ_3:   Are there any significant differences between the socio-economic and demographic factors of those Muslims who intend to use Islamic modes of finance and those who prefer not to use it?

RQ_4:   To what extent do cognitive measures (for example, an individual's level of knowledge and awareness of Islamic finance) and affective measures (for example, an individual's behavioural and normative beliefs) impact on a Port Elizabethan Muslim's attitude and intention to accept or reject Islamic finance?

RQ_5:   Is there any correlation between Port Elizabethan Muslims' attitude towards Islamic finance and their intention to engage with the sector?

RQ_6:   Which environmental factors (for example, cost, service quality, government support) contribute mostly to the likelihood among Muslims in Port Elizabeth to engage or disengage with the Islamic finance sector?

RQ_7:   What can be done to encourage Muslims in Port Elizabeth to change their behaviour towards the Islamic finance sector?

In responding to the outlined research questions, this research undertakes a combination of two research methods: firstly, a comprehensive review of the existing literature on customer behaviour studies in Islamic finance, and secondly an empirical study to elicit the opinions, perceptions and attitudes of potential users of Islamic finance. By using the responses of the sampled Muslim population in Port Elizabeth as a microcosm for the decision-making behaviour of the Muslim population in South Africa, this exploratory study can be seen as a first step towards understanding the perceptions, reservations, and expectations potential users of Islamic finance may have of the sector. An understanding of these factors creates an opportunity for policymakers to formulate regional, national and institutional marketing strategies that will ensure that the sector's potential is realised.

1.5   OBJECTIVES OF THE STUDY

Saunders, Lewis and Thornhill (2012: 54) state that the research background section of a scientifically executed study should lead logically from a statement of research questions to a statement of research objectives. These research objectives should leave the reader in no doubt about what the research seeks to achieve and should provide greater specificity compared to stating key investigative questions. The primary and secondary research objectives for this study are outlined in the sub-sections below.

1.5.1 Primary research objective

The primary objective of this exploratory study is to investigate and empirically test how potential use of Islamic finance among Muslims in Port Elizabeth is influenced by an individual's attitude towards it. For the purpose of this study, *potential use* refers to the likelihood that a Port Elizabethan Muslim will accept or reject Islamic finance after evaluating an attitude he/she has formulated from various subjective beliefs and environmental factors. This reasoning is in line with Zanna and Rempel's (1988: 315) viewpoint that attitude should be regarded as a multi-faceted concept that is neither stable nor predisposed to the individual, but as something that might change based on internal or external cues. Therefore, in order to effect behavioural change, researchers are encouraged to first understand how attitude is generated from cognition (a source of information), affect (feelings or emotions associated with an

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object that can influence attitude), and past behaviours (Zanna & Rempel, 1988: 316). By adopting a universally-accepted behavioural-change model, this study's primary objective is achieved in the following manner:

(i) Determine the level of knowledge and awareness that exist among Muslims in Port Elizabeth in respect of Islamic finance terminology, principles and providers;

(ii) Analyse the perceptions, opinions, beliefs and expectations that Muslims in Port Elizabeth have of the Islamic finance sector;

(iii) Identify key demographic, subjective and environmental factors that influence Port Elizabethan Muslims' attitudes toward Islamic finance;

(iv) On the basis of gathered knowledge from primary and secondary sources relating to *attitude* and *intention*, suggest appropriate hypotheses and develop a normative model that can explain the relationship between the dependent and independent variables.

1.5.2 Secondary research objectives

South Africa has the potential to position itself as a leading Islamic finance hub on the African continent, creating greater opportunities for foreign investment, trade and new business partnerships (Hartigh, 2012). However, in the finance realm, the perceptions and expectations market participants have of a product or service are regarded as key variables that impact on the sector's expansion and development (Ali, 2011: 21). Identifying and analysing the influence these variables have on a Muslim's attitude and decision to adopt (or reject) Islamic finance, will allow Islamic bank managers to better understand which factors to focus on when they market their product. The recommendations, based on the results of the statistical analyses conducted in Chapter 5 of this study, serve to inform policymakers on the best strategies to follow if they hope to use South Africa's advanced financial framework to establish the country as the Islamic finance hub to the rest of Africa.

1.6   RESEARCH HYPOTHESES

In Section 1.3 it was stated that the South African finance authorities' vision to establish the country as the hub of Islamic finance to the rest of Africa, is being

hampered by a lack of interest among the 1.5 million Muslims in the country to utilise Islamic banking and finance retail products. The Research Division of the Kuwait Finance House highlights negative attitudes as well as a lack of awareness and knowledge among Muslims of what Islamic finance entails, as key factors stifling the development of the sector in South Africa (KFH Research, 2012). This finding is in line with Dixon's (1992: 35) assertion that people in Muslim-minority countries have failed to adopt a positive attitude towards Islamic finance. In order to explain why Muslims behave the way they do in respect of Islamic finance, Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction (IMBP) was used to provide the theoretical framework of this study. Fishbein first introduced the integrative model in an address delivered to the 4th AIDS Impact conference in 1999 (later published as Fishbein, 2000). In that address, and to an even greater extent in later work (*cf.* Fishbein & Yzer, 2003; Fishbein, 2008; Fishbein & Ajzen, 2010), Fishbein emphasised the need to use the integrative model as a tool for designing and evaluating health behaviour change interventions. The IMBP conceptualises that, once the determinants for a particular behaviour have been identified in the population under consideration, an intervention can be designed to address those variables. The logic of this approach is that the better we understand the variables that guide behaviour in a particular population, the better we are able to design interventions to change the behaviour (Fishbein, 2008).

Based on the researcher's understanding of the IMBP it is believed that an individual, before embarking on a behaviour, will evaluate an outcomes response (*behavioural beliefs*) of his/her intended behaviour as well as the emotional response (*affective beliefs*) that said behaviour will evoke (Ajzen & Fishbein, 1975; Fishbein & Ajzen, 2010). Thereafter, the individual will consider what others in his/her social or personal networks are doing (*descriptive norm*) or what others think he/she should do (*injunctive norm*). The social pressure the individual feels to perform or not to perform a particular behaviour is referred to as a *perceived norm* (Ajzen & Fishbein, 1975). The individual will then consider his/her own capability (*self-efficacy*) to originate and direct actions (*perceived control*) for given purposes. In the context of the aforementioned, the individual will then consider his/her *environmental constraints*, i.e. those variables that constitute either a barrier or an opportunity to a behaviour. These environmental constraints, in the context of Islamic finance, include, *inter alia*, government support,

regulatory frameworks, legislation, convenience, service quality factors, and cost. Upon considering these variables, and within the context of various individual-difference background factors (e.g., demographic, socioeconomic status, as well as perceived knowledge and awareness factors), the individual will formulate an attitude towards Islamic finance. When attitude influences a specific behaviour, the relationship between attitude, intention and behaviour will be strong (Fishbein, Bandura, Triandis, Kanfer, Becker, Middlestadt, & Eichler, 1992). Figure 1.2 provides a graphical depiction of how the hypothesis for this study is conceptualised.

Figure 1.2: Conceptualisation of the study's hypothesis
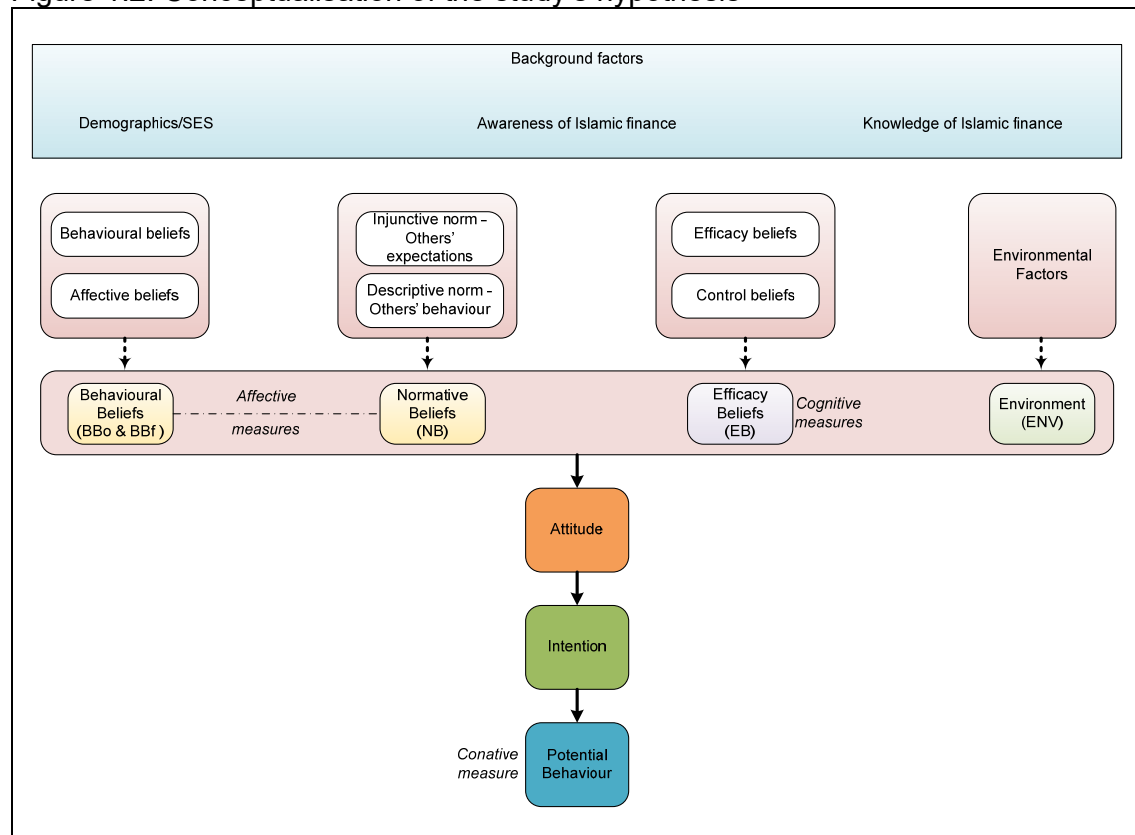
Source: Researcher's interpretation of Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction (IMBP).

Therefore, in the context of this study, it is hypothesised that a Port Elizabethan Muslim will formulate an attitude towards Islamic finance after due consideration of his/her level of awareness, knowledge, beliefs, perception and expectations of this particular sector. This attitude is used to influence behavioural intention. Behavioural intention is then used to predict the conative measure, namely potential behaviour (or potential

use). This line of reasoning corresponds to what Fishbein (2000; 2008) espoused in the Integrative Model of Behavioural Prediction (IMBP). By using the respondent's socio-economic and demographic profiles as external variables and moderators in a modified version of the IMBP, the following conceptual model is evaluated:

If   Potential use ≡ Potential behaviour = f(Intention) *ceteris paribus,*
Then   *Intention = f(Attitude) ceteris paribus,*

where an individual formulates an 'attitude' after evaluating his/her knowledge, awareness, behavioural beliefs (BB), normative beliefs (NB), efficacy beliefs (EB), and environmental factors (ENV) pertaining to an attitude object. It is, therefore, reasonable to infer that, *ceteris paribus*

Intention = f(Demographics, SES, Awareness, Knowledge, BB, NB, EB, ENV)

Chapter 4 provides more detail on how this conceptual model was incorporated into the research framework of the study. From Figure 1.1 above, coupled with the review of the literature, the following eight null hypotheses (Ho_x) and fifteen alternative hypotheses (Ha_x) were specified to operationalise the research:

Ho_1: **Differences in socio-economic status and other demographic factors <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.**

$Ha_{1.1}$: There is a statistically significant positive relationship between a Port Elizabethan Muslim's gender and his/her attitude and intention to use Islamic finance.

$Ha_{1.2}$: There is a statistically significant positive relationship between a Port Elizabethan Muslim's age and his/her attitude and intention to use Islamic finance.

$Ha_{1.3}$: There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of education and his/her attitude and intention to use Islamic finance.

Ha$_{1.4}$: There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of income and his/her attitude and intention to use Islamic finance.

Ha$_{1.5}$: There is a statistically significant positive relationship between a Port Elizabethan Muslim's occupation and his/her attitude and intention to use Islamic finance.

Ho$_2$: Awareness of the basic principles and objectives of Islamic finance <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use thereof.

Ha$_2$: Awareness of the basic principles and objectives of Islamic finance will have a statistically significant *positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

Ho$_3$: Knowledge of the various retail and finance instruments available from Islamic banks/windows <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.

Ha$_3$: Knowledge of the various retail and finance instruments available from Islamic banks/windows will have a statistically significant *positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

Ho$_4$: Potential use of Islamic finance is <u>not</u> influenced by a Port Elizabethan Muslim's attitude towards it.

Ha$_4$: Attitude will have a statistically significant positive effect on a Port Elizabethan Muslim's intention to use Islamic finance.

Ho$_5$: Behavioural beliefs (BB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.

Ha$_5$: Behavioural beliefs (BB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.

Ho$_6$: Normative beliefs (NB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.

Ha$_6$: Normative beliefs (NB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.

Ho$_7$: Efficacy beliefs (EB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.

Ha₇: *Efficacy beliefs (EB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

Ho₈: Environmental factors (ENV) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to accept or reject Islamic finance.

Ha_{8.1}: *Environmental factors (ENV) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

Ha_{8.2}: *Cost will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

Ha_{8.3}: *Service quality factors will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

Ha_{8.4}: *Government support will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.*

After identifying the hypotheses which are to be tested with the primary data collected for this study, the following sections present the operational nature of the research in terms of methodological approaches.

1.7 RESEARCH METHODOLOGY

Studies in human behaviour are part of the social sciences. In this context, adopting a sound research methodology ensures that reliable results are obtained (Mohd-Karim, 2010: 122). Kumar (2008: 3) defines research methodology as "a way to systematically solve research problems". In survey research, it is essential to adopt an appropriate research methodology as it assists the researcher to develop a research framework that will ensure the stated research objectives and goals are met. The following sub-sections explain the theoretical framework, model theory as well as the theoretical boundaries that are used in this thesis.

1.7.1 Theoretical framework

With the stated objective of investigating *potential use* of Islamic finance among the Muslim community in Port Elizabeth by focusing on the role played by cognitive, affective and other environmental factors in the decision-making process, this study adapts a universally-accepted behavioural-change model to explain the reasons

behind alterations in individuals' behavioural patterns. According to Glanz, Lewis and Rimers (1990: 17), behaviour change is often a goal of staff working directly with constituents, organisations, governments, or communities. Individuals charged with this task can be thought of as 'interventionists' whose goal it is to design and implement programmes or interventions that produce the desired behavioural changes. Glanz *et al.* (1990: 19) postulate that designing interventions to yield behaviour is best done with an understanding of behaviour change theories and an ability to use them in practice.

In order to achieve the primary and secondary objectives of this study, as outlined in section 1.5 above, the following behavioural-change models were evaluated: (i) Bandura's *Social Cognitive Theory of Self-Regulation* (1986); Rosenstock's *Health Belief Model* (1974); Azjen and Fishbein's *Theory of Reasoned Action* (1975); Prochaska and DiClemente's *Transtheoretical Model of Behavioural Change* (1983; 1986); Ajzen's (1980; 1985) *Theory of Planned Behaviour* (TPB); and Fishbein's (2000; 2008) *Integrative Model of Behavioural Prediction* (IMBP) of prediction. These attitudinal behavioural-change models have received broad support in empirical studies of consumer decision making as well as in the literature on social psychology (Sheppard, Hartwick & Washaw, 1988: 325). These behavioural-change models are explained in detail in Chapter 3 of the thesis.

1.7.2 The normative model applied in this study

Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction (IMBP) was adapted in this study. A central tenet of the IMBP is that a small number of variables can explain a substantial proportion of the variance in any behaviour in any population (Fishbein, 2000; Fishbein et al., 1992; Fishbein & Ajzen, 2010). More specifically, the integrative model postulates that intention to perform a specific behaviour follows reasonably (but not necessarily rationally) from specific beliefs that people hold about the behaviour. "Reasoned", in this regard, relates to the general rule that, if people believe that performing a particular behaviour is a good thing, then they are more strongly motivated to perform the behaviour than if they believe that performing the behaviour is a bad thing. Being able to predict a person's intention to perform a specific behaviour have significant implications for this research as it helps to analyse the

underlying variables that impact on an individual's decision to adopt or reject Islamic finance. More detail on this is provided in Chapter 3.

1.7.3 Data collection

This exploratory mixed method research study, based on the researcher's positivist stance, adopts a survey research strategy. The survey research strategy is usually associated with a deductive research approach and allows the researcher to collect data that can be analysed quantitatively using descriptive and inferential statistical techniques. The research population covered by the empirical survey for this study as well as the data collection methods are outlined in the sub-sections below.

(i)   Research population, target population and response population

A stratified random sampling technique (with quotas) was applied in this study. The reason for this stemmed from the fact that the Muslim population is spread disproportionately across the city of Port Elizabeth. Therefore, in collaboration with the researcher's supervisor, it was decided to collect the necessary data from 18 suburbs in Port Elizabeth where large numbers of Muslims are known to reside. These suburbs are indicated in Map 4.1 of this thesis.

Since there was no list of Muslim respondents in Port Elizabeth, purposive random sampling was applied within the identified geographical areas. In Port Elizabeth, the homes of most Muslim households are easily identifiable by means of a Muslim Judicial Council (MJC) sticker that is attached to the door of the house. In this respect, it was easy to identify potential respondents to the survey. The criteria for respondent selection was stipulated as "Any Muslim respondent 18-years-and-older who resided within the designated suburbs and who did not use Islamic banking or any form of Islamic finance at the time of the interview". By applying Israel's (1992) 'sample size formula' for a large population of this nature, it was calculated that the viewpoints of <u>at least</u> 385 respondents had to be elicited to ensure the statistical validity of this study. More detail pertaining to the data collection methods is provided in Chapter 4.

(ii) Data collection methods, approach and questionnaire design

This study made use of the mixed method research approach to achieve its objectives. In mixed methods research both quantitative and qualitative research are combined in a research design. Saunders *et al.* (2012: 304) state that most research questions can be answered by using a combination of secondary and primary data. In the secondary data category, the data is obtained from other published sources or data sets that are available in raw format (Saunders *et al.*, 2012: 307). Examples of secondary data include government statistical reports, economic indicators, companies' share prices and annual reports, as well as other similar information that is available from accredited academic journals. In this study, secondary data pertaining to the type of Islamic finance retail products offered by Albaraka Bank, ABSA and First National Bank, was sourced from the institutions' online websites.

The primary data was collected by means of a survey conducted among 389 Muslim respondents from an approximate total research population of thousands. Given that this study was undertaken within a single geographical area of Port Elizabeth, it was decided, in collaboration with the researcher's supervisors, that it would be best to gather the primary data by means of a structured interviewer-administered questionnaire. The high response rates enjoyed in similar bank patronage and customer behaviour studies elsewhere, served as justification for this study's adopted survey technique. For example, the studies by Dusuki (2005), Metawa and Almossawi (1998), Naser *et al.* (1999), and Jamal and Naser (2002) yielded response rates of 84%, 75%, 69%, and 85% respectively. These response rates further strengthens the case that this study's survey technique was suitable for research into this type of customer behaviour. The seven-page 82-variable questionnaire, used to elicit the viewpoints of the Muslim community within Port Elizabeth, consisted of close-ended (forced-type) questions.

A pilot survey of the questionnaire was conducted among a select number of respondents to ensure consistency and validity of the measures. Recommendations and comments from peer reviewers at the *Occidental Institute of Islamic Banking and Finance* in London, Islamic finance specialists from Malaysia, Saudi Arabia, the United Kingdom as well as feedback from the participants in the pilot study were evaluated

and incorporated into the final version of the questionnaire. More detail and justification for using these approaches, methods and techniques are provided in Chapter 4 of this thesis.

1.7.4 Data analysis and articulation of findings

This study used descriptive and inferential statistical methods to achieve its primary and secondary research objectives. As the dependent outcome variable was dichotomous with several independent or predictor variables, the following types of descriptive and inferential statistical techniques were used to achieve the objectives of this study: (i) univariate descriptive statistics; (ii) power analysis; (iii) discriminant function analysis (DFA); (iv) factor analysis (FA); (v) hierarchical binary logistic regression (BLR) analysis; and (vi) structural equation modelling (SEM). An in-depth discussion and motivation for applying these statistical techniques can be found in Chapter 4.

The primary data for the present study was captured and analysed using IBM's Data Collection (version 7) and Statistical Package for the Social Sciences (SPSS Base Program version 22.0). The normative model for this study was constructed by means of confirmatory factor analysis using the statistical software package MPlus7 (Muthén & Muthén, 2012). The predictive power of the constructed normative model was calculated using various classification, association and segmentation modelling methods available in IBM's SPSS Modeler (version 14.2). To articulate the findings of this study, quantitative and qualitative methods are used in an integrated way so that the data are merged, transformed and narrated.

Every attempt was made to achieve internal validity in the design of the research instrument (i.e. the questionnaire). The questionnaire was based on the researcher's understanding of the theory, pertinent literature on the research topic, as well as statements made by the forty participants in the pilot study. Wang & Wang (2012: 86) defines reliability as "the extent to which the variance of an observed variable is explained by the true score that the variable is designed to measure". In other words, 'reliability' refers to the consistency or repeatability of measurement. Reliability, during the completion of this study, was pursued by means of a structured questionnaire that

was derived from relevant literature and in consultation with numerous experts in the field of Islamic finance. According to Saunders *et al.* (2012) principal factors which threaten the reliability of research findings and conclusions include subject error, subject bias, observed error and observer bias. These issues were addressed when the questionnaires were administered to a diversified group of eligible respondents over the same period and in a controlled manner, with a trained interviewer on-site to ensure participants understood the research questions in the same way.

In survey research, the Cronbach's Alpha test is carried out to determine the consistency of a respondent's answer for one item compared to other scaled items (Vaus, 2002). In other words, a measuring instrument's Cronbach-alpha coefficient measures the inter-item correlations within one scale, which provides the overall reliability of the scale. In the context of this study, the Cronbach-alpha coefficients for the constructed latent variables (*behavioural beliefs*, *normative beliefs*, *efficacy beliefs*, *environmental factors*) were all above the cut-off point of 0.70. All the factors were reflective because their indicators were highly correlated and were largely interchangeable (Jarvis *et al.*, 2003).

Structural Equation Modelling (SEM), a multivariate technique combining aspects of multiple regression and factor analysis, is used to estimate a series of interrelated dependence relationships simultaneously (Hair, Black, Babin, Anderson & Tatham, 2006: 711). In the present study, the computer programme MPlus7 (Muthén & Muthén, 2012) was used to test the relationships among the factors that influenced *attitude* and potential use of Islamic finance among Muslims in Port Elizabeth. The "goodness of fit" of the SEM model was assessed in terms of various fit indices, namely the relative Chi-square (X^2/df), the Root Mean Square Error of Approximation (RMSEA), as well as two incremental fit indices, namely the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI). An in-depth explanation of the data analysis techniques undertaken in this study is presented in Chapter 5.

The following types of triangulation methods were employed to corroborate the findings in this study, namely: (i) observer triangulation; (ii) methodological triangulation; (iii) theory triangulation; and (iv) data triangulation.

1.8 SCOPE AND DEMARCATION OF THE STUDY

This study adopted a survey research strategy. The survey research strategy is usually associated with a deductive research approach and allowed the researcher to collect data that could be analysed quantitatively using descriptive and inferential statistics. A combination of primary and secondary data was used to complete this study. The primary data was obtained from a survey conducted among 389 Muslims in 18 suburbs of Port Elizabeth. These suburbs have been chosen as they are known to be areas where Muslims reside. Data, at an individual-level, was collected by completing a structured interviewer-administered questionnaire within the identified sampling frame. Respondents were randomly selected within each stratum on the following basis: The respondent had to be a consenting Muslim adult (18-years and older) who resided within the designated suburb and who, at the time of the interview, did not use Islamic banking or any form of Islamic finance. A total of 400 questionnaires were printed and circulated during the month-long survey. While the response rate was 100%, the return rate, in terms of usable questionnaires, was calculated at 97.3%. This showed remarkable diligence on the part of the twenty fieldworkers employed to administer the survey.

This research project was conducted in accordance with the ethical requirements and regulations stipulated in the *Guidelines for Ethical Conduct in Research and Education at the Nelson Mandela Metropolitan University,* the NMMU's *Policy on Research Ethics* (NMMU Institutional Regulatory Code D/739/10, 2010) as well as generally accepted norms and values of social science research. The ethical integrity of the study was evaluated and approved by the Research Ethics Committee for Humans (REC-H) of the university. The Research Ethics clearance number for this study was H14-BES-ECO-060.

Although this study contributes to the literature of Islamic finance research in South Africa, the following limitations and difficulties were faced during the execution of this study: (i) a sampling problem; (ii) the limited number of variables focused on; (iii) a cost constraint; and (iv) the length of the questionnaire. Chapter 4 elaborates on these limitations in detail.

1.9   SIGNIFICANCE OF THE STUDY

According to Kelly, Murphy, Sikkema and Kalichman (1993) the task confronting the behavioural sciences is to develop theory-based intervention programmes that would positively influence peoples' behaviour and ensure that the greatest marginal social benefit is derived. However, in order to change behaviour, it is necessary to understand why people behave the way they do. The contention is the more that is known about the variables underlying a person's decision to perform (or not to perform) a given behaviour, the more likely it will be that successful behavioural intervention programmes can be developed.

The operations of Islamic banking in South Africa are still in the formative stage and a paucity of research exists into this particular field. Apart from studies undertaken by Ackermann and Jacobs (2008), Suleman (2011), Saini *et al.* (2011), the Research Division of the Kuwait Finance House (KFH, 2012), and Vawda (2013) very little research, to date, has been done to understand the social-psychological behaviour of potential customers of Islamic finance in South Africa. Ackermann and Jacobs (2008) undertook a study into the banking needs of South African Muslim corporate clients for *Shari'ah*-compliant banking products. Suleman's study (2011) examined the legislative challenges facing Islamic banks in South Africa. A study by the Kuwait Finance House (2011) investigated the magnitude of the Islamic finance market in South Africa, the sector's potential as well as the numerous challenges faced by the Islamic finance sector in the country. Saini *et al.* (2011) investigated consumer awareness and usage of Islamic banking products in South Africa. Vawda (2013) surveyed the perceptions of Islamic banking among Muslim and non-Muslim chartered accountants in South Africa. The results of Vawda's (2013) study suggest that the majority of Muslim and non-Muslim chartered accountants have a low level of knowledge about Islamic banking. Major differences were also found in the perceptions of Islamic banking between Muslim and non-Muslim chartered accountants with religion emerging as the primary reason for Muslims engaging with an Islamic bank. However, the study found that non-Muslims may be attracted to this form of banking if they were more aware of its principles and methods. As regards the issue of bank selection criteria, most of the respondents were engaged in conventional banking and the provision of fast and efficient services was clearly of primary

importance to both Muslim and non-Muslim chartered accountants. Other academic writing (*cf.* Cheteni, 2014) in this area only describes and narrates the theoretical aspects of Islamic bank patronage in terms of perceptions, expectations and environmental constraints. To date, there is no normative model that enables policymakers to predict, on the basis of a respondent's cognitive and affective measures, whether an individual will use (or reject) Islamic finance retail products. Therefore, from a theoretical perspective, this study contributes towards the perceived limited literature on consumer behaviour in the Islamic finance sector of the country from a social-psychological theory perspective. By developing a normative model based on a universally-accepted behavioural-change model, this study adds to the existing body of knowledge in this particular field.

In theory, South Africa has the capacity to become the hub of Islamic finance to the rest of Africa. In practice, after more than two decades, only a fraction of South African Muslims have shown an interest in using Islamic finance retail products and services. A discrepancy thus exists between theory and practice. Within the context of a national policy aimed at increasing the growth of the Islamic finance sector in South Africa, this researcher is of the opinion that policymakers can benefit from the insights provided by social-psychological theory and behavioural economics as both provide us with a deeper understanding of human behaviour. According to Haque (2010: 18) it is imperative that Islamic finance stakeholders reinforce or modify the perceptions customers have of Islamic banks and Islamic finance. In this context, the empirical section of this study contributes towards a better understanding of the perceptions, expectations and reservations potential customers have of Islamic finance. Based on the findings of this study, recommendations made at the end of the thesis explains how policymakers can implement effective strategies to expand the local Islamic banking and finance sector. Therefore, this study is deemed significant in filling the gap that has been identified.

1.10   CLARIFICATION OF KEY TERMS AND CONCEPTS

With the focus of this research being on factors influencing potential use of Islamic finance among Muslims in Port Elizabeth, clear definitions are presented below. Lantos' (2011) tri-component attitude model was used as the basis to define and

interpret the dependent (DV) and independent variables (IVs) of this study. The DV and the IVs are applied and interpreted as follows:

(i) **Potential use:** This dependent variable (also referred to as 'intention') refers to the likelihood that the Muslim respondent will use (or reject) Islamic finance after due consideration of cognitive and affective measures as well as other external factors.

(ii) **Attitude:** Based on three attitudinal components, the independent variable *attitude* is defined as a "predisposition to think, feel, or behave in a positive or negative way toward an attitude object (AO)" (Lantos, 2011: 501). The three attitudinal components that constitute the independent variable include a cognitive (think) measure, an affective (feel) measure, and a conative (behave) measure. According to Lantos (2011), attitudes based on connation (intentions and actions) usually result from personal experience or behavioural intent. Agarwal, Rastogi and Mehotra (2009, quoted in Vawda, 2013: 35) describe attitude as "an individual's positive or negative behaviour towards innovation adaption. It is also suggested that attitude is based on the salient beliefs that a person holds about the consequences of a given behaviour and his or her evaluation of those consequences." According to Agarwal et al., (2009: 340) the determinants of consumer attitude has a strong, direct and positive effect on consumer intentions to actually use a new system.

(iii) **Cognitive measure**: This construct refers to the thinking, knowledge, awareness and/or intellectual dimension and consists of cognitions, or the manner in which the attitude object (AO) is perceived. These bits of knowledge, ideas, and perceptions about an AO acquired through information acquisition are referred to as descriptive (existential) beliefs. Lantos (2011: 501) refers to cognitions as non-evaluative statements about an object's performance on various attributes.

(iv) **Affective measure**: This construct relates to evaluations of feelings, emotions, and moods regarding either an AO or its performance on specific criteria. The affective dimension entails evaluative beliefs about how good or bad an AO is,

as well as an evaluation of its performance on evaluative criteria (Lantos, 2011: 501).

(v) **Conative measure**: This component lies within the realm of the will (volition). It concerns people's behavioural intentions, i.e. their attitude toward the behaviour or how likely they are to act upon their knowledge or feelings. It also concerns their overt behaviour, i.e. whether they act on their attitudes and intentions or not. The conative dimension involves what one will or should do, based upon the cognitive and affective dimensions (Lantos, 2011: 501).

An explanation of the various Arabic concepts used in this study can be found in the 'Glossary' section of the thesis.

1.11   STRUCTURE OF THE THESIS

Chapter 1 provides the reader with background information of the research issues in question, defines the research problem statement, and stipulates the purpose as well as the research objectives of the study. A conceptual model is proposed, and based on this, numerous research questions and hypotheses are formulated. The thesis' introductory chapter continues with a discussion of the scope and demarcation of the field of study and identifies the normative criteria extracted from prior research on Islamic bank patronage behaviour. The chapter highlights the contributions of the study and provides the definitions of the most important terms used. The chapter concludes with an overview of the structure of the study.

Following the introduction in this first chapter, the thesis continues with the remaining five interrelated chapters. There will unavoidably be some overlapping of discussion and cross-referencing. An overview of Chapter 2 to Chapter 6 is as follows:

Chapter 2 reviews the philosophical and theoretical underpinnings of Islamic finance and synthesises the principles of Islamic finance with the financial instruments provided to clients within the sector. The prevalent operational inconsistencies of Islamic product structures are also outlined to reveal the requirements and related difficulties.

In the context of the stated objectives outlined in section 1.5 of this study, Chapter 3 reviews the existing literature pertaining to various conceptual models and theories of behavioural change that have been applied across a wide variety of disciplines to understand and explain behaviour change within groups, organisations and communities. Chapter 3 also presents and explains relevant academic literature on Islamic finance, with particular emphasis on studies that focused on the level of awareness, knowledge, perceptions, and attitudes of customers or the public at large towards Islamic banks and Islamic banking products. The chapter analyses a host of issues that range from general awareness of Islamic banking principles among Muslim consumers to customers' expectations and perceptions of Islamic finance in terms of various service quality factors.

Chapter 4 makes use of a number of research methodology textbooks to explain the appropriateness of various research techniques used in the social sciences. The chapter is presented in three sections: Section one provides an overview of research methodology, design and philosophy. Section two explains the research method and strategy that was employed in this study, with particular emphasis on the rationale for adopting various parametric and nonparametric statistical techniques. The chapter concludes by discussing the limitations and difficulties experienced during the completion of the thesis.

Chapter 5, divided into five distinct sections, presents the empirical findings of the study in the following manner:

(i)   Descriptive statistics

This section provides the reader with a summary of the demographic characteristics of the survey respondents. The descriptive statistics provides an analysis of every variable in the questionnaire in terms of frequency, percentage, mean, and standard deviation. This provides the reader with the grounding knowledge of the overall results.

(ii)   Exploratory factor analysis

In support of the study's research objectives, exploratory factor analysis was conducted to identify unique factors in the data. As factors were not expected to be correlated, a Principal Component Analysis with a Varimax Rotation was specified as the extraction and rotation method. To ensure that each item was indeed a measure of the various constructs under consideration, Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were used to evaluate the factor-analysability of the data. To confirm the reliability and the internal consistency of the items measuring each construct in the conceptual model, Cronbach-alpha coefficients were calculated for each of the factors. Chapter 5 provides more detail on the results of the exploratory factor analysis.

(iii)   Confirmatory factor analysis

The third section of Chapter 5 presents the reader with a statistically reliable structural equation model (SEM) that was developed using MPlus7 (Muthén & Muthén, 2012). Bollen and Long's (1993) 'Five-stage approach to conducting SEM' was followed to construct the normative model for this research project. A multiple-indicator-multiple-cause (MIMIC) model with Robust Maximum Likelihood (MLR) was specified and constructed to determine how multiple indicators reflect the underlying latent variables/factors, and how multiple causes (observed predictors) affect latent variables/factors. Model fit was evaluated by means of various absolute and incremental fit indices, namely the relative Chi-square (X^2), the Root Mean Square Error of Approximation (RMSEA), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), the non-normed Tucker-Lewis Index (TLI), and the Standardised Root Mean Squared Residual (SRMR). The key variables influencing potential use of Islamic finance in Port Elizabeth, as identified by the SEM, were used to construct the predictive binary logistic regression (BLR) model.

(iv)   Discriminant function analysis

Discriminant function analysis (DFA) allowed the researcher to develop a valid and reliable model that explained the value of a categorical dependent variable. The categorical dependent variable in this study was dichotomous, i.e. "0" in the event that the respondent was unlikely to use Islamic finance, and "1" in the event that the

respondent was likely to use it. The rationale for using DFA as an alternative to regression analysis stemmed from the fact that the former is used in situations where (i) the measurement of the dependent variable is at the nominal level; or (ii) the assumption of normality in the distribution of data is not met (Jackson, 1995: 455). Discriminant function analysis is therefore useful to determine whether a set of variables is effective in predicting category membership. Discriminant function analysis was also used to test the research hypotheses of the study.

(v)   Development of a predictive model

In this research study, binary logistic regression (BLR) analysis was used to analyse and predict the extent to which demographic, socio-economic status (SES) variables, cognitive, affective and environmental factors influenced an individual's attitude and intention to adopt or reject Islamic finance. By utilising CHAID, or Chi-squared Automatic Interaction Detection analysis, the key predictors of potential use of Islamic finance among Muslims in Port Elizabeth were evaluated. CHAID is a Classified Tree technique that not only evaluates complex interactions among predictors, but also displays the modelling results in an easy-to-interpret tree diagram.

In terms of contextualising this thesis, Chapter 6 provides a summary of the objectives of this study and discusses each of the research hypotheses formulated in Chapter 1 in relation to the findings in Chapter 5. The cross-referencing of the theory with the findings of previous studies, as well as the pertinent main findings of this study, enabled the researcher to present a holistic strategy on how attitudes and adoption rates of Islamic finance among Muslims in Port Elizabeth can be improved. The chapter concludes with a summary of the study's major findings, recommendations, limitations, and offers suggestions for future research. Figure 1.3 provides a visual dimension of the content and structure of this thesis.

Figure 1.3:   Contents and structure of the thesis
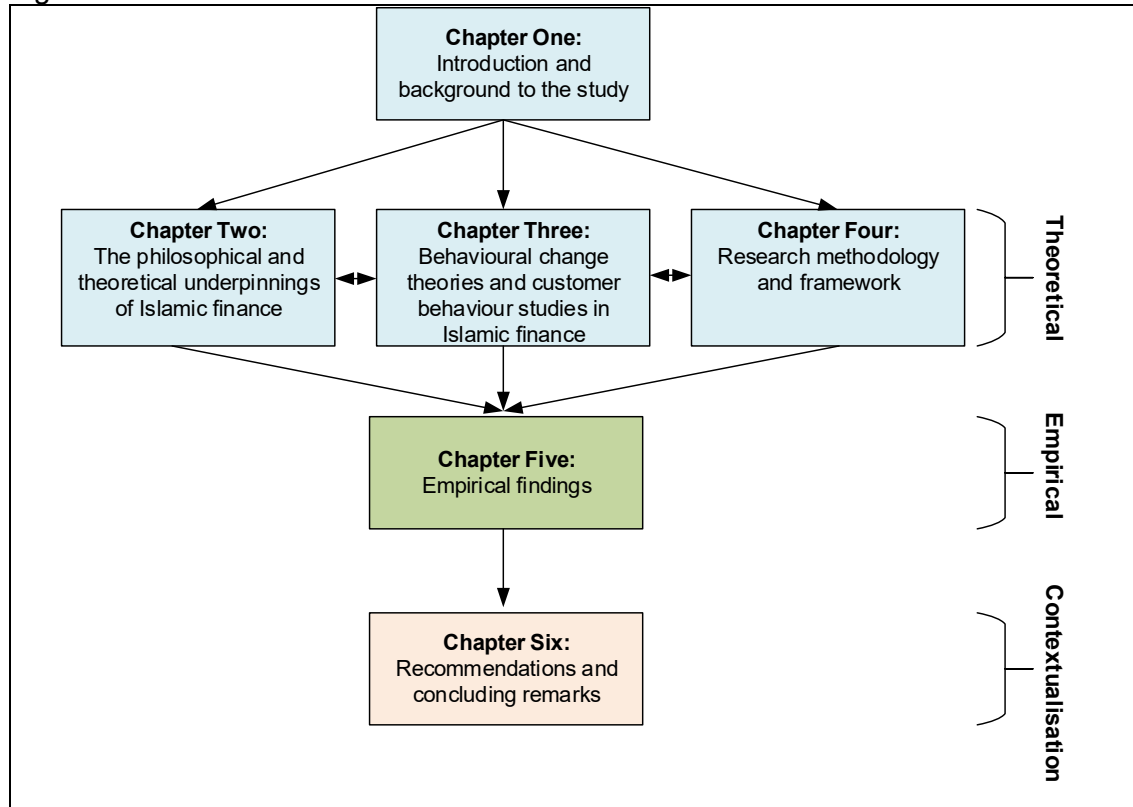
Source: Researcher's compilation.

1.12   SUMMARY

The resurgence of Islam across the globe combined with the resilience that Islamic financial assets have shown against the onslaught of the current financial crisis, make Islamic finance an attractive alternative financial system. It is logical for Africa to become the new frontier for Islamic banking, given projections that its Muslim population, which currently stands at approximately 240 million, will grow by nearly 60 percent in the next 20 years. The South African government, in conjunction with the national finance authorities, have made their intention clear to position the country as the Islamic finance hub for the rest of the African continent. A number of established conventional banks in South Africa have shown support for this vision by creating Islamic windows at the majority of their retail outlets. The fiscal authorities have introduced tax neutrality laws for Islamic finance products to ensure that the full potential of Islamic finance is realised. In contrast to this vision, it is noted that bank patronage and utilisation of Islamic finance among South African Muslims over the past two decades has been modest. If the size and growth of the Islamic financial

sector in South Africa depends on the number of people who are willing to engage with it, *ceteris paribus*, it became necessary to explore the reasons why Muslims adopt or reject Islamic finance.

This study used the responses of the Muslim community in Port Elizabeth as a microcosm for the decision-making behaviour of the Muslim population in South Africa and explains to what extent a Muslim's level of knowledge, awareness, beliefs, perceptions and expectations of Islamic finance influence his/her attitude and eventual decision to adopt or reject it. This research objective was achieved by applying and adapting a universally-accepted behavioural-change model to suit the hypotheses of this study. This research explains in a holistic manner how Islamic finance policymakers can benefit from the insights provided by social-psychological theory and behavioural economics as both provide a deeper understanding of human behaviour.

After having outlined the problem setting, the main objectives and the importance of the study in this introductory chapter, the scene is set to discuss the philosophical and theoretical underpinnings of Islamic finance in the next chapter.

CHAPTER TWO
THE PHILOSOPHICAL AND THEORETICAL UNDERPINNINGS
OF ISLAMIC FINANCE

2.1   INTRODUCTION

The previous chapter noted that recurring instability of the capitalistic financial system over the past few decades have resulted in a growing interest in the Islamic financial system, with some economic and financial analysts (*cf.* Bookstaber, 2007; Glazyev, 2005; Roubini & Uzan, 2005; Chapra, 2008) petitioning the International Monetary Fund (IMF), the World Bank and monetary authorities to devise a new financial architecture in line with the ethical values embedded in Islamic finance. This shift in outlook stems mostly from the fact that the Islamic financial sector has been remarkably resilient to the onslaughts of the credit crunch which has gripped the global economy for the past nine years (Solé, 2007; Farook *et al.*, 2011; Rustam, Bibi, Zaman, Rustam & Zahid-ul-Haq, 2011; Thambiah *et al*., 2011). However, research findings, elaborated on in Chapter 3 of this thesis, suggest that a significant number of people neither understand the principles that underpin Islamic financial products nor conceive how an interest-free financial system, based solely on religious principles, is able to serve as an alternative to the conventional financial system. According to Iqbal and Mirakhor (2011: 9), sceptics of Islamic finance contend that, in the absence of discounting, an interest-free Islamic financial system would be incapable of equilibrating demand for and supply of loanable funds. It is also argued that an interest-free Islamic financial system does not adequately explain the time preference theory of money that forms the basis of the conventional economic framework (Iqbal, 2013: 2), thereby nullifying the need for monetary policy since no instruments of liquidity management could exist without a fixed, predetermined rate of interest and that capital flight would almost be guaranteed (Iqbal & Mirakhor, 2011: 9). Notwithstanding these expressions of cynicism, Iqbal and Mirakhor (2011: 9) argue that the Islamic financial system should not be viewed in isolation but as an integral part of the Islamic economic system with its overall ethos, goals and values. Similarly, Iqbal (1997, quoted in Mohd-Karim, 2013: 40) notes that "the Islamic banking and finance paradigm is derived from the objectives of Islamic economics, which highly value the principles of ethicality, morality, social as well as religious dimensions in order to promote equality and social

justice in society." In this context, the Islamic finance system is often seen as a superior alternative to the conventional capitalistic banking system.

Even though Islamic banking deposits and investments share the same concepts and characteristics as conventional banking deposits in terms of (i) being a source of funds; (ii) liabilities, and (iii) providing return from deposits mobilisation (INCEIF, 2006), there are fundamental differences between the two systems concerning the way in which banking operations are treated. Consequently, this chapter, presented in four mainly theoretical rather than empirical sub-sections, discusses the philosophical and theoretical underpinnings of Islamic finance and explains how the moral and ethical values espoused by the Holy *Qur'an* and *Shari'ah* are embedded in the financial instruments offered by Islamic banks to its customers. Sub-section 2.2 provides the reader with an overview of the central tenets of Islamic economics. Thereafter, in sub-section 2.3, the basic principles, features and characteristics of the Islamic banking and finance system are provided. Sub-section 2.4 discusses pertinent differences between the Islamic finance and the conventional banking systems. Sub-section 2.5 explains the various Islamic financial contracts currently available within the sector. The knowledge gained from this chapter is intended to assist the reader to evaluate the outcomes of studies undertaken in this particular research area.

2.2   THE CENTRAL TENETS OF ISLAMIC ECONOMICS

Within the context of an economic system, societies are forced to make rational choices to efficiently address the three questions that are central to the economic problem, namely: *What to produce? How to produce? For whom to produce?* Various economic systems, each with its own peculiar features and with varying degrees of success, have provided different solutions to these questions. This thesis focuses on the characteristics of the capitalistic economic system and compares it against those of the Islamic economic system. According to Scott (2006: 1), the three central economic questions in a capitalistic economic system are addressed by private actors who are allowed to own and control the use of property in accord with their own interests, and where the invisible hand of the pricing mechanism coordinates demand and supply in markets in such a way that the best interest of society is automatically promoted. The role of government, from a capitalistic perspective, is often restricted

to peacekeeping, justice, and setting tolerable taxes. The profit motive constitutes the prime stimulus to productive exertion and the principle means of production, distribution and exchange are in private (individual or corporate) hands (Scott, 2006: 1). In a capitalistic economic system, it is assumed that the forces of demand and supply, in conjunction with the pricing mechanism, will ensure that resources are efficiently allocated (Scott, 2006: 2). However, McClintock (2013: 46) refutes the notion that self-interest promotion could lead to a situation of Pareto optimality and predicts that, due to the inherent nature of the capitalistic economic system, the *laissez faire* market will eventually fail to allocate certain goods and resources efficiently in the long run, making market failure an inevitable consequence. Invariably, the freedom of individuals and firms to use any means to pursue their own self-interest leads to apocryphal results for society as a whole. McClintock's (2013: 46) argument in this regard stems from the fact that *laissez faire* capitalistic economic systems allow goods to be sold to the highest bidder, which results in economic inefficiency as goods are distributed on the basis of who can afford them rather than being distributed on the basis of who needs and values them most. The result is the duality of capitalism: a sacrosanct economic system favoured due to its simplicity, but devoid of moral conscience or direction (McClintock, 2013: 47). Since resources are allocated strictly on the basis of consumers' ability and willingness to pay, free markets result in imperfect information distribution and imperfect competition. Consequently, free market capitalism leads to comparative advantages for the rich over the poor, where the rich can afford better food, education, housing and transportation compared to the poor (Kuran, 1997: 26). Prices, therefore, serve as the sole determinant of who will receive goods and services, regardless of the ethical implications of the rich's comparative economic advantage over the poor (McClintock, 2013: 47).

Ökte (2010: 182) is of the opinion that the neglect of the ethical and moral dimensions of human existence is a key problem in the capitalistic economic system. Fierce competition, often in pursuit of material well-being, gives rise to morally reprehensible behaviour such as dishonesty, mistrust and economic exploitation of the weak by the strong. Similarly, Kuran (1997: 26) notes that the self-perpetuating cycle of moral decay makes it impossible for a capitalistic economic system to achieve social efficiency because individual actions are based on the promotion of self-interest. Kuran (1997: 26) cautions that regulations to correct the shortcomings of the capitalist

system are usually ineffective because those entrusted to implement these regulations are influenced by the wrong values. This is the case in both the economic sector as well as the financial sector (Kuran, 1997: 27). In addition to this, it is contended that the philosophy on which the free-market capitalistic system is based, exist independent of religious principles, beliefs and culture (Ökte, 2010: 182). However, in an Islamic economic system characterised by members of society endowed with Islamic values, the flaws of capitalism will be absent (Ökte, 2010: 182). Iqbal and Mirakhor (2011: 30) define an Islamic economic system as "a collection of institutions designed by the Law-giver [Allah (s.w.t.)[2]] through the rules prescribed in the Holy *Qur'an*, operationalised by the *Sunnah* of the Prophet [Muhammad (p.b.u.h.)[3]] and extended to new situations by *ijtihad* [individual reasoning by analogy] to deal with the allocation of scarce resources, production and the exchange of goods and services as well as the distribution of the resulting income and wealth". In an Islamic economic system, society is encouraged to develop communal, non-individualistic values to fight against selfishness. It is in this context that an Islamic economic system is often presented as a superior alternative to the capitalistic system (Hasan & Dridi, 2010; Farook, Hassan & Lanis, 2011; Samad, Gardner & Cook, 2005). Ökte (2010: 182) states that an Islamic economic system adheres to a set of goals and values that encompasses all aspects of human life, including social, economic and political issues and is governed by *Shari'ah,* a body of immutable rules under Islamic Law, which literally translates into "a clear path to be followed and observed". According to El-Gamal (2006) as well as Vogel and Hayes (1998) the time- and place-variant *Shari'ah* developed through four main Islamic juristic schools (namely the *Hanafi*, *Maliki*, *Shafi* and *Hanbali* schools of thought) and is derived from two primary sources namely the Holy *Qur'an,* the *Hadith* relating to the *Sunnah* teachings of the Prophet (p.b.u.h.) as well as two dependent sources namely, *ijma* (consensus) and *ijtihad/qiyas* (individual reasoning by analogy). Es-Sadr (1980: 291) state that the following five principles, as prescribed by the Holy *Qur'an* and the *Sunnah*, constitute the fundamentals of the Islamic economic doctrine and provide the broad lines which distinguish it from other economic systems: (i) the principle of *falah* (ultimate success); (ii) multi-faceted

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[2] Throughout this thesis, the abbreviation (s.w.t.) will denote "subhanahu wa ta'ala" (Glorified and Exalted be He), a phrase seen as an act of reverence and devotion towards the Almighty Allah (s.w.t.) (God) among Muslims.
[3] The abbreviation (*p.b.u.h.*) will represent "Peace Be Upon Him", the prayer every Muslim is taught to utter every time he/she hears the name of the Prophet mentioned. Technically-speaking this prayer ﷺ is interpreted as "May God's peace and prayers be showered onto him".

ownership of resources; (iii) economic freedom within a defined limit; (iv) the principle of social justice; and (v) the principle of non-exploitation. These principles are briefly outlined in the following sub-sections.

2.2.1 The principle of *falah*

The pursuit of *falah* (ultimate success) is the main principle on which an Islamic economic system is based and refers to the spiritual, moral and socio-economic well-being of mankind in this world and success in the Hereafter. At micro level, *falah* refers to a situation where an individual is adequately provided for in respect of his basic needs, and enjoys necessary freedom and leisure to work for his spiritual and material advancement (Iqbal *et al.,* 2005: 15). The principle of *falah,* at macro level, aims to establish an egalitarian society free from want and with opportunities for its members to progress in socio-political and religious affairs (Iqbal *et al.,* 2005: 15). Islam does not discourage achievement of material prosperity through fair means and the basic objective of an Islamic economic system remains the same as it is stipulated in the Holy *Qur'an*: "But seek with (the wealth) which God has bestowed on thee, the home of the Hereafter, nor neglect thy portion in this world, but do thou good as God has been good to thee and seek not mischief in the land, for God loves not those who do mischief." (Al-Qur'an, 28: 77). In contrast to the epistemology of conventional economics which reiterates the scarcity problem, Islamic economists are of the opinion that resources are not limited. According to Ariff (1989), the Almighty *Allah* (s.w.t.) has made sufficient resources available to mankind to last till the end of time. Scarcity of resources, from an Islamic perspective, is not due to their non-existence or depletion or extinction, but is caused by the inability of mankind to explore and acquire the resources or similar resources as substitutes. It is in this context that the Almighty *Allah* (s.w.t.) constantly encourages Muslims to seek His bounty on the face of the earth. This is evident in the following three verses in the Holy *Qur'an*: (i) "Your Lord is He that maketh the ship go smoothly for you through the sea, in order that ye may seek of His Bounty. For He is unto you Most Merciful." (Al-Qur'an, 17: 66); (ii) "And when the prayer is finished, then may ye disperse through the land, and seek of the Bounty of Allah: and celebrate the Praises of Allah often (and without stint): that ye may prosper." (Al-Qur'an, 62: 10); and (iii) "It is He who has made the earth manageable for you, so traverse ye through its tracts and enjoy of the Sustenance

which He furnishes: but unto Him is the Resurrection." (Al-Qur'an, 67: 15). Nowhere in the Holy *Qur'an* can one find anything that informs Muslims about depletion or extinction of the bounties of the Almighty *Allah* (s.w.t.). According to Haron and Wan Azmi (2009), the *Qur'anic* verses do, however, provide the following instructions and rulings which Muslims have to comply with:

(i)   Wealth or the bounties of Almighty *Allah* (s.w.t.) are not confined to certain areas. In other words, Muslims are encouraged to disperse through land and sea to seek the bounties of the Almighty *Allah* (s.w.t.);

(ii)   In seeking wealth, it must be borne in mind that there is life in the Hereafter and that every effort made by mankind in seeking the bounties must be made with full consideration of the fact that he shall be held accountable for all his actions in the Hereafter; and

(iii)   In exploring to seek the bounties, mankind is obliged not to damage the environment to the extent that it would endanger life on earth or deplete non-renewable resources (Haron & Wan Azmi, 2009: 27).

Within the bounds of lawful (*halal*) and unlawful (*haram*) prescribed by Almighty *Allah (s.w.t.)*, man has been allowed full enjoyment of God's gifts bestowed on him. However, according to *Shari'ah*, the principle of use should be in moderation and prudence as any extravagant use of economic resources is regarded as wasteful. The Holy *Qur'an* reiterates this point when it addresses mankind in the following manner: "O children of Adam! Look to your adornment at every place of worship, and eat and drink, but be not prodigal Lo! He (God) loveth not the prodigals." (Al-Qur'an, 7: 31).

2.2.2   The principle of multi-faceted ownership of resources

The Holy *Qur'an* unambiguously states that everything in the universe belongs to God (Al-Qur'an, 2: 284) and that man holds property in trust for which he is accountable to Him, in accordance with the rules clearly defined by *Shari'ah*. Absolute ownership of resources is therefore an unfamiliar concept in Islam, as resources belong to God alone. The Islamic economic system does, however, adhere to a principle of multi-faceted 'ownership' of resources. Under this principle, the private ownership of various kinds of property and means of production are allowed while provision is made for public ownership as well as state ownership of certain types of wealth and property. This arrangement may appear to be similar to the principles adhered to in a mixed economic system, but *Shari'ah* views individual ownership, state ownership and public ownership of resources as three parallel forms (Ökte, 2010: 183). The respective

scope of the three kinds of ownership are not strictly defined in the Holy *Qur'an* but left to be determined in light of certain principles, depending on the needs and circumstances.

2.2.3 The principle of economic freedom within a defined limit

It was pointed out in sub-section 2.2.1 above that all things have been created by Almighty *Allah (s.w.t.)* for man's use and service. It was also noted that to restrain oneself or forbid others from the enjoyment of lawful items of food and other articles of use is equivalent to renouncing the blessings and favours of Almighty *Allah (s.w.t.)* which has been strongly condemned. The Holy *Qur'an* prohibits this clearly when it says: "O ye who believe! Forbid not the good things, which *Allah* (s.w.t.) hath made lawful for you, and transgress not, Lo! *Allah* (s.w.t.) loveth not transgressors." (Al-Qur'an, 5: 87). Within the context of economic freedom in Islam, every individual is held accountable for his actions done in this world. Accountability for ones' actions is meaningless if the individual is not provided reasonable freedom to act independently. Islam, therefore, puts highest value on an individual's freedom of action in every sphere of human activity (i.e. social, political, economic, religious and moral). However, Islam does not allow unlimited freedom in the economic sphere. In the field of production, consumption, distribution and exchange, only *halal* (lawful) means are permitted. Although earning wealth through permitted (*halal*) means is allowed, the religion demands that a Muslim not become obsessed with amassing wealth. A Muslim should exercise restraint and earn wealth to meet his lawful needs. Extra wealth, earned in a *halal* manner, must be spent in the path of Almighty *Allah (s.w.t.)* on charity and relief of the poor. Islam unequivocally discourages its followers to cross the limits and to follow extremes. In this regard, has the *ummah* (Muslim population) been referred to in the Holy *Qur'an* as "*a middle nation*" (Al-Qur'an, 2: 143). Besides restrictions of *halal* and *haram*, restrictions are rarely placed on economic activities, prices of goods, ownership or monopolies unless it is necessary to safeguard the common interest of the Muslim community. However, the principle of moderation carries paramount importance especially in the production and consumption of wealth.

2.2.4 The principle of social justice

The promotion of social justice in Islam governs every aspect of an Islamic economic system, i.e. from production, to distribution, to consumption, as well as exchange. In the sphere of production, the rights of every individual to earn his livelihood, to acquire wealth, to own property and live a comfortable life are acknowledged in Islam. Islam does, however, not allow people to accumulate wealth through bribery, corruption, embezzlement, stealing, robbery, gambling, trade in narcotics, exploitation, interest, fraud, hoarding, black marketing, prostitution, malpractices in business, immoral professions or through other unjust methods. In terms of distribution, social justice is ensured by the *Qur'anic* injunctions against exploitation. Justice in distribution, often termed 'economic justice', 'social justice' or 'distributive justice', requires that economic resources and wealth be distributed among the members of the community in such a way that the gap between the rich and the poor is bridged (Iqbal *et al.,* 2005: 15). Islam discourages the concentration of wealth in the hands of a few and dictates that wealth should be circulated in the community through moral education and training as well as through effective legal measures. The important principle of social justice in distribution is in line with the instruction received in the following verse of the Holy *Qur'an:* "That which *Allah* (s.w.t.) giveth as spoil unto His messenger from the people of the townships, it is for *Allah* (s.w.t.) and His messenger and for the near of kin and the orphans and the needy and the wayfarer, that it become not a commodity between the rich among you." (Al-Qur'an, 59: 7). Since God is the real owner and producer of wealth and in light of the fact that God is above all needs, it is logical to assume that God's share must go to the poor, the needy, the destitute, the helpless and the less fortunate members of the community. The Islamic state, being vicegerent of God, is duty-bound to fulfil this instruction from God and provide in the basic needs of its poor citizens. In this context, the state plays a key role in the transformation process by implementing a system of *Sadaqah (*charity*)*, collecting *Zakah* (wealth tax) and voluntary alms-giving as well as enforcing favourable laws of inheritance, prohibiting wealth earned by *haram* (unlawful) means, discouraging hoarding and abolishing interest (Iqbal *et al.,* 2005: 16). Although there are no specific verses in the Holy *Qur'an* stating the correct amount of *Zakah* to be paid, the Prophet Muhammad (*p.b.u.h.*) has indicated a number of ratios for different assets. For example, for all 'idle assets' (for example gold, silver and money) an annual tariff of 2.5 per cent should be imposed

(Metwally, 2006). The approach of paying *Zakah* addresses numerous social and economic objectives such as reductions in poverty, crime and the creation of social and economic equity.

2.2.5 The principle of non-exploitation

The most salient characteristic of the Islamic economic system is the prohibition of *riba'h* (usury), regarded by the Holy *Qur'an* as the worst form of human exploitation. The prohibition against levying *riba'h* in Islam is strict, absolute and unambiguous. Its prohibition is mentioned eight times in the Holy *Qur'an,* and individuals are warned against the perils of exploiting one another, especially in financial matters. The Holy *Qur'an* declares *riba'h* a heinous crime which amounts to war against God and God's Messenger (*p.b.u.h.*). In this context, the Holy *Qur'an* (2: 278) states: "O ye who believe! Fear Allah and give up what remains of your demand for *riba'h*, if ye are indeed believers." and "If you do it not, take notice of war from *Allah* and His Messenger. But if ye turn back, ye shall have your capital sums. Deal not unjustly and you shall not be dealt with unjustly." (Al-Qur'an, 2: 279). In fact, the element of *riba'h* in dealing with financial transactions is also condemned in other religions such as Judaism and Christianity (Kamel, 1997: 7; Khan, 2006; Kula, 2008: 45; Saleh, 1986: 9). Mills and Presley (1999) have traced the history of prohibition of interest in Biblical texts. In the Old testaments from the American King James Version of the Bible it is stated that "If you lend money to any of my people that is poor by you, you shall not be to him as a usurer, neither shall you lay on him usury." (Exodus 22:25). Even though the Vatican put forward the idea that "the principles of Islamic finance may represent a possible cure for ailing markets." (Totaro, 2009), the Catholic Church's prohibition of all usury was relaxed in the 16th century (Seabourne, 2015). Today the Catholic Church still forbids usury, meaning extortionate charges, providing penalties in c2354 of the Code of Canon Law, but this does not mean that all interest-taking is sinful. The Vatican itself invests in interest-bearing schemes, and requires Church administrators to do likewise. That all interest was not in itself sinful was finally decided in a series of decisions in the institutions of the Catholic Church in the nineteenth century. In the context of usury from a Jewish perspective, a translation from the Jewish Publication Society (CHABAD Library, 1917) reads as follows: "If thou lend money to any of My people, even to the poor with thee, thou shalt not be to him as a creditor; neither shall

ye lay upon him interest." (Exodus, 22:25). The *Torah* and later sections of the Hebrew Bible criticise interest-taking, but interpretations of the Biblical prohibition vary. One common understanding is that Jews are forbidden to charge interest upon loans made to other Jews, but allowed to charge interest on transactions with non-Jews, or Gentiles. However, the Hebrew Bible itself gives numerous examples where this provision was evaded. Iqbal (2013: 5) states that the basic rationale for the prohibition of interest in Islam is based on ethics, most importantly to ensure justice to all parties. In many cases, charging of interest is also demeaning. For example, if the loan is for procuring things necessary for survival, charging interest delivers a severe blow to the very basic fabric of social life which requires cooperation, care and help of the needy, and protecting the weaker members of the society.

In its basic meaning *riba'h* can be defined as "anything (big or small), pecuniary or non-pecuniary, in excess of the principal in a loan that must be paid by the borrower to the lender along with the principal as a *condition*, (stipulated or by custom), of the loan or for an extension in its maturity." (Iqbal, 2013: 4). Khan and Mirakhor (1987: 4) define *riba'h* as an addition to the amount of the principal loan on the basis of time for which it is loaned or of the time which the payment is deferred. Salleh (1986: 13), in his commentary on *riba'h,* states that *riba'h,* in its *Shari'ah* context, can be defined as "an unlawful gain derived from the quantitative inequality of the countervalues in any transaction purporting to effect the exchange of two or more species (*anwa'*, singular *naw'*), which belong to the same genus (*jins*) and are governed by the same efficient cause (*'illa*, plural: *'ilal*)." The Holy *Qur'an* categorically declares any surplus or excess over the principal amount to be *riba'h* and the prohibition of *riba'h* applies irrespective of the purpose for which the loans have been raised. In Islam, it is said that those people who affect the property rights of others will face punishment from Almighty *Allah (s.w.t.)* on the Day of Judgment (Salleh, 1986: 13).

In Islamic economics, money is only a medium of exchange and a way of defining the value of a good or service. It has no intrinsic value. That is to say, it has no store of value function in contrast to the traditional monetary analysis. Honesty and justice in all measures of value have been absolutely stressed in the Holy *Qur'an*: "And give full measure and weight with justice" (Al-Qur'an, 6: 152). This principle should not only be applied to the conventional weights and measures but should also be applied to all

measures of value including money. In this regard, the only proper use of money arises from its purchasing power. Therefore, the onus is on the government to take the necessary steps to maintain the stability of the real value of money or its purchasing power. However, the purchasing power of money cannot be used to make more purchasing power without going into the intermediate step of it being used for the purchase of goods and services. That is, money should not be allowed to give rise to more money via fixed interest payments. The human effort, initiative, and risk involved in a productive venture are more important than the money used to finance it. According to Ökte (2010: 183), money is a potential capital rather than a capital in the financial meaning. It becomes capital when it is invested in a business. Accordingly, money advanced to a business as a loan is regarded as a debt of the business and not its capital. As such, money itself is not entitled to any return. Muslims are encouraged to purchase goods and services and invest in business ventures but are discouraged from keeping money idle. Therefore, hoarding money is regarded as unacceptable (Ökte, 2010: 183).

2.3 THE PRINCIPLES OF ISLAMIC FINANCE

The principles of Islamic finance have been extensively studied by Muslim and non-Muslim scholars alike (*cf.* Wilson 2006; Metwally 2006; Iqbal & Molyneux, 2005; Siddiqi, 2004; Akacem & Gilliam, 2002; Zaher & Hassan, 2001; Lewis & Algaoud, 2001; Al-Jarhi & Iqbal, 2001; Warde, 2000; El-Gamal, 2000; Dar & Presley, 1999). Consequently, a large number definitions of Islamic finance are found in the literature, ranging from the relatively simple definitions for specific aspects (for example, Islamic banking) to more complex definitions covering all financial operations. Warde (2000: 5) defines Islamic financial institutions as "those that are based, in their objectives and operations, on the principles of the Holy *Qur'an*" whereas Gait and Worthington (2008: 783) refer to Islamic financial institutions as "those which provide financial products and services designed to comply with the central tenets of *Shari'ah* (or Islamic law)". These definitions suggest that Islamic finance do not only refer to banks, but all financial intermediaries that prohibit *riba'h* (interest), *gharar* (risk and uncertainty), *maysir* (gambling) and *qimar* (games of chance), avoid investment in prohibited industries, and promote participatory financing. The Islamic financial system is strictly governed by the teachings and prescriptions in Islam, ostensibly to ensure a more

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equitable distribution of income and wealth among Muslims in Islamic economies. Figure 2.1 provides a summary of the overarching principles of Islamic finance founded in the *Shari'ah* objectives to protect individuals' personal and religious rights as well as to uphold high ethical standards in pursuit of higher equality of wealth distribution.

Figure 2.1: Overarching principles of interest prohibition-driven finance
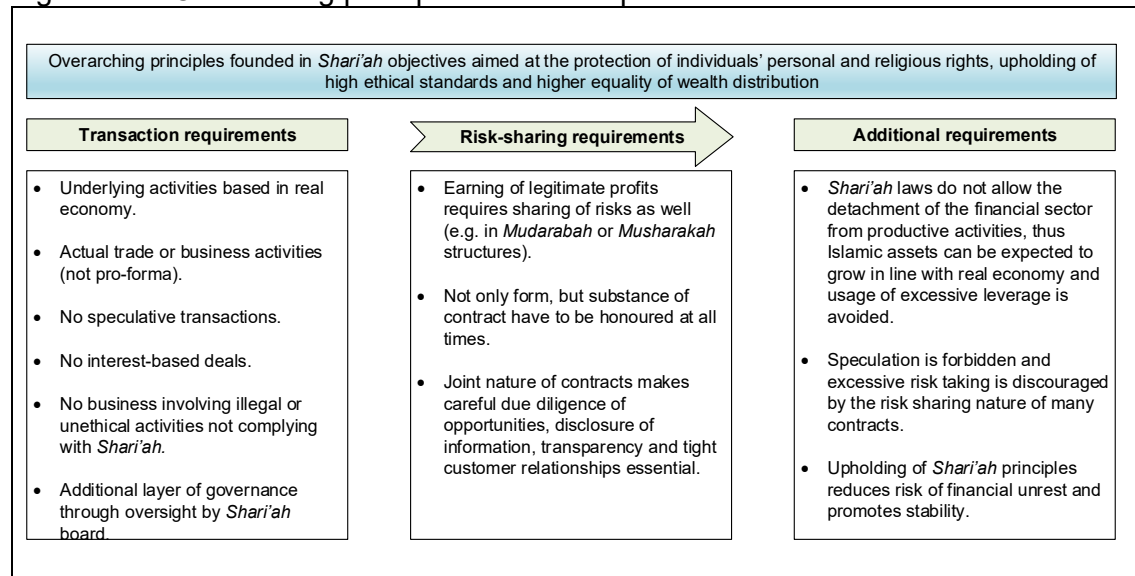
Source: Al-Kheil (2012: 3).

A distinguishing characteristic of an Islamic financial system is the absence of *riba'h* (interest or any form of usury). According to Chapra (1984) as well as Shahid (2007), Muslim jurists have generally classified *riba'h* into two broad types, namely: (i) *"Riba'h-al-Fadl"*, which is described as the "unlawful" excess in the exchange of two "countervalues" (for example, inequality of quantity or weight and dissimilarity of quality); and (ii) "*Riba'h-al-nasi'ah* ", which is related to the artificial extension of the repayment period of a loan for additional payment of money. This implies that fixing beforehand a positive return (interest) on a loan, as a reward for waiting, is not allowed in Islam (Chapra, 1984). Muslim scholars and practitioners in Islamic finance accept that *riba'h* refers to any fixed or guaranteed interest payment on cash advances or on deposits. It makes no difference whether the return is big or small, fixed or variable or an absolute amount to be paid in advance or on maturity, or a gift or service to be received as a condition for the loan. It also makes no difference whether the loan was taken for consumption or business purposes. *Riba'h* is considered to be an exploitative

instrument of financing because the lender is assured of fixed and certain increases of money whether one experiences profit or loss from the use of these funds. The fixed return creates greediness, selfishness, idleness, injustice and inefficiency (Chapra, 1986; Iqbal & Molyneux, 2005) and Islam prohibits all forms of exploitation. Ibrahim (2000: 170) notes that, in addition to the exploitative nature of *riba'h*, charging interest has the following negative effects on the real sector of the economy:

 (i) Banks who operate in an interest-based financial system has no incentive or desire to participate directly in a business venture, i.e. any investment plan presented to conventional banks is evaluated strictly of the basis of the possibility of recovering the bank's capital and earning interest from the financing arrangement, by any means;
 (ii) Conditions attached to loan contracts (i.e. the terms and structure of the loan contracts) are inflexible and discourages innovation by small businesses;
 (iii) Due to high interest charges, local businessmen are reluctant or even unable to access financial support from banks. In this context, this often leads to bankruptcy and a loss of productive potential for society;
 (iv) Customers who default on their loans and mortgages are at risk of losing their homes which they have used as collateral; and
 (v) The debt burden makes it difficult for a depressed economy to recover, bringing additional suffering to the entire community in the form of unemployment.

From the above it can be inferred that *riba'h* causes the wrongful appropriation of other people's property without justification. To charge interest is considered an unacceptable practice in Islamic finance because it creates a situation whereby money is made from money whereas money has no intrinsic value and serves merely as a medium of exchange. Siddiqi (2004) is of the opinion that those individuals who deposit money in a bank or lend it to gain guaranteed returns in the form of interest, will earn money without effort or risk. According to *Shari'ah*, this is *haram* (unlawful) because the wealth of a person can only increase by investing their money in useful trade and productive economic enterprise. The principal reason why the Holy *Qur'an* has delivered such a punitive verdict against interest is that Islam wishes to establish an economic system where all forms of exploitation are eliminated, and particularly the injustice perpetuated when the financier is assured of a positive return without doing any work or sharing in the risk, while the entrepreneur, in spite of sacrificing his time, management skills and work effort, is not assured of such a positive return. By prohibiting anyone from charging interest, it is the objective of Islam to establish justice between the financier and the entrepreneur.

The second significant prohibition in Islamic finance relates to *gharar*, generally translated as risk, hazard or uncertainty (Kahf, 2006; Iqbal & Molyneux, 2005; El-Gamal, 2000). Although there is no explicit statement in the Holy *Qur'an* forbidding *gharar*, it is well-accepted under *Shari'ah*, that it is forbidden. Al-Saati (2003: 7), for example, infers the prohibition of *gharar* from two *Qur'anic* verses as follows: (i) "And do not eat up your property among yourselves for vanities, nor use it as bait for the judges" (Al-Qur'an, 2: 188); and (ii) "O ye Who believe! Eat not up your property among yourselves in vanities; but let these be amongst you traffic and trade by mutual good will" (Al-Qur'an, 4: 29). According to Iqbal (2013: 5), *gharar* is one of the most difficult Islamic juristic terms to explain to non-specialists. El-Gamal (2000: 7) defines *gharar* as "the sale of probable items whose existence or characteristics are not certain, due to the risky nature which makes the trade similar to gambling". Iqbal and Molyneux (2005: 14) suggest that *gharar* refers to acts and conditions in exchange contracts where the full implications of the transaction are not clearly known to the parties. This is something very similar to the concept 'asymmetric information' used in Economics. Lack of knowledge with respect to all implications of a contract vitiates against the principle of voluntary consent of all parties which is a necessary condition in all contracts of exchange according to Islamic law (Iqbal, 2013: 5). In other words, had the parties known the full implications of the contract, one (or both) of them may have preferred not to enter into that contract. In the presence of asymmetric information, the agreement of the parties cannot be considered as voluntary consent. Al-Saati (2003) stipulates that there is no agreement among Muslim jurists about the degree of uncertainty in commercial transactions to be considered as *gharar*. It is in this context that Al-Darir (1997) summarises *gharar* in the following manner: First, *gharar* applies to cases of uncertainty, as in the case of not knowing whether something will take place or not. A second view holds that *gharar* applies to the trading of the unknown. Thus, according to Ibn Hazm, *gharar* in sales occurs when the purchaser does not know what he has bought and the seller does not know what he has sold. Third is a combination of the two opinions, namely that *gharar* covers both the unknown and the doubtful, as exemplified by the definition proposed by Al-Sarakhsi which states that *gharar* occurs where consequences of a contract are not known. This is the view favoured by most jurists.

Jamaldeen (2012: 17) defines *maysir* as the acquisition of wealth by chance (not by effort) and *qimar* as any game of chance (including lotteries, casino-type games and betting on the outcomes of animal races). These activities indicate a person's desire to obtain return through deliberate risk-taking (Al-Saati, 2003). Both games of chance and gambling are prohibited by *Shari'ah* because they are based on *gharar* (uncertainty). Iqbal *et al.* (2005: 15) provide evidence from the Holy *Qur'an* as follows: "O, you who believe! Intoxicants (all kinds of alcoholic drinks), and gambling, and *Al-Ansab* (animals that are sacrificed in the name of idols on their altars) and *Al-Azlam* (arrows thrown for seeking luck or decision) are an abomination of Satan's handiwork. So avoid that (abomination) in order that you may be successful" (Al-Qur'an, 5: 90). There is general consensus among Muslims who believe in the tenets of *Shari'ah*, that the reasons prohibiting *maysir* is unquestionable. Iqbal *et al.* (2005) contend that, due to the risk involved in games of chance, some people tend to win large amounts of money, whereas others suffer from a loss of their money, and could, ultimately, face bankruptcy. The outcome of these games of chance could lead to greater financial and societal problems. In addition, these acts of gambling are considered unnecessary because they do not add any value to societal wealth. Islam encourages people to invest their money in industries that comply with the rules set by *Shari'ah*. To invest in industries that promote the sale of *haram* commodities (for example, alcohol, drugs, and pork), is strictly forbidden in the Islamic doctrine. Profit made by games of chance and unethical sources (lotteries, betting, gambling, alcoholic beverages, pork products, and tobacco items) are also prohibited. The aim of *Shari'ah* in this regard is to promote 'ethical' investments that do not affect people and society adversely through the violation of religious prohibitions (Al-Saati, 2003: 8).

Lastly, in terms of participatory financing, Muslims are encouraged to invest their money effectively without imposing an injustice on those who are either lenders or borrowers of these funds. According to this principle, lenders should share with borrowers the profits or losses that emanate from the funded enterprise (Algauod & Lewis, 2001). The profit-and-loss sharing (PLS) system requires borrowers and lenders to distribute the risk of their business, consistent with their share of the capital contributed to the enterprise. The sharing modes earn profit and return which is not fixed and predetermined and they also share the risk of loss proportionately according to the proportionate shares of the partners and financiers. According to Saeed (2001)

two types of PLS partnerships exist in Islamic finance, namely *Musharakah* (full equity partnership) and *Mudarabah* (non-voting partnership or finance). These modes of finance are discussed in detail in sub-section 2.7.

2.4   SALIENT DIFFERENCES BETWEEN ISLAMIC AND CONVENTIONAL BANKS

Although Islamic banks provide products similar to those offered by conventional banks (for example, current, savings, and investment accounts), the two entities differ conceptually in terms of their respective moral dimension and the manner in which they deal with their customers in terms of risk in their funding operations. For conventional banks, the relationship is that of creditor and debtor (Haron & Wan Azmi, 2009: 150) where the conventional bank, having borrowed the funds from the depositor, has the right to use the money deposited according to its preferred method. However, the conventional bank has the responsibility to return or pay the money deposited upon the request of the customers, along with interest, if any. This relationship may be terminated with the consent of both parties. However, the relationship between the Islamic bank and its depositors is not always that of creditor and debtor. The status of the relationship is dependent on the principles of *Shari'ah* used in creating that relationship (Haron & Wan Azmi, 2009: 151). The relationship of creditor and debtor exists if the deposit service applies the *Qard-ul-Hassan* principle. If the *Al-Wadiah* principle is applied, then the relationship would be that of trustee and beneficiary, and in the case where the *Mudarabah* principle is used, it would be a relationship of an investor-entrepreneur. In the case of funds dispensed by an Islamic bank to borrowers, the relationship will be dictated by the principle used in rendering a particular facility (i.e. profit-sharing, sale and purchase, fees and fixed payments, or services provided free of charge). Further, an Islamic bank, like other banks, mobilises funds from savers and supply these funds to businessmen/entrepreneurs. It is organised as a joint stock company with the shareholders supplying the initial capital. While both banking systems are expected to ensure that the assets of the bank are well-funded and meet the liquidity requirements demanded by the depositors, there are several salient differences between the two banking systems. Based on the limited number of available studies (INCEIF, 2006: 84-85; Khir *et al.*, 2008: 88-89; Wilson, 2000: 198), Table 2.1 outlines the salient differences between an Islamic bank and a conventional bank.

Table 2.1: Salient differences between an Islamic bank and a conventional bank

Characteristics	Islamic Banking System	Conventional Banking System
Guiding principle	Guided by *Qur'an*, *Hadith*, Islamic ethics and Islamic law.	Guided by secular law and profit motive alone, with no religious or ethical considerations.
Balance between moral and material requirement	The requirement to finance physical assets which banks usually take ownership of before resale reduces over extension of credit.	Excessive use of credit and debt financing can lead to financial problems.
Prohibition of *gharar* (uncertainty)	The existence of uncertainty in a contract prohibited. "Full disclosure" by both parties required. Derivatives trading e.g. options are considered as having elements of *gharar*.	Trading and dealing in short selling, speculation and derivatives (high risk) of various forms is allowed.
Financing modes	Backed by economic activities	Debt-based
Relationship with customers	The status of the Islamic bank in relation to its customer is that of partners, investors and traders. In case of default, late payment or early withdrawal, there is no penalty levied.	The status of a conventional bank, in relation to its customers, is that of creditor and debtors. In case of default, late payment or early withdrawal, there is a penalty levied.
Underlying contract	In Islamic deposits, the underlying contract is based on *Shari'ah*-approved principles such as *Al-Wadi'ah* contracts (safeguarding of assets), *Qard-ul-Hassan* (benevolent loan) and *Mudarabah* contracts (profit-sharing contracts).	Conventional deposits are based on the borrowing contract where the depositors will act as a lender and the bank as a borrower. Normally, in the contract, the lender (depositors) will be promised a certain fixed rate of interest.
The function and time-value of money	Money functions as a means of trade and production. Time value is rewarded only when real value is generated.	Money functions as a commodity and source of profits.
Return on deposits	The return for Islamic banking depositors is based on the underlying contract, as agreed upon opening an account. If the deposit account is based on a profit-sharing basis, the customers' return will be based on a profit-sharing rate, as agreed, and if the account is based on a safeguarding or loan contract, the return is wholly based on the bank's discretion.	Conventional banking depositors are expected to receive a fixed amount of return as specified in the interest rate form.
Interest on interest	The Islamic banks have no provision to charge any extra money from the defaulters.	It can charge additional money (compound rate of interest) in the event of defaulters.
Risk	The Islamic banking depositors from the *Al-Wadi'ah* contract are only able to claim the deposited money but not the return. The profit-sharing depositors are expected to share the losses including eroding the deposited money.	Conventional banking depositors fundamentally are risk free customers since the depositors are expected to get back the deposited money including the interest from the bank although the bank suffered from any losses.
Ethics of financing and involvement of risk	Bank and depositors share the risks and the reward. Financing used for productive use. Risk sharing and profit sharing go together.	Bank bears risk and takes all the reward. Debt burden arising out of excessive use of credit leads to bankruptcies and waste of financial resources. Conventional banks carry much less risk, the major part of the risk transferred to the borrowers.
Equity financing with risk to capital	Available. Enables several parties, including the Islamic Bank to provide equity capital to a project or venture. Losses are shared on the basis of equity participation while profits are shared on a pre-agreed ratio. Management of the enterprise can be in one of several forms depending on whether the financing is through Mudarabah, Musharakah, etc.	Not generally available through commercial banks, but through venture capital companies and investment banks which typically take equity stakes and management control of an enterprise for providing start-up finance.
Return on capital	Depends on productivity, idle money cannot earn any return.	Even idle money in bank deposits earns returns.
Profit and Loss Sharing	All transactions are based on this principle. Returns are variable, dependent on bank performance and not guaranteed. But the risks are managed to ensure better returns than deposit accounts. Consumers can participate in the profit upside i.e. in a more equitable way than receiving a predetermined return.	This principle is not applied. Returns to depositors are irrespective of bank performance and profitability. The customer as depositor is like a lender and does not share in the success of the enterprise beyond receiving a fixed rate of predetermined interest. Unlike the Islamic system the depositor cannot theoretically gain subject to improved bank performance.
Certification and verification of banking operation	*Shari'ah* scholars innovate and approve *Shari'ah* instruments.	Not based on religious laws or guidelines - only secular banking laws.
Social responsibility	*Zakah* / *Sadaqah* is mandatory.	Income / wealth tax, but charity is not mandatory.
Executive pay / Bonuses	Pay is subject to good performance.	Excessive lump sum paid, even if performance is low),

Source: Adapted from Khan (2011: 17); INCEIF (2006: 84-85); Khir *et al.*, (2008: 88-89); Wilson (2000: 198).

Guided by secular law and profit motive alone, with no religious or ethical considerations, the mechanism in the conventional banking system is based on rate of interest which is a fixed and pre-determined positive rate of return on capital. The depositors and financiers get interest on their deposits and savings, whereas the borrowers and entrepreneurs pay interest on their loans and financings. The banks charge and pay different rates of interest and the difference between these two rates of interest is the profit of the banks. This profit is increased and multiplied through the process of credit creation. All the financial instruments and their derivatives in the traditional banking system are based on the same mechanism, interest being the pivot of the interest-based financial economic system. In this debt-based mode of finance, trading and dealing in short selling, speculation and derivatives (high risk) of various forms is allowed. The status of a conventional bank, in relation to its customers, is that of creditor and debtors. In case of default, late payment or early withdrawal, there is a penalty levied.

In comparison to the conventional banking system with its secular orientation, all economic agents within the Islamic banking system have to work within the moral value system of Islam. Apart from the prohibition of interest in the Islamic economic model, a few other basic tenets must also be kept under consideration for the operational activities of banks to be in compliance with *Shari'ah*. These include:

(i)   Participation only in '*halal*' (lawful) business and investment activities;
(ii) Transactions ought to be free from any element of '*gharar*' (speculation and unreasonable uncertainty);
(iii) Levying '*Zakah*' (due charity) on all the savings and possessions of the banks and depositors once every year at the rate of 2.5% to benefit the poor and needy of the society;
(iv) All the economic activities have to be in the legal frame of *Shari'ah* based on Islamic ethics.

As such, before executing any Islamic banking transaction, the counter parties have to determine whether the transaction is *halal* (valid) in terms of *Shari'ah* (Islamic) law. If there are any *haram* (invalid) components in the contract, the sanctity of contract becomes voidable. In this context, Islamic banks will not finance a wine factory, a casino, a night club or any other activity which is prohibited by Islam or is known to be harmful to society. In terms of governance structures, Islamic banks are obligated to

obey a set of rules dictated by a *Shari'ah* supervisory board and meet the expectations of the Muslim community by providing Islamically-acceptable financing modes (Suleiman, 2001: 34). In the Islamic model of financial intermediation, there is a close link between the monetary and real sectors of the economy. The financial products are either asset-backed or trade-linked. In this way 'pure' speculation is eliminated. This feature provides a safeguard against forming of artificial economic bubbles that often lead to economic and financial instability (Iqbal, 2013: 10). An Islamic bank does not normally lend money except interest-free *Qard-ul-Hassan* (benevolent loans) loans for the benefit of destitute individuals and the society at large. However, to safeguard the interest of depositors/investors, these types of loans, as a matter of policy, do not constitute a significant source of financing by Islamic banks. In Islamic States, where the Islamic system of *Zakah* is well-established, the requirements of *Qard-ul-Hassan* would primarily be met by the treasury (Siddiqui, 2003: 2).

The most important feature of Islamic banking is that it promotes risk-sharing between the provider of funds (investor) and the user of funds (entrepreneur). In conventional banking, all the risk is borne by the entrepreneur. Whether the project succeeds and produces a profit or fails and produces a loss, the owner of capital gets away with a predetermined return. In Islam, this kind of unjust distribution is not allowed. In Islamic banking both the investor and the entrepreneur share the results of the project in an equitable way. In the case of profit, both share this in pre-agreed proportions. In the case of loss, all financial loss is borne by the capitalist and the entrepreneur loses his labour. This interest-free Profit-and-Loss (PLS) sharing principle in performing their functions as intermediaries introduces the element of mutuality in Islamic banking and makes its depositors customers with some ownership of right in it (Dar & Presley, 2000: 3). Moreover, the Islamic PLS principle creates a relationship of financial trust and partnership between borrower, lender, and intermediary (Yudistira, 2003: 14). It is not prohibited to make profit in Islam, as Islam encourages people to use money in "*Halal*" (Islamically permissible) investments. Making a profit, as opposed to interest, is based on taking risks either on the assets, which are sold by the seller, or on the capital invested by an investor to earn profit (AMIS, 2005). Table 2.2 summarises briefly the main difference between "*riba'h*" (interest) and "profit" from an Islamic point of view.

Table 2.2: The difference between *riba'h* and profit from an Islamic perspective

Riba'h (interest)	Profit
Riba'h is pre-fixed (guaranteed in advance) and thus always positive. It is always tied to the time period and the amount of the loan. *Riba'h*, however, can at best be very low or zero	Profit is post-determined, and thus its amount is not known until the activity is done. Profit, however, can be zero, positive, or possibly negative.
By definition, *riba'h* is an increment in a loan or debt "paying money for the use (rent) of money", whether this applies to consumption loans or production loans.	Profit, by definition, is the recognised reward for capital when capital is employed only in permissible productive business. It represents the effort and the risks undertaken by the supplier of capital in an enterprise.
Riba'h means effortless profit or "surplus value without counterpart", and thus, lending on interest does not add value. It transfers only the use of funds temporarily from one person to another.	Profit can only be claimed in the instance where either risk of loss has been assumed or effort has been expended.

Source: Iqbal and Mirakhor (2011: 9).

The current concern in the Islamic financial industry is not so much over the difference between what constitutes *riba'h* and what amounts to profit, but more about the acceptability of how the profit rate used by Islamic banks as an alternative to the interest rate is determined. In practice, the bulk of Islamic financial operations formally base their rates of return or costs of capital on a benchmark interest rate such as the London Inter-bank Offer Rate (LIBOR) (El-Gamal, 2003). However, benchmarking against LIBOR is permitted in Islam primarily because of the absence of an internationally accepted Islamic profit benchmark, and also due to the apprehension in the bank's customers' mind that they may end up paying higher mark-up if it is fixed as compared to the fluctuating benchmark-based interest rate charged by traditional banks. As there are relatively few Islamic banks as compared to the large number of conventional banks, it becomes more important for Islamic banks to remain comparative and, as such, adjust their "profit" earnings close to the market. In light of the actual practices of Islamic financial providers, using LIBOR as a benchmark is only acceptable if it is used particularly for determining the amount of periodic mark-up (Kettell, 2011). There is also the contention that Islamic banks must calculate their mark-up based on interest. However, this would imply a situation where the profits of all projects offered to the bank for financing are "known with certainty in advance". Therefore, it remains hard to distinguish between interest and profit. Specifically, the banks receive deposits from depositors who do not want to deal in interest and keep their money in a separate account to invest them in an Islamic way and share the resulting profit with them. Thus, the profits earned are likely to be almost the same as interest. Even if profit sharing basis rather than the mark up basis is used, the banks have no alternative but to determine a profit that would assure that the banks profit is almost the same as the interest on the interest-based operations. This is because it is

almost impossible to calculate the actual profit earned on the interest-free deposits. It is also impossible to determine the amount of cost incurred on the deployment of deposits (Khan, 1984; Zarqa, 1981). Khan (1984) further argue that the need of Islamic banks arises "only" when the profits are really uncertain. Thus, Islamic banks attract, in contrast to conventional banks, only the (more) risky projects. Islamic bank's revenues from profit-and-loss sharing financing would not, in his opinion, exceed the revenues of average conventional banks out of their interest loan business. However, Islamic banks will accept earning on a marginal project a rate of return on their funds which equal at least to the expected rate of return in the overall economy. The rate of return on investment in the economy should be higher than the interest rate by definition because it consists of both the premium of risk and the cost of capital. The return on all the projects therefore will be higher than the interest charged by conventional banks. This factor is, indeed, considered to be the most important factor leading customers to refrain from taking funds from Islamic banks.

2.5   FUNDING OPERATIONS OF ISLAMIC BANKS

All banking systems, whether Islamic or un-Islamic, act as financial intermediaries that accept and advance some sort of funding. Besides being dependent on depositors' money, banks also use their own capital as a major source of funds. Conventional banks offer deposit facilities on the assumption that a person has money to hold or keep (Haron & Wan Azmi, 2009: 147). According to the Keynesian approach, a person's desire to hold money stems from the following three reasons, namely (i) a transactions motive; (ii) a precautionary motive; and (iii) a speculative motive. Therefore, the first deposit facility provided by conventional banks is the current account which is geared towards those customers who need money for transaction purposes whilst still offering the convenience of withdrawing funds by cheque. Hence, depositors do not place importance on returns or interest (Haron & Wan Azmi, 2009: 147). When offering the current account facility, the conventional bank would normally impose a service charge and other mandatory charges (for example, stamp duty) where applicable. However, due to the increasingly strong competition, some conventional banks provide returns on current accounts. There are, however, certain conditions that have to be fulfilled before the account holders are entitled to receive interest. The second deposit facility used by conventional banks is a savings account

which caters to the needs of those who wish to save money as a precautionary motive but at the same time want to earn an income. These depositors are usually from the low-income group earning monthly salaries (Haron & Wan Azmi, 2009: 148). The third type of deposit offered by conventional banks is a fixed deposit that caters for the investment motives of customers. Haron and Wan Azmi (2009: 148) state that these depositors normally have idle funds and are looking for better returns on their money. From an institutional perspective, Islamic banks rely, apart from their own capital and equity, on mainly two types of deposits for their survival. These include (i) risk-free, no-return transaction deposits; and (ii) investment deposits which carry risk but also a variable return. On the basis of *Shari'ah* principles, the Islamic banks provide the following types of deposit facilities:

(i) **Current accounts:** It is money safekeeping accounts of the people where the money is deposited for daily transactions and no return by Islamic banks has to be paid to the depositors (Kettel, 2010: 25). These are risk-free as well. These accounts are considered as 'trust and safekeeping' on the basis of '*Al-Wadiah*' principle of *Fiqh* (Islamic jurisprudence). The Islamic banks can use the money as a trustee for short transactions on the bank's responsibility, but not for any investment (Algaoud & Lewis, 2001). The banks have to pay these deposits in full or a part on the demand of the depositors as and when required. In some banks these are called '*Amanah*' accounts (Jamaldeen, 2012: 146).

(ii) **Saving accounts:** Deposits in these accounts are accepted by the Islamic banks like any traditional commercial bank with a difference that, in the case of Islamic banks, no fixed or predetermined rate of return is paid, whereas in interest-based traditional banks a pre-determined rate of interest is paid to the depositors by the bank annually (Jamaldeen, 2012: 146). It is different from the previous current accounts in the sense that it carries the risk element and a variable yield or return is attached to the principal amount on an annual basis (Jamaldeen, 2012: 146). There are different ways of managing the accounts by Islamic banks. The Islamic banks accept deposits on the basis of various principles. For example, '*Al-Wadiah*' (trust/custody) and *Qard-ul-Hassan* are used for current accounts. Upon accepting deposits on the principle of '*Qard-ul-Hassan*' (benevolent loan), Islamic banks are allowed to use these funds to increase in value and give some pecuniary and non-

pecuniary benefits to the depositors like interest free personal finance (Jamaldeen, 2012: 147). The *Mudarabah* principle is used for saving accounts and the deposits can be integrated with investment accounts where the money is used for some entrepreneurial venture on *Murabahah* or *Mudarabah* basis. Thereafter the profit is shared by the bank and the depositor on an agreed predetermined ratio (Kettel, 2010: 25). The risk element and the sharing in the profits of the bank make this account different from the current account (Jamaldeen, 2012: 146).

(iii) **Investment accounts:** Principally, depositors using Islamic bank investment accounts are not concerned with safekeeping of their monies or using the deposits for transaction purposes only (Kettel, 2010: 25). The primary concern of the depositors in these accounts is to earn profit (Haron & Wan Azmi, 2009: 147). Islamic bank investment accounts are operated on the principle of *Mudarabah al-Mutlaqa*, where the depositor has to accept certain conditions such as (i) a higher fixed minimum amount; (ii) a longer duration of deposits; and (iii) liability of the loss of some part (or all) of the funds in case any loss occurs to the investment venture. The Islamic bank acts as a *mudarib* on behalf of the depositor. Customers are free to choose the period they want to place their funds with bank. However, the deposits can be withdrawn if an agreed advance notice is given to the bank (Algauod & Lewis, 2001). The Islamic bank provides neither guarantee nor fixed return on the amount deposited. The customer get a share of the profit made by the bank based on a pre-agreed ratio (Haron & Wan Azmi, 2009: 147).

(iv) **Special investment accounts:** Apart from deposit facilities, Islamic banks may also raise funds by way of issuing investment certificates. Unlike normal investment certificates which have interest rate elements, the certificate issued by the Islamic bank carries no fixed return. These accounts are also operated under the principles of *Mudarabah and Qard-ul-Hassan* and these are directed to larger investors and institutions. In applying the principle of *Mudarabah*, the reward for the depositors is based on the bank's annual profit, whereas under the principle of *Qard-ul-Hassan*, the reward is entirely dependent upon the bank's discretion (Haron & Wan Azmi, 2009: 148). The major difference between investment and special investment accounts is that the former can be used in any investment venture while the latter will be used in a specified huge project or investment

venture carried out by the bank. The maturity and distribution of the profits are separately negotiated for each special investment account (Algauod & Lewis, 2001). Higher fixed minimum amount, longer duration of deposits and liability of loss are essential articles of this contract.

Iqbal (1997: 68) states that, whereas the prevailing Western financial system focuses on the capitalistic features of economic and financial processes, the Islamic financial system pursue the establishment of an equitable distribution of resources in all societies. This link between Islamic values and finance can be observed from the types of financial instruments and contractual arrangements Islamic banks provide their customers. These modes of finance are discussed in detail in the following sub-section.

2.6   MODES OF ISLAMIC FINANCE

Even though the services provided by Islamic banks are similar to those offered by conventional banks, the functioning and mechanism of Islamic banking and financial instruments are, principally, different compared to that of their traditional counterparts. Iqbal and Mirakhor (2011: 75) state that the Islamic financial instrument can be viewed as a contract between economic agents, whose terms and conditions are defined by the risk-and-return profile of the instrument in question. Since the entire fabric of Islam is contractual in its conception, content and application, *Shari'ah* law requires that all economic relations should be in line with the preservation of the contract between man and God as well as between economic agents. In this context, it is contended that the preservation of property rights and the commitment to obligations and responsibilities associated with a contract are vital in determining the standards of behaviour expected of the economic agents and, ultimately, the nature of the economic system in Islam (Iqbal & Mirakhor, 2011: 75). At the heart of the Islamic financial system is a set of core contracts which serve as building blocks for designing more sophisticated and complex financial instruments (Usmani, 1998: 11). There is no established classification of contracts in the Islamic legal system, but from a business and commercial perspective, certain contracts can be grouped together according to their function and purpose in the economic and financial system. Figure 2.2 suggests that contracts dealing with commercial and business transactions can be classified into

four broad categories, namely (i) transactional contracts; (ii) financing contracts; (iii) intermediation contracts; and (iv) social-welfare contracts. The demarcation and classification of these contracts provide a framework to understand the nature of credit creation, types of financing instruments, intermediation and the different roles each group plays in the economic system (Iqbal & Mirakhor, 2011: 75). In this context, Islamic commercial law is able to satisfy the needs of economic agents through various phases of economic activity, from the purchase or sale of goods, to arrangements for collateral and guarantees, to arrangements for credit or finance and finally to the creation of opportunities for investment (Iqbal & Mirakhor, 2011: 75).

Figure 2.2: Types of contracts and financial instruments in Islamic finance
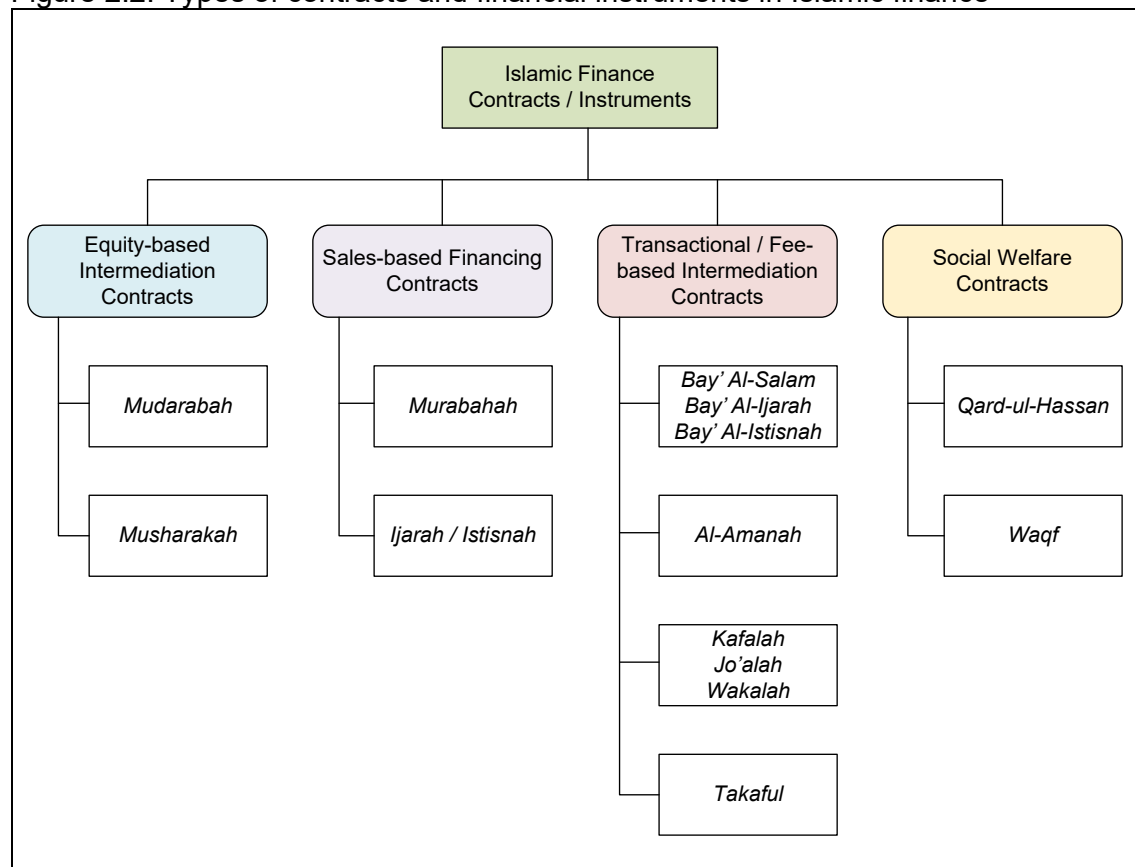
Source: Adapted from Iqbal and Mirakhor (2011: 76).

The commonly used financing and intermediation contracts are explained in detail in the following sub-sections.

2.6.1 Equity-based intermediation contracts

Intermediation contracts provide the economic agents with a set of tools to perform financial intermediation as well as offer fee-based services for economic activities. These contracts include *Mudarabah* (a trustee finance contract based on profit-and-loss sharing), *Musharakah* (long-term partnership sharing), *Kafalah* (guarantee), *Jo'alah* (fee-based service), *Al-Amanah* (trust), *Wakalah* (agency), and *Takaful* (insurance).

- *Mudarabah* (Profit-and-loss sharing)

The *Mudarabah* contract is one of the most widely used (and preferred) financial instruments in the Islamic banking sector (Haron & Wan Azmi, 2009: 132). Early theorists believed that *Mudarabah* was the most authentic and highly recommended Islamic mode of finance because the capital assumed the risk, and it recognised the Islamic and socio-economic objectives (Kahf & Khan, 1992; Abdul Gafoor, 1995; Siddiqi, 1983; Chapra, 1985; Warde, 2000). A *Mudarabah* contract is based on a profit-and-loss partnership between a financier or investor (*Rab-al-mal*) and an entrepreneur or fund manager (*Mudarib*) who manages the financier's investment in an economic activity (Haron & Wan Azmi, 2009: 132). Typically, in the *Mudarabah* contract, an economic agent with capital develops a partnership with another economic agent (entrepreneur) who has expertise in deploying skill, labour and management into real economic activities, with a predetermined agreement to a profit-and-loss sharing (PLS) ratio (Haron & Wan Azmi, 2009: 132). An example of *Mudarabah* in modern times would be of a contract between an investor and an Islamic bank where the investor deposits funds with a bank that has developed a certain expertise in the financial markets and in identifying profitable projects and uses its management skills to invest those funds on the investor's behalf. After a certain period, both the bank and the investor share the profits in accordance with their predetermined profit-sharing ratios (Errico & Farahbaksh, 2001). The loss, if any, would be borne by the customer alone. In the case of any ambiguity with regard to the distribution of profits, then the contract would be considered invalid (Sarkar, 1999).

Under the *Mudarabah* agreement the bank is not involved in the day-to-day running of the business, but is free to stipulate certain conditions that it may deem necessary in

order to ensure the best use of its funds. After the expiration date of the contract, which may be the termination of the contract or such time that returns are obtained from the trade, the bank gets back its principal plus share of the profit. Two types of *Mudarabah* contracts exist: (i) restricted *Mudarabah,* where the *mudarib* (manager of the fund) may only invest the funds for a business project stipulated by the *Rab-al-mal* (investor); and (ii) unrestricted *Mudarabah,* where the investor gives the working partner permission to channel the funds into any type of business or project that suits the financial goals of both partners. When a *Mudarabah* contract is used as a source of an Islamic bank's funds (i.e. when the customer deposits money in the bank), the unrestricted *Mudarabah* is most often used (Haron & Wan Azmi, 2009: 132). When the contract supports a bank's equity financial product (i.e. when the bank supplies funds to a working partner), the restricted *Mudarabah* contract is most often used. Due to the possibility of loss occurring, the bank is entitled to a share in the profit of the business. In cases where the *mudarib* (fund manager or entrepreneur) acts in good faith and prudently, but the investment still results in a loss, the *Rab-al-mal* (investor) loses a portion of the capital, but the *mudarib* loses the time and effort deployed during the business venture. In the event that the *mudarib* acted negligently, engaged in misconduct or acted in bad faith, the *mudarib* is held responsible for the financial losses incurred (Haron & Wan Azmi, 2009: 132). The following are some of the rules applicable to the determination and distribution of profit and loss under a *Mudarabah* contract:

(i) The most critical requirement in a *Mudarabah* contract is that the division of profits between the investor and the *mudarib* must be in the form of proportions and ratios, rather than in absolute numbers. In this context, it is permissible to fix a percentage of profits (for example, 40 per cent of profit accruing) as remuneration for either party in this contractual agreement. What is prohibited is fixing a percentage return on the capital invested, for example, 7 per cent return on capital. The latter is prohibited under *Shari'ah* as it amounts to interest;

(ii) The profit-sharing formula itself must be made specific beforehand and must be clearly indicated in the agreement for profit distribution. Neither party have preferential rights over the profits to the exclusion of the other;

(iii) The profit distribution ratio may differ from that of capital contribution;

(iv) The distribution of profits in a *Mudarabah* contract can only take place after the capital-owner has retrieved his capital; and

(v) It is acceptable for the *mudarib* (fund manager or entrepreneur) to take genuine expenses incurred out of the *Mudarabah* fund (Haron & Wan Azmi, 2009: 134). However, the *mudarib* is not permitted to take a salary and any withdrawals from

the fund will simply be an advance that will subsequently be deducted from his share of the profit.

Banking finance based on the classical *Mudarabah* principle has been challenged by some scholars, most prominently Homoud (1982) and Ismail (1989). According to Homoud (1982), the classical *Mudarabah* principle has the following limitations when applied to the modern needs of financing: Firstly, the most important characteristic of classical *Mudarabah* is its bilateral nature. This characteristic does not allow the classical form of *Mudarabah* to satisfy the needs of financial intermediation. The bank deals with a large number of depositors and has to combine their funds, thus sacrificing this bilateral characteristic. According to Homoud (1982), it requires a multilateral or collective *Mudarabah* which does not exist in classical writings. To evolve a collective *Mudarabah*, Homoud (1982) suggests benefiting from the concept of *'amil-al-mushtarak* (collective employee). Secondly, in the bilateral *Mudarabah*, profits are distributed after accomplishing and completing the transaction. As the entire transaction concludes, the principal is recovered, then the remaining surplus is treated as *Mudarabah* profit. In a modern financial intermediation system, retiring the investment and distributing profits is an extraordinary exception as it is done on the basis of the evaluation of the present value of a pool of investment instead of the liquidation of bilateral *Mudarabah*. Thirdly, Homoud (1982) draws attention to cases where *Mudarabah* is incapable of providing financing e.g., durable or nondurable consumer goods, goods supplied to government and industry, etc.

- *Musharakah* (Long-term partnership financing)

In Arabic *Musharakah* means 'partnership' where two or more parties contribute capital as well as labour and management (Dar & Presley, 2000; Iqbal & Molyneux, 2005). Therefore, the *Musharakah* contract is an equity participation financial instrument that establishes a partnership or joint venture for an economic activity between the bank and one or more clients (Haron & Wan Azmi, 2009: 131). All partners share the profit according to a specific ratio, while the loss is shared according to the ratio of the contribution (Usmani, 2002: 87). In this joint venture, all parties may contribute some (not necessarily equal) percentage of three factors of production (for example, capital, labour, and entrepreneurship). Islamic banks use the *Musharakah*

contract to finance trade, provide working capital, and support other large projects (Usmani, 2002: 87).

Saeed (2001: 73) categorise the *Musharakah* contract into three different types namely (i) Commercial *Musharakah*; (ii) Diminishing *Musharakah;* and (iii) Permanent *Musharakah.* The commercial *Musharakah* is for a special business venture or investment project for a specific purpose. It is a constrained contract and the business activity is restricted to the specific purpose. At the end of the project the contract is also terminated. The contract is more liquidated because an approximate time is generally specified to liquidate the *Musharakah* contract, the capital turnover is higher, and so the return is also higher. The risk element is lower as the bank operates the account of the business and monitors the business activity very closely and regularly on the basis of transactions. According to Iqbal and Mirakhor (2008) the diminishing *Musharakah* has become the preferable mode to finance mortgages in the Islamic housing market. In diminishing *Musharakah* the Islamic bank and the client enter the *Musharakah* contract on an equity basis and the Islamic bank receives profit on a *pro-rata* basis. This process allows the bank to reduce its share of equity each year and receive periodic profits based on the reducing equity balance. In this form, the equity share of the customer in the capital of the project/home increases over time until he or she becomes the sole owner of the project/home. The term of the *Musharakah* is not for a long period and by the termination of the contract the property will go solely in the ownership of the client. The permanent *Musharakah* is a contract where the Islamic bank participates in the equity and receives a share of the profit on a *pro-rata* basis (Saeed, 2001: 73). The time period of the contract is not specified and therefore it is considered as permanent but any partner (either bank or the client) can terminate the contract with a prior notice being served (Saeed, 2001: 73).

Mudarabah and *Musharakah* are regarded by some jurists and Islamic economists as the purest forms of Islamic financial instruments available since it conforms to the underlying partnership principles of sharing in, and benefitting from, risk (Iqbal & Molyneux, 2005; Errico & Farahbaksh, 2001). In this context, Islamic banking theorists assert strongly that the investment and financing activities of the Islamic banks should be based on *Mudarabah* and *Musharakah* as these two modes of finance ensure justice by allocating resources efficiently, and creating a stable financial system and

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growth in economy. However, Kamali (2005) notes that only 5 per cent of the transactions of Islamic financial institutions use the *Mudarabah* and *Musharakah* modes of financing*.* Homoud (1985) argues that the main reasons for the failure of *Mudarabah* and *Musharakah* stems from the following: (i) adverse selection and moral hazard issues; (ii) the unethical declaration of 'secure profits' as a marketing tool in *Mudarabah* and *Musharakah*; and (iii) increased costs associated with long-term investment projects. These reasons are elaborated on in the paragraphs below.

Under the *Mudarabah* and *Musharakah* contract agreements, the bank enters into a partnership with a client whereby both share the equity, capital, and the management of a project. However, the critics contend that these contracts involve the management of the entrepreneurial business venture which can increase the costs of the Islamic bank (Usmani, 2004: 98). To them the business accounts of the venture can also be passed on to the tax collecting authorities and the tax liability will obviously increase (Usmani, 2004: 98). There is also fear of disclosing the business secrets when the partners are involved in the management. Secondly, the principle of *Mudarabah* can be applied to Islamic banking operations in two ways: between a bank as the entrepreneur and the customer as a capital provider, or between a bank as capital provider and customer as the entrepreneur. In both cases, scholars noticed that there was either exposure of adverse selection or a moral hazard issue. AlJarhi (2005) noted that adverse selection occurs when Islamic banks failed to choose the applicants who were most likely to repay the amount that the bank gave to be invested in the business. However, the issue of adverse selection could be avoided by careful screening of finance applicants. Moral hazards occur when one party possesses information about profit but does not declare their profits to another trading partner (Kazarian, 1993). Dar and Presley (2000) also insisted that entrepreneurs should be honest and reveal actual profit figures so that the moral hazard problem arising from under-reporting of profit would not exist. Wilson (1999) made the similar point that a higher level of trust would reduce risk and uncertainty, which, in turn, would result in lower monitoring costs for Islamic banks. Thirdly, some financial institutions started assuring/guaranteeing safe and secure profits in *Musharakah* and *Mudarabah* transactions to make their products more appealing to customers. In this way, these institutions broke the basic law of Islamic finance which requires linking rewards to risks (Warde, 2000: 5). If profit were guaranteed despite loss, and payment made on

a monthly or quarterly basis, the risk factor would be eliminated, making the profit resemble interest (Dar & Presley, 2000). These actions may help Islamic banks grow in the short term, but in the long term, they could damage their reputation and create the misunderstanding that the system is similar to an interest-based system operating under the disguise of profit (Saeed, 1996: 76). Fourthly, *Musharakah* and *Mudarabah* were considered irrelevant and impractical means of financing because there was a lack of long-term projects, and a lack of skilled staff to operate high risk projects (Aggarwal & Yousef, 2000: 106). Finally, the process of following up and cost of monitoring the projects, unfair treatment in taxation, and the absence of laws to prevent the *Mudarib* (manager) from misusing the funds, added costs to projects, which limited the growth of profit-and-loss sharing projects (Vogel & Hayes, 1998).

2.6.2 Sales-based financing contracts

The conventional concept of financing is that banks and financial institutions deal in money and monetary papers only. In most countries, conventional banks are prohibited from trading in goods and making inventories. Islam, on the other hand, does not recognise money as a subject-matter of trade, except in some special cases. According to Usmani (1998: 12) money has no intrinsic utility and merely serves as a medium of exchange. Each unit of money is 100 per cent equal to another unit of the same denomination. There is, therefore, no room for making profit through the exchange of these units *inter se*. Profit is generated when something having intrinsic utility is sold for money or when different currencies are exchanged, one for another. The profit earned through dealing in money (of the same currency) or the papers representing them is interest, hence prohibited. Therefore, unlike conventional financial institutions that uses debt contracts, financing in Islam is always based on illiquid assets which create real assets and inventories. Profits are generated through the sale of these real assets. In this manner Islamic financing contracts offer ways to create and extend credit, facilitate financing of transactional contracts, and provide channels for capital formation and resource mobilisation between investors and entrepreneurs (Iqbal & Mirakhor, 2011: 77). Financing contracts are used for (i) trade financing; (ii) financing asset-backed securities; and (iii) providing capital through equity partnerships which can take several forms, for example, partnership, co-ownership, or diminishing partnership. The aforementioned asset-based financing

instruments are available from Islamic banks based on the contracts of *Murabahah*, *Ijarah*, and *Istisnah*. These contracts allow bank customers to finance cars, homes, business supplies, construction and other major purchases that require more cash than the customer currently has available (Usmani, 1998: 12).

- *Murabahah*

The *Murabahah* contract is a popular trade financing contract of sale that is used for purchasing commodities and other products on credit. Under a *Murabahah* contract, a bank purchases a commodity (for example, a cargo of soya beans, a car, a house, a commercial building, a business, etc.) on behalf of a customer or entrepreneur who does not have the capital funds to do so (Jamaldeen, 2012: 154). The bank then sells the commodity to the customer or entrepreneur for a predetermined 'mark-up' which is added to the cost of the product. The customer, in turn, can make a lump sum payment when the commodity is delivered but usually the payment is delayed for a specified period of time. Both parties know beforehand what the 'mark-up' and the cost of the product are and, in this regard, no financial uncertainty exist in the transaction. According to Iqbal and Mirakhor (2011: 84), the *Murabahah* contract is a basic sale transaction and the following rules need to be followed to ensure that the contract is *Shari'ah*-compliant:

(i) The contract should be used for purchases only. To be a valid contract, *Shari'ah* requires that a *Murabahah* contract should be the result of an original sale and should not be used as a means of financing any existing inventory nor should it be used for financing a working capital requirement;

(ii) The mark-up rate charged by the financier is influenced by the type of product, the type of security and collateral offered, the creditworthiness of the client, and the length of time for which the financing takes place;

(iii) In the event of default by the end-user, the financier will only have recourse to the items financed and no further mark-up or penalty may be applied to the outstanding liability. As opposed to conventional banks, there can be no accrual of interest; and

(iv) It is common practice among Islamic banks to consider the non-payment of two consecutive instalments as default, at which stage the bank is entitled to declare that all the other instalments are due immediately. In some cases, *Shari'ah* scholars allow the financier to recover additional amounts to offset any loss or damage arising from the default, but this only happens in cases where it can be proven that the loss or damage is due to a buyer's negligence. When said fees

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and penalties are levied, it cannot be treated as income for the bank and must be given to charity.

There are, however, certain misconceptions regarding the difference between the cost-plus-profit contract and conventional banking loans. Jamaldeen (2012: 155), for example, states that many bankers are of the opinion that the *Murabahah* contract is a synthesised loan, i.e. a loan that is divided into pieces based on the risk involved. Some scholars are also of the opinion that the elements of the *Murabahah* transaction are nothing more than a copy of the techniques employed by conventional banks (Siddiqui, 2000; Aggarwal & Yousef, 2000; Errico & Farahbaksh, 2001; Saeed, 1996). This misconception stems from the fact that, in the past, Islamic banks used conventional, interest-based benchmarks such as the London Interbank Offered Rate (LIBOR) to determine what profit rates to charge for such contracts (El-Gamal, 2000). However, since 2011, Thomson Reuters developed a benchmark called the Islamic Interbank Rate (IIBR) which eliminated the need for Islamic banks to follow conventional LIBOR benchmarks to determine 'mark-up' rates. Similarly, Usmani (1998: 12) contends that the instruments of leasing and *Murabahah* are sometimes criticised on the basis that their net result is often the same as the net result of an interest-based borrowing. This criticism is justified to some extent, and that is why the *Shari'ah* Supervisory Boards are unanimous on the point that they are not ideal modes of financing and they should be used only in cases of need with full observation of the conditions prescribed by *Shari'ah*. Despite all this, the instruments of leasing and *Murabahah*, too, are fully backed by assets and financing through these instruments is clearly distinguishable from the interest-based financing on the following grounds:

(i) In conventional financing, the financier gives money to his client as an interest-bearing loan, after which he has no concern as to how the money is used by the client. In the case of *Murabahah*, on the contrary, no money is advanced by the financier. Instead, the financier himself purchases the commodity required by the client. Since this transaction cannot be completed unless the client assures the financier that he wishes to purchase a commodity, therefore, *Murabahah* is not possible at all, unless the financier creates inventory. In this manner, Usmani (1998: 12) argues that Islamic financing is always backed by assets;

(ii) In the conventional financing system, loans may be advanced for any profitable purpose. A gambling casino can borrow money from a bank to develop its gambling business. A pornographic magazine or a company making nude films are as good customers of a conventional bank as a house-builder. Thus,

conventional financing is not bound by any divine or religious restrictions (Usmani, 1998: 12). However, Islamic banks and Islamic financial institutions cannot remain indifferent about the nature of the activity for which the facility is required. They cannot effect *Murabahah* for any purpose which is either prohibited in *Shari'ah* or is harmful to the moral health of the society;

(iii) It is one of the basic requirements for the validity of *Murabahah* that the commodity is purchased by the financier which means that he assumes the risk of the commodity before selling it to the customer (Usmani, 1998: 12). The profit claimed by the financier is the reward of the risk he assumes. No such risk is assumed in an interest-based loan; and

(iv) In an interest bearing loan, the amount to be repaid by the borrower keeps on increasing with the passage of time. In *Murabahah*, on the other hand, a selling price once agreed becomes and remains fixed. As a result, even if the purchaser (client of the Bank) does not pay on time, the seller (Bank) cannot ask for a higher price, due to delay in settlement of dues. This is because in *Shari'ah*, there is no concept of time due of money (Usmani, 1998: 12).

It is evident from the above discussion that every mode of financing in an Islamic system creates real assets. This is true even in the case of *Murabahah* and leasing, despite the fact that they are not believed to be ideal modes of financing and are often criticised for exhibiting characteristics in their net results close to interest-based conventional financing. Chapra (2000) contends that the essence of the *Murabahah* contract would be lost if Islamic banks were to act only as a financier, by fixing a certain rate, reducing the risk to a negligible level, and immediately release the goods to the buyer without ever really possessing them or fully identifying them. In such a situation, Saeed (1996) and Rosly (1999) argue that the profit earned by the Islamic bank through fixing the rates of return without taking any risk would be considered *riba'h*.

- *Ijarah* and *Istisnah*

Lexically "*Ijarah*", a term of Islamic *fiqh*, means "to give something on rent" (Usmani, 1998: 109). An *Ijarah* contract is a lease contract of an intangible asset whereby a person or party is given the right to use the object (*usufruct*) for a period of time while the owner retains the ownership of the assets (AlJarhi & Iqbal, 2001). The *Ijarah wa Iqtinaand* (lease to buy) contract is a long-term lease in which the Islamic bank rents the asset to the customer, who pays the value of the asset plus a certain fixed rent and promises to purchase the asset within a specified period (AlJarhi & Iqbal, 2001).

The lease to buy option is often used for a range of assets including ships, houses, aircraft, equipment, etc. In some respects, *Ijarah* contracts are similar to conventional lease agreement in which the owner rents or leases his property or goods to a lessee for a specified period for a fee. However, the following features of *Ijarah* differentiate it from a conventional lease: (i) The lessor must own the assets for the full lease period; (ii) If the lessee defaults on payments or delays payments, the lessor cannot charge compound interest; and (iii) The leased asset's terms of use is stipulated in detail in the *Ijarah* contract. There are instances when a separate agreement is signed in addition to the *Ijarah* agreement which allow the asset at the end of the rental term to be sold by the lessor to the lessee at a token price. The differences between a conventional lease agreement prevalent today and a true Islamic lease agreement are summarised below:

(i) *Risk and responsibility of asset:* Islamic finance draws a clear distinction between the roles and responsibilities of the lessor and the lessee. All capital costs relating to the asset (for example, replacement of the asset in the event of theft, repair in the event of a fire or breakdown as well as shipping costs) are the responsibility of the lessor as he is the owner of the asset and as such should be responsible for ensuring that the asset remains in good working order. Conversely, expenses related to the day-to-day running of the asset (for example, fuel purchases, routine parts being changed and operating taxes) would be the responsibility of the lessee as he is benefiting from the *usufruct* of the asset on a daily basis. With conventional leases these boundaries are blurred with the lessee paying for the insurance and delivery costs pertaining to assets;

(ii) *Late payment penalty:* Conventional leases are accustomed to imposing interest-based penalties on late payment or default. Islamic finance views any excess paid above the principal as *riba'h.* In this context is the lessor prohibited from charging penalties which are then kept by the institution; and

(iii) *Lease payments when asset is inoperative:* Under an Islamic lease agreement, the lessee's obligations to pay the rental will cease when the asset become inoperative during the lease period. It is a duty of the lessor to ensure that the asset is in working order.

Istisnah is a financial instrument in which a manufacturer agrees to complete a construction project at a future date for a fixed, agreed-upon price and with product specifications that both parties agree to (El-Gamal, 2000: 17). If the project is not completed to contract specifications, the buyer retains the right to withdraw from it. The contract of *Istisnah* creates a moral obligation on the manufacturer to manufacture the goods, but before he starts the work, any one of the parties may cancel the contract

after giving a notice to the other. However, after the manufacturer has started the work, the contract cannot be cancelled unilaterally. The aforementioned financial instrument provides for payment flexibility between the manufacturer and the buyer. The contract does not require the buyer to pay in advance or that the manufacturer is entitled to receive a lump sum at the time of delivery only. Instead, both parties can set a schedule of payment. To remove *gharar* (uncertainty) in an *Istisnah* contract, quality and quantity of the item and further specifications must be clearly mentioned. *Istisnah* instruments are widely used in the construction industry (for example, the manufacturing of heavy-duty machinery) or for project financing (for example, aircraft manufacturing, locomotive and ship-building industries) and trade financing. The Kuwait Finance House (KFH) uses *Istisnah* contracts for home financing (properties under construction) and project financing whereas the Qatar Islamic Bank (QIB) signed an *Istisnah* agreement in late 2010 to finance a major residential complex in the north of Qatar (Jamaldeen, 2012: 158).

2.6.3 Transactional and fee-based intermediation contracts

Islam lays great emphasis on promoting trade and gives preference to trading over other forms of business (Iqbal & Mirakhor, 2011: 77). According to Iqbal and Mirakhor (2011:77) trade incorporates not only the trading of physical assets but also of the rights to use those assets. Transactional contracts in Islamic finance deal with the real sector economic transactions that facilitate the exchange, sale and trade of goods and services. These contracts (for example, *Bay' Al-Salam*) create assets, which further become the basis of financing and investment opportunities. Fee-based intermediation contracts in Islamic finance provide the economic agents with a set of tools to perform financial intermediation and include *Kafalah* (guarantee), *Al-Amamah* (trust), *Wakalah* (agency), *Jo'alah* (fee-based service), and *Takaful* (insurance). The following sub-sections briefly outlines what these transactional and fee-based intermediation contracts entail.

- *Bay' Al-Salam*

Under a *Bay' Al-Salam* contract, full advance payment is made for goods to be delivered on a future date. The seller promises to supply the specific products to the buyer on the specific future date. The buyer provides the full funds in advance. This

upfront payment is the key difference between *Salam* and a conventional forward contract (Jamaldeen, 2012: 161). *Shari'ah* allows *Salam* only as an exceptional instrument to sell something that does not yet exist. According to the *Shari'ah*, for the sale of any product to occur, it must meet the following conditions: (i) the product must physically exist; (ii) the seller must have ownership of the product; (iii) the product is in the seller's possession or at least in his control; and (iv) full payment must be made in advance. However, in some instances, products will only be created and delivered at a future date. It is for this reason that *Bay' Al-Salam* is mainly used for agriculture and other industries, in which the bank pays the seller the full negotiated price of a product at the time of contract, while the product is delivered at a specified future date (Iqbal & Molyneux, 2005: 25). Further conditions for *Bay' Al-Salam* contract are the quality and quantity of goods must be known, and the date and place of delivery for these commodities should be defined. According to Jamaldeen (2012: 161) the Prophet Muhammad (p.b.u.h.) allowed the *Salam* contract to help farmers without the collateral to buy necessary raw materials before their production or trading occurs.

- Contracts of safety and security

In a *Wadi'ah* (safeguarding contract), a property owner gives his property to another party for the purpose of safeguarding. For example, in Islamic banking, savings and current (checking) accounts are based on the *Wadi'ah* contract where the bank safeguards the depositors' funds. In *Wadi'ah yad Amanah,* the Islamic bank holds the amount as trust in a current account and does not pay any interest, instead only charging a service fee (Warde, 2000). In a savings account under the *Wadi'ah yad Amanah* principle, the bank takes the customer's permission to utilise their funds with their responsibility. Moreover, the Islamic bank guarantees customer capital and offers flexible deposits and withdrawals (Haron, 1998: 28). The bank periodically pays the depositors a return, depending on its own profitability (Zaharuddin, 2006). In addition, based on investment profits, the bank offers big prizes like cars, air tickets etc. as *hibah* (gift) to the depositor, but in the event of loss, the bank does not give any *hibah* to customers. In a *Hiwalah* (transfer contract or remittance), debt is transferred from one debtor to another. After the debt is transferred to the second debtor, the first debtor is free from his obligation. Islamic financial institutions use this contract to remit money between people (Jamaldeen, 2012: 97). The *Kafalah* contract (guaranteed contract)

allows a third party to accept an existing obligation and becomes responsible for fulfilling someone else's liability (Jamaldeen, 2012: 97). In conventional finance, this situation is called surety or guaranty. The third party may charge an administrative fee in exchange for assuming the obligation. Islamic banks use *Kafalah* contracts to issue guarantees for their business customers.

- *Takaful*

Islamic insurance or *Takaful* is a contract of mutual assistance between those who wish to support each other, especially in difficult times. At times of unfortunate life events (for example, financial hardship, societal tribulations and death, etc.), the insured will generally require financial assistance which will become available from the group members of the cooperative insurance scheme. Metwally (2006) observes that *Takaful* funds could be administrated by an Islamic bank which collects *Takaful* insurance premiums, provide financial assistance for policyholders and invests these funds in permissible enterprises according to the wish of participants and in compliance with *Shari'ah*. Since Islamic finance encourages the sharing of risk and discourages risk shifting and risk transfer, *Takaful* provides its members with mutual protection of assets and property in the event of a loss by one of the participants. *Takaful* is similar to mutual insurance in that members are the insurers as well as the insured. Muslim scholars derived *Takaful* from the following statement in the Holy *Qur'an*: *"Help you one another in righteousness and piety, but help you not one another in sin and rancour"* (Al-Qur'an, 5: 2). In recent years, the commercial insurance industry has become one of the most widespread financial industries globally. Individuals and firms use the insurance industry to reduce financial risks.

However, there are Muslim jurists who argue that use of commercial insurance involves *gharar,* and thus is prohibited under *Shari'ah*. According to El-Gamal (2000), this point of contention arises because contracts of commercial insurance have a substantial element of *gharar* that affects the outcome of an insurance contract. In simple terms, the insurance contract represents a sale contract and the amount of insurance which may be collected by the insurer, is unknown. Accordingly, the value of the insured item is dependent on the future result of the insurance company's judgment. It is this unknown result that leads to the forbidden *gharar.* Many Muslim

countries and some countries that have majority of Muslims are practicing Islamic insurance conforming to Islamic *Shari'ah*.

2.6.4 Social welfare contracts

According to Iqbal and Mirakhor (2011: 77) social welfare contracts are contracts between individuals and the society to promote the well-being and welfare of the less privileged. Although facilitation of such contracts is beyond the scope of intermediation, an intermediary can certainly offer community services by institutionalising social-welfare contracts. Islamic banks rarely deal with loans because loans usually imply the accrual of interest (Jamaldeen, 2012: 135). However, in an attempt to promote the well-being of the less privileged, Islamic banks offer *Qard-ul-Hassan* social welfare contracts where the lender extends a benevolent loan without demanding any profit or any form of compensation from the borrower. As a sign of appreciation, the borrower may voluntarily give the lender extra money along with the principal when the loan is paid off. In the interest of social responsibility, most Islamic banks use *Qard-ul-Hassan* loans to the community (Haron, 1998). Some Islamic banks provide interest-free loans only to investment account holders at their bank whereas some Islamic banks restrict it to needy students, small farmers or entrepreneurs who cannot qualify for finance from other sources. Even though it is a benevolent loan, Islamic banks charge for their service (Errico & Farahbaksh, 2001). However, scholars believed that administrative charges or routinely announced 'gifts' on these types of accounts by Islamic banks constituted *riba'h* (Zaharuddin, 2006). Table 2.3 provides an overview of the modes of finance used for structuring Islamic finance products and services offered by Islamic banks.

Table 2.3: Islamic modes for structuring products and services

Transaction type	Islamic mode of finance
Current Account	*Wadi'ah / Qard-ul-Hassan*
Savings Account	*Wadi'ah / Mudarabah*
Investment Account	*Mudarabah*
Agricultural finance	*Salam*
House / Asset / Equipment	*Murabahah / Diminishing Musharakah / Bay' Al-Muajil / Bay' Salam / Ijarah wa Iqtinaand*
Leasing	*Ijarah wa Iqtinaand*
Project finance	*Mudarabah / Musharakah / Istisnah / Ijarah wa Iqtinaand*
Construction finance	*Istisnah*
Charge card	*Qard-ul-Hassan*
Credit cards / Personal loans	*Bay' al Inah / Tawarruq*
Debit cards, Demand drafts, Travellers cheque	*Ujr*
Phone banking and ATM	*Ujr*
Shipping and letter of guarantee	*Kafalah*
Safe-keeping / funds transfer	*Wakalah*

Source: Researcher's compilation from the corporate websites of ABSA, FNB and Albaraka Bank.

2.7   SUMMARY

This chapter discussed the philosophical and theoretical underpinnings of Islamic finance and explained how the products and services provided by this unconventional mode of finance reflect a belief system espoused by the Holy *Qur'an* and maintained by *Shari'ah.* Particular emphasis was placed on explaining the different modes of Islamic financial products to ensure that the reader understands more accurately the characteristics and practical challenges related to them. While discussing the structure of finance, it was found that there were different modes of payment for different modes of financing. The prevalent operational inconsistencies of Islamic product structures were also outlined to reveal the requirements and related difficulties. Reviewing the relevant literature on the elements of Islamic financial transactions provided the reader with the theoretical background against which the outcomes of studies in this particular research area can be evaluated.

CHAPTER THREE

BEHAVIOURAL CHANGE THEORIES AND CUSTOMER
BEHAVIOUR STUDIES IN ISLAMIC FINANCE

3.1   INTRODUCTION

The size and growth of the South African Islamic financial sector is primarily dependent on the number of people who are willing to engage with it, *ceteris paribus.* It was noted in the Introduction chapter of this thesis that, despite the South African government's aspiration to establish the country as the hub of Islamic finance to the rest of Africa, only a fraction of the country's Muslim population has shown an interest in this mode of finance over the past twenty years. Chapter 1 also highlighted the fact that it is not possible for the Islamic financial system to grow on the strength of Muslim participation alone. Anwar (2009), for example, recommends that the sector be made attractive to non-Muslims as well. In the finance realm the attitude, perceptions and expectations market participants have of a product or service impact on the sector's expansion and development (Ali, 2011: 21). In this context, Dixon (1992: 35) asserts that people in Muslim-minority countries have failed to adopt a positive attitude towards Islamic finance. Similarly, the Research Division of the Kuwait Finance House (KFH, 2012) are of the opinion that the public's perception of and attitude towards Islamic finance are key factors hindering the development of the Islamic banking and finance sector in South Africa. In order to address this intractable problem requires Islamic finance policymakers to initiate plans that would encourage people to modify their perceptions, attitude and behaviour toward Islamic finance.

Behavioural change theories are attempts to explain why behaviours change. Kelly, Murphy, Sikkema and Kalichman (1993) argue that the task confronting the behavioural sciences is to develop theory-based intervention programmes that would positively influence peoples' behaviour to ensure that the greatest marginal social benefit is derived. However, in order to change behaviour, it is necessary to understand why people behave the way they do and what factors influence their attitude towards any product or issue. The contention is that the more policymakers know about the variables underlying a person's decision to perform (or, not perform) a given behaviour, the more likely it will be that successful behavioural intervention

programmes can be developed and implemented. In the context of policies aimed at increasing the growth of the Islamic finance sector in South Africa, this researcher is of the opinion that policymakers can benefit from the insights provided by social-psychological theory and behavioural economics, both of which provide us with a deeper understanding of human behaviour.

This chapter is presented in two distinct sections. Sub-section 3.2 provides the reader with (i) a review of literature relating to theories and models of behaviour and behavioural change; (ii) an in-depth discussion of the most prevalent behavioural change theories and models; and (iii) a summary of six prominent behavioural change models that were evaluated to serve as the theoretical framework for this study. The sub-section concludes by summarising the key variables commonly found in behavioural change models and provides justification why a specific model was chosen to serve as the theoretical framework for this study. Sub-section 3.3 presents and explains relevant academic literature on Islamic banking and finance. Particular emphasis is placed on studies that focused on the level of awareness, knowledge, perceptions, attitudes and expectations Islamic bank customers and the public have of Islamic finance.

3.2   A SURVEY OF BEHAVIOURAL CHANGE MODELS AND THEORIES

The literature on the factors influencing human behaviour is extensive and has been described by Maio, Verplanken, Manstead, Stroebe, Abraham, Sheeran and Conner (2007: 99) as "enormous" and "bordering on the unmanageable" (Jackson, 2005: 3). Morris, Marzano, Dandy and O'Brien (2012: 16) reiterate this by stating that there are currently more than 60 theories and models of human behaviour which emanate from all disciplines of the social sciences. Disciplinary boundaries simply serve to demarcate the types and contexts of human behaviour in which scholars are interested, how behaviour is defined, and the methods via which it might be studied (Morris *et al.*, 2012: 16). According to Darnton (2008: 3), theories of behaviour can be classified under different headings based on the following considerations: (i) the key determinants contained in the model (e.g., values, attitudes, self-efficacy, habits, emotions); (ii) the scale at which the model can be applied (e.g., individual versus

organisational / societal level); and (iii) whether the behavioural theory or model intends to explain or change behaviour.

The Central Office of Information (COI, 2009: 11), the UK government's marketing, communications and behaviour change center, states that the factors that influence human behaviour can be split into three levels, namely (i) Personal ('micro') factors, i.e. those factors which relate to the individual's belief that he/she possesses a level of knowledge or ability to change his/her behaviour and habits; (ii) Social ('meso') factors, i.e. those factors that explain how individuals relate to each other and the influence other people have on their behaviour; and (iii) Environmental factors which individuals have little control over. These include both local ('exo') environmental factors as well as wider ('macro') environmental factors. Local ('exo') environmental factors relate to the area in which an individual lives (e.g., local shops and facilities), whereas the wider ('macro') environmental factors relate to issues such as the economy or technology. The COI (2009) stresses the need to identify and investigate factors affecting behavioural change at all three levels, namely the personal and social levels as well as the external (environmental) level. In this context, the COI report (2009: 11) states that "seeking to understand and influence behaviour by addressing personal factors alone, for example, is unlikely to work, because it fails to take into account the complex and interrelated nature of the factors that influence what individuals do: individuals do not act in isolation, and most people are influenced to a very great extent by the people around them and the environment in which they live." The COI report (2009: 11) concludes by stating that it would be overly simplistic to focus on environmental factors, such as access to services or levels of taxation, while ignoring the social and personal factors at play. Therefore, the COI (2009: 11) is of the opinion that an ecological approach (i.e. an approach that identifies and addresses the factors influencing behaviour at all three levels) is likely to be the most effective at bringing about behavioural change. Table 3.1 provides an overview of the most prevalent models and theories of behavioural change and highlights the focal points of their analysis.

Table 3.1: Models and theories of behavioural change

Focal point of theory or model at the individual level	Name of theory or model
Economic assumptions (self-interest promotion)	Expected Utility Theory
Behavioural economics	Simon's Bounded Rationality (1955); Tversky and Kahneman's Judgment Heuristics (1974); Kahneman and Tversky's Prospect Theory (1979); Stanovich and West's System 1/System 2 Cognition (2000)
The role of information	Information Deficit Models; Awareness Interest Decision Action (AIDA); Blake's Value Action Gap (1999)
Values, beliefs and attitudes	(Adjusted) Expectancy Value (EV) Theory; Fishbein and Ajzen's Theory of Reasoned Action (1975); Rosenstock's Health Belief Model (1974); Stern et al.'s Values Beliefs Norms Theory (1999)
Norms and identity	Schwartz's Norm Activation Theory (1977); Turner and Tajfel's Social Identity Theory (1979); Cialidini's Focus Theory of Normative Conduct (1990); Rimal et al.'s Theory of Normative Social Behaviour (2005)
Agency, efficacy and control	Ajzen's Theory of Planned Behaviour (1986); Bandura's Theory of Self Efficacy (1977); Hovland's Theory of Fear Appeals (1957); Kollmuss and Agyeman's Model of Pro-environmental Behaviour (2002)
Habit and routine	Triandi's Theory of Interpersonal Behaviour (1977); Gibbons and Gerrard's Prototype / Willingness Model (2003)
The role of emotions	Slovic's Affect Heuristic (2002); Loewenstein et al.'s Risk As Feelings Model (2001)
External factors	Spaagaren and Van Vliet's Theory of Consumption as Social Practices (2000); Giddens' Theory of Structuration (1984)
Self-regulation	Carver and Scheier's Control Theory (1982); Bandura's Social Cognitive Theory of Self-regulation (1991)
Focal point of theory or model at higher levels of scale	**Name of theory or model**
Societal factors	Vlek et al.'s Needs Opportunities Abilities (NOA) Model (1977); Dahlgren and Whitehead's Main Determinants of Health Model (1991)
Theories of change	**Name of theory or model**
Changing habits	Lewin's Change Theory (1947); Bandura's Mastery Modelling (1977); Gollwitzer's Implementation Intentions (1993)
Change in stages	Prochaska and Di Clemente's Transtheoretical Model of Health Behaviour Change ('Stages of Change' Model) (1983)
Change via social networks	Rogers' Diffusion of Innovations (1962 onwards); Gladwell's Mavens, Connectors & Salesmen (2000); Network Theory; Social Capital
Change as learning	Information-Motivation-Behavioural Skills (IMB) Model; Monroe et al.'s Framework for Environmental Education Strategies (2006); Vare and Scott's ESD1/ESD2 (2007) Argyris and Schon's Double Loop Learning (1978); Schein's Organisational Culture (1985)
Change in systems	Systems Thinking; Foresight's Obesity System Map (2007); Scharmer's Theory U (2007)
Models and frameworks	**Name of theory or model**
Applied approaches to change	McKenzie-Mohr's Four Steps of Community Based Social Marketing (CBSM) (2000); Andreasen's Six Stage Model of Social Marketing (1995); Gardner and Stern's Principles for Intervening to Change Environmentally Destructive Behaviour (1996); Bartholomew et al.'s Intervention Mapping (IM),(1998); Defra's 4Es Model (2005); Knott et al.'s Cultural Capital Framework (2008); Department for Communities and Local Government's Model of Community Empowerment (2008); Implications from Chapman's System Failure (2004)

Source: Adapted from Darnton (2008: 2-3).

Within the context of this thesis, it is not possible to provide a comprehensive review of all the models and theories of behaviour. However, closer inspection of these theories and models suggests that the largest number of studies focus on the individual as the locus of behaviour. These studies, primarily from within the field of psychology, posit behaviour as an outcome of competing influences balanced and decided upon by the individual - thus placing greater emphasis on individual agency

than on the impact of societal pressures (Morris *et al.*, 2012: 17). The following sub-sections provide a brief summary of the principle theories and models of behaviour undertaken in various fields of study.

3.2.1 Behaviour based on economic assumptions

Standard economic theory considers the individual to be a rational man acting in his own interests. In this context, Economics often uses rational choice as a tractable assumption which is "fit for purpose" over a wide range of economic analysis (Darnton, 2008: 5). This assumption has provided powerful insights for human behaviour. According to Darnton (2008: 11) rational choice theory traditionally assumes that individuals make behavioural decisions based on a calculation of the expected costs and benefits of a behaviour. In rational choice theory, costs and benefits are not necessarily defined in terms of money, making this approach useful to analyse a wide range of human behaviours not usually associated with Economics, for example sex, crime, religion and wars (Harford, 2008: 8).

Rational choice models are often called (Subjective) Expected Utility (EU or SEU) models. Begg (2003) states that the principle of Expected Utility is central to Consumer Preference Theory and is based on an individual's attempt to balance the four elements namely: (i) the consumer's available income; (ii) the price of the goods; (iii) the consumer's tastes or preferences; and (iv) the assumption of utility maximisation. However, rational choice theory is notably silent on the origins of the individual's preferences and these preferences are assumed to be exogenous to the model (Darnton, 2008: 5). For most purposes individuals' preferences in economic models of consumer choice are assumed to follow the principle of utility maximisation. In such models, utility can best be thought of as levels of satisfaction, happiness or personal benefit. By using the assumption that individuals act in order to maximise personal subjective benefits, economists are able to apply powerful mathematical techniques for modelling behavioural outcomes (techniques which can also address 'constrained maximisation'). However, working on the assumption of utility maximisation also gives rise to a critical stereotype of '*homo economicus*', namely an amoral self that would, for example, "murder without hesitation for financial gain, so long as the risk of penalties did not outweigh that gain" (Darnton, 2008: 8).

Harford (2008: 8) argues that rational choice theory offers "a rigorously simplified view of the world". Harford (2008: 8) is therefore of the opinion that standard economic theory assumes that individuals always act rationally in order to simplify complex behaviours and enable him/her to easily hypothesise the likely courses of action. However, in Harford's (2008) view, people act rationally most of the time, but should not be perceived as walking calculators of utility sometimes portrayed as '*homo economicus*' (Harford, 2008: 8). Similarly, even when a number of factors are known to influence a behaviour, the assumption of rationality can be sufficient to explain the outcome. Strictly speaking, rational choice theory requires only well-ordered and consistent preference mappings over the relevant period; it does not attach any welfare attributes to these preferences (Harford, 2008: 8). An individual's own preferences could even be detrimental for that individual and irrational by most reasonable criteria, but if well-ordered and consistent throughout the analysis, then rational choice theory can be applied for the purposes of analysing choice behaviour (Harford, 2008: 8).

Economists often employ a simple set of facilitating assumptions, namely that (i) decisions are made in a stable state, where the individual's preferences are fixed; (ii) individuals have access to all the relevant information bearing on the decision; and (iii) individuals are fully able to process this information in order to reach the optimal (utility maximising) decision. Of course, economists know these assumptions are not literally true. In defence of contemporary economic theory, Coyle (2007) argues that researchers understand that rational choice is merely an assumption, and not a guiding principle in economic analysis. These assumptions allow a researcher to isolate some of the processes at play in determining behaviours (Coyle, 2007). According to Coyle (2007: 7) the assumption of rationality provides a useful base from which to build in greater complexity. Thus economic analysis can expand to include considerations of asymmetric (or partial) information, risk aversion, and varying preferences over time. In this context, Coyle (2007: 7) argues that it is ultimately not the descriptive truth of the working assumptions that should be judged, but rather their capacity to support productive analysis. However, Coyle (2007: 8) cautions that it is vital that these assumptions are appropriate to the behaviour in question and that the assumptions made do not become a misleading metaphor.

In contrast to the self-interest promotion economic theory, Darnton (2007, 2008) contends that the notion of utility can also include the welfare of others as a component of one's own utility. However, it is fair to say that Economics has traditionally adopted an analytical approach based on 'atomistic' or socially-isolated individuals acting in pursuit of their own interests (Darnton, 2008: 8). While this assumption often provides useful analysis, it also has serious limitations. For example, relying only on atomistic individual agents may result in the "tyranny of small decisions" whereby the outcome of millions of individual decisions is at odds with what people collectively want (Darnton, 2007: 32). In this context, Darnton (2008: 8) argues that no one wants to be the only person paying tax, but most taxpayers may value a certain level of taxation as a collective requirement for the "common good".

While acknowledging the fact that the Expected Utility Theory has long served as the benchmark for models of cognitive decision making, the inherently reductionist approach of standard economic theory necessitates an overview of insights gained from other disciplines to build up a complete understanding of human behaviour (Loewenstein, Weber, Hsee & Welch, 2001: 269). Models relating to the behaviour of individuals are predominantly drawn from psychology and sociology, the disciplines which are most concerned with understanding the factors influencing human behaviour. Darnton (2008: 11) states that most social-psychological models present behaviour as a deliberate decision making process based on intention and expected outcomes that is consistent with standard economic theory (i.e. individuals who tend to behave rationally with the aim of maximising the benefits to themselves). These social-psychological models and theories are consequentialist, assuming behaviour to involve planning ahead, based on intention and expected outcomes (Darnton, 2008: 11). However, social-psychological models of behaviour go beyond standard economic theory by investigating the origins of behavioural preferences (Darnton, 2008: 11). The resulting models thus incorporate a wider range of influencing factors, of which 'attitude', conceived to be the product of a deliberate calculation weighing an individual's beliefs about a behaviour with the value they attach to those characteristics, is an essential factor. In this way social-psychological approaches to understanding behaviour builds upon standard economic theory. The following sub-sections review the influence that information, values, beliefs and attitudes, as well as

the effects other subjective factors (for example, agency, efficacy, control and emotions) have on behaviour.

3.2.2 The role of information as a determinant of behaviour

Darnton (2008: 13) states that, based on the standard economic assumption of rational choice, information is an important factor that influences behavioural outcomes. In rational choice models, information generates knowledge, shapes attitudes, and ultimately lead to behaviour. The AIDA (Attention, Interest, Desire, Action) information deficit model, for example, is based on the idea that providing information will spark interest, which in turn will lead to desire and subsequently to action. As a source of knowledge, information is a prerequisite for many behaviours as it can be used to direct people to communication channels or services (e.g. a website) that aim more directly at changing behaviour (CommGAP, 2010: 15).

According to Darnton (2008: 13), even though information performs a persuasive function and play a significant role in shaping attitudes, the relationship between attitudes and behaviour is often less strong. In simpler terms, Darnton (2005, 2006, 2008) as well as Kollmuss and Agyeman (2002) contend that a discrepancy exists between what people say and what they do. Blake (1999: 257) defines this disparity between attitudes and actions as the Value Action Gap, depicted in Figure 3.1 below. Rather than the Value Action Gap appearing as a void, it is filled with barriers blocking the progress from values to action. In the Value Action Gap model, inaction is not attributed to information deficit or a lack of rationality. Instead, the presupposed decisional flow is blocked by other factors intruding into the process. Blake (1999: 258) cites Redclift and Benton's (1994: 7) explanation for this inaction: "This is not because… 'we' are irrational but because the power to make a significant difference… is immensely unevenly distributed".

Figure 3.1: Blake's Value Action Gap
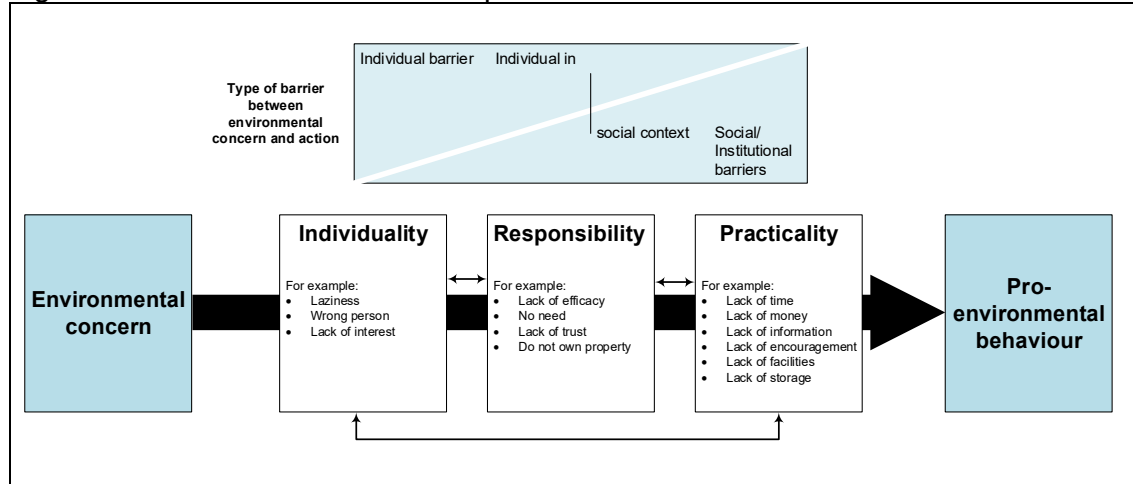
Source: Kollmuss and Agyeman (2002: 247).

In the context of pro-environmental behaviour, Blake (1999: 258) identifies three barriers coming between pro-environmental concern and behaviour: individuality, responsibility, and practicality. Individual barriers are barriers lying within the person, having to do with attitude and temperament. Blake (1999: 258) claims that these barriers are especially influential in people that do not have a strong environmental concern. The individual's concern for the environment is therefore outweighed by other conflicting attitudes. Kollmuss and Agyeman (2002), however, notes that even a strong environmental concern can be overcome by stronger desires and needs. In support of this statement, Kollmuss and Agyeman (2002: 247) cite the example of an individual's need to fly from the one continent to visit family members on another continent each year, a behaviour that overrides the individual's feelings of responsibility about keeping air travel to a minimum to minimize global warming.

Blake's (1999) second set of barriers, responsibility, is very close to the psychologist's notion of 'locus of control'. People who do not act pro-environmentally feel that they cannot influence the situation or should not have to take the responsibility for it. In this context, Blake (1999: 258) points out that in the particular community he is describing, a lack of trust in the institution often stops people from acting pro-environmentally. Since individuals are suspicious of local and national government, they are less willing to follow the prescribed actions. The third barrier, practicality, Blake (1999: 259) defines as the social and institutional constraints that prevent people from acting pro-environmentally regardless of their attitudes or intentions. In this context, Blake (1999:

259) lists a lack of time, lack of money, and a lack of information as major behavioural constraints. Kollmuss and Agyeman (2002: 247) is of the opinion that, although the Value Action Gap model is useful in that it combines external and internal factors and describes both in some detail, it does not account for social factors such as familial pressures and cultural norms nor does the model explore in greater depth the underlying psychological factors (e.g. what are the underlying factors of 'not having time'?).

Eden (1996: 183) argues that policymakers often fail to understand the gap between information and action. In this context, Eden (1996: 183) argues that understanding issues creates awareness and it is this understanding that is the cause of behaviour. Hence, it is often considered that one of the most effective ways to encourage pro-environmental behaviour is to highlight important facts relevant to the issues. Burgess, Harrison and Filius (1997: 1445) refer to this as the 'information deficit model' of behavioural change, which is based on the assumption that providing knowledge about the consequences of certain actions, would lead to a change in behaviour. Environmental education and new knowledge is one way in which these environmental messages can be delivered, and therefore filling the Value Action Gap with information could help towards a change in public behaviours (Gale, 2008: 178). Furthermore, Owens (2000: 1142) argues that "if people had more information about environmental risks, they would become more virtuous".

While the linear Value Action Gap and AIDA models have clarity, studies by Kollmuss and Agyeman (2002), Demos/Green Alliance (2003) as well as Talbot, Canavan and Miles (2007) have found that information alone is insufficient to lead to action. A CommGAP (2010) report, for example, contend that information, knowledge and awareness are rarely enough by themselves to bring about behaviour change. In this context, the CommGAP (2010: 15) report states that other factors can override our rational selves and that individuals may make systematic errors in their rational calculations. Furthermore, different people will respond and interpret the same information in various ways and sometimes it is interpreted in an opposite way to what is expected (Myers & Macnaghten, 1998: 15). Barr and Gilg (1998: 1447) argue that merely increasing information (in order to address the information deficit gap) will not necessarily lead to a behaviour change and, for this reason, information-intensive

campaigns tend to be unproductive. Similarly, Jackson (2005) cautions that increasing information does not itself guarantee action at the individual level and information campaigns intended to raise awareness are therefore not as effective as some may expect. In support of this notion, Sammer and Wüstenhagen (2006: 189) point out that while people may be aware of environmental issues, it does not necessarily mean that these factors play a major role in their actions. These findings suggest that the Value Action Gap cannot be overcome simply by using an 'information deficit' model of individual participation. The following sub-section highlights the important role values, beliefs and attitudes play in an individual's behaviour.

3.2.3 The role of values, beliefs and attitudes

The Expectancy Value Theory (EVT), formulated by Martin Fishbein in the 1970's, is the simplest social-psychological model of behaviour. According to the EVT, behaviour is depicted as a function of the expectancies one has and the value of the goal toward which one is working (Palmgreen, 1984: 61). Such an approach predicts that, when more than one behaviour is possible, the behaviour chosen will be the one with the largest combination of expected success and value. Figure 3.2 provides a graphical overview of the conceptual model.

Figure 3.2: The Expectancy Value Model
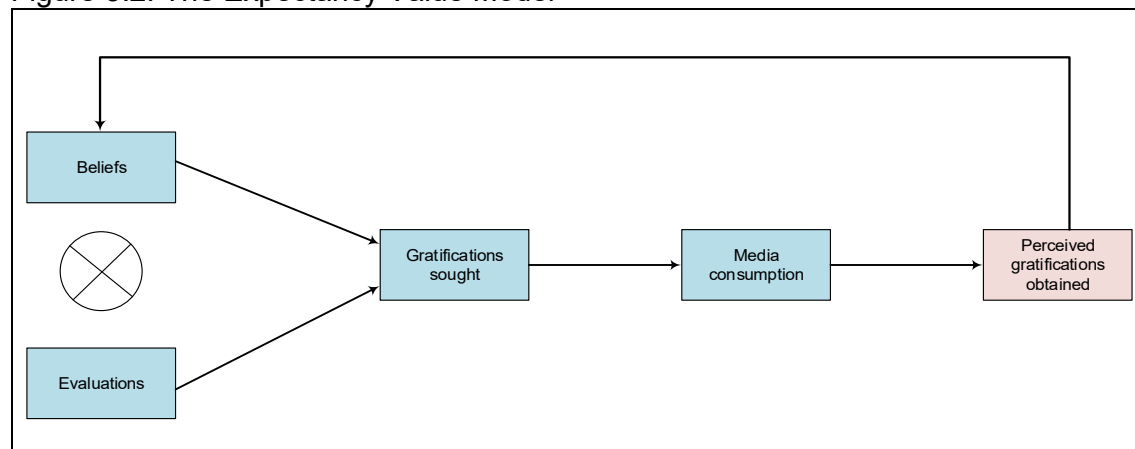
Source: Palmgreen (1984: 61).

Expectancy Value Theories hold that people are goal-oriented beings (Palmgreen, 1984: 63). The behaviours they perform in response to their beliefs and values are undertaken to achieve some end (Palmgreen, 1984: 63). Although Expectancy Value

Theories can be used to explain central concepts in uses and gratifications research, there are other factors that influence the process. For example, the social and psychological origins of needs, which give rise to motives for behaviour, may be guided by beliefs, values, and social circumstances into seeking various gratifications through media consumption and other nonmedia behaviours (Palmgreen, 1984: 63). The Expectancy Value Theory presents attitudes as the result of a calculation in which the individual balances his/her beliefs about an object (or behaviour) with the value he/she attach to those characteristics. Attitudes are still the product of linear deliberation (such as in EU models), but the difference is that the EVT explores the antecedent factors contributing to attitudes (Jackson, 2005: 78). Well-known models based on Expectancy Value Theory include Rosenstock's (1975) Health Belief Model (HBM) as well as Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA). The HBM and the TRA are discussed in detail in sub-section 3.3.2 and sub-section 3.3.4 respectively.

3.2.4   Norms and identity

According to Darnton (2008: 16) social norms act as a guide in terms of how we should behave, and how we expect others to behave. Social norms appear in the Theory of Reasoned Action (TRA) as 'subjective norms', defined as a person's "perception that most people who are important to him think he should or should not perform the behaviour in question" (Ajzen & Fishbein 1980, quoted in Jackson, 2005: 70). Like attitudes, norms are specific to a behaviour (e.g. the norm to recycle). The social component which norms represent is fundamental to psychological understandings of behaviour, and offers a further challenge to standard economic theory which works on the assumption that rational man acts in isolation to maximise his subjective utility. Norms are conceptualised differently by different theorists and observing these distinctions is vital to anyone seeking to use social influence to change behaviour.

While 'norms' are generally used as a term to describe social norms, Schwartz (1977) presented the distinct but complementary concept of personal norms. Personal norms are defined as feelings of moral obligation to act, which are free from social expectations (Schwartz, 1977: 222). Schwartz (1977) used the theory to explain altruistic or 'helping' behaviours, a class of behaviour which has proved problematic

to utility-based theories (including Darwin's). The key distinction between personal and social norms is that the influence of the latter is seen to be dependent on external sanctions, whereas the only sanctions applying to personal norms are internalised, measured in terms of discrepancy with an individual's self-concept (i.e. his sense of self). Guilt is one emotion that could arise from such a discrepancy (Schwartz, 1977: 225).

According to Thøgersen (2007: 1) personal norms are found to be better predictors of altruistic behaviours than social norms; they have also been found to be more effective at predicting a range of pro-environmental behaviours, although distinguishing between these two closely-related factors in research experiments is clearly challenging (Thøgersen, 2007: 16). Schwartz's (1977) Norm Activation Theory describes the process by which personal norms are activated. Norm activation essentially involves two stages: (i) the first in which an individual feels an awareness of the consequences of their own action for others; and (ii) the second in which the personal costs of acting are calculated with the result that responsibility may be denied. Thus the model is also good for explaining why people fail to help in certain circumstances.

An equivalent activation process for social norms was proposed by Cialdini (1990) in his Focus Theory of Normative Conduct (Cialdini, Reno & Kallgren, 1990). Cialdini *et al*. (1990: 1015) make the important distinction between two types of social norms: (i) 'descriptive norms' which specify what is done, based on the observation of the majority of others; and (ii) 'injunctive norms' which specify what ought to be done. Cialdini *et al*. (1990: 1016) note that these two types of social norm usually act in the same direction, but that this is not always the case. More recent work by colleagues of Cialdini's has underlined the importance of distinguishing between these two types of norms when using them as the basis for behaviour change interventions (Schultz, Nolan, Cialdini, Goldstein & Griskevicius, 2007: 429).

Theorists are unanimous in construing social norms as instruments for maintaining the coherence of the groups to which they relate. Kurt Lewin describes 'group standards' as serving this function in his early work in social psychology (Lewin, 1951). Schwartz similarly sees the primary function of social norms as "preserving the welfare of the

collective" (Schwartz, 1977: 226). Norms are thus shown to mediate between the identity of the individual and that of the group. Turner and Tajfel's (1979) Social Identity Theory breaks down the processes at work in this relationship (Terry, Hogg & McKimmie, 2000: 337). The Social Identity Theory is used to explain the processes by which groups of individuals (however arbitrarily assembled) tend to differentiate themselves from one another. The two processes described are: (i) 'categorisation', by which individuals identify themselves with like others in an in-group and differentiate themselves from the out-group; and (ii) 'self enhancement', through which individuals favour the in-group, and promote themselves relative to others (Terry, Hogg & McKimmie, 2000: 350).

The implication of these theories for those seeking to bring about lasting behavioural change is that they must also engage with social norms, and notions of identity. While identity is influential in shaping behaviour, the latter is also undertaken as a means of defining an individual's sense of identity. This is a central line of narrative in Jackson's (2005) review of behavioural theory in which he demonstrates how self-identity is constructed through the consumption of goods and services. In this complex and shifting dynamic, it may not be possible to target individuals' sense of identity directly, but an understanding of social norms suggests that it is possible to highlight those factors, and bear on those processes by which social norms are internalised, and self-identity defined.

3.2.5 Agency, efficacy and control

In the context of pro-environmental behaviour change, action researcher David Ballard (2005: 2) defines agency in terms of a person's belief that they can take "meaningful action", i.e. that their action will be effective in creating positive outcomes. Public responses to climate change are commonly characterised by a lack of agency, for instance, the sense that the problem is too large for individuals to make a difference. Ballard (2005: 3) identifies a contrasting minority of climate change champions for whom agency is felt in an intuitive way as an obligation to act; this version of agency can be read as spanning personal norms, agency, and emotions. In common with other commentators, Ballard (2005: 17) finds that agency is accumulated through personal experience, although he also contends that agency can be acquired or learnt,

primarily through working in groups with likeminded others. Ballard (2005: 3) states that "groups offer agency" through sharing personal experiences and building shared commitment.

Self-efficacy is the most widely used conceptualisation of agency in social-psychological models. Bandura (1977: 191) defines self-efficacy as "the conviction that one can successfully execute the behaviour required to produce the outcomes". Bandura (1977, 1991) advocated the self-efficacy construct for use in frameworks analysing "fearful and avoidant behaviour" (Bandura, 1991: 248). Self-efficacy also appears in Rogers' (1975) Protection Motivation Theory which highlights the individual's responses to fear appeals. According to Darnton (2008: 17) Rogers' (1975) and Bandura's (1977, 1991) conceptualisations are particularly similar; in both models self-efficacy mediates the influence of motivations on behaviour - if the behaviour is deemed impossible it will not be undertaken (despite motivation being present).

Self-efficacy determines both the initiation and the continuation of behaviour: whether to attempt the behaviour, and how long to sustain it before giving up. Self-efficacy arises chiefly from past behaviour ('performance accomplishments', or "personal mastery experiences" for Bandura, *op. cit.*). For Bandura, self-efficacy can also be acquired through vicarious experience, although it is noted that this is not such a reliable indicator of the likelihood of one's achieving a particular outcome. Lastly, Bandura (1991: 249) suggests that verbal persuasion and emotional arousal can also help increase self-efficacy, although ultimately proof of mastery through personal experience is needed. Like attitudes in Ajzen and Fishbein's models, self-efficacy is deemed most predictive when measured in relation to the specific behaviour in question. Furthermore, like the attitudinal construct, self-efficacy is seen as the product of a deliberative calculation, here about how much effort to expend on a given behaviour. However, in contrast to theoretical accounts of attitudes and norms, self-efficacy is not construed as determining behaviours alone; instead it requires "appropriate skills and adequate incentives" to be in place (Darnton, 2008: 20).

3.2.6 Habit and routine

Habit or routine can be a key factor in influencing frequent behaviours (CommGAP, 2010: 17). According to the CommGAP (2010) report, the more an individual repeats a particular behaviour, the more automatic it becomes. As time passes and the behaviour is undertaken more frequently, habit becomes the key factor driving behaviour (CommGAP, 2010: 17). While the Theory of Planned Behaviour (TPB) is the best known and most widely-used social-psychological model of behaviour, it does not explicitly incorporate the 'habit' factor which research shows to be significant in influencing specific behaviours. Triandis (1977) highlights the 'habit' factor in his Theory of Interpersonal Behaviour (TIB). The TIB is an adjusted expectancy value model but, through the inclusion of habit, offers an alternative view to that put forward by the TPB. Like the TPB which it predates, the TIB postulates behaviour as the result of a solely deliberative process. Whereas the TPB holds beliefs as the "underlying foundations" of behaviour (Ajzen, 1991), habit is seen as the primary determinant in the TIB (Triandis, 1977). Triandis ranks the top three factors in the TIB in terms of their determining the probability of action, as follows: (i) habit; (ii) intention; and (iii) facilitating conditions. In experimental research into students' car use behaviour, the social psychologists Bamberg and Schmidt (2003) contrasted the two approaches of the TIB and the TPB, and compared the models' predictive power in the context of car use. They found the TIB to be more predictive of the outcomes than the TPB, due to the model's emphasis on habit (Bamberg & Schmidt, 2003: 280). Triandis describes how, as experience of a behaviour is acquired, the influence of habit increases, and that of intention declines (Triandis, 1977).

3.2.7 External factors

Triandis (1977: 36) notes that "the presence or absence of facilitating conditions" constrains behavioural choice. For instance, without a bus there is no bus use, and without drugs, no drug use. This observation can account for indirect (or 'upstream') interventions aimed at changing behaviours (in many instances such interventions are also deemed more cost effective than direct ones (*cf.* Halpern *et al*., 2003; Maio *et al*., 2007). Theorists and practitioners acknowledge that the external conditions must be right for behaviour change to result. Thus Gardner and Stern's (2000) Principles require that interventions address "the conditions beyond the individual" as well as

"psychological" factors (Stern, 2000: 409). The social marketer Doug McKenzie-Mohr (2000) goes further in advising that, if sufficient resources are not available to remove the external barriers preventing behaviour change, then the intervention should be abandoned. However, social-psychological theory reveals the dynamic to be more complex than a division between internal and external barriers. Being concerned with the psychological factors which influence behaviour, most social psychological models do not explicitly feature external factors. According to Darnton (2008) external factors are often not shown explicitly within a behavioural model but are embedded within other variables, most commonly the constructs of agency or control (Darnton, 2008: 26). Ajzen's (1991) TPB includes Perceived Behavioural Control (PBC), which is an internal measure (an individual's beliefs) of actual levels of control (their material circumstances). According to Hobson (2001) many barriers are not external but are constructed through the interaction between ourselves and the world in day to day behaviour. This in turn has implications for interventions aiming to remove external barriers to behaviour – both the material context and individuals' perceptions of it must be addressed.

3.2.8 Self-regulation

Self-regulation, agency, self-efficacy and perceived behavioural control (different terms are used in different models) all describe "an individual's sense that they can carry out a particular action successfully and that action will bring about the expected outcome" (Darnton, 2008: 31). What is important is the belief, not whether or not the individual is actually capable of achieving a particular goal. This will determine the effort a person is prepared to put into changing their behaviour and even whether they will attempt it at all. According to Darnton (2008: 31) an individual's sense of agency can be driven by many things, including past experiences and personal beliefs (for example, some people are naturally more pessimistic than others).

Self-regulation in the Social Cognitive Theory has two elements, namely (i) self-monitoring; and (ii) self-judgement. According to Darnton (2008: 31) self-monitoring provides the contextual information (or 'reference value') while self-judgement sets the target level (as 'input value' or 'standard'). Standards thus have psychological meaning in this version of a self-regulating system; they are self-set by individuals, based on

the observation on others. In this way Bandura's Theory (1977) builds on his work in Social Learning, in which behaviour is learnt through observing and 'modelling' the behaviour of others. Unlike Control Theory, which is concerned with the ongoing flow of behaviour, Social Cognitive Theory is explicitly about behaviour change. Bandura states that altering our standards and goal setting is essential for self-directed change (Bandura, 1991). Self-efficacy comes from achieving the standards, but is also recursive as efficacy is derived from experiences of achievement. Failure to achieve goals does not deter those with high self-efficacy from acting. However, for those with low self-efficacy, failure will quickly result in apathy (Darnton, 2008: 31).

3.3   MAJOR MODELS OF BEHAVIOURAL CHANGE

A report published by the Communication for Governance and Accountability Program (CommGAP) identifies the Social Cognitive Theory of Self-Regulation, the Theory of Planned Behaviour and the Transtheoretical model of Behavioural Change (often also referred to as the Stages of Change model) as the three commonly cited models of social behaviour (CommGAP, 2010). However, in the context of this thesis, the following behavioural change models were analysed to determine their suitability to provide the theoretical framework for this study: (i) Bandura's (1986) *Social Cognitive Theory of Self-Regulation*; (ii) Rosenstock's (1974) *Health Belief Model*; (iii) Prochaska and DiClemente's (1983; 1986) *Transtheoretical Model of Behavioural Change*; (iv) Fishbein and Ajzen's (1975) *Theory of Reasoned Action*; (v) Ajzen's (1985; 1991) and Ajzen and Madden's (1986) *Theory of Planned Behaviour*; and (vi) Fishbein's (2000, 2008) *Integrative Model of Behavioural Prediction*. These attitudinal-behavioural models have received broad support in empirical studies of consumer decision making as well as in the literature on social psychology (Sheppard, Hartwick & Washaw, 1988: 325). In the context of this study, an evaluation of these behavioural change models was done in terms of the following criteria: (i) what concepts and constructs does the behavioural model contain?; (ii) to what extent is the model able to incorporate social, economic and/or environmental factors?; (iii) in which areas has the model been used?; and lastly (iv) how effective is the behavioural model at predicting changes in knowledge, attitudes and/or behaviour?

3.3.1 The Social Cognitive Theory of Self-regulation

Bandura's (1986, 1991, 2001) Social Cognitive Theory (SCT) of Self-regulation postulates that "human behaviour is extensively motivated and regulated by the ongoing exercise of self-influence." (Bandura, 1991: 248). The SCT of self-regulation, depicted in Figure 3.3 below, suggests that human functioning can be explained by an interaction of behaviour, environment, and the person (cognitive, emotional, and physical factors). This triadic interaction is known as 'reciprocal determinism' (Bandura, 1991: 248).

Figure 3.3: The Social Cognitive Theory of Self-regulation
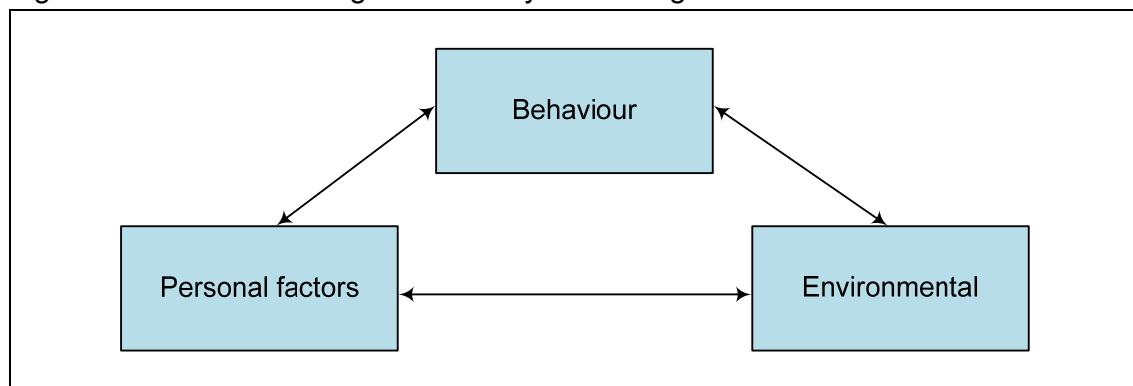
Source: Adapted from Bandura (1991: 248).

Bandura (1991: 250) goes on to state that most human behaviour is regulated by forethought. The forethought process involves people setting goals for themselves and plan courses of action that are likely to produce desired outcomes. Through exercise of forethought, people motivate themselves and guide their actions in a proactive way to achieve their goals. This human functioning is regulated by reciprocal interaction of self-generated influence (for example, control of thoughts, feelings, motivation, and actions) and external sources (for example, the influence of peers, family and the environment). In this context, Bandura's SCT of self-regulation proposes that people are driven not only by inner forces, but also by external factors. Environmental factors represent situational influences and environment in which behaviour is performed while personal factors include instincts, drives, traits, and other individual motivational forces. Several constructs underlie the process of human learning and behaviour change (Bandura, 1986: 35). With the SCT of self-regulation, Bandura (1991: 282) concludes that the processes of goal attainment and motivation stem from an equal

interaction of self-monitoring, self-judgement, and self-evaluation (see Table 3.2 below).

Table 3.2: The self-regulatory mechanism proposed by the SCT of self-regulation

Component	Mechanism	Descriptions
Self-monitoring	Feedback	Providing evidence of behaviour change progress
	Temporal proximity	Monitoring behaviour close in time to when it occurs
	Consistency	Self-monitoring regularly rather than intermittently
	Focus on success	Attending to achievement rather than failure
	Value of behaviour	Self-monitoring behaviour with perceived importance
	Control	Self-monitoring behaviour easy to deliberately modify
	Motivation	Desiring to change the monitored behaviour
	Self-diagnosis	Gaining insight through identifying behaviour patterns
Self-judgment	Social comparison	Relating self-progress with peers in similar situations
	Self-comparison	Contrasting ongoing progress with previous behaviour
	Statistical comparison	Evaluating progress by contrasting with normative data
	Modeling	Examples of others successful in changing behaviour
	Education / reaction	Others' opinions or responses to inform judgement
Self-evaluation	Self-satisfaction	Gaining self-respect for goal completion or progress
	Self-incentives	Setting personal rewards for achieving progress
	External rewards	Setting tangible benefits for completion of a task or goal

Source: Adapted from Bandura (1991: 248).

According to Painter, Borba, Hynes, Mays and Glanz (2008: 358), the SCT proposed by Bandura (1986) is one of the most common behaviour change theories applied in the management of chronic health conditions. Evidence from randomised controlled trials based on the SCT of self-regulation supports the clinical benefits of interventions based on this theory for health outcomes in asthma (Baptist, Ross, Yang, Song & Clark, 2013), arthritis (Kovar, Allegrante, MacKenzie, Petersen, Gutin & Charlson, 1992), weight loss (Gray, Hunt, Mutrie, Anderson, Treweek & Wyke, 2013), and cardiac rehabilitation (Furber, Butler, Phongsavan, Mark & Bauman, 2010). These findings suggest that interventions based on the SCT of self-regulation can be useful for improving outcomes in some chronic health conditions. Nonetheless, the selection of the specific theory components and associated mechanisms that have been chosen to be addressed with particular intervention characteristics remain unclear. Tougas, Hayden, McGrath, Huguet and Rozario (2015), in analysing how theory can be used for treatment interventions in health care, identify 202 studies that used the SCT of self-regulation as a conceptual framework. However, only 35 interventions actually incorporated self-monitoring and accurately used the SCT of self-regulation to develop interventions for the management of arthritis, asthma, diabetes, heart disease, and overweight/obesity (Tougas *et al*., 2015: 12). All of the interventions addressed at least two of the main theory components, and 21 of the interventions incorporated characteristics that addressed mechanisms related to all three of the main theory

components. Tougas *et al*. (2015: 12) identify 'self-monitoring', in comparison to self-judgment and self-evaluation, as the theory component used most comprehensively across interventions. Although the self-monitoring mechanisms were often included within interventions, Tougas *et al*. (2015: 16) note that the self-judgment mechanisms 'Social comparison', and 'Statistical comparison', as well as the self-evaluation mechanisms 'Self-incentives', and 'External rewards' were rarely implemented.

Perry, Barnowski and Parcel (1990: 25) state that the following variables may intervene in the process of behaviour change: (i) *Self-efficacy* (i.e. a judgment of one's ability to perform the behaviour); (ii) *Outcome Expectations* (i.e. *a* judgment of the likely consequences a behaviour will produce); (iii) *Self-Control* (i.e. the ability of an individual to control their behaviour); (iv) *Reinforcements* (i.e. something that increases or decreases the likelihood a behaviour will continue); (v) *Emotional Coping* (i.e. the ability of an individual to cope with emotional stimuli); and (vi) *Observational Learning* (i.e. the acquisition of behaviour by observing actions and outcomes of others' behaviour). In this context, Perry, Barnowski and Parcel (1990) is of the opinion that, in practice, to increase levels of self-efficacy even as a series of small steps, it may be important to provide resources and support to raise individual confidence. In contrast, Bandura (1986: 37), believes that, even when individuals have a strong sense of efficacy, they may not perform the behaviour if they have no incentive. This seems to suggest that, if policymakers are interested in getting others to enact behaviour change, it may be important to provide incentives and rewards for the behaviours. Shaping the environment may therefore be necessary to encourage behaviour change. This may include providing opportunities for behavioural change, assisting with those changes, and offering social support (Perry, Barnowski & Parcel, 1990: 26). Nevertheless, it is important to recognise that environmental constraints may deter behaviour change.

3.3.2 The Health Belief Model

The Health Belief Model (HBM) is a cognitive model which posits behaviour as being determined by a number of beliefs about threats to an individual's well-being and the effectiveness and outcomes of particular actions or behaviours (Hochbaum, 1958; Rosenstock, 1966; Becker, 1974; Sharma & Romas, 2012). Some constructions of the

model feature the concept of self-efficacy alongside these beliefs about actions. These beliefs are further supplemented by additional stimuli referred to as 'cues to action' which trigger actual adoption of behaviour. The main elements of the HBM are illustrated in Figure 3.4.

Figure 3.4:   The Health Belief Model
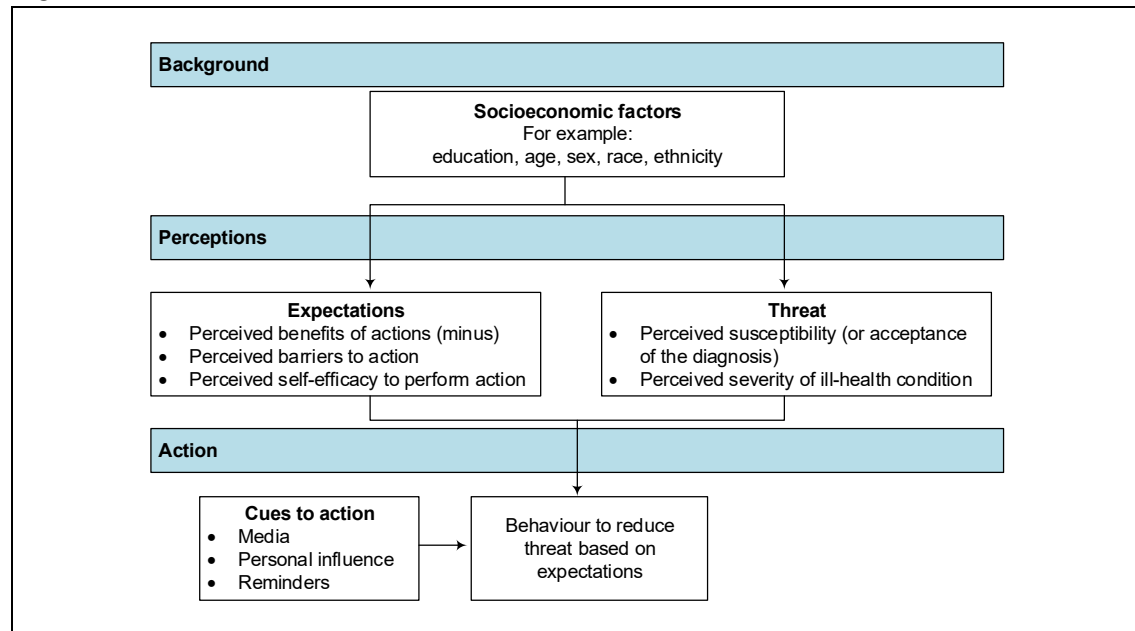
Source: Rosenstock (1975), in Becker *et al*., (1977: 4).

Perceived threat is at the core of the HBM as it is linked to a person's 'readiness' to take action. It consists of two sets of beliefs about an individual's perceived susceptibility or vulnerability to a particular threat and the seriousness of the expected consequences that may result from it. The perceived benefits associated with a behaviour (i.e. its likely effectiveness in reducing the threat) are weighed against the perceived costs of and negative consequences that may result from it (perceived barriers). These perceived barriers could include the side effects of treatment or an evaluation of the overall extent to which a behaviour is beneficial. The individual's perceived capacity to adopt the behaviour (i.e. their self-efficacy) is a further key component of the model. Finally, the HBM identifies two types of 'cue to action', namely (i) internal, which in the health context includes symptoms of ill health; and (ii) external, which includes media campaigns or the receipt of other information. These cues affect the perception of threat and can trigger or maintain behaviour. Nisbet and Gick (2008: 297) summarise the model as follows: "in order for behaviour to change,

people must feel personally vulnerable to a health threat, view the possible consequences as severe, and see that taking action is likely to either prevent or reduce the risk at an acceptable cost with few barriers. In addition, a person must feel competent (have self-efficacy) to execute and maintain the new behaviour. Some trigger, either internal or external, is required to ensure actual behaviour ensues". Conversely, when an individual perceives a threat as not serious or themselves as unsusceptible to it, they are unlikely to adopt mitigating behaviours. Low benefits and high costs can have the same impact.

There are a number of reviews and summaries of the model available (*cf.* Janz & Becker, 1984; Harrison *et al*., 1992; Armitage & Conner, 2000; Rutter & Quine 2002; Munro *et al*., 2007; Nisbet & Gick, 2008; Webb *et al*., 2010). Although designed and developed in the healthcare context, the HBM has been applied to the analysis of other types of behaviour, such as recycling (Lindsay & Strathman, 1997), and is most suited to explaining or predicting patterns of behaviour. Formal reviews have, however, concluded that it has generally weak predictive power, suggesting it can predict only around 10% of behavioural variance (Harrison *et al*., 1992). According to Armitage & Conner (2000) this is, in part, a result of poor construct definition, a lack of combinatorial rules and weaknesses in the predictive validity of the HBM's core psychological components.

Harrison *et al*., (1992) conducted a meta-analysis of studies using the Health Belief Model in adult populations, aimed at quantifying the independent relationships between each of its four main components and the reported health behaviours. They found weak effect sizes, accounting for between 0.1 and 9 per cent of variance. These authors were not able to include other elements of the model because of the lack of studies incorporating them, and concluded that the weak effect sizes and lack of (study and construct) homogeneity indicate that it is premature to draw conclusions about the predictive validity of the HBM as operationalised. Zimmerman and Vernberg (1994) conducted a critical comparative meta-analysis of models of preventive health behaviour. This quality rated and included a total of 60 studies overall. Of these 30 (50 per cent) were HBM studies. They found that the Theory of Reasoned Action (see sub-section 3.3.4 below) was a substantially better predictor of health behaviours than the HBM. The TRA was able to explain just over 34 per cent of observed health

behavioural variance, as compared to 24 per cent in the case of the HBM. The authors concluded that the HBM is in essence a list of variables rather than a theory based on adequately specified relationships between its core components (Zimmerman & Vernberg, 1994).

Literature suggests that, of the HBM's components, perceived barriers are the most significant in determining behaviour (Janz & Becker, 1984). The two established criticisms of this model are that its components and rules about their inter-relationships are not well defined, and (in common with other cognitive rational choice based models focused on the individual) that it does not include social or economic or unconscious (e.g. habitual) determinants of behaviour, which are generally considered to be at least as important as the personal cognitive factors covered by the model. Jackson (2005: 133) clearly explains this latter problem by stating that the rational choice model "…is inadequate as a basis for understanding and intervening in human behaviours for a number of reasons. In particular, it pays insufficient attention to the social norms and expectations that govern human choice and to the habitual and routine nature of much human behaviour. It also fails to recognise how consumers are locked into specific behaviour patterns through institutional factors outside their control."

The development of the Health Belief Model was of pioneering significance in the early 1950s. Systematic analyses using the full range of components that it today incorporates might cast light on the impact of social and other factors associated with inequalities in health, and the reasons why individuals and groups may not take up health improvement or protection opportunities. However, the HBM is not in itself clearly or adequately specified, and the available evidence indicates that in practice its application appears to be inadequate for such purposes. Further, although the HBM may be used to derive information that may then prompt interventions designed to change health beliefs and behaviours, using the model itself cannot inform decision making as to how such interventions might best be structured.

The value of the 'perceived threat' element serving as a central indicator of behavioural motivation in the HBM has been questioned. So has the phenomenological orientation of its design. Notwithstanding components like perceived barriers and demographic and socio-economic descriptors, as normally applied this model may be taken

implicitly to assume that people are rational actors, driven by their conscious perceptions of the world. This may misleadingly suggest that health behaviours can always best be understood as being under volitional control, rather than in a large part determined by combinations of circumstantial reality and individuals' habitual, emotional, unconscious and/or otherwise nonrational reactions to the external world. The research identified provides evidence that the overall explanatory power of the HBM is limited, even simply as compared to that of alternative social cognition models such as the TRA.

3.3.3   The Transtheoretical Model of Behavioural Change

The Transtheoretical Model of Behavioural Change, also known as the Stages of Change (SoC) model, is a widely applied cognitive model which sub-divides individuals between five categories that represent different milestones (or 'levels of motivational readiness') along a continuum of behaviour change (Heimlich & Ardoin 2008: 279). These stages are defined as: (i) pre-contemplation; (ii) contemplation; (iii) preparation; (iv) action; and (v) maintenance. First developed in relation to smoking, and now commonly applied to other addictive behaviours, the rationale behind a staged model is that individuals at the same stage should face similar problems and barriers, and thus can be helped by the same type of intervention (Nisbet & Gick 2008). As depicted in Figure 3.5, the SoC model identifies nine process types which are most widely used and investigated (Prochaska, DiClemente & Norcross, 1992: 1103).

Figure 3.5:   The Transtheoretical Model of Behavioural Change
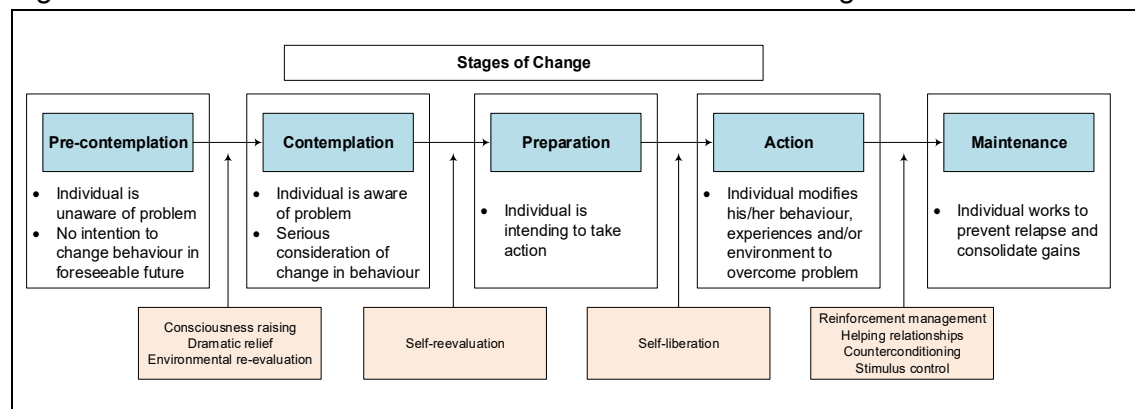
Source: Prochaska *et al*., (1992: 1103).

Movement or transition between stages is driven by two key factors namely (i) self-efficacy and (ii) decisional balance (Heimlich & Ardoin, 2008). Decisional balance refers to the outcome of individual assessment of the advantages and disadvantages of a behaviour (Armitage *et al*., 2004). Relapse, moving backwards through the stages, is common. The SoC model is more popular amongst practitioners than researchers as its constructs and concepts are not particularly well defined. Questions regarding how discrete the stages actually are and whether an individual *must* move through each (and not jump stages) are common (*cf.* Sutton, 2002; Littell & Girven, 2002; Rutter & Quine, 2002). Further to this, the model is not clear on how individuals change or why some change more effectively or quickly than others (*cf.* Armitage *et al*., 2004; Munro *et al*., 2007). This model shares the problem of other cognitive models in that it is egoistic (centred on the self) and consequently misses the structural, economic, environmental and social factors which affect an individual's ability to change behaviour (Nisbet & Gick, 2008). It is not that the influence of these factors is denied by the model, but rather that they lie outside its boundaries. For example, Prochaska *et al*. (1992: 1103) note that: "Families, friends, neighbours, or employees are often well aware that the pre-contemplators have a problem. Where pre-contemplators present for psychotherapy, they often do so because of pressure from others". The SoC also focuses on individual problem behaviours, such as addictions. This has implications for its transferability to behaviours which bring public costs or benefits. The over use of pesticide, for example, could be a problem behaviour in terms of water pollution but this is not necessarily a problem for the pesticide user directly.

3.3.4 The Theory of Reasoned Action and the Theory of Planned Behaviour

The historical development of these two closely associated theories was such that they are best described here together, rather than sequentially. The Theory of Reasoned Action (TRA) was formulated towards the end of the 1960s, and in some respects may be seen as refining and taking forward approaches embodied in the HBM. At that time psychologists were concluding that attitudes (at least in the form of uni-dimensional phenomena) have very limited validity as predictors of future behaviour (Wicker, 1969; Fishbein & Ajzen, 1975). As expressed in its final form, the TRA (see Figure 3.6) combines two sets of belief variables, described under the headings of 'behavioural attitudes' and 'the subjective norm'.

Figure 3.6:   The Theory of Reasoned Action and the Theory of Planned Behaviour
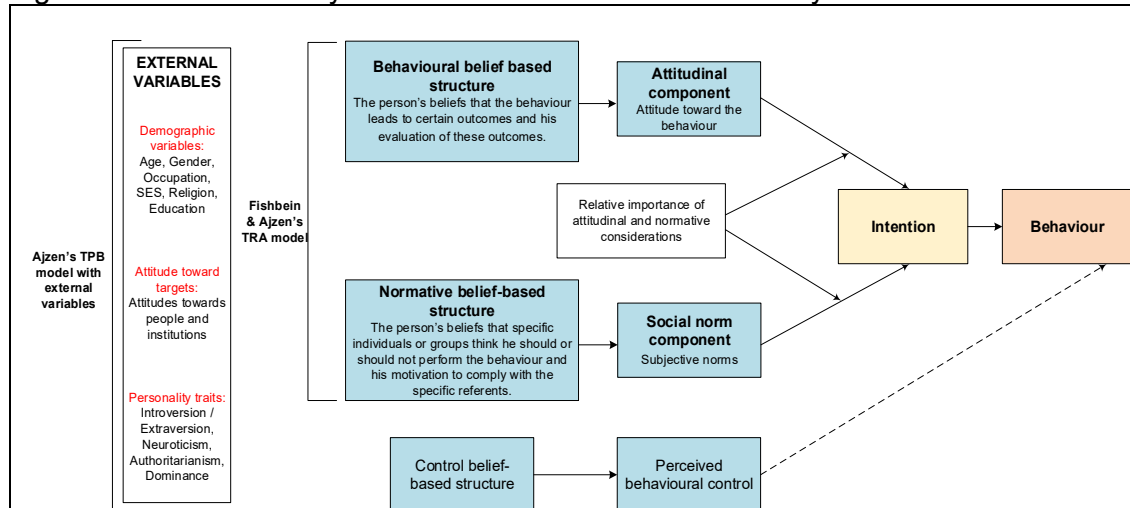
Source: Adapted from Taylor *et al*., (2006), Ajzen and Fishbein (1975; 1980).

The TRA model tries to predict a person's behavioural intention based upon his attitude towards behaviour and subjective norms. The theory relies on an assumption that motives, values and attitudes are key components of any individual's decision-making process. This is due to the basic proposition held in the TRA which states that behavioural intention determines actual behaviour. The TRA's strength lies in its ability to express how particular internal and external factors work together, which in turn then explains why people will or will not perform specific behaviour. Even though the TRA has been used successfully to identify key elements of consumer decision-making (Keen & McDonald, 2000; Taylor & Todd, 1995), it has been criticised on the basis that it ignores the social nature of human action (Kippax & Crawford, 1993). In this context, the contention is that behavioural and normative beliefs are derived from individuals' perceptions of the social world they inhabit, and are hence likely to reflect the ways in which economic or other external factors shape behavioural choices. Yet there is a compelling logical case to the effect that the TRA model is inherently biased towards individualistic, rationalistic, interpretations of human behaviour. Its focus on subjective perception does not necessarily permit it to take meaningful account of social realities (Kippax & Crawford, 1993). Proponents of the TRA might reasonably respond that it was designed to elucidate cognitive rather than other variables, and that its authors did not purport to be offering a comprehensive understanding of the social and economic determinants of health behaviour. Rather, its focus is on

identifying patterns of belief and attitude which, if changed, could help individuals respond more effectively to their objective situations.

The Theory of Planned Behaviour (TPB), developed by Ajzen (1991) and refined later by Armitage and Conner (2001) as well as Grizzell (2007) built further on the TRA framework. Its design and dissemination followed Bandura's work on self-efficacy and the publication of his Social Cognitive Theory in 1986 (Ajzen, 1985; 1988). It is differentiated from the TRA, as Figure 3.6 shows, by the additional dimension of perceived behavioural control (PBC). The acceptance by Ajzen (1991) of the need to include PBC within the TPB model can be regarded as an acknowledgement that the TRA was, by itself, unable to adequately predict health related behaviours, especially in fields characterised by low levels of volitional control. The TPB suggests that behaviour is dependent on one's *intention* to perform the behaviour. Intention is determined by an individual's *attitude* (beliefs and values about the outcome of the behaviour) and *subjective norms* (beliefs about what other people think the person should do or general social pressure). Behaviour is also determined by an individual's *perceived behavioural control,* defined as an individual's perceptions of their ability or feelings of self-efficacy to perform behavior. This relationship is typically dependent on the type of relationship and the nature of the situation.

The TRA and the TPB continues to attract attention in social psychology (*cf*. Sheppard, Hartwick, & Washaw, 1988; Eagly & Chaiken, 1993; Olson & Zanna, 1993). Conner and Armitage (1998: 1429) state that both models can be regarded as deliberative processing models, as they imply that individuals make behavioural decisions based on careful consideration of available information. However, the TPB attempts to predict non-volitional behaviours by incorporating perceptions of control over performance of the behaviour as an additional predictor (Conner & Armitage, 1998: 1430). Both the TRA and the TPB assume that the immediate cognitive precursors to behaviours are not attitudes but behavioural intentions. These are in essence defined as complex blends of prior beliefs. Like the HBM, the TRA and the TPB are both value-expectancy theory based models. Although the TRA and the TPB lack the threat concept normally seen as central to the HBM, their constructs, in part, reflect the perceived susceptibility (severity) and benefits/barriers balances incorporated in the latter. However, Ajzen (1998) has pointed out that the TRA and TPB are mathematically and structurally

better specified and framed at a higher level of generalisation than the HBM. Ajzen (1980) also notes that the TRA was developed to promote understanding of volitional behaviours, rather than those in large part determined by situational factors outside the control of the subject.

Research using TRA has proven to be successful across a number of disciplines to explain human behaviour (Ajzen & Fishbein, 1980; Sheppard, Hartwick & Washaw, 1988). The TRA is also successfully applied to studies in health care, marketing, internet banking, mobile banking and home financing. In the banking and finance discipline with regard to retail consumers' attitudes, studies by Yu and Wu (2007), Ravi, Carr and Sagar (2006), Shih and Fang (2006), Xu and Paulins (2005), Lee and Littrell (2005), Zainuddin, Jahys and Ramayah (2004), Amin *et al.* (2010) and Abduh *et al.* (2011) have all used the TRA as a basis for their analysis. The general theoretical frameworks of the TRA and the TPB have allowed them to be widely used in the retrospective analysis of health behaviours (Kashima & Gallois, 1993) and to a lesser extent in predictive investigations and the design of health interventions (Hardeman *et al.*, 2002). Examples of their use could be taken from any area of health promotion relating to health behaviour change. In the policy environments of the United Kingdom the most relevant areas of application include the following: exercise intentions and behaviours (Ajzen & Driver 1991; Godin, 1993; Blue, 1995; Hausenblas *et al.*, 1997; Hagger *et al.*, 2002; Downs & Hausenblas, 2005); weight gain prevention and eating behaviour (Godin & Kok, 1996; Baranowski *et al.*, 2003); addiction related behaviours such as smoking and alcohol abuse (Godin & Kok, 1996)**;** and HIV prevention and condom use (Sheeran & Taylor, 1999; Albarracin *et al.*, 2001). The use of the TPB appears to have been more extensive than that of the HBM and also less strongly focused on the issue of tobacco addiction than that of the Trans-Theoretical Model.

Hausenblas *et al.* (1997) investigated via a meta-analysis the application of the TRA and TPB in the context of exercise behaviour. These authors found strong general support for the validity of both theories. Hausenblas *et al.* (1997) reported large effect sizes for the relationships between intention and exercise behaviour, attitude and intention, attitude and exercise behaviour, PBC and intention and PBC and exercise behaviour. By contrast, the correlations they found between the subjective norm and intention and behaviour were respectively moderate and zero. The authors interpreted

this as providing an accurate insight into the nature of exercise motivation. They concluded that the TPB has greater explanatory power in relation to sports and allied behaviours than the TRA. Similar conclusions have been reported by Blue (1995) and Hagger *et al*. (2002). For example, the meta-analysis by Hagger and his colleagues reported that TRA model constructs explained 37 per cent of variance in exercise intentions and 26 per cent of behavioural variance. With the addition of self-efficacy, the TPB model accounted for 50 per cent of intentional variance and 29 per cent of the variance in behaviour. Attitudinal differences were again found to be the dominant factor in influencing intentionality. These figures broadly correspond with Godin and Kok's (1996) earlier systematic review finding that in the exercise context the TPB could account for 42 per cent of the variance in intentions and 36 per cent of the variance in behaviour. Taking all eight of the fields this last study covered together (addictive behaviours, clinical screening, driving behaviours, eating, exercising, HIV/AIDS and oral hygiene, with results drawn from a total of 56 studies), the overall proportion of variance in intention predicted by the PBC was 41 per cent. The equivalent average figure for reported behavioural variance was 34 per cent. The reported behaviour specific statistics ranged from just over 15 per cent in the case of clinical interventions and screening uptake to 42 per cent in the case of HIV/AIDS prevention related behaviours such as condom use.

Finally, in this context, Downs and Hausenblas (2005) emphasise the importance of detailed belief elicitation studies in the context of using the TPB to understand cognitive aspects of exercise. Their systematic review covered 47 studies conducted over a period of 22 years. They reported that the most salient behavioural belief is that exercise improves physical and psychological health; that family members have the strongest normative influence on exercise; and that beliefs about physical limitations have the most important control effects. Overall belief variations accounted for between 34 and 56 per cent of the reported variances in attitudes, subjective norms and perceived behavioural control. These authors also commented that most studies failed to report demographic variables. This makes it impossible directly to compare and contrast their findings on cognitive and behavioural variations in this context with other data on the social and economic determinants of exercise and health behaviour.

Two meta-analyses have examined the predictive power of the TRA and the TPB in relation to condom use. Sheeran and Taylor (1999) found that while the HBM variables had small (weighted average correlation) associations with condom use, the TRA and TPB had medium to strong correlations. Attitudes and subjective norms were more strongly predictive than the PBC. However, the authors noted that its inclusion in the TPB enhanced its predictive power. They interpreted their findings as showing that in the HIV prevention context beliefs about condom use *per se* are more important motivational factors than beliefs about HIV. They also noted the additional importance of sexual partner norms and descriptive norms. That is, perceptions relating to the condom use patterns that partners are anticipated to require and that other community members are believed to be practicing. Albarracin *et al.*'s (2001) meta-analysis came to a similar conclusion about the predictive power of both the TRA and the TPB in this context, and confirmed the significance of attitudes and behavioural norms as determinants of intention, and intention as a predictor of reported condom use (weighted mean correlation r=0.45). Perceived behavioural control was observed to be a statistical determinant of intention, but was not found to be a significant contributor to actual condom use. However, in low risk populations and teenagers the TRA/TPB models did not fit well. The authors also questioned the validity of condom use self-reporting, and as with other studies referred to above, expressed concerns relating to the homogeneity of the primary studies and associated effect heterogeneity. Like Sheeran and Taylor, Albarracin *et al.* (2001) also raised questions regarding the extent to which past behaviour determines ongoing beliefs, intentions and behaviours. Ferguson (1996) undertook a systematic review of the relative efficacy of theoretical models in predicting future behaviours in relation to blood donation. Although this covered a range of studies using varying constructs, he was able to conclude that intentions can be shown to account for a significant (19 per cent) proportion of the reported behavioural variance in this field. However, organisational factors relating to variables such as waiting times and other aspects of convenient service access and use accounted for a similar proportion of variance (17 per cent). Given the difficulties and uncertainties inherent in trying to change behaviour via modifying knowledge, beliefs, attitudes and intentions, Ferguson (1996) argued that is likely to be easier (and more cost effective) to seek to moderate factors such as service organisation.

Finally, Armitage and Conner (2001) published a meta-analytic review aimed at providing a quantitative integration of research findings on the overall performance of the TPB and its main constructs, based on 185 studies covering a wide range of health and other fields. Its specific relevance to health may therefore be questioned. However, in response it should be noted that one of the potential strengths of both the TRA and the TPB is that they are framed at a high level of generalisability – they are not health specific models (Ajzen, 1998). It may also be argued that the level of contextual variance likely to be encountered within the health behaviour arena could be as great as that likely to be found between health and other behavioural fields. Armitage and Conner (2001) calculated that in aggregate the TPB accounted for 39 per cent of variation in intentions, and 27 per cent of reported variation in behaviour. When behaviour measures were self-reports the TPB accounted for 11 per cent more of the overall variance than when behaviours were externally observed. This implies an 'objective' figure of 21 per cent of behavioural variance explained. This is below Godin and Kok's (1996) reported aggregate figure of 36 per cent, which was not similarly adjusted. Armitage and Conner (2001) also found the subjective norm construct to be a relatively weak behavioural predictor, and discussed ways in which the TPB's predictive power might in future be enhanced.

There is systematic and meta-analytical evidence that in relation to changes in health behaviour the predictive performance of both the TRA and the TPB is in most cases superior to that of the HBM. Further, there is also evidence that the additional components/constructs contained in the TPB normally allow it to predict a greater percentage of behavioural variance than the TRA. The available evidence indicates that, as it is presently specified, the use of the TPB can in countries such as the UK and the US typically account for between 20 and 30 per cent of the observed variance in adult (although not child or adolescent and young adult) health behaviours (Godin & Kok, 1996; Armitage & Conner, 2001; Hagger *et al.*, 2002; Sutton, 1998). Its capacity to predict behavioural intention is higher. Hardeman *et al*. (2002) state that there is evidence derived from both narrative and systematic reviews regarding the limitations of the TPB as being socially distinct from a cognitive theory, and its applications in practice. While the potential significance being able to explain in the order of 20 per cent of the observed variance in health behaviours should not be under-estimated, neither should the potential benefits of being able to understand and act to

complement or offset the remaining 80 per cent be ignored. In itself the TPB cannot be used to answer questions relating to how beliefs and attitudes underpinning behavioural intentions can most cost effectively be changed, or what health promotion strategies are likely to prove most productive in health gain terms. The effect size measures normally quoted to indicate the efficacy of social cognition based models of health behaviour have no direct relevance to their possible public health impacts. To the extent that long-standing health inequalities are functions of factors such as material and other socio-cultural differences between and within communities, interventions based mainly on changing individual cognitions are unlikely to eliminate them. Indeed, they may even exacerbate them. This indicates that further developments in models such as the TPB, aimed at enhancing the latter's power to predict health behaviours and also help individuals and groups to achieve desired changes in their daily lives, would be a logical step forward.

3.3.5   The Integrative Model of Behavioural Prediction

The Integrative Model of Behavioural Prediction (IMBP) is the most recent formulation of Fishbein and Ajzen's (1975) reasoned action approach. As in the TRA/TPB, the most important determinant of behaviour in the IMBP is intention to perform the behaviour. Without motivation, a person is unlikely to carry out a recommended behaviour. Figure 3.7 graphically depicts how the IMBP incorporates constructs from the TRA/TPB as well as other influential theories and how the IMBP extends the scope of the normative determinant by pointing attention to skills and environmental barriers as moderators of the intention–behaviour relationship. The IMBP postulates that behavioural intention is a function of three types of perceptions (or construct categories), namely attitude, perceived norm, and personal agency. Lantos (2011: 501) defines *attitude as a* "predisposition to think, feel, or behave in a positive or negative way toward an attitude object". In simpler terms, *attitude* refers to a person's evaluation of how favourable or unfavourable his or her performing a particular behaviour would be. Many theorists (*cf*. Triandis, 1980; Fishbein, 2007; French *et al*., 2005) have described attitude as composed of affective and cognitive dimensions. Fishbein (2007) describes experiential attitude (or affect) as the individual's emotional response to the idea of performing a recommended behaviour.

Figure 3.7: The Integrative Model of Behavioural Prediction
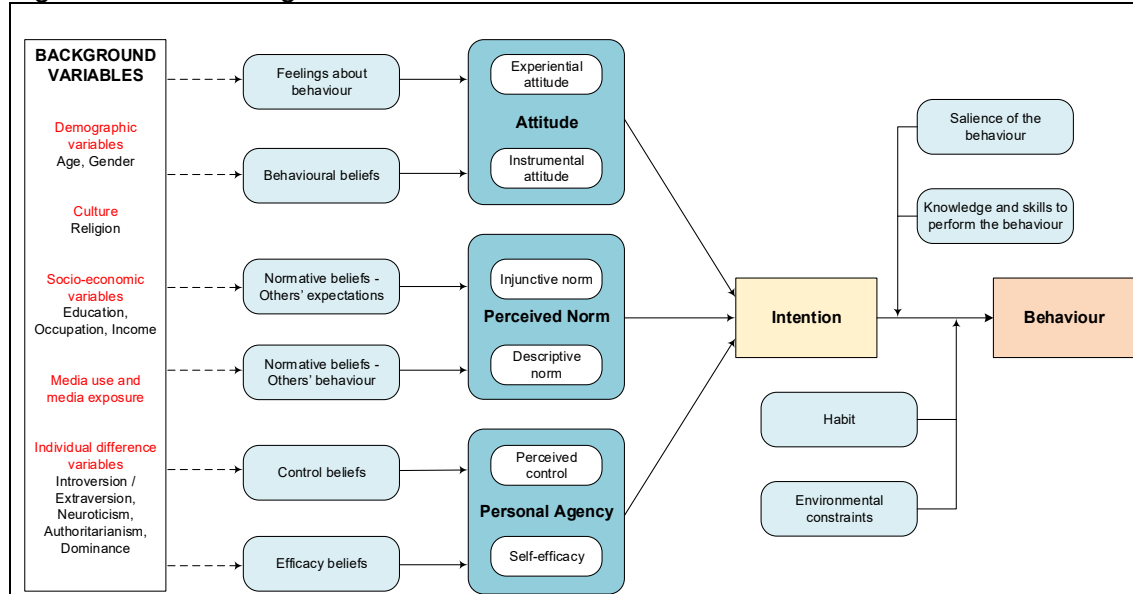
Source: Adapted from Fishbein & Ajzen (2010:37) & Glanz *et al*. (2008: 78).

In this context, Fishbein (2007) argues that individuals with a strong negative emotional response to the behaviour are unlikely to perform it, whereas those with a strong positive emotional reaction are more likely to engage in it. According to Fishbein (2007) conceptualisation of experiential attitude is different from mood or arousal in that the latter may affect intention indirectly by influencing perceptions of behavioural outcome likelihood or evaluation of outcomes. As seen in Figure 3.7, instrumental attitudes are cognitively based and are a function of beliefs about outcomes of performing the behaviour, as described earlier in the TRA and TPB. The stronger one's beliefs that performing the behaviour will lead to positive outcomes and prevent negative outcomes, the more favourable one's attitude will be toward performing the behaviour in question.

According to Montaño and Kasprzyk (2008, in Glanz, Rimer & Viswanath, 2008: 78), *perceived norm* reflects the social pressure one feels to perform or not to perform a particular behaviour. Fishbein (2007) indicates that subjective norm, as defined in TRA/TPB as an *injunctive norm* (normative beliefs about what others think one should do and motivation to comply), may not fully capture normative influence. In addition, perceptions about what others in one's social or personal networks are doing (*descriptive norm*) may also be an important part of normative influence. This construct captures the strong social identity in certain cultures which, according to some

theorists (*cf.* Bagozzi & Lee, 2002; Triandis, 1980; Triandis *et al*., 1988), is an indicator of normative influence. Both injunctive and descriptive norm components are included in the IMBP depicted in Figure 3.7. Finally, *personal agency,* described by Bandura (2006) as bringing one's influence to bear on one's own functioning and environmental events, was proposed in the IOM report, *Speaking of Health,* as a major factor influencing behavioral intention (IOM, 2002). In the IMBP, personal agency consists of two constructs, namely self-efficacy and perceived control. Perceived control, as described previously, is one's perceived amount of control over behavioural performance, determined by one's perception of the degree to which various environmental factors make it easy versus difficult to carry out the behaviour. In contrast, self-efficacy is one's degree of confidence in the ability to perform the behaviour in the face of various obstacles or challenges.

The relative importance of the three categories of theoretical constructs (attitude, perceived norm, personal agency) in determining behavioural intention may vary for different behaviours and for different populations (Glanz *et al*., 2008: 78). For example, intention to perform one behaviour may be primarily determined by attitude toward the behaviour, while another behavioural intention may be determined largely by normative influence. Similarly, intention to perform a particular behaviour may be primarily under attitudinal influence in one population, while more influenced by normative influence or personal agency in another population. Therefore, to design effective interventions to influence behavioral intentions, Glanz *et al*. (2008: 78) postulate that it is important first to determine the degree to which that intention is influenced by attitude (experiential and instrumental), perceived norm (injunctive and descriptive), and personal agency (self-efficacy and perceived control). Once this is understood for a particular behaviour and population, an understanding of the determinants of those constructs is essential (Glanz *et al*., 2008: 78). Instrumental and experiential attitudes, injunctive and descriptive norms, self-efficacy, and perceived control are all functions of underlying beliefs.

Jaccard, Dodge and Dittus (2002) state that the following factors determine whether behavioural intentions can result in behavioural performance, i.e. knowledge and skills to perform the behaviour, the presence of environmental constraints impacting on the behaviour, salience of the behaviour (Becker, 1974), and habit (Triandis, 1980). In this

context, Jaccard *et al*., (2002) argue that (i) even if a person has a strong behavioural intention, he/she needs knowledge and skill to carry out the behaviour; (ii) there should be no or few environmental constraints that make behavioural performance difficult or impossible; (iii) behaviour should be salient to the person; and (iv) experience performing the behaviour may make it habitual, so that intention becomes less important in determining behavioural performance for that individual. As noted in the descriptions of TRA and TPB, other demographic, personality, attitudinal, and individual difference variables may be associated with behaviours, but their influence is indirect, through the theoretical constructs. They are considered distal variables. Thus, certain demographic groups may be more likely than others to engage in the behaviour, because there are demographic differences on the proximal variables. For example, individuals in certain demographic groups may be more likely than other demographic groups to hold beliefs about positive outcomes of the behaviour, and thus hold more positive attitudes and stronger intention to carry out the behaviour. Therefore, these variables are shown in Figure 3.7 as external variables, because they are not considered to have a direct effect on intention or behaviour. It is important to investigate and understand how belief patterns may differ among various groups, based on these external variables, as it may be useful to segment the population on such distal variables and to design different interventions for different segments if there are clear differences in belief patterns.

3.3.6 Rationale for using the IMBP as theoretical framework for study

The preceding sub-sections of this chapter have reiterated the fact that behavioural theory can help researchers and policymakers understand why people behave the way they do. It has also been shown that *intention* (to behave), often linked with one's personal motivation and attitude, is a key variable policymakers need to focus on if they want to shape positive attitudes towards a particular product or issue. The Communication for Governance and Accountability Program (CommGAP) categorises the factors that influence behaviour into the following broad levels: personal; social; local environment; and wider environment (CommGAP, 2010: 15). The COI (2009) also stresses the need to identify and investigate factors affecting behavioural change at three levels, namely the personal and social levels as well as the external (environmental) level. In order to effect behavioural change, the CommGAP (2010:

18) report states that policymakers will do well to pay attention to the following eleven key elements of behaviour change: (i) threat; (ii) fear; (iii) response efficacy; (iv) self-efficacy; (v) barriers; (vi) benefits; (vii) subjective norms; (viii) attitudes; (ix) intentions; (x) cues to action; and (xi) reactance. Table 3.3 provides a select list of the variables common to many behaviour change models as well as ways to maximise on these variables when attempting to evoke a behaviour change.

Table 3.3:   Key elements of behaviour change

Key Element	Definition	Strategies for Behaviour Change
Threat	A danger or a harmful event of which people may or may not be aware.	Raise awareness that the threat exists, focusing on severity and susceptibility.
Fear	Emotional arousal caused by perceiving a significant and personally relevant threat.	Fear can powerfully influence behaviour and, if it is channelled in the appropriate way, can motivate people to seek information, but it can also cause people to deny they are at-risk.
Response Efficacy	Perception that a recommended response will prevent the threat from happening.	Provide evidence of examples that the recommended response will avert the threat.
Self-Efficacy	An individual's perception of or confidence in their ability to perform a recommended response.	Raise individuals' confidence that they can perform response and help ensure they can avert the threat.
Barriers	Something that would prevent an individuals from carrying out a recommended response.	Be aware of physical or cultural barriers that might exist, attempt to remove barriers.
Benefits	Positive consequences of performing recommended response.	Communicate the benefits of performing the recommended response.
Subjective Norms	What an individual thinks other people think they should do.	Understand with whom individuals are likely to comply.
Attitudes	An individual's evaluation or beliefs about a recommended response.	Measure existing attitudes before attempting to change them.
Intentions	An individual's plans to carry out the recommended response.	Determine if intentions are genuine or proxies for actual behaviour.
Cues to Action	External or internal factors that help individuals make decisions about a response.	Provide communication that might trigger individuals to make decisions.
Reactance	When an individual reacts against a recommended response.	Ensure individuals do not feel they have been manipulated or are unable to avert the threat.

Source: CommGAP (2010: 18).

In light of the fact that Fishbein's (2000, 2008) Integrative Model of Behavioural Prediction (IMBP) analyses most of the key elements highlighted in the CommGAP (2010) report, it was decided to adopt the said model as the theoretical framework of this study. Being able to understand how an individual's evaluation of cognitive and affective measures, as well as environmental factors influence his/her decision to accept or reject Islamic finance, has significant implications for future sectoral development policies. Additionally, the IMBP has been used successfully to understand behavioural intention and behaviour for condom use and other HIV/STD-prevention behaviours (Kasprzyk, Montaño, & Fishbein, 1998; Kenski *et al*., 2001; von Haeften, Fishbein, Kasprzyk, & Montaño, 2001; Kasprzyk & Montaño, 2007). The model also has served as the theoretical framework for two large multi-site intervention studies, the AIDS Community Demonstration Projects (CDC, 1999) and Project

Respect (Kamb *et al.*, 1998; Rhodes *et al.*, 2007). The model was used to identify issues that had to be targeted by these interventions, while the two interventions themselves were delivered in very different ways. This differentiation is important in designing interventions. Therefore, the IMBP provides a theoretical basis from which to understand behaviour and identify specific beliefs and issues policymakers need to target. Finally, the CommGAP report (2010: 18) goes on to state that an individual's sense of agency can only be improved if policymakers provide clear instructions that make a particular behaviour seem more achievable. This can be done by using testimonials to show how other people have made the change or by helping to teach relevant skills. However, the CommGAP report (2010: 18) cautions that, when embarking on a behavioural change programme, it is essential that communications are seen as trusted, credible and that the behaviour is depicted as achievable.

3.4   CUSTOMER BEHAVIOUR STUDIES IN ISLAMIC FINANCE

Research studies on the behavioural aspects of customers is an integral element in marketing research, especially in service-oriented industries such as banking and finance (Mohd-Karim, 2010: 90). A substantial literature on individual consumers' attitudes toward conventional financial products and services is already in place, especially concerning bank selection criteria and perceived levels of customer satisfaction (Gait & Worthington, 2008: 786). A major study by Kaynak and Whiteley (1999), for example, observed that "convenience" in terms of geographical location and "good customer service" from a bank were primary reasons for customers selecting a specific conventional banking institution in Australia. This finding is in line with the notion promoted by Howcroft (1991) that convenience and good customer service are key factors that lead to overall customer satisfaction in the conventional retail banking sector.

By way of contrast, Kennington *et al.* (1996) and Almossawi (2001) concluded that the bank's reputation was the most significant factor in the use of conventional banks' services, while Owusu-Frimpong (1999), Ta and Har (2000) and Kaynak and Harcar (2005) found that profitability factors, such as low service charges and high interest rates, were the major reasons why customers chose a particular bank. Babakus and Yavas' (2004) study on consumers' bank choice behaviour in a south eastern city in

the USA concluded that three attributes influence customers' retail bank patronage decisions, namely "search attributes" (for example, interest rate pricing), "experience attributes" (for example, customers service experience), and finally "credence attributes" (for example, the integrity of the bank). Using Determinant Attribute Analysis in their study on motivating factors for conventional retail bank selection in the USA, Anderson, Cox and Fulcher (1976) found that "recommendation by friends" to be the most important factor, followed by "location", "reputation", "service charges" and "friendliness of bank staff". Likewise, among other studies focusing on UK conventional bank customers, Devlin (2002) as well as Devlin and Gerrard (2004) found that recommendation from friends was a significant factor that influenced an individual's decision to select a specific bank. The findings by Anderson *et al*., (1976) are supported by Tan and Chua (1986). In their research in Singapore, Tan and Chua (1986) found that advice of friends, neighbours and family members has a stronger influence on customers' decisions, compared with other variables in selecting financial institutions. According to Haron, Ahmad and Planisek (1994: 34) this finding is consistent with the ethos of oriental culture which emphasises the need for strong social and family ties. Javalgi, Armaco and Hosseini (1989), using an Analytic Hierarchy Process to determine customers' bank selection criteria in the USA, reported that "safety of one's funds" to be the main criterion. This was followed by "paying highest interest rates on savings", "location", "reputation", "availability of loans", "ease of qualifying for current account by maintaining a minimum balance", and lastly, "Saturday banking". Riggall (1980) surveyed 250 customers who had just opened banking accounts six months before, and found that location was cited as a key factor in selecting a bank. In instances where the retail bank markets sophisticated investment and financial products, Durkin, Howcroft, McCartan-Quinn and O'Donnell (2003) as well as Howcroft, Hewer and Durkin (2003) concluded that having physical bank branches in proximity to the client base not only facilitated customer retention but also attracted new clients through face-to-face interaction.

In contrast to the voluminous work on consumers' perceptions, patronage and satisfaction with conventional bank services, relatively little work has been undertaken in the context of the Islamic banking industry. Gait & Worthington (2008: 786) is therefore of the opinion that research into customers' patronage decisions, their perceptions, as well as their perceived levels of customer service satisfaction of

Islamic banks, is deemed scarce. An extensive literature search during this study showed that the first published study in the field of Islamic banking and finance was conducted by Erol and El-Bdour in 1989. To date, fewer than one hundred items of published research exist in top academic journals of mainstream banking and finance (Mohd-Karim, 2010: 91). The limited number of studies in the field of Islamic banking can be partly explained by the fact that the industry is still considered to be at the maturing stage, since the first Islamic bank, *Mit Ghamr*, was established only in 1963 in Egypt and the first commercial Islamic bank, Dubai Islamic Bank, commenced its operation in 1975. In the case of Malaysia, the first regulated Islamic bank was established only in 1983 with the incorporation of Bank Islam Malaysia Berhad. As noted in Chapter 1 of this thesis, the development of the Islamic banking industry has, since then, gained momentum not only in the Muslim-majority countries but also in Muslim-minority countries such as Singapore, the United Kingdom, and Hong Kong (Mohd-Karim, 2010: 91). However, in addition to the problems of low customer knowledge, awareness and understanding of Islamic banking and its financing methods, Islamic banks are also confronted with the negative perceptions the public have of Islamic finance. In Singapore, the research of Gerrard and Cunningham (1997) showed that Muslims were more aware of the existence of Islamic banking than the non-Muslims. However, only 20.7 per cent of Muslim respondents knew the meaning of *riba'h* and, surprisingly, no one could explain accurately the meaning of *Murabahah.* Omer (1992) surveyed three hundred Muslims in the United Kingdom to explore consumer awareness about Islamic financing methods. The study found that there was a high level of ignorance among Muslims in the UK regarding Islamic finance principles. Some 82 per cent of respondents believed that there was a lack of Islamic financial products. One notable finding was that 70 per cent of the sample population held current accounts, but very few had an account in an Islamic financial institution. Although UK Muslims were largely unaware of Islamic finance, religious motivation was the most significant factor for preferring Islamic banking services. Dar (2004) studied the understanding of UK Muslims regarding Islamic financial services and found that only 25 per cent of Muslims showed a preference for Islamic banking products, while the vast majority were comfortable using conventional banking services. Dar (2004: 14) claimed that only 5 per cent of the Muslim population were classified as "demanders of Islamic financial services," i.e. customers who avoided engaging in any finance activity that was not Islamic.

In terms of the negative perceptions the public have of Islamic finance, El-Gamal (2007: 10) criticises Islamic banks for not establishing Islamic brand clarity. Haron (1998) raised a similar point in his research that some Islamic banks used Arabic names for credibility and reliability while some banks used only English translation instead of Arabic terms, which confused consumers (Zineldin, 1990; Al-Omar & Abdel Haq, 1996; Saeed, 1996; Tahir, 2003; Haron 1998). For example, *Ijarah* was often used instead of "lease" and *Murabahah* as "sale on deferred payment", while some labelled it *Bai' Thaman ajil* (Croonenberg & Von Pock, 2006: 21). A review of the subject literature also revealed that most Islamic banks' marketing messages did not inform their potential customers clearly about the factors that make them religiously and ethically correct (Wahib, 2007). Simply stating that "a product is *Shari'ah*-compliant" was found to be insufficient. The literature also stressed that Islamic banks needed to provide correct, sufficient and clear information about the governing principles of Islamic deposits and investment (Kahf, 2004; Rice & AlMossawi, 2003; Wilson, 2005; Ahmed, Hamoud & Kahf 1998). The literature further indicated that the websites of Islamic banks focused more on graphics and serving advertising purposes than on technical support to customers (De & Shakeel, 2004; Wilson 2005). Wilson (2005) also stressed the fact that Islamic bank websites should give more explanation about how *riba'h* can be equated with interest and usury, and should elaborate on the principles used by the banks for financing instruments. Among the greatest challenges for Islamic banks were the lack of qualified staff, human resource policies, planning and training to speed up *Shari'ah* bank business growth (Tahir, 2003; Metawa & AlMossawi, 1998; Jabnoun & Khalifa, 2005). Due to the shortage of qualified and experienced staff, Islamic financial institutions hired staff from non-Islamic institutions (Khan & Bhatti, 2006). However, with limited understanding about how to conduct transactions from an Islamic perspective and about the technicalities of *Shari'ah* rulings, customer service staff faced difficulties in advising customers about the characteristics of Islamic finance products (Kahf, 2002; Wilson, 2002; Tahir *et al*., 2004). Table 3.4 provides the results of major empirical studies using different methodologies and approaches to analyse banking customers' attitudes towards Islamic banks.

Table 3.4:   Summary of studies focusing on attitudes towards Islamic finance

Author(s)	Methodology	Sample	Variables	Technique(s)	Main findings
Erol & El-Bdour (1989)	Self-administered questionnaire	434 Jordanian Islamic and conventional bank customers	Demographic factors, bank services and selected patronage factors	Univariate and multivariate statistical techniques and factor analysis	Religion is not the primary motivation for customers dealing with Islamic banks. More important factors are a fast and efficient service, the bank's reputation and image, and confidentiality. Relatives and neighbours play a significant role on the awareness of respondents with knowledge of Islamic banking.
Erol et al. (1990)	Self-administered questionnaire	434 Jordanian Islamic and conventional bank customers	Demographic factors, bank services and selected patronage factors	Multivariate techniques and factor analysis	Important factors for those selecting Islamic banks are a fast and efficient service, the bank's reputation and image, and confidentiality. Significant difference between patrons of conventional banks' and those of Islamic banks in their pricing policies. No impact of religion on bank selection criteria.
Omer (1992)	Self-administered questionnaire	300 Muslims residing in the UK	Selected patronage factors	Descriptive analysis	High level of ignorance among UK Muslims about Islamic finance principles. Religious reasons are the principle motivation for Muslims in the UK dealing with Islamic financial institutions.
Haron et al. (1994)	Self-administered questionnaire	301 Muslims and non-Muslims in Malaysia	Demographic factors, bank services, selected patronage factors and knowledge of Islamic finance	Univariate and multivariate statistical techniques and factor analysis	Muslims and non-Muslims have similar perceptions in selecting bank services. Religious motivation is not the primary motivation for Muslims dealing with Islamic banks. Both groups value the provision of fast service and the quality of services highly in their patronage factors. Most respondents have some awareness of Islamic banking but are unaware of specific methods and the differences between conventional and Islamic banks.
Hegazy (1995)	Self-administered questionnaire	400 Egyptian customers of the Faisal Islamic Bank and the Bank of Commerce and Development	Demographic elements (including gender, age, occupation, education, income level, religion and marital status). Selection criteria (including efficiency, speed of service, ease of access, friendliness of personnel, availability of parking, etc.)	Parametric tests and factor analysis	Most of Islamic bank customers were Muslims choosing to comply with Islamic law. Islamic bank customers also ranked speed of delivering banking services and efficiency at the top of their selection criteria. Conventional bank customers included a mix of Christian and Muslims who ranked the rates of offered return highly in their bank selection criteria.
Metwally (1996)	Telephone interviews	385 respondents each in Kuwait, Saudi Arabia and Egypt	Selected patronage factors, including religion, reputation, staff, statement, hours, profit, costs, easiness, speed, branches, and community	Factor and correlation analysis	The most important factors in determining attitudes of Muslims towards Islamic banks are religion, convenience and traditional services. Most Muslims within a dual banking system choose their banks for religious reasons. Islamic banks do not differ from conventional banks in the returns and costs offered to customers. Staff competence and speed of services of Islamic banks same as conventional banks.
Edris (1997)	Self-administered questionnaire	304 business customers of commercial, specialized and Islamic banks in Kuwait	Dealing behaviour questions, bank services and selected patronage factors by business firms	Descriptive analysis and multiple discriminant analysis	Majority of business firms deal with commercial banks more than specialized or Islamic banks. Islamic banking practices ranked highly among patronage factors. Most business firms in Kuwait are multiple-bank users.

(continued)

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Author(s)	Methodology	Sample	Variables	Technique(s)	Main findings
Gerrard & Cunningham (1997)	Self-administered questionnaire	190 respondents in Singapore	Selected patronage factors by Muslims and non-Muslims, basic terms Islamic bank knowledge	Univariate and multivariate statistical techniques and factor analysis	Muslims differ from non-Muslims in their attitudes towards Islamic banks concerning religious and profitability motivations, new branches and usefulness of interest-free loans. Fast and efficient services and confidentiality are primary factors in selecting bank services. Muslims more aware of the culture of Islamic banking than non-Muslims.
Metawa & Almossawi (1998)	Self-administered questionnaire	300 Islamic bank customers in Bahrain	Demographic factors, bank services, selected patronage factors of customers and knowledge questions	Profile analysis and non-parametric statistical tests	Most Islamic banks' customers in Bahrain satisfied with Islamic banks' services, especially investment accounts. Customers dissatisfied with high costs of services. The most important factors for the use of Islamic bank services is religion then profitability. Most Islamic banking customers were aware of fundamental Islamic terms, excepting more complex financing schemes.
Jalaluddin & Metwally (1999)	Self-administered questionnaire	385 small businesses in Sydney, Australia	Independent variables including risk sharing, cost of borrowing and profitability linkage, cost variability of finance, motivation for business expansion and management intervention	Logit and Probit analysis	Religion is not the only factor that motivates small businesses in Australia to use profit/loss sharing methods of finance. The probability of borrowing funds on a profit/loss sharing basis increases when business risk or interest rates are high. Expected rate of return and degree of intervention in management are considered more than financing in a profit/loss sharing system.
Jalaluddin (1999)	In-person interview	80 financial institutions in Sydney, Australia	Favoured lending factors and independent variables	Factor and multiple discriminant analysis	41.2 per cent of financial institutions indicated their readiness to lend on a profit/loss sharing basis. Business support is the main motivator for financial institutions to apply profit/loss sharing methods of finance. Respondents suggested interest payments sometimes create difficulties for business. Management complication, unfamiliarity and risk sharing with borrowers are the main reasons for financial institutions being not prepared to lend on a PLS basis. The growth in the demand for funds is the most significant factor in discriminating between financial firms who were prepared to lend on the basis of profit/loss sharing.
Jalaluddin (1999)	Self-administered questionnaire	385 small business in Sydney, Australia	Favouring factors, rejecting factors and independent variables	Factor and multiple discriminant analysis	59.5 per cent of small business firms interested in using profit/loss sharing methods of finance. Business support is the main motivation in applying profit/loss sharing methods of finance. Terms and some conditions of profit/loss financing are major reasons for the rejection of PLS methods of finance. Risk sharing between borrowers and lenders is the most significant factor in discriminating between businesses who agree with PLS financing.
Naser *et al*. (1999)	Self-administered questionnaire	206 Jordanian Islamic banks customers	Demographic factors, Islamic banking services, reasons for dealing with an Islamic bank, reasons for banking with conventional and Islamic banks and degree of satisfaction with the services of the Islamic bank	Descriptive analysis	The most important factors determining attitudes towards Islamic banks were bank reputation then religion. Majority of customers satisfied with Islamic banks' products and services and most had a high level of awareness of at least some Islamic methods of finance. Limited number of respondents used Islamic financing methods elsewhere.
Al-Sultan (1999)	Self-administered questionnaire	385 respondents in Kuwait	Socioeconomic demographic factors, Islamic bank services and reasons for preference	Factor analysis	Adherence to Islamic religion is primary motivation for dealing with Islamic banks, though 52 per cent of respondents prefer to deal with conventional banks because of better services. No difference between Islamic and conventional banks in cost and return to individual customers. *(continued)*

Author(s)	Methodology	Sample	Variables	Technique(s)	Main findings
Hamid & Nordin (2001)	Self-administered questionnaire	967 bank customers in Kuala Lumpur	Demographic factors and knowledge questions	Descriptive analysis	Majority of respondents know about the existence of Islamic banks in Malaysia. Approximately 50 per cent of respondents deal with Islamic banks but more than 60 per cent of respondents cannot differentiate between Islamic and conventional banks' products.
Ahmad & Haron (2002)	Self-administered questionnaire	45 financial directors, financial managers and general managers of finance in Malaysia	Demographic factors, Islamic and conventional banking services, knowledge questions and selected patronage factors by respondent and role	Descriptive analysis	Most respondents indicated that economic factors and religion were important factors for selecting bank services. But even though most respondents were non-Muslim, most were aware about Islamic banks as an alternative to conventional banks. Most respondents had a low level of knowledge Islamic banking products, especially financing. 75 per cent of respondents agreed that Islamic banks in Malaysia need to promote their products and services better.
Metwally (2002)	Telephone interviews	385 bank customers in Qatar	Socioeconomic and demographic factors	Multiple discriminant analysis	Females, older people and public servants prefer to deal with Islamic banks. Banked customers with relatively low income and moderate education also prefer Islamic banks. Conventional banks favoured by mature, well-educated male professionals with relatively high incomes. Conventional banks also favoured by young well-educated males working as professionals or public servants.
Bley & Kuehn (2004)	Self-administered questionnaire	667 university business graduates and undergraduates	Perceptions of conventional and Islamic banking products and services, knowledge questions and demographic factors	Principal components analysis, descriptive analysis and regression techniques	Muslim students prefer Islamic banks' services. High-achieving students have a better level of knowledge of Islamic finance terms and concepts. High-achieving non-Arabic students had the highest level of conventional finance knowledge. Generally, student knowledge of both Islamic and conventional finance was relatively low.
Karbhari et al. (2004)	Focused interviews	Six executives across four Islamic financial institutions in London, UK	Questions concerning the main problems and challenges confronting Islamic banking	Qualitative analysis	All respondents convinced about involving Islamic banks' products and services in conventional banks to promote establishing of Islamic banking and to improve customers' understanding about these new services. Most respondents replied that UK Muslims were generally unaware of Islamic banking products and services. Most respondents suggested that the UK government did not support the establishment of Islamic banks.
Zainuddin et al. (2004)	Structured questionnaire	123 customers in Penang, Malaysia	Socioeconomic and demographic factors, Islamic banking product information and perceptions of Islamic banking	Descriptive analysis	Most Islamic bank users were married, more than 30 years old with stable incomes. Most non-users were single, aged less than 30 years earning lo income. Spouse, friends and relatives as well as religion, impact on attitudes towards Islamic bank products.
Okumus (2005)	Self-administered questionnaire	161 Islamic bank customers in Turkey	Demographic factors, bank services and selected patronage factors of Islamic bank customers	Descriptive analysis	Most respondents agreed that religion was the primary reason for the use of Islamic bank products. A secondary motivation was interest-free principle. Most customers aware of basic Islamic products and services, but not more advanced Islamic financing techniques. More than 90 per cent of respondents satisfied with the services and products offered by Islamic banks.

Source: Gait and Worthington (2008: 788 - 799).

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Based on a review of the literature, research on customers' behaviour in Islamic banking and finance can be categorised into the following main sub-categories, namely (i) patronage studies; (ii) awareness studies; and (iii) product-based perception studies; and (iv) customer satisfaction studies. The reviews of studies related to these categories are presented in the subsequent sub-sections of this chapter.

3.4.1 Patronage studies in Islamic banking and finance

The formation of the Islamic banking and finance sector is principally based on the belief among Muslims to avoid conventional banks for religious reasons. The variables deemed important under religious constructs include compliance with *Shari'ah* rules, the offer of *Shari'ah* compliant services, the offer of interest-free loans, etc. In this context, it is therefore theoretically expected that the motivation for selecting Islamic banks should primarily be based on religious reasons, especially for Muslim customers. The results in Table 3.5 reveal that respondents in a number of empirical studies (*cf.* Omer, 1993; Kader, 1993, 1995; Metwally, 1996; Metawa & Almossawi, 1998; Naser, Jamal & Al-Khatib, 1999; Al-Sultan, 1999; Khoirunnissa, 2003; Bley & Kuehn, 2004; Yusuf & Kusumastutie, 2006; Billing, 2008; Haque *et al*., 2009; Rashid *et al*., 2009; Khattak & Rehmen, 2010; Abduh & Omar, 2010; Haque, 2010; Echchabi & Aziz, 2012) believed that it was their foremost responsibility to support a banking sector that is geared to provide financial services in line with their religious beliefs. In particular, a study undertaken by Metawa and Almossawi (1998) into the factors for choosing Islamic banks in Bahrain found that *Shari'ah*-sensitive Muslims preferred to utilise banking services and transactions that are usury-free, irrespective of other contributing factors. Similarly, a survey undertaken by Billing (2008) in Saudi Arabia and the UAE, found that 76 per cent of Saudis and 71 per cent of Emiratis opted to use an Islamic bank even if they had to pay more to do so. In Malaysia, Kader (1993) observed two main types of Islamic bank depositors among local Muslims, namely (i) those who strictly followed the religion and wanted to use Islamic banking at any cost; and (ii) moderate Muslims who gave more priority to service quality and the time value of their savings. Al-Sultan's (1999) survey confirmed that religiosity was the primary motivating factor for Kuwaitis dealing with Islamic banks.

Table 3.5:   Literature review of patronage studies in Islamic banking and finance

Literature		A	B	C	D	E	F	G	H	I	J	Method
		Criteria in Banking Selection										

Literature		A	B	C	D	E	F	G	H	I	J	Method
Erol & El Bdour	(1989)	-	+	+	+	+	+	+	+	+	n/a	Questionnaire - Jordan
Erol & El Bdour	(1990)	-	+	+	+	+	+	+	+	+	n/a	Questionnaire - Jordan
Omer	(1993)	+	+	n/a	n/a	n/a	n/a	n/a	+	n/a	n/a	Questionnaire - UK
Kader	(1993)	+	-	+	+	n/a	+	n/a	+	+	n/a	Questionnaire - Malaysia
Haron, Ahmed *et al*.	(1994)	-	+	+	+	+	+	+	+	+	n/a	Questionnaire - Malaysia
Hegazy	(1995)	±	-	+	+	+	+	n/a	+	+	+	Questionnaire - Egypt
Kader	(1995)	+	-	+	+	n/a	+	n/a	+	+	n/a	Questionnaire - Malaysia
Metwally	(1996)	+	+	+	n/a	+	+	n/a	n/a	n/a	n/a	Telephone survey - Kuwait, Saudi Arabia, Egypt
Edris & Almahmeed	(1997)	-	±	+	+	+	+	n/a	n/a	-	n/a	Questionnaire - Kuwait
Gerrard & Cunningham	(1997)	±	+	+	+	+	±	+	+	+	n/a	Questionnaire - Singapore
Metawa & Almossawi	(1998)	+	+	n/a	n/a	n/a	+	n/a	+	n/a	n/a	Questionnaire - Bahrain
Jalaluddin & Metwally	(1999)	-	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Questionnaire - Australia
Naser, Jamal & Al-Khatib	(1999)	+	+	+	+	+	+	+	+	n/a	n/a	Questionnaire - Jordan
Al-Sultan	(1999)	+	+	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Questionnaire - Kuwait
Triyumono *et al*.	(2000)	(4)	n/a	n/a	n/a	n/a	(1)	(2)	(3)	n/a	n/a	Questionnaire - Indonesia
Almossawi	(2001)	n/a	+	+	+	+	+	+	-	-	n/a	Questionnaire - Bahrain
Ahmad & Haron	(2002)	-	+	+	+	+	+	n/a	n/a	n/a	n/a	Questionnaire - Malaysia
Abbas, Hamid *et al*.	(2003)	±	+	+	n/a	+	+	+	+	n/a	n/a	Not available
Khoirunnissa	(2003)	+	+	+	+	n/a	+	n/a	+	n/a	n/a	Questionnaire - Indonesia
Bley & Kuehn	(2004)	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Questionnaire - UAE
Karbhari *et al*.	(2004)	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Focused interviews - UK
Zainuddin, Jahys & Ramayah	(2004)	+	n/a	n/a	n/a	n/a	n/a	n/a	+	n/a	n/a	Questionnaire - Malaysia
Dar	(2004)	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Questionnaire - UK
Okumus	(2005)	+	-	+	n/a	+	+	+	-	-	n/a	Questionnaire - Turkey
Yusuf & Kusumastutie	(2006)	+	+	+	+	n/a	+	+	n/a	n/a	n/a	Questionnaire - Indonesia
Rammal & Zurbruegg	(2006)	-	+	n/a	+	n/a	n/a	n/a	n/a	n/a	n/a	Questionnaire - Australia
Ali *et al*.	(2006)	(4)	n/a	(1)	n/a	(2)	(5)	(3)	n/a	n/a	n/a	Questionnaire - Malaysia
Hamdan	(2007)	±	+	+	+	+	+	+	-	-	n/a	Questionnaire - Singapore
Dusuki & Abdullah	(2007)	n/a	-	+	+	+	+	n/a	n/a	n/a	+	Questionnaire - Malaysia
Dusuki	(2008)	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	+	Questionnaire - Malaysia
Dali & Hamid	(2008)	n/a	-	-	n/a	-	+	n/a	n/a	+	n/a	Questionnaire - Malaysia
Haque *et al*.	(2009)	+	n/a	+	n/a	n/a	+	n/a	n/a	n/a	n/a	Questionnaire - Malaysia
Rashid *et al*.	(2009)	+	-	+	+	+	+	n/a	n/a	n/a	n/a	Questionnaire - Bangladesh
Rashid & Hassan	(2009)	-	-	+	+	+	-	n/a	n/a	n/a	n/a	Questionnaire - Bangladesh
Gait & Worthington	(2009)	(1)	(3)	(4)	n/a	n/a	n/a	n/a	n/a	n/a	(2)	Questionnaire - Libya
Gait & Worthington	(2009)	(1)	(2)	(3)	n/a	(4)	n/a	n/a	n/a	n/a	n/a	Questionnaire - Libya
Khattak & Rehmen	(2010)	+	n/a	+	n/a	n/a	+	+	n/a	n/a	n/a	Questionnaire - Pakistan
Abduh & Omar	(2010)	+	-	-	+	n/a	-	n/a	n/a	+	n/a	Questionnaire - Indonesia
Haque	(2010)	+	+	+	n/a	+	+	+	n/a	n/a	n/a	Questionnaire - Malaysia

Notes:
+ indicates a positive and important result. ± indicates an equivocal result. – indicates negative or no significant result and n/a indicates variable was not investigated / examined in the study. ( ) indicates the ranking of the variable   A: Religious motives   B: Cost/Benefit   C: Service delivery   D: Size and reputation   E: Staff factors   F: Convenience   G: Confidentiality   H: Friends' and relatives influence   I: Mass media advertising   J: Social responsibility

Source: Adapted from Mohd-Karim (2010: 92) and Dusuki (2005; 2007).

However, some studies undertaken among predominantly Muslim communities, suggest that 'religious motivation' is neither the only reason, nor the primary reason, for choosing Islamic banking. In fact, in some instances, Islamic beliefs (i.e. religiosity or piety) is not even part of Islamic bank customers' selection criteria (*cf*. Ahmad & Haron, 2002; Erol & El-Bdour, 1989; Haron *et al*., 1994; Rashid & Hassan, 2009). In Jordan, Erol and El-Bdour (1989, 1990) used self-administered questionnaires to ascertain the attitudes, behaviour and patronage factors of both Islamic and conventional bank customers. Interestingly, the studies found that Islamic bank customers in Jordan were generally aware of Islamic banks and their methods, but religious motivation did not appear to be very important in bank selection. However, the main finding was that factors such as fast and efficient service, the bank's reputation and image, and confidentiality were the primary bank criteria for the choice of bank, whether Islamic or conventional.

Studies by Rashid and Hassan (2009), Kabir and Rashid (2009), Okumus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2001), Naser, Jamal and Al-Khatib (1999) and Hegazy (1995) have found demographic and socioeconomic variables to be key factors that influence the patronage decisions of Islamic bank customers. In general, the results of these studies, conducted mostly in the GCC and MENA regions, suggest that the elderly and public officials prefer to deal with Islamic banks as opposed to conventional banks, as did those with relatively low incomes (Metwally, 2001; Zainuddin *et al*., 2004) and a moderate level of education (Metwally, 2001). Metwally's (2001) study undertaken in Qatar also found that females, older consumers and public servants preferred to deal with Islamic banks over conventional banks. In contrast, foreign conventional banks were preferred over local conventional banks by young, well-educated professionals and highly-paid public servants (Metwally, 2001).

In a survey undertaken into the perceptions of users and non-users of Islamic banking services in Malaysia, Zainuddin *et al*., (2004) found that most Islamic bank users were aged thirty or over, with a relatively stable family income. One important finding in this study was that spouses, friends and relatives, as well as religious motivation, affected the decision-making processes of Islamic banks' users. A study by Hegazy (1995) compared the demographic profiles of four hundred customers of one Islamic bank (Faisal Islamic Bank) and one conventional bank (Bank of Commerce and

Development) located in Egypt. It was found that customers chose Islamic banking because of religious motivation and recommendations made by relative and friends, convenience of location, friendliness of staff and the bank's vision of serving the community (Hegazy, 1995).

By making use of regression analysis after controlling the four demographic factors (i.e. age, gender, occupation and income), Nayyab *et al.* (2011) concluded that religion is not the only reason why customers in Pakistan choose Islamic banks. Customers attached greater importance to factors such as convenience, cost and benefits as well as corporate efficiency (Nayyab *et al.,* 2011: 779). Marimuthu *et al.* (2010) undertook a study among 450 respondents in the Klang Valley of Malaysia to investigate the external and internal factors that determine acceptance of Islamic banking. The results indicate that cost-benefits, service delivery, convenience, as well as the influence of friends and relatives have a significant impact on the respondents' acceptance of Islamic banking. The study also found that ethnic background and religion do not play a significant role in respondents' selection of Islamic banking (Marimuthu *et al.*, 2010: 59). In Malaysia, Haron and Ahmad (2000) observed that Islamic savings and investment accounts holders were highly influenced by the profit motive. However, they suggested that the Islamic banks should not emphasise the profit factor in their marketing. Instead, it was suggested that the bank should emphasise that the return factor, whether it is profit or loss, comes from *Allah* (s.w.t.). Initially, the name and reputation of the scholars on the *Shari'ah* boards also seemed to have been one of the influencing factors, but over time, as the Islamic banks established reputations, brand name and image became more important (Wilson, 2002). Amin *et al.,* (2011) undertook a study in Malaysia to investigate the effect that certain variables have on the respondents' intention to use Islamic personal financing. The study found three determinants to be significant in influencing the intention to use Islamic personal financing, namely attitude, social influence and pricing. Religious obligation and government support were found to be insignificant predictors (Amin *et al.*, 2011: 36).

In analysing the attitudes of customers of Pakistan's Meezan Bank (the first full-fledged Islamic bank), Hassan (2007) found that (i) Islamic banking was more popular among the young, highly educated and high-income segment. Even some people who were not fully aware of the concepts of *riba'h* and Islamic banking had accounts in

Meezan Bank. However, many account holders were not confident and were suspicious about the *Shari'ah* commitment and banking operations; (ii) Customers used Meezan Bank for short-term investment accounts and used conventional banks more for other bank services and facilities; and (iii) Meezan Bank profit rates were higher compared to the rate of interest on savings at conventional banks. In addition, the services charges were lower in Meezan Bank compared to conventional banks. Butt *et al.,* (2011) undertook a pilot study to investigate the perceived barriers of users and non-users of Islamic banking in Pakistan. In this study it was found that factors such as narrow branch network, inconvenient branch locations and the perception that Islamic banks do not completely adhere to Islamic principles acted as barriers for non-users when selecting Islamic banks. In addition, it was also found that "a religious ruling against Islamic banks" was not considered an important barrier when selecting an Islamic bank (Butt *et al.,* 2011: 272). Naser, Jamal and AlKhatib's (1998) study found that the factor most likely to make Jordanian customers choose a bank was reputation, followed by its commitment to observing *Shari'ah* principles. Abduh *et al.* (2011), investigating factors that influence depositors' withdrawal behaviour from Islamic banks in Malaysia, applied the Theory of Reasoned Action framework. Using a total of 368 respondents from the Klang Valley, they have found that normative beliefs, subjective norms, behavioural beliefs, and attitude towards behaviour are perceived to be distinct constructs influencing respondents' bank selection. In addition, the structural equation model also verified the structural relationship between subjective norms, attitude towards behaviour and behavioural intention. In Abduh *et al.*'s (2011) study, subjective norms give more influence to depositors' decision on deposit withdrawal compared to attitude towards behaviour (Abduh *et al.,* 2011: 2078).

3.4.2   Awareness studies in Islamic banking and finance

Banking customers' willingness to use any of the products offered by retail banks is influenced by the level of knowledge and understanding they have of the financial products on offer (Howcroft *et al.*, 2003: 80). In this context, Mohd-Karim (2010: 92) stresses the importance of Islamic bank stakeholders' need to investigate and analyse customers' level of awareness, understanding, and knowledge of Islamic finance. According to Mohd-Karim (2010: 92) the results of such studies enable Islamic bank policymakers to identify any shortcomings in the market and take appropriate action

to overcome the gaps identified by the research. Malaysia is one of the leading countries in Islamic finance and shows the ambition to become the world's main Islamic banking hub. In this Muslim-majority country it is expected that the parties involved in the Islamic banking industry should already have a high level of awareness, understanding and knowledge of Islamic finance products. Surprisingly, as depicted in Table 3.6, the outcome is contrary to expectation.

Table 3.6: Factors influencing consumers' patronage decisions of Islamic banks

Researchers	Country	Key factor	Main finding
Haron and Planisek (1994)	Malaysia	Knowledge & understanding	Muslims would choose an Islamic bank if they had complete understanding about its operations.
Haron (1994)	Malaysia	Religiosity and service quality	Religion and service quality factors are key determinants of Islamic bank patronage.
Hamid and Nordin (2001)	Malaysia	Knowledge & understanding	Sufficient knowledge about Islamic banks did not cause consumers to differentiate between Islamic and conventional banks.
Zainuddin (2004)	Malaysia	Socio-economic	Thirty plus customers with stable incomes preferred Islamic banks.
Dusuki and Abdullah (2007)	Malaysia	Reputation of bank	Malaysian customers chose a financial provider mainly because of a combination of factors, Islamic and financial reputation and quality of service.
Ahmed (2008)	Malaysia	Knowledge, religiosity	Level of religious factor is mostly influenced by those customers who have formal religious education. Different approach to marketing is needed for groups who without any formal Islamic education, as they cannot understand the Islamicity of the product.
Haque *et al*. (2009)	Malaysia	Knowledge & awareness	Most of the respondents were not familiar with Islamic banking services. More than 75% of respondents held accounts in conventional banks and 24.5% of respondents held accounts with an Islamic bank as well as a commercial bank.
Maran *et al*. (2010)	Malaysia	Knowledge & awareness	Respondents knew little about Islamic banking. Customers thought that Islamic bank product marketing was insufficient and did not choose Islamic banking products because they thought Islamic banking was only for Muslims.
Ahsan-ul-haq (2010)	Malaysia	Demographic	100% of respondents knew about Islamic banking and among them only 48% of respondents maintained Islamic bank accounts. Males demonstrated a more favourable attitude toward Islamic banking compared to females.

Source: Researcher's compilation.

Haron and Planisek (1994) and Hamid and Nordin (2001) focused on Malaysian customers' awareness of Islamic banking. Haron and Planisek (1994) found that, despite the fact that the level of awareness of Islamic finance is high among Muslim and non-Muslim commercial bank customers in the northern region of Malaysia, the level of knowledge of the various banking products for both groups is deemed low. Haron and Planisek (1994) indicated that 80% of Muslim and 53% of non-Muslim respondents indicated the possibility of establishing a relationship with Islamic banks if they had a complete understanding of their operations. In surveys undertaken by Hamid and Nordin (2001) and Haron (1994) it was found that the majority of Malaysians had knowledge of the existence and services offered by Islamic banks, but they did not differentiate between Islamic and conventional bank products and

services. Studies by Amin (2007), Aziz (2009), Haque *et al.,* (2009) and Amin *et al.,* (2011) measured customers' level of awareness and understanding concerning Islamic banking products and services. Amin (2007) studied the awareness level towards Islamic automobile financing products in Eastern Malaysia, while Aziz (2009) studied these parameters with regard to one of the banks in Malaysia that offers Islamic mortgages, and finally, Haque *et al.,* (2009) studied the level of awareness of Malaysians concerning Islamic banking products and services. The results from these studies revealed that there had not been an improvement in terms of respondents' understanding of the technical aspects of *Shari'ah* contracts, although, in general, the level of awareness among the respondents was deemed high. The study conducted by Hamid *et al*. (2011) into the factors that influence the awareness and adoption of Islamic home financing offered by Islamic banks in Malaysia, finds that there is no significant relationship between consumers' awareness and adoption of Islamic home financing. There is, however, a strong significant relationship between adoption of Islamic home financing and individual factors (for example, demographics) and financial institutional factors (for example, friendliness of bank personnel, favourable credit terms, marketing and promotion).

A survey by Bley and Kuehn (2004) investigated the knowledge of 700 graduate and undergraduate students of the American University of Sharjah (UAE) in terms of conventional and Islamic banking products. The results showed that Muslim male students and students with a high level of Arabic fluency perceived Islamic finance more favourably than conventional finance. The use of Arabic language terminology for Islamic finance products seemed difficult for the non-Arabic consumers to understand. However, non-Muslim students thought that the concept of Islamic finance appealed only to Muslims. This research suggested that education could assist in making people more knowledgeable about the products offered. A survey by Al Zaabi (2007) showed that UAE customers had a high level of familiarity with conventional banking services such as opening accounts, credit cards, cheque collections and car finance, whereas their level of familiarity with Islamic banking products and services such as *Musharakah*, *Mudarabah*, *Ijarah* and *Istisnah* was low. Similarly, in Singapore, the research of Gerrard and Cunningham (1997) showed that Muslims were more aware of the existence of Islamic banking than the non-Muslims. However, only 20.7 per cent of Muslim respondents knew the meaning of *ribah* and, surprisingly, no one

could explain accurately the meaning of *Murabahah.* Ahmad and Haron (2002) conducted a similar study nearly a half a decade later among corporate customers selected from Bursa Malaysia Stock Exchange lists (formally known as Kuala Lumpur Stock Exchange). The findings suggest that corporate customers have limited knowledge of Islamic banking, with more than 65 per cent who indicated that they are unfamiliar with the meaning of the concepts used in the underlying product principles.

Among the research undertaken of Islamic finance in non-Muslim-majority countries, the United Kingdom (UK) has been subject to a number of studies aimed at surveying the level of awareness, knowledge, and understanding among the participants of Islamic banking. Based on a review of the available literature, it is found that a major hindrance to the development of the Islamic banking sector in the UK is the low level of awareness among British Muslims (Dar, 2004; Haque, 2007; Karbhari *et al*., 2004; Omer, 1992; Tameme, 2009; Warsame, 2009). In addition, the level of awareness among the UK population concerning Islamic banking products and services has not progressed since the first study by Omer in 1992, as is evident from the results from the other studies conducted by Dar (2004), Karbhari *et al*. (2004), Haque (2007), Tameme (2009), and Warsame (2009). Dar (2004) studied the understanding of UK Muslims regarding Islamic financial services and found that only 25 per cent of Muslims showed a preference for Islamic banking products, while the vast majority were comfortable using conventional banking services. Dar (2004) claimed that only 5% of the Muslim population were classified as demanders of Islamic financial services, i.e. customers who avoided engaging in any finance activity that was not Islamic (Dar, 2004: 14). Dar (2004) provided the following explanations for these surprisingly low figures: (i) some Muslims were not practising Islam, and therefore did not care about the prohibition of interest; (ii) many Muslims were not aware of the Islamic alternatives available; and (iii) some 50 per cent of the respondents of Dar's survey were not sure about the Islamicity of Islamic financial products in the UK, and only 11 per cent were satisfied with the Islamicity of the Islamic finance in the UK. In this context, Dar (2004) concluded that awareness and customer education were essential for the future development of the Islamic finance industry in the UK.

Karbhari *et al.* (2004) undertook focused interviews with financial institutions in London to investigate their attitudes towards the problems, challenges and opportunities facing

Islamic banks in the United Kingdom. His research found that most of the respondents were convinced that conventional banks offering Islamic products would help to develop Islamic finance industry and increase the understanding of both Muslim and non-Muslim British customers about Islamic finance methods. In addition, most of the respondents showed concern that there was a lack of UK government support for developing the business of Islamic banks. Similar to the concluding findings of Dar (2004), Karbhari *et al.* (2004) also suggested that an education programme could be a useful way to undertake future change in the UK dual banking system. Amin *et al.* (2010), using the TRA framework, examined the factors that determine *Qard-ul-Hassan* financing acceptance among Malaysian bank customers. The study found that the constructs "attitude", "subjective norm" and "pricing" are important determinants that influence bank customers' perception of accepting *Qard-ul-Hassan* financing (Amin *et al.*, 2010: 12).

3.4.3 Product-based perception studies in Islamic banking and finance

Another area of research can be located in the studies, which investigates the perceptions and attitudes towards Islamic banking operation, is that of perceptions studies of Islamic banking products and services. These studies usually research the factors that influence the preference of the customers in using specific products or services. In this section, the researcher limited the review and discussion of literature to that related to retail banking products and services, which is in line with the scope of this thesis. Therefore, for the purpose of locating the behavioural aspects in this literature review, the researcher only focuses on studies on three main and popular Islamic retail banking products, namely Islamic mortgages, Islamic vehicle financing, and Islamic credit cards. These studies used questionnaire surveys as the main method to gather data, since it is the most suitable method to elicit customer perceptions in the case of large numbers of samples. Based on the review of such studies, several factors were located as the main forces that influence or attract customers to use the Islamic retail banking products. Nevertheless, for purposes of simplicity, consistency and clarity, the researcher grouped the findings into four main categories: (i) religiosity aspect; (ii) monetary value aspect; (iii) customer service aspect, and, finally, (iv) non-monetary value or product attractiveness aspect. The 'religiosity aspect' category basically includes the attitudes, perceptions, and

awareness of the importance of *Shari'ah* compliance matters in selecting products offered by the Islamic banks. The second category of 'monetary value aspect' covers any matters that have a positive financial impact, or benefits such as competitive product pricing. In the 'customer service aspect', the customers are attracted to the product because of the good service attached, which includes, among others factors, extensive branch networks and internet banking facilities for easy payments. Finally, the 'non-monetary value or product attractiveness aspect' includes the reputations and prestige attached to using the product offered by any particular bank. The tabulated results from Table 3.7 show that the majority of the customers of the Islamic banks stated that they use Islamic banking products mainly due to their religious beliefs.

Table 3.7:   Product-based behavioural studies in Islamic banking and finance

Researcher(s)	A	B	C	D	Product	Country
Abdullah (2005)	+	+	-	-	Vehicle	Malaysia
Abdullah & Dusuki (2006)	+	+	-	-	Vehicle	Malaysia
Dali & Hamid (2007)	+	+	+	+	Credit Card	Malaysia
Samad (2007)	±	+	-	n/a	Mortgage	Malaysia
Amin (2008)	+	+	-	+	Mortgage	Malaysia
Amin *et al.* (2009)	+	+	+	-	Mortgage	Eastern Malaysia
Taib *et al.* (2008)	+	-	-	-	Mortgage	Malaysia
Aziz (2009)	+	-	-	-	Mortgage	Malaysia
Tameme (2009)	+	-	-	-	Mortgage	United Kingdom

Notes: + indicates a positive and important result, ± indicates an equivocal result, - indicates negative or no significant result and n/a indicates variable was not investigated/examined in the study.

A	Religiosity aspect	The perceptions, attitudes, and awareness of the customers to engage in Islamic banking products for religious reasons.
B	Monetary value aspect	The perceptions, attitudes, and awareness of the customers to engage in Islamic banking products because of monetary value benefits such as attractive pricing.
C	Customer service aspect	The perceptions, attitudes, and awareness of the customers to engage in Islamic banking products because of the good aspect of customer services, which include extensive branch networks, internet banking service for easy payment, etc.
D	Non-monetary value product attractiveness	The perceptions, attitudes, and awareness of the customers to engage in Islamic banking products because of the prestige or branding of the bank's products which will improve the lifestyle of the user.

Source: Mohd-Karim (2010: 110).

The findings above provide further evidence that Islamic banks should ensure the compliance to *Shari'ah* principles. In fact, strict compliance with *Shari'ah* principles would provide protection and reassurance to uninformed users of the product, who use the product merely based on their trust that the product is *Shari'ah*-compliant, as can be seen in one of the finding in Abdullah and Dusuki's (2006) study. In their study, the customers of the Islamic banks were unable to identify the differences between Islamic hire-purchase and conventional hire-purchase. From these findings, it can be stated that the majority of the users of Islamic banking products are mere user of the

products without fully understanding of products' mechanisms, differences, risks and benefits.

3.4.4 Customer satisfaction studies in Islamic banking and finance

In terms of customer satisfaction studies, most of the research conducted was intended to measure how the customers perceived the quality of service in Islamic banks. The results of the research normally give an indication of how satisfied the customers are with the current level of services rendered or what the most important elements are that the customers perceived about the Islamic banks' service quality. Most of the related studies used the SERVQUAL model which represents the following elements; *tangibles, assurance, reliability, responsiveness*, and *empathy*. In the Islamic banking context, Othman and Owen (2001) modified the SERVQUAL model to include a *Shari'ah-compliance* element as part of the assessments; the new service quality model is termed the CARTER model. The compliance factor closely associated with the religiosity factor, and thus has considerable influence on why customers select the Islamic banks. Thus, any violation of the compliance aspect will give not only a negative perception towards the Islamic banks, but it might also tarnish the overall image of the Islamic banking industry, which leads to *Shari'ah* non-compliant risk and also reputational risks. In other words, any negative experience or dissatisfaction with the customer service may influence the customers' behaviour towards Islamic banks, which can carry negative connotations concerning the image of Islamic banking industry as a whole into the future. Therefore, the service quality aspect should not be ignored as it also may influence the overall behaviour of the customers towards Islamic banking.

Table 3.8 below summarises the results of research conducted on the measurement of service quality in Islamic banks. The variables on the table are based on the CARTER model developed by Othman and Owen (2001). However, the table is modified to incorporate other studies that measure service quality in Islamic banks into the CARTER model according to the values, principles, and elements of the findings from various studies, although the original studies did not adopt the CARTER model as the basis.

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Table 3.8: Service quality measurement studies in Islamic banking and finance

Researcher(s)	A	B	C	D	E	F	Country
Othman & Owen (2001)	+(1)	+(2)	+(5)	+(6)	+(4)	+(3)	Questionnaire - Kuwait
Jamal & Naser (2002)	n/a	+	+	-	+	+	Questionnaire - UAE
Jamal & Naser (2003)	n/a	+	+	-	+	+	Questionnaire - Pakistan
Shafie *et al.* (2004)	+(1)	+(4)	+(2)	+(6)	+(5)	+(3)	Questionnaire - Malaysia
Ismail-Razak *et al.* (2005)	+(5)	+(1)	+(3)	+(6)	+(2)	+(4)	Questionnaire - Malaysia
Vijayan (2005)	n/a	-	+	+	-	-	Questionnaire - Malaysia
Okumus (2005)	n/a	+	+	+	+	+	Questionnaire - Turkey
Al Zaabi (2007)	+(1)	+(4)	+(2)	+(1)	+(3)	-(5)	Questionnaire - UAE

Notes: + indicates a positive and important result, ± indicates an equivocal result, - indicates negative or no significant result and n/a indicates variable was not investigated/examined in the study. ( ) indicates the ranking of the variable

A	Compliance	The ability to comply with Islamic Law and operate under the principles of Islamic Banking and Economy.
B	Assurance	The knowledge and courtesy of employees and their ability to convey trust and confidence. This also includes verbal and written communication between bank staff and customers.
C	Reliability	The ability to perform the promised service, dependability, and accuracy.
D	Tangibles	The appearance of physical facilities, equipment, personnel, and communication materials.
E	Empathy	The element of caring and individual attention which the Islamic bank provides for its customers.
F	Responsiveness	The willingness to help customers and provide prompt service.

Source: Adapted from Mohd-Karim (2010: 112)

From the tabulated results in Table 3.8, it is evident that the majority of studies put significant importance on the compliance factor, or even ranked it as the top priority factor in the customer service level. This may be due to the fact that customers who use Islamic bank products and services are influenced or motivated by the religious motive as discussed in sub-section 3.2.1. In fact, compliance to the *Shari'ah* principles is the only main distinct element that differentiates the Islamic banks and from conventional banks. Based on the review of the studies based on primary data (patronage studies, customer service quality, and product-based studies), the research findings show that the religiosity aspect emerged as the primary factor that motivates or elicits the customers to opt for Islamic banking products or services. This is due to fact that the majority of the respondents were those Muslims, who believed that Islamic banking provided them with the opportunity not only to uphold their Muslim faith, but also to be part of a larger society that can participate in financial systems. Therefore, it is expected that the customers' religious conviction in opting for Islamic banking can be translated into the actual behaviour when it comes to the dealing with fundamental aspects of *Shari'ah muamalah* principles.

3.5   SUMMARY

The first part of this chapter presented the results of an extensive literature review of the following six major models of behavioural change: (i) the Social Cognitive Theory of Self-Regulation; (ii) the Health Belief Model; (iii) the Transtheoretical Model of Behavioural Change; (iv) the Theory of Reasoned Action; (v) the Theory of Planned Behaviour; and (vi) the Integrative Model of Behavioural Prediction. These attitudinal-behavioural models have received broad support in empirical studies of consumer decision making as well as in the literature on social psychology. After careful evaluation of these models in terms of their respective scope, strengths and weaknesses, as well as their ability to predict to behaviour, it was decided to adapt Fishbein's (2000) Integrative Model of Behavioural Prediction (IMBP) as the theoretical framework of this study. The IMBP has been used successfully to understand behavioural intention and behaviour for condom use and other HIV/STD-prevention behaviours (Kasprzyk, Montaño, & Fishbein, 1998; Kenski *et al*., 2001; von Haeften, Fishbein, Kasprzyk, & Montaño, 2001; Kasprzyk & Montaño, 2007) and it has also served as the theoretical framework for two large multi-site intervention studies, the AIDS Community Demonstration Projects (CDC, 1999) and Project Respect (Kamb *et al*., 1998; Rhodes *et al*., 2007). In order to effect behavioural change, a CommGAP (2010: 18) report states that policymakers will do well to pay attention to the following eleven key elements of behaviour change: (i) threat; (ii) fear; (iii) response efficacy; (iv) self-efficacy; (v) barriers; (vi) benefits; (vii) subjective norms; (viii) attitudes; (ix) intentions; (x) cues to action; and (xi) reactance. What makes the IMBP model suitable for the research questions posed for this study is that it includes most of the variables identified in the CommGAP report and considers factors affecting behavioural change at the personal, social, and environmental level.

The second part of this chapter presented the outcome of a comprehensive literature review on Islamic finance, with particular emphasis on studies that focused on the level of awareness, knowledge, perceptions, and attitudes of customers or the public at large towards Islamic banks and Islamic banking products. This exercise proved to be useful as it allowed the researcher to (i) identify the gaps that exist within the available body of knowledge; and (ii) assess how the perceptions, expectations and behaviour of Islamic banks' customers have changed over time, in response to the development

and changes that occur in the landscape of the banking system either through regulatory changes and product development. Furthermore, the findings of these studies also enabled the researcher to identify relevant research variables and suitable research methods for this research, which are further elaborated on in the following chapter of this thesis.

CHAPTER FOUR
RESEARCH METHODOLOGY AND FRAMEWORK

4.1   INTRODUCTION

The principles of validity and reliability are fundamental cornerstones of the scientific method and constitute the core of what scientists and philosophers accept as scientific proof (Shuttleworth, 2008). Saunders, Lewis and Thornhill (2012: 160) state that the validity and reliability of any scientific research project are determined by the methodology that was adopted during the execution of a study. Mohd-Karim (2010: 143) contends that adopting a suitable methodology coupled with proper planning throughout the research process is the only way to ensure that reliable results are obtained. Therefore, in order to fully appreciate and apply the knowledge that were acquired through the scientific process, it is imperative to have an understanding of scientific research methodology (Hale, 2011).

Unfortunately, not everyone seems to appreciate the importance of the methodology section of a research project. This stems from the fact that individuals either lack the background knowledge of research methods or they fail to appreciate how the research methodology section links the study's research objectives with the conclusions drawn at the end of a scientifically-executed research project. On the other hand, researchers sometime fail to clearly explain the data sourcing and data collection methods they employed. According to Cooper and Schindler (2007: 23) the omission of significant procedural details makes it difficult or nearly impossible for readers to evaluate the validity and reliability of the data, and this justifiably weaken the confidence that can be placed in the results, as well as any recommendations based on those results. Consequently, the purpose of this chapter is to describe the research methodology that was employed to address the research questions formulated in the introduction chapter of this thesis (see Section 1.4 of Chapter 1).

This chapter is divided into three distinct sections. The first section provides the reader with an overview of research methodology, design and philosophy. Section two of this chapter discusses the research methods and strategy, sampling process, research instruments, data collection as well as data analysis techniques employed in this

study. This will provide the reader with the necessary knowledge to evaluate the findings and conclusions presented in Chapters 5 and 6 respectively of this study. The chapter concludes by discussing the limitations and difficulties experienced during the completion of the thesis.

4.2   RESEARCH METHODOLOGY

The research methodology section of this thesis draws on Saunders, Lewis and Thornhill's (2008; 2012) '*research onion*' approach – a metaphor for describing the layers of the research process – to scientific research. The '*research onion*', presented in Figure 4.1, focuses on a number of issues that impact on the quality and credibility of a study's research design.

Figure 4.1: The research onion
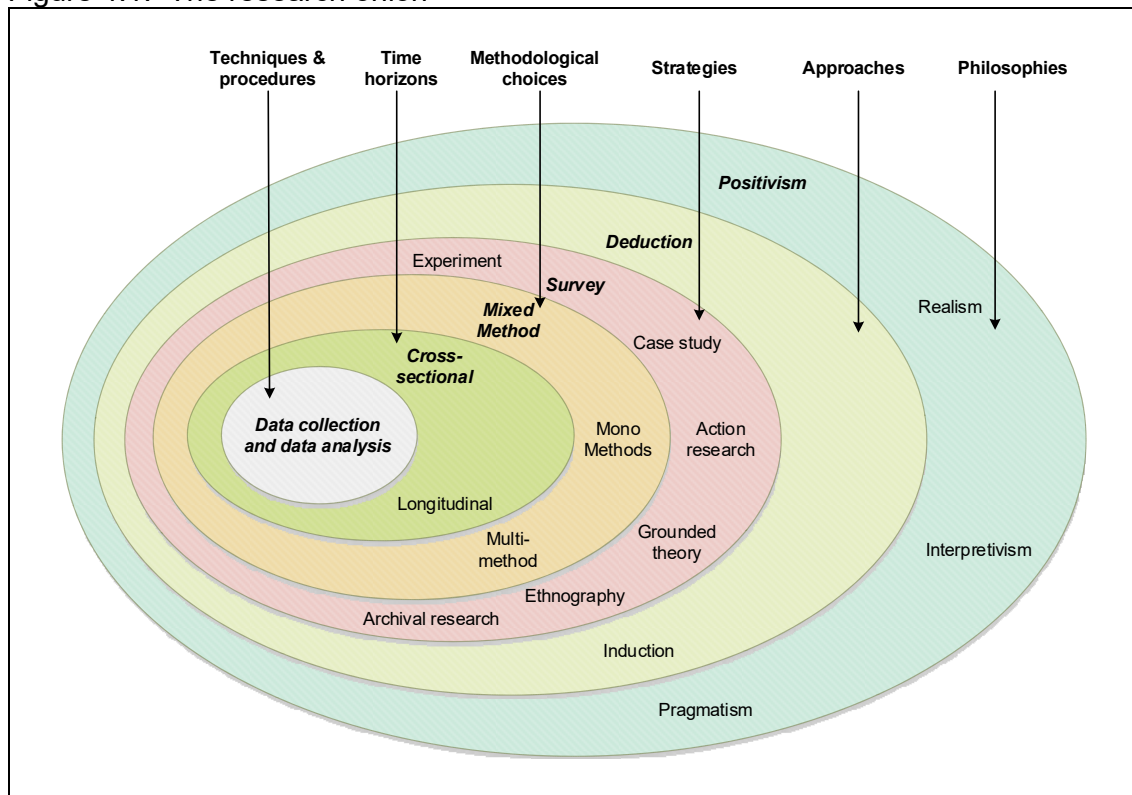
Source: Saunders, Lewis and Thornhill (2012: 160).

The two outer layers of the onion require a researcher to examine fundamental ideas about research philosophies and approaches. The two central layers reflect the need to consider research strategies and choices, while at the centre of the onion focuses on the data collection and data analysis processes (Saunders *et al.*, 2012: 160). This

'*research onion*' approach to the research process provides the reader with a roadmap to chart the way through the remainder of this chapter.

4.2.1   Research paradigm and research philosophy

Burrell and Morgan (1982) suggest that the way social science researchers view and study social phenomena is shaped by two fundamental sets of philosophical assumptions, namely ontology and epistemology. Ontology refers to our assumptions about how we see the world, e.g., does the world consist mostly of social order or constant change? (Saunders *et al.*, 2012: 130-131). Epistemology refers to our assumptions about the best way to study the world, e.g., should we use an objective or subjective approach to study social reality? (Saunders *et al.*, 2012: 132). According to Burrell and Morgan (1982), a researcher ascribes to a functionalist paradigm if he/she (i) views the world as consisting mostly of social order (ontology); (ii) seeks to study patterns of ordered events or behaviours; and (iii) believes that the best way to study such a world is by using an <u>objective</u> approach (epistemology). This objective approach is to be independent of the person conducting the observation or interpretation.

However, if the researcher believes that the best way to study social order is through the <u>subjective</u> interpretation of participants involved, such as by interviewing different participants and reconciling differences among their responses using their own subjective perspectives, then he/she ascribes to an interpretivist paradigm (Saunders *et al.*, 2012: 137). If researchers believe that the world consists of radical change and seek to understand or enact change using an objectivist approach, then they are employing a radical structuralism paradigm. Finally, if they wish to understand social change using the subjective perspectives of the participants involved, then they are following a radical humanist paradigm (Saunders *et al.*, 2012: 143). To date, the majority of social science research has emulated the natural sciences, and followed the functionalist paradigm. Functionalists believe that social order or patterns can be understood in terms of their functional components. Therefore, functionalists attempt to break down a problem into small components and then study one or more components in detail using objectivist techniques such as surveys and experimental research (Bhattacherjee, 2012: 19).

Saunders *et al.* (2012: 680) defines research philosophy as "the overarching term that relates to the development of knowledge and the nature of that knowledge in relation to research". The research philosophy contains important assumptions about the way a researcher views the world. These assumptions not only influence the research design followed by the researcher, but also impact on the research strategy as well as the data collection methods chosen by the researcher as part of that strategy. The four main strands of research philosophy include realism, pragmatism, interpretivism, and positivism. Realism stress that objects exist independently of our knowledge of their existence (Saunders & Lewis, 2012: 105). Pragmatism argues that the most important determinant of the research philosophy adopted are the research question(s), objectives and practical consequences (Saunders & Lewis, 2012: 107; Kelemen & Rumens, 2008). Interpretivism advocates the necessity to understand differences between humans in their role as social actors (Saunders & Lewis, 2012: 106).

Researchers are not obliged to adopt one philosophical stance nor adhere to one research paradigm. Niglas (2010) suggests that it would be more appropriate for a researcher undertaking a particular study to think of the philosophy adopted as a multidimensional set of continua rather than separate positions. Positivism, a research paradigm that posits that science or knowledge creation should be restricted to what can be observed and measured, combines a deductive approach with a precise measurement of quantitative data so [that] researchers can identify the causal laws to help predict human behaviour (Struwig & Stead, 2013: 5). In the context of this epistemological study that adhered to the functionalist paradigm, the researcher adopted the positivist philosophical stance as defined by Struwig and Stead (2013). By using highly structured methods (for example, questionnaires) to collect data about an observable reality (for example, the willingness or unwillingness of Muslims in Port Elizabeth to adopt Islamic finance), regularities and causal relationships between the variables were objectively sought (Bhattacherjee, 2012: 15).

4.2.2 Research approach

Saunders *et al.* (2012) as well as Bryman and Bell (2003) state that social research, which studies behavioural aspects, are conducted using either an inductive or a deductive research approach. However, Bhattacherjee (2012: 15) advises researchers to move back and forth between inductive and deductive reasoning if they are to post extensions or modifications to a given model or theory, or build better ones, which are the essence of scientific research.

Bryman and Bell (2003: 569) define induction as "an approach to the relationship between theory and research in which the former is generated out of the latter". In other words, induction involves the development of theory or general preposition as a result of analysing data already collected. The inductive process begins with an idea or expectation that may develop into a research hypothesis. This hypothesis or expectation is then tested by means of gathering primary data through various data collection methods such as interviews, observations, surveys, or a combination of these. The results of the observations are used to form a general preposition or a theory. Bhattacherjee (2012: 15) cautions that inductive conclusions are only a hypothesis, and may be disproven. Deductive conclusions, in contrast, tend to be stronger than inductive conclusions. However, a deductive conclusion based on an incorrect premise, is incorrect (Bhattacherjee, 2012: 15).

Deduction, in contrast, is the process of drawing conclusions about a phenomenon or behaviour based on theoretical or logical reasons and an initial set of premises. In other words, with deduction, a theory and hypothesis (or hypotheses) are developed and a research strategy designed to test the hypothesis. The deductive research approach involves testing a theoretical proposition by means of the following five sequential stages proposed by Saunders *et al.* (2012: 108):

(i)   Define the research questions from the general theory that exists;
(ii) Operationalise these questions (i.e. specify the way in which the questions may be answered);
(iii) Seek answers to the questions defined in stage (i);
(iv) Analyse the results of the inquiry to determine whether it supports the theory or suggests the need for its modification; and
(v)   Confirm the initial theory or modify it in light of the findings.

In the event of step (v) resulting in a modified theory, the five sequential stages are repeated to test the new theory, giving rise to a process of induction - a 'bottom-up' approach to theory development. As shown in Figure 4.2, inductive and deductive reasoning go hand in hand in theory and model building. In the present study, induction occurred when the researcher observed a fact (i.e. that Muslims in Port Elizabeth were not making use of Islamic finance retail products) and posed the question, "Why is this happening?" In answering this question, the researcher advanced one or more tentative explanations (hypotheses). Afterwards, the researcher narrowed down the tentative explanations to the most plausible explanation based on logic and reasonable premises (based on his understanding of the phenomenon under study).

Figure 4.2: A combined process of induction-deduction to construct the normative model
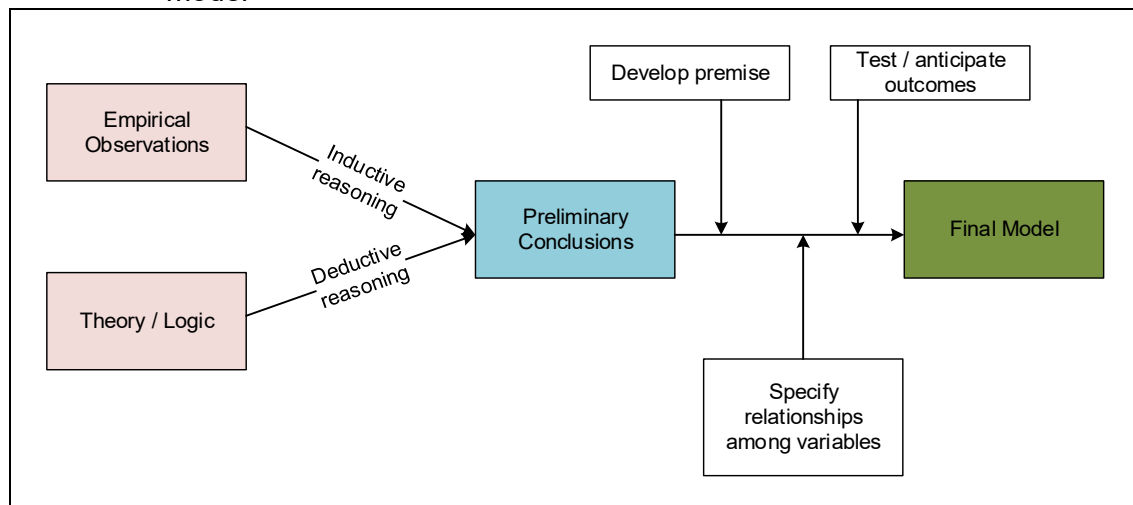
Source: Bhattacherjee (2012: 15).

A term often used in conjunction with theory is a model. According to Bhattacherjee (2012: 15), a model is a representation of all or part of a system that is constructed to study that system (e.g., how the system works or what triggers the system). While a theory attempts to explain a phenomenon, a model tries to represent a phenomenon. Therefore, models are used to make important decisions based on a given set of inputs.

The objective of this study was to develop a normative model that would represent a phenomenon and predict the outcome of the dependent variable (potential use of

Islamic finance) by identifying the most important independent variables that need to be controlled in the future. In this sense, the researcher pursued a number of attempts to establish cause and effect between the dependent and independent variables of this study until a statistically-sound normative model was developed that described, explained and predicted future events more accurately. In this context, a combination of induction and deduction was considered the most appropriate method.

4.2.3 Research strategy

It is through appropriate research strategies that all research questions are put into perspective (Bryman & Bell, 2007) and a proper general plan is formulated to achieve a study's research objectives (Saunders *et al.*, 2007). Kumar (2008: 3) defines research strategy as "a way to systematically solve research problems". Struwig and Stead (2001: 44) elaborate on this by defining research strategy as the scientific method a researcher adopts to gather and analyse information to arrive at a solution to the problem. Therefore, a study's research strategy can be viewed as research procedures and its rationale to solve a research problem. It provides a wider research framework which includes, among others, the research design and the research methods (for example, data collection techniques) to be used in a study (Saunders *et al.*, 2008).

Survey research strategies, principally associated with the deductive approach of quantitative research, is a common strategy employed in social research studies. Surveys using questionnaires are popular as they allow the collection of standardised data from a sizeable population in a highly economical way, allowing easy comparison. The survey strategy also enables the researcher to collect data that can be analysed quantitatively using descriptive and inferential statistics. In addition, data collected using a survey strategy is used to suggest possible reasons for particular relationships between variables and to produce models of these relationships. Saunders *et al.* (2012: 177) contend that using an appropriate survey strategy gives a researcher control over the research process and, when sampling is used, make it possible to generate findings that are representative of the whole population at a lower cost than collecting the data for the whole population. Since the main objective of this study was to explore the attitudes and perceptions of Muslims in Port Elizabeth toward Islamic

finance, a survey research strategy was adopted. A well-formulated questionnaire guided respondents to provide answers that the researcher could analyse quantitatively.

A proper research strategy requires the researcher to have a clear picture of the entire research process. According to Alreck and Settle (1995) short-sighted decisions made at an earlier phase of a study have the potential for disastrous consequences at a later phase of the research project. Any failure on the part of the researcher to consider the entire process is often a characteristic of novice researchers who seem content to "worry about that later." (Alreck & Settle, 1995: 15). Whereas inexperienced researchers tend to compartmentalise each phase or aspect of the study without considering their interdependence, experienced researchers focus on the connection among the various aspects of the study, including the underlying conceptual framework, selection of respondents, choice of survey items, and data analysis procedures. Figure 4.3 provides an overview of the positivist research framework of the present study and graphically shows the linkages between the various hypotheses and the research objective. Within the context of a research framework, Figure 4.3 shows how the initial exploratory qualitative research design preceded an explanatory quantitative research design during the course of study. By incorporating a cross-sectional survey research strategy into the primary research design, it was possible to gather information about the behavioural constructs *behavioural beliefs, normative beliefs, efficacy beliefs, attitude* and *intention*. The data collected was then expressed and evaluated in terms of numbers generated by means of discriminant function analysis, factor analysis, binary logistic regression analysis and structural equation modelling. In doing this, it was possible to determine the relationship that existed between the independent latent constructs and the dependent variable. Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction (IMBP) was modified when the two external moderators (*i.e.* skills and environmental factors) of the intention-behaviour relationship, were 'internalised' to reflect the respondent's evaluation of these normative determinants. The respondent's demographic and socio-economic variables were used as moderators within this new framework. Chapter 3 provided more detail about the IMBP.

Figure 4.3: Research framework
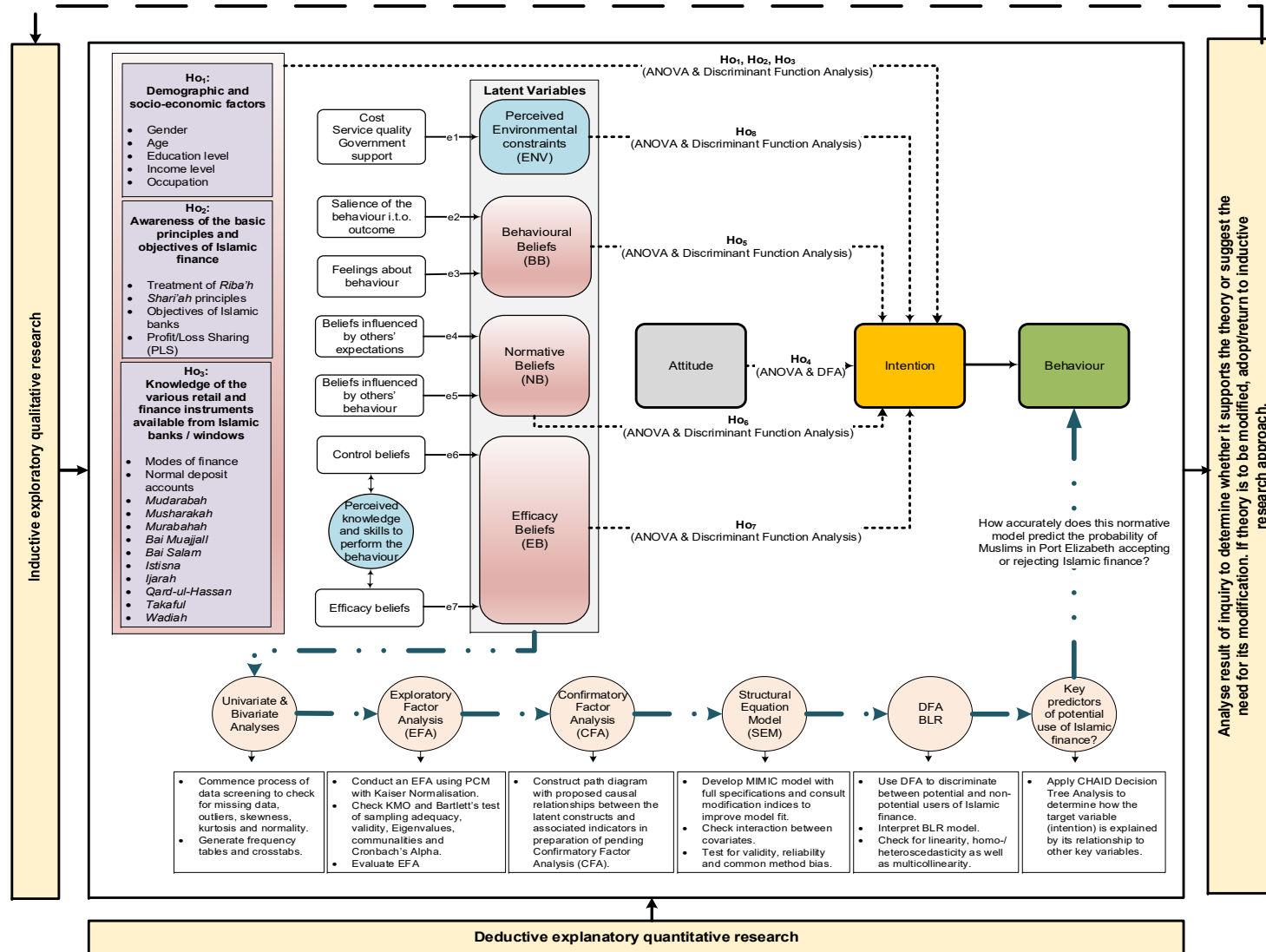
Source: Researcher's adaptation of Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction (IMBP).

4.2.4 Methodological choices

Walker and Monahan (1988) describe research methodology as the manner in which social scientists go about gathering, interpreting and presenting information to provide factual answers to research questions. Zikmund (1994: 747) refers to research methodology as "a discussion within the body of a research report that explains the research design, data collection methods, sampling techniques, fieldwork procedures, and data analysis efforts". Collis and Hussey (2003: 54) refers to research methodology as "the overall approach to the research process, from the theoretical understanding to the collection and analysis of the data". Within this context, Murray and Lawrence (2000: 218) urge researchers to pay attention to the methodology of a study as it is within this section where the research design, theoretical frameworks, the selection and analysis of literature relevant to the nominated topic, as well as justified preferences for particular types of data gathering activities are outlined. Therefore, identifying an appropriate research methodology assists the researcher to develop a clear research framework to meet the research objectives and goals.

Research methodology in social research is classified into two broad categories, namely, qualitative research methodology and quantitative research methodology (Morgan, 2007). In explaining the socially constructed nature of qualitative research, Bryman (1988: 46) refers to qualitative research methodology as an approach to the study of the social world that seeks to describe and analyse the culture and behaviour of humans and their groups from the perspective of those being studied. Thus, qualitative research aims to investigate matters that relate to and affect human behaviour (Kumar, 2008). Among the aspects that are covered in the study of human behaviour is the study of people's culture, value systems, attitudes, behaviours, concerns, motivations, and aspirations (Mohd-Karim, 2010: 133). Qualitative research is intended for further elaboration, in which exploration is important. This leads qualitative research to be described as '*exploratory*' in nature.

In contrast, quantitative research methodology takes quantitative form into account and often adopts an explanatory and/or confirmatory approach. Bryman (1988: 12) defines quantitative research methodology as "a genre that uses a special language which appears to exhibit some similarity to the ways in which scientists talk about how

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they investigate, control, measure and experiment the natural order-variables". Struwig and Stead (2013: 4) state that "the primary role of quantitative research is to test an idea or theory (hypothesis) about the relationship between two or more variables". Therefore, quantitative research intends to analyse and find relationships between the variables under investigation.

Whether evaluating the results of a qualitative or a quantitative study, it is important to understand the research methods that were employed to reach the objectives of the study. A study's research method is distinct from its research design. Whereas the former relates to the details of how the data was collected and analysed, the latter relates to the overall research plan (Saunders *et al.*, 2007: 130). In this respect, research methods are defined as a process of employing various techniques for the data gathering stage of the study. It is important that a researcher identify the most suitable technique for any given study to ensure the desired data for analysis is obtained.

This study adopted a mixed method research design. Tashakkori and Creswell (2007: 4) define mixed methods research as "research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches in a single study or a program of inquiry." Creswell and Plano Clark (2011: 5) support this viewpoint by stating that mixed methods research is a methodology that involves philosophical assumptions that guide the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases of the research process. Mixed model designs have been used successfully in educational and social research over the past thirty years. Creswell and Plano Clark (2011: 63) contend that a mixed method research design enables researchers to understand how the quantitative and qualitative strands of a study relate to each other.

The aim of this exploratory study was to investigate a particular aspect of human behaviour, (i.e. the intention among Muslims in Port Elizabeth to accept or reject Islamic finance based on their attitude, perceptions, and awareness thereof) and test various hypotheses by means of advanced parametric and nonparametric statistical analyses. In the context of exploring the aforementioned phenomenon, qualitative as well as quantitative methods were incorporated in the research framework of this

study. Qualitative data was gathered by means of informal interviews with family members, Muslim members of staff at the Nelson Mandela Metropolitan University, as well as staff members working at the local branches of Albaraka Bank, ABSA Bank and First National Bank in Port Elizabeth. These exploratory interviews were aimed at getting their opinion on why Muslims in Port Elizabeth are reluctant to use Islamic finance and what, from their perspective, could be done to remedy the situation. The quantitative data was gathered by means of a structured questionnaire, statistically analysed, and inferences made.

Mixing research approaches and strategies in the pursuit of answering a research question is referred to as "triangulation" – the use of two or more independent sources of data or data-collection methods within one study to ensure that the data are revealing what a researcher thinks it reveal (Saunders *et al.*, 2012: 179). According to Robson (2002: 174) adopting a mixed method research design increases the credibility of one's research as triangulation enhances the rigour of the research. Struwig and Stead (2013: 271) confirm this by stating that the findings of various theories, multiple research methods and different data collection techniques can be corroborated through of process of triangulation.

Denzin (1998) categorises triangulation into the following four types: (i) <u>Data triangulation</u>: the use of more than one method of data collection (for example, observation, interviews during the pre-pilot, pilot as well as survey phases of the study, researching published and unpublished documentation on the research topic); (ii) <u>Observer triangulation</u>: using more than one observer (20 fieldworkers) in the study; (iii) <u>Methodological triangulation</u>: combining quantitative and qualitative approaches; and (iv) <u>Theory triangulation</u>: using multiple theories or perspectives to test the study's stated hypotheses. In the execution of this sequential mixed method research study, all four of the aforementioned triangulation types were employed.

4.2.5 Time horizons

Saunders *et al.* (2012: 190) state that, depending on the research question, studies can either be conducted as cross-sectional 'snapshots' or as longitudinal studies which entail a series of snapshots over a given time period. Cross-sectional studies often

employ the survey strategy, seeking to describe the incidence of a phenomenon or to explain how factors are related (Saunders *et al.*, 2012: 190). This study, undertaken for academic purposes, was time and budgetary constrained. The cross-sectional data for this study was obtained over a short period of time (1 July 2014 – 31 July 2014) by means of structured interviews conducted among Port Elizabethan Muslims.

4.3   DEVELOPMENT OF THE RESEARCH INSTRUMENT

This study falls within the realm of the social sciences and aimed to measure how the attitudes and perceptions among Muslims in Port Elizabeth towards Islamic finance influence their potential use thereof. According to Zainuddin, Jahys and Ramayah (2004), an individual's attitude represents a personal conviction and feeling toward a specific behaviour. Generally, a person who believes that performing a given behaviour will lead to positive outcomes, will hold a favourable attitude toward performing the behaviour. On the other hand, a person who believes that performing a given behaviour will lead to negative outcomes will hold an unfavourable attitude toward performing the behaviour. Accordingly, this attitude has both a positive and a negative effect on behavioural intention (Ajzen & Fishbein, 1980). In the social sciences, a questionnaire is the most common method used to gather data on an individual's attitude and behaviour (Sekaran, 2003: 240). In this context, a questionnaire was considered the most suitable method of data collection. The development of the questionnaire was carried out after reviewing the relevant literature which included, among others, journal articles, books, masters dissertations and doctoral theses, as well as internet material pertaining to the research topic. In developing the questionnaire, the researcher followed the steps outlined in the subsections below.

4.3.1   Extract the normative criteria from the literature

Saunders *et al.* (2012: 30) state that the aim of reviewing subject literature on the research area is to extract normative criteria. This process enables the researcher to: (i) take note of similar studies undertaken within the specified field of study; (ii) identify key sources which are still unknown to the researcher; (iii) draw on different points of view; and (iv) provide a yard-stick against which the researcher can evaluate his/her results. Undertaking a comprehensive literature study therefore serves as a source for

the development of theories, concepts and research approaches. Extensive and focused bibliographic searches on various publication databases revealed the following information pertaining to previous studies undertaken in the field of Islamic finance and behavioural-change models:

(i) Influence of cognitive measures on attitude and behaviour

Consumers' awareness and knowledge regarding Islamic methods of finance is a common research focal point of past studies on attitudes towards Islamic banking. Most of these studies (*cf.* Okumus, 2005; Bley & Kuehn, 2004; Hamid & Nordin, 2001; Naser, Jamal & Al-Khatib, 1999; Haron, Ahmad & Planisek, 1992, 1994), completed in the GCC and MENA regions, have found that consumers are aware of the existence of Islamic banks. However, research findings also suggest that consumers and potential consumers were generally unaware regarding the use of specific Islamic methods of finance. A study by Haron, Ahmed and Planisek (1992), for example, found that almost 100 per cent of Muslims and 75 per cent of non-Muslims in Malaysia were aware of the existence of Islamic banks and wished to have relation with them if they had a better understanding of the system. A study by Gerard (1997) found that, although the Muslim respondents were aware of the fundamental term in Islam, they were unaware of the meaning of specific Islamic financial terms such as *Mudarabah*, *Musharakah*, *Murabahah* and *Ijarah*. Similarly, Abdul Halim and Norizaton (2001) found that the Malaysian commercial bank customers had a high level of awareness of Islamic banking, but possessed poor self-reported knowledge of specific Islamic products as well as a poor understanding of the difference between Islamic and conventional banking. The aspect of "poor knowledge" in Islamic banking was supported by a study from Norafifah and Sudin (2002) whereby 60 per cent of the respondents admitted to having limited knowledge of Islamic banking. However, they believed the concept had a good potential in the Malaysian market.

(ii) Influence of demographic and socio-economic profiles on attitude and behaviour

The impact of demographic and socio-economic variables on the attitudes of retail consumers toward Islamic finance has been considered by many scholars including Okumus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2002), Naser, Jamal and Al-Khatib (1999), as well as Hegazy (1995). In general, the results of these

studies, conducted mostly in the GCC and MENA regions, suggest that the elderly and public officials prefer to deal with Islamic banks as opposed to conventional banks, as did those with relatively low incomes and a moderate level of education. Kabir and Rashid (2009) have found respondents' demographic profiles to be a significant predictor of bank selection criteria in the Islamic banking sector in Bangladesh. Kaynak (1991), investigating the influence of demographic and socio-economic status on respondents' bank selection criteria in Turkey, observed that Muslim males attached a greater weighting to the Islamic bank's reputation, business hours, parking facilities, availability and range of services than Muslim female respondents. Female customers, in contrast, placed more emphasis on long-term aspects related to organising their finances to become more financially secure. For customers younger than 40 years old, "convenience" and "bank location" were regarded as important factors that influenced their decision to patronise Islamic banks. In terms of socio-economic status, educated customers of Islamic banks ranked "fast and efficient transactions" as well as "location of the Islamic bank" higher than uneducated respondents.

(iii)   Influence of affective measures on attitude and behaviour

Based on the review of primary studies (*cf.* Omer, 1993; Kader, 1993, 1995; Metwally, 1996; Metawa & Almossawi, 1998; Naser, Jamal & Al-Khatib, 1999; Al-Sultan, 1999; Khoirunnissa, 2003; Bley & Kuehn, 2004; Yusuf & Kusumastutie, 2006; Billing, 2008; Haque *et al.*, 2009; Rashid *et al.*, 2009; Khattak & Rehmen, 2010; Abduh & Omar, 2010; Haque, 2010) the research findings show that the religiosity aspect emerged as the primary factor that motivates or elicits customers to opt for Islamic banking products or services. This is due to fact that the majority of the respondents were those Muslims who believed that Islamic banking provided them with the opportunity not only to uphold their Muslim faith, but also to be part of a larger society that can participate in financial systems.

(iv)   Influence of external variables on attitude and behaviour

In a study undertaken in Singapore into the criteria that motivated individuals to select their bank, Tan and Chua (1986) have found that advice from friends, neighbours and family members had a stronger influence on respondents' bank selection decisions compared with other variables. This finding is consistent with the ethos of oriental

culture that emphasises the importance of social and family ties. According to Park and Lessing (1977), the influences of society, family and reference groups on consumer behaviour are profound. Conforming to such social influences and pressures, consumers consciously engage in certain types of consumption patterns that are acceptable to the social groups to which they belong. Such group influences are also captured in the normative component in attitude-behaviour models (Miniard & Cohen, 1983; Ryan, 1982; Sheth, Newman & Gross, 1991). Gait (2009), in a study conducted among Libyan retail consumers, found several correlated variables that constitute motivating factors for potential use of Islamic banking services and products. These variables include, *inter alia*, profitability, religious obligation and unique services offered by Islamic banks. The findings by Gait (2009) are in line with those reached by Anderson, Cox, and Fulcher (1976) who used Determinant Attribute Analysis in their USA survey to determine what factors motivated respondents in selecting their bank. Based on 15 selection criteria, survey respondents selected "recommendation by friends" as the most important factor, followed by "location", "reputation", "service charges" and "friendliness of bank staff". A study by Javalgi, Armaco and Hosseini (1989), using an Analytic Hierarchy Process method to determine the bank selection criteria in the USA, reported that "safety of one's funds" to be the main criterion followed by "paying highest interest rates on savings", "location", "reputation", "availability of loans", "ease of qualifying for current account by maintaining a minimum balance", and, lastly, "Saturday banking".

4.3.2   Identify the variables that the research aims to investigate

Since the main objective of this study was to explore Port Elizabethan Muslims' level of understanding, perceptions, attitude and expectations of the Islamic finance sector, the researcher focused on several key variables that have been used in previous Islamic bank patronage studies in the GCC and MENA regions. Table 4.1 provides an overview of the major variables selected to formulate the research hypotheses and research instrument for the present study.

Table 4.1: Major variables influencing the use of Islamic finance

	Variable	Explanation
A	Religious factor	This factor includes, among others, religious motivation and concern about the level compliance to *Shari'ah* principles as factors for selecting Islamic banks.
B	Cost / Benefit	Cost/benefit factors include the cost of the services and products offered by the bank as perceived by the customers, e.g. rate of return on deposits, investments, etc.
C	Service delivery	Service delivery criteria include factors such as provision of a fast and efficient service, e.g. the speed of the application process and range of services offered.
D	Size and reputation	Size and reputation here imply the bank's reputation and image.
E	Staff factors	Staff factors include the competence and courtesy of bank staff and their ability to convey trust and confidence. For example, politeness and friendliness of staff; efficiency and effectiveness in handling any transaction; and knowledge and preparedness in providing solutions and answers concerning bank's products and services.
F	Convenience	Convenience criteria include the location, ample parking space, external appearance, and interior comfort.
G	Confidentiality	Confidentiality means the extent customers can have trust in their transactions with the bank.
H	Friends' and relatives influence	Friends and relatives may directly and indirectly promote any particular personal choice of preferred bank.
I	Mass media advertising	The advertising effort of the banks in various media such as television, radio, newspaper, billboard, webpage, flyers and etc.
J	Social responsibility	The various aspects of social responsibilities environments, human resource development and ethical aspect of business.

Source: Adapted from Dusuki (2005).

The second substantive stage of this research study involved exploratory interviews with fifteen family members, ten Muslim members of staff at the Nelson Mandela Metropolitan University, as well as fifteen staff members working at the local branches of Albaraka Bank, ABSA Bank and First National Bank in Port Elizabeth. This was done to ascertain their opinion on why Muslims in Port Elizabeth are reluctant to make use of Islamic finance and what, from their perspective, could be done to remedy the situation. During the exploratory phase, only two articulated research questions were posed: (1) "Why, in your opinion, do Muslims in Port Elizabeth adopt or reject Islamic finance?" and (2) "What, in your opinion, can be done to encourage Muslims in Port Elizabeth to change their behaviour towards the Islamic finance sector?"

The abovementioned exercise produced two lists: one that described the reasons for rejecting Islamic finance and the other, factors that would entice potential users to adopt Islamic finance. Those statements that were most highly rated and considered to be representative of both gender and socio-economic status, were included in the compilation of the draft research instrument. Comments on the draft questionnaire were sought from experienced researchers at the Occidental Institute of Islamic Banking and Finance in London as well as Islamic finance specialists from Malaysia, Saudi Arabia and the United Kingdom. After a series of consultations with the researcher's supervisor, the draft questionnaire was approved for pilot testing. The

suggestions and comments received during the pilot study were evaluated and incorporated before the questionnaire was finalised.

4.3.3 Questionnaire content

The seven-page 82-variable questionnaire used to elicit the viewpoints of the Muslim community focused on the eight research hypotheses postulated in the study's research question. Most of the relevant variables from various research articles and theses in similar research areas were considered for inclusion into the questionnaire. This was done to ensure that the content of the questionnaire was valid. In a few instances, the presentation styles and format of questions were replicated if there was sufficient evidence that it would ensure a good response rate or make the coding and analysis of the data easier. Feedback from the respondents during the pilot study suggested that the closed-ended (or forced-choice type) question was easier to answer. In addition, the closed-ended type of question also presented the advantage of being easier to administer, code and analyse. These factors contributed towards the respondent's willingness to participate in the survey and increased the survey's response rate as well as the accuracy and speed at which the data was captured, coded and analysed.

Rating questions are often used to collect opinion data and should not be confused with scales. Corbetta (2003: 57) defines a scale as a coherent set of questions or scale items that serve as indicators of a construct or concept. Rating questions most frequently use the Likert-style rating scale where the respondent is asked how strongly he/she agrees (or disagrees) with a statement or series of statements. These scales are usually on a four-, five-, six- or seven-point rating system (Saunders *et al.*, 2012: 436). The Likert-style rating questions used in the questionnaire of this research project were treated as ordinal scale items because the intervals between positions on the scale were monotonic but not well-defined to numerically uniform increments. As for the scaling form, a mixture of various rating types was adopted in designing the questionnaire according to the nature and objectives of the questions. These included dichotomous, numerical, categorical, and Likert-style rating scales. Table 4.2 provides a summary of the scales used in the development of the questionnaire and shows the corresponding question number where the scale was applied in the questionnaire.

Table 4.2: Type of scales used in the questionnaire

Scale	Usage	Section and question number
Nominal	Nominal means that the number simply represents a category of objects and there is no measured difference among the objects. Researcher is merely assigning a number to something e.g. male=1, female=2 or 1=Yes, 2=No.	A1, A2, C1, E1, E2, E3, E4, E5, and E6
Ordinal	Ordinal scales are rank-ordered and possesses some inherent numerical value. However, there are no exact measured difference among objects. Often used in Likert-style rating scales of agreement to examine how strongly the respondent perceived or agreed / disagreed with the statement.	A5-A14, B1-B16, C2-C26, and D1-D20
Interval	Measures continuous variables on a ranking scale with no true zero, but with measureable differences between the ranking of objects. The 10-point numeric rating scale used bipolar adjectives to measure the respondent's degree of familiarity with Islamic finance.	A3 and A4
Ratio	Possesses all the properties of an interval scales, but there is also a true zero point.	Not used in this study

Source: Survey questionnaire.

Nominal and ordinal scales were found to be the most suitable tools for this study as the respondent merely had to shade the relevant number against each statement. All the scales were easily understood by the respondents, yielded a good response rate, and produced reliable nonparametric data. Based on the normative criteria extracted from secondary sources, the questionnaire was divided into five sections.

Section A of the survey instrument attempted to ascertain the following:

(i)   whether the respondent, at the time of the interview, knew the name of the full-fledged Islamic bank that was operative in Port Elizabeth (1=No, 2=Yes);

(ii)   if the respondent knew whether his/her current bank offered any Islamic finance facilities (1=No, 2=Yes);

(iii) the respondent's understanding of the basic principles and objectives of Islamic finance (interval rating scale of 1=Unfamiliar to 10=Very familiar); and

(iv)   how familiar the respondent was with the various retail and finance instruments made available by Islamic banks / Islamic windows.

The following Islamic finance retail products were mentioned in this section: *Mudarabah* (capital trust when the lender share only profit but not loss), *Musharakah* (full partnership in profits and losses), *Murabahah* (mark-ups on sale), *Bai Muajjall* (deferred payments), *Bai Salam* (prepaid purchases), *Istisnah* (manufacturing contracts), *Ijarah* (lease financing), *Qard-ul-Hassan* (benevolent loans), *Takaful* (Islamic insurance), and *Al-Wadiah* (safekeeping of a deposit held in trust). The statements under the "knowledge section" were measured on a Likert-style rating

scale of 1=Very familiar, 2=Familiar, 3=Not sure/neutral, 4=Unfamiliar and 5=I know nothing about it.

Section B: In this section, the respondent was required to evaluate his/her perceptions, opinions and beliefs of Islamic banks in terms of the following sixteen statements:

1. Islamic banks only cater for Muslim customers;
2. Islamic banking is not viable because the rest of the world's financial system is based on interest;
3. The profit paid on deposit by Islamic banks is similar (in principle) to the interest paid by conventional banks;
4. Marketing of the Islamic financial brand is weak and unclear;
5. An Islamic bank's methods of finance are interest-free and in accordance with *Shari'ah* law;
6. Islamic banks copy conventional products and use Arabic names to market their products;
7. The profit/loss sharing (PLS) method allows you to invest or borrow on a fair basis;
8. It is haram (not permissible) to receive or charge interest in Islam;
9. Islamic retail products are more costly and have hidden charges;
10. Islamic bank administrators are doing enough to educate the public on the merits of Islamic finance;
11. Islamic banks have an honest, open and transparent business culture;
12. Islamic financial institutions properly reflect the values on which they are based;
13. Current tax legislation is not favourable towards the returns generated by Islamic finance products;
14. Islamic banking deposits not guaranteed by government, are riskier than conventional banking deposits;
15. Money and religious scholars do not 'mix'; and
16. Islamic windows are not permissible as they are merely divisions of conventional banks.

These statements were measured on a five-point Likert-style rating scale of 1=Strongly disagree, 2=Disagree, 3=Neutral/Not sure, 4=Agree and 5=Strongly agree.

Section C focused on questions and statements related to the hypothesis of the study. The dependent variable (*intention*) was presented in the form of the following dichotomous question: "Would you open an account at an Islamic bank / Islamic window or make use of Islamic finance retail products?" (1=No, 2=Yes).

A series of questions pertaining to the respondent's attitude, perceived norms and personal agency in respect of Islamic finance were posed. The construct 'attitude' was evaluated on a self-rating five-point interval scale (1=Strongly disagree, 2=Disagree, 3=Neutral/Not sure, 4=Agree, 5=Strongly agree). Three of the four latent independent variables (namely *behavioural beliefs*, *normative beliefs*, and *efficacy beliefs*), developed later in the study, were measured on the same five-point Likert-style rating scale (1=Strongly disagree, 2=Disagree, 3=Neutral/Not sure, 4=Agree and 5=Strongly agree) by means of the following statements:

Table 4.3: Specification of latent 'beliefs' construct in the questionnaire

Latent construct	Statement
Behavioural beliefs (BB)	• Choosing Islamic finance over conventional banking promotes Islam. • To gain the blessings of Allah (SWT), one needs to avoid paying and receiving *riba'h*. • Opening an account at an Islamic bank is the right thing to do. • The *Zakah* collected from customer accounts at an Islamic bank is distributed to the needy. • Investing in a conventional bank is in conflict with my religious beliefs. • Islamic finance creates the opportunity to harmonise personal and business objectives with religious obligation. • Associating with an institution that provides *Halal* products is part of my religious obligation. • Muslims should not care how much the return on deposits is as long as the return is *Shari'ah*-compliant. • I appreciate the fact that Islamic finance is available in South Africa. • Having an Islamic bank account creates a sense of identity. • Muslims are morally obligated to adopt Islamic retail products. • As a Muslim, it is important to have a *Shari'ah*-compliant investment portfolio. • Participation in Islamic banking and finance is more beneficial than participation in traditional Western banking. • As Muslims we should be concerned about the sources of our funds. • An Islamic bank helps poor people with benevolent loans.
Normative beliefs (NB)	• My spouse/parents think that I will fulfil my religious obligation if I make use of Islamic finance. • Muslims should encourage each other to adopt Islamic finance. • Most of the people that are important to me think that I should make use of Islamic finance. • The viewpoints expressed by the *Ulumah* (learned scholars) influence my decision to accept/reject Islamic finance. • My friends feel that the Muslim Brotherhood is strengthened if I make use of Islamic finance.
Efficacy beliefs (EB)	• I know enough about Islamic retail products to make an informed decision to use or reject it. • The use of Arabic terminology for retail financial products makes it difficult to understand Islamic finance. • Knowing that the first Islamic Bank in South Africa was liquidated in 1998 affects my attitude towards Islamic banking and finance. • My knowledge of Arabic is adequate to make an informed decision to accept or reject Islamic finance.

Source: Survey questionnaire.

Section D set out to establish the extent to which the following external factors may influence a respondent's behaviour towards Islamic finance:

1. Financial reputation and image of Islamic bank;
2. Encouragement from family and friends;
3. Greater knowledge and understanding of what Islamic finance entails;
4. An expanded Islamic bank branch network (e.g. more ATMs, vendor support, branches, etc.);
5. Standardisation of *Shari'ah* opinion;

6. Saving money for your *Hajj* in a *Shari'ah*-compliant manner;
7. Customer service quality (e.g. fast and efficient service from Islamic banking staff);
8. Convenience (e.g. available parking space, interior comfort, proximity of bank to home or work);
9. Professional attitude of knowledgeable bank staff;
10. Greater effort made by Islamic bank managers to market their product to the public;
11. Less use made of Arabic terminology to identify Islamic banking accounts and retail products;
12. Composition of the Islamic bank's *Shari'ah* board (eg. *Shafi, Hanafi, Maliki & Hanbali madhabs*);
13. The Islamic bank's Board Rate (i.e. the deposit return you earn on your existing deposit);
14. Low or competitive service charges compared to conventional banks;
15. A wider variety of financing options offered by Islamic banks;
16. Profitability (possibility of high returns at competitive cost);
17. Ease of accessing banking services (e.g. cellphone and internet banking service facilities);
18. Religious obligation;
19. Priority given by the National Treasury to develop the Islamic finance sector in South Africa; and
20. The establishment of a singular *Shari'ah* advisory board that oversees all Islamic banking institutions.

The latent construct "Environmental factors" (also developed later in the study) was measured on a five-point Likert-style rating scale (1=Not important at all, 2=Not so important, 3=Neutral, 4=Important and 5=Very important) and was derived from the following three statements:

Table 4.4: Specification of latent 'environmental factors' construct in the questionnaire

Latent construct	Statement
Environmental factors (ENV)	• Customer service quality (e.g. fast and efficient service from Islamic banking staff). • Low or competitive service charges compared to conventional banks. • Priority given by the National Treasury to develop the Islamic finance sector in South Africa.

Source: Survey questionnaire.

Section E noted the respondent's biographical details. These nominal scaled items were used as control variables for the research. Zikmund (2003) states that nominal scales serve as labels for identification or classification and are often used to represent variables such as gender, age, marital status, education level, income, and occupation.

4.4   DATA COLLECTION

In social science or marketing-based research studies, where relevant data is often not readily available, primary data forms the basis for empirical analysis and hypothesis testing. Churchill (1983) suggests that primary data collection is most suitable for gathering information on the following data types: (i) demographic / socioeconomic characteristics; (ii) attitudes / opinions; (iii) awareness / knowledge; (iv) intentions; (v) motivation; and (vi) behaviour. Moreover, data that was collected by other researchers is normally being used for specific purposes. Such data may thus not be applicable to other research. Therefore, due to unavailability of suitable data as well as the nature and objectives of this research study (i.e. to investigate aspects of knowledge, perception, opinions, attitude and behaviour), the most appropriate way to obtain the relevant data was through a primary data collection process. This method has been widely used in other similar studies on customer behaviour towards Islamic banking and finance (*cf.* Erol & El-Bdour, 1989; Erol *et al.*, 1990; Kader, 1993; Haron *et al.*, 1994; Okumus, 2005; Dusuki, 2007).

It was stated in Section 4.2.3 that this study adopted a survey research strategy. The survey research strategy involves the structured collection of data from a sizeable population either by means of questionnaires, structured observation or structured interviews. Details pertaining to the research population, sampling frame, sample size as well as the data collection methods employed during this study are outlined in the sub-sections below.

4.4.1   Research population and sampling frame

Zikmund (2003) states that, if a proper process of selecting samples is followed, the outcome of the research may be used to draw conclusions about the population. If the population is known and small enough, it may be sampled in its entirety. The process of collecting and analysing data from every possible case or group member is known as a census (Saunders *et al.*, 2012: 258). In most cases, however, this is virtually impossible because the population size is either unknown or too large for the researcher to select all the elements in the population. Therefore, appropriate sampling is needed to ensure that the research findings are at least representative, albeit not conclusive, of the population. Sampling is the process of selecting a number

of items or parts of the population. In order to obtain good and representative samples, it is essential that an appropriate sampling procedure is followed to avoid or, at the very least, minimise the sampling error.

The sampling frame for any probability sample is a complete list of all the cases in the population from which the sample will be drawn (Saunders *et al.*, 2012: 262). Since there was no list of respondents in this study and due to the fact that the Muslim population is disproportionately spread over a wide geographical area in Port Elizabeth, it was not possible to make use of simple probability sampling. The researcher considered using a stratified random sampling technique to select the study's sample population. Saunders *et al.* (2012: 682) defines stratified random sampling as a probability sampling procedure in which the population is divided into two or more relevant strata and a random sample (systematic or simple) is drawn from each of the strata. Stratified systematic random sampling is a modification of simple random sampling in that the research population is divided into distinct areas based on one or a number of attributes.

The Muslim population is spread disproportionately across the city of Port Elizabeth. By dividing the population in Port Elizabeth into a series of relevant strata (18 suburbs with a Muslim-dense population), the sample selection criteria for this study was set as follows: The respondent had to be (i) Muslim; (ii) 18-years-and-older; (iii) residing within the designated suburbs; and (iv) a non-user of Islamic banking or any form of Islamic finance at the time of the interview. Since there was no list of Muslim respondents in Port Elizabeth, purposive random sampling was applied within the identified geographical areas. In Port Elizabeth, the homes of most Muslim households are easily identifiable by means of a Muslim Judicial Council (MJC) sticker that is attached to the door of the house. In this respect, it was easy to identify potential respondents to the survey. After consulting with the researcher's study supervisor, it was decided that a stratified systematic random sampling technique would be more appropriate to the study's research question. Map 1 provides a graphical overview of the sample area covered in this study.

Map 1: The sample area
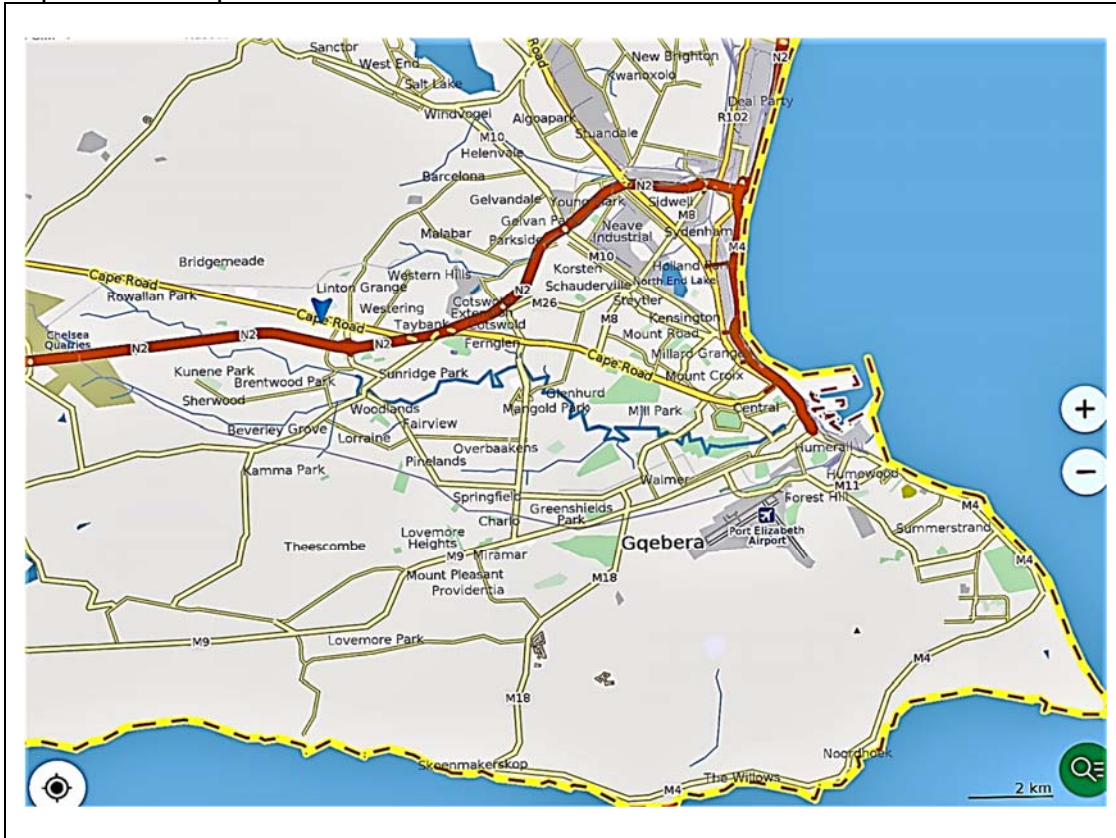
Source: Researcher's compilation of sampled area.

South End, a recognised non-white suburb in the pre-Apartheid era, was home to coloured, Indian, black and Chinese South Africans. Despite the fact that a number of different religions resided within the same cohesive neighbourhood, this community was one that placed high importance on education, socialising with one another and religion. However, this situation changed dramatically when the Apartheid regime came into power in 1948. Strict laws that promoted racial inequality and separate development resulted in families in this once vibrant non-white neighbourhood to be displaced to areas that lay further out of the hub of Port Elizabeth, sometimes forcing them to establish informal settlements in less than liveable conditions. Nowadays, the majority of Muslims reside in the northern suburbs of Port Elizabeth. It is for this reason that more than half (56.6%) of the study's questionnaires were completed in the following neighbourhoods of Port Elizabeth's northern areas: Malabar (10.3%), Gelvandale (7.7%), Gelvan Park (7.7%), Parkside (10.3%), West End (10.3%) and the relatively upmarket Parkridge (10.3%). Table 4.5 provides an overview of how the questionnaires were distributed among the 18 suburbs of the surveyed area.

Table 4.5: Distribution of questionnaires by suburb

Suburb	#	%	Suburb	#	%	Suburb	#	%
Central	15	3.9	Malabar	40	10.3	Bloemendal	20	5.1
Korsten	15	3.9	Hillside	20	5.1	Heath Park	15	3.9
Gelvan Park	30	7.7	Cleary Estate	20	5.1	Aspen Heights	15	3.9
Parkridge	40	10.3	West End	40	10.3	Westering	9	2.3
Parkside	40	10.3	Arcadia	20	5.1	Humewood	5	1.3
Gelvandale	30	7.7	Salsoneville	10	2.6	Summerstrand	5	1.3

Source: Survey data.

4.4.2 Sample size, hypotheses and effect size

Statisticians have proven that the larger the absolute size of a sample, the closer its distributions will be to the normal distribution and the more robust the sample will be (Saunders *et al.*, 2012: 265). This relationship, known as the central limit theorem, occurs even if the population from which the sample is drawn is not normally distributed (Saunders *et al.*, 2012: 265). A process of statistical inference allows the researcher to draw conclusions about the population from which the sample was drawn. Determining a study's sample size is an important issue because too large samples waste time, resources and money, while samples that are too small, lead to inaccurate results (Vaus, 2002). According to Saunders *et al.* (2012: 266) researchers normally work to a 95 per cent level of certainty (or a 5 per cent margin of error). The sample size formula proposed by Israel (1992) was used in the present study:

$$n_0 = \frac{z^2 pq}{e^2} = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 385 \qquad (4.1)$$

where n_0 = sample size; z = Z-value of α (α in this study was 5%); p = variability (variability used in this study was 0.5); $q = 1 - p$; and e = level of precision or sampling error (sampling error tolerated in this study was 5%). Therefore, in the context of this study where the population was of unknown size, it was calculated that the feedback of <u>at least</u> 385 respondents had to be collected to ensure the validity, reliability and effect size of this study. Eight null hypotheses and fifteen alternative hypotheses were stipulated for this study. The null hypothesis was rejected when the probability of accepting or rejecting Islamic finance was lower than the Alpha (α) value of 0.05 and the difference between the within-groups covariance as well as the group centroids were significant.

Two types of errors can result from a hypothesis test, namely Type I and Type II errors. Saunders *et al.* (2012: 513) state that a Type I error occurs when the researcher wrongly rejects the null hypothesis (i.e*.* the researcher rejects a null hypothesis when it is true). The probability of committing a Type I error is called the significance level, denoted by the Greek symbol alpha (α). The *p*-value, provided by the significance test and used to reject the null hypothesis, is a function of three factors: size of the observed effect, sample size, and the α criterion required for significance (Saunders *et al.*, 2012: 512). A Type II error occurs when the researcher fails to reject a null hypothesis that is false (Saunders *et al.*, 2012: 513). The probability of committing a Type II error is called Beta, and is often denoted by the Greek symbol β. The probability of *not* committing a Type II error is called a Power Test or Power Analysis. The objective of performing a power analysis is to find an appropriate balance among these factors by taking into account the substantive goals of the study as well as the resources available to the researcher (Saunders *et al.*, 2012: 513).

It is for the abovementioned reasons that the data collected in this research study was submitted to a significance test to assess the viability of the null hypothesis. A Cohen's *d* power analysis was undertaken during the planning phase of this study to anticipate the likelihood that the results will yield a significant effect and to ensure that the sample size would meet the 'effect size' proposed for similar studies undertaken in the social sciences. Cohen's *d* is an effect size used to indicate the standardised difference between two means and can be used to accompany t-test and Analysis of Variance (ANOVA) results (GPower, 2014). Table 4.6 and Figure 4.4 provide a summary of the outcome of the power analysis.

Table 4.6: Cohen's *d* power analysis and effect size

	t-test	Correlation: Point biserial model	
Mean	1.51928	Effect size |ρ| - Cohen's d	0.3
Variance	0.250272	α err probability	0.05
Std Dev.	0.500272	Total sample size	385
Observations	389	Noncentrality parameter δ	6.1626311
Hypothesised Mean	0	Critical t	1.966113
Df	388	Df	382
Ho:	μ = Hyp	Power (1-β err prob)	0.9999966
Ha:	μ ≠ Hyp		
t-test	59.8972	Effect Size Conventions (Cohen, 1992)	
t-Critical	1.6488523	ρ = 0.2 (SD)	Small
Alpha	0.05	ρ = 0.5 (SD)	Medium
P-value	0	ρ = 0.8 (SD)	Large

Source: Survey data.

A power analysis directs researchers to pay attention to what Murphy and Myors (2004: 106) refer to as "the most important parameter of all", namely effect size (ES). One goal of the proposed study was to test the null hypothesis that the population mean was 0.00. The criterion for significance (alpha) was set at 0.05. The test, depicted in Figure 4.4, was one-tailed, which meant that an effect in one direction was interpreted. With the proposed sample size of 385 cases, it was calculated that the study will have power of 99.9% to yield a statistically significant result.

Figure 4.4: Distributions, power size and effect size plots
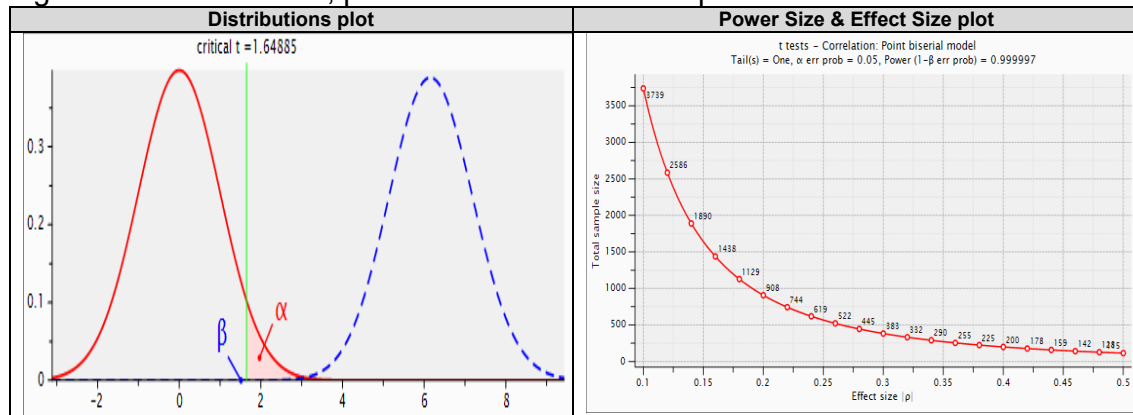
Source: Survey data.

In the context of this study, there was less than a 1% chance that the researcher would not find the real result. This computation assumed that the population from which the sample was drawn had a mean of 1.51928 with a standard deviation of 0.500272. The observed value was tested against a theoretical value (constant) of 0.00. This effect was selected as the smallest effect that would be important to detect, and that any smaller effect would not be of substantive significance. It was also assumed that this effect size was reasonable, in the sense that an effect of this magnitude could be anticipated in this field of research.

The effect size in this exploratory study (n=389) was 0.3, considered to be moderately small using Cohen's (1992) criteria. With an alpha=0.05 and power=0.99, the projected sample size needed with this effect size was approximately n=385 for this simplest between group comparison. Thus, the proposed sample size of 389 was adequate for the main objective of this study and allowed for expected attrition and additional objectives such as controlling for possible moderating factors.

4.4.3 Administration of survey

There are various research instruments available to collect data in the social sciences, of which interviewer-administered and self-administered techniques are the two most commonly used. For survey methods, Wilson (2006), as well as Burns and Bush (2003) have analysed the benefits and pitfalls of both techniques quite extensively. According to the aforementioned authors, a self-administered survey allows a respondent to complete the questionnaire by him or herself without any interference from the researcher and this makes the respondent more comfortable to answer the questions honestly (Wilson, 2006: 132). In addition, the self-administered survey gives the respondent more control to answer the questionnaire by having ample time to digest, think, and complete the survey. Self-administered surveys also present the advantage of minimising the cost for the researcher (Burns & Bush, 2003: 173).

This study adopted an interviewer-administered survey strategy as the questionnaire contained a number of Arabic concepts that the respondent may not immediately have recognised or understood. It was imperative that the interviewer be there to clarify points of contention. In addition, unlike in the case of a self-administered questionnaire, this approach ensured that the respondent did not skip over any questions that could nullify the usability of the completed questionnaire. It took, on average, 30 minutes to complete the questionnaire. The presence of the fieldworker ensured that the survey's non-response rate was minimised and kept the respondent focused as he/she was led through the process of completing the questionnaire. The potential threats to the research instrument's validity and reliability were addressed when the questionnaires were administered to a diversified group of eligible respondents over the same period and in a controlled manner, with a trained interviewer on-site to ensure participants understood the research questions in the same way.

4.4.4 Survey unit of analysis

Data, at an individual-level, was collected by completing a structured interviewer-administered questionnaire within the identified sampling frame. Respondents were randomly selected within each stratum on the following basis: The respondent had to be a consenting Muslim adult (18-years and older) who resided within the designated suburb and who, at the time of the interview, did not use Islamic banking or any form of Islamic finance. The fieldworker was instructed to complete one questionnaire per household and to alternate respondents on a gender basis. This ensured that, at the end of the survey, both genders were equally represented within the sample.

4.4.5 Fieldworker training

Twenty fieldworkers were trained during a two-day workshop on survey etiquette and how to administer the survey. Fieldworkers were instructed to visit prospective respondents at their homes during daytime to elicit their viewpoints on Islamic finance. Based on the respondent selection criteria stipulated in sub-section 4.4.4 above, fieldworkers were instructed to interview at least 20 randomly selected respondents (1:1 gender basis) within a particular stratum/suburb. In the event that an eligible respondent declined to participate in (or withdrew from) the survey, the fieldworker had to proceed to the next randomly-selected Muslim home within that street to invite eligible respondents to complete the survey. Fieldworkers were not allowed to interview more than three respondents on the same street.

With the researcher and fieldworkers residing in close proximity to the target population for this research project, travelling costs were minimised and any refusal from the respondent's side to participate in the study, allowed the fieldworker to immediately move on to the next possible Muslim respondent. Daily quotas of completed questionnaires were easily maintained and tracked. Upon completion of the month-long (1 July 2014 – 31 July 2014) survey, the resulting data was captured and analysed statistically. This allowed the researcher to determine and explain the relationship that existed between the dependent and the independent variables in the study.

4.4.6   Response rate

With all probability samples, it is important that the sample size be large enough to make provision for non-respondents and voided questionnaires (Saunders *et al.*, 2012: 267-268). Questionnaires are voided when (i) the fieldworker elicits information from an ineligible respondent; (ii) the respondent withdraws from a survey that has already commenced (also known as attrition); and/or (iii) the respondent refuses to provide key unobservable information.

A total of 400 questionnaires were printed and circulated during the execution of the survey. After rigorous effort over a month-long period, 400 questionnaires were administered. Eleven questionnaires were considered 'unusable' due to the following reasons: (i) five respondents marked the same point (say, 5 on a five-point scale) for all the questions; (ii) two respondents opted to withdraw from the survey and, thereby, failed to complete a significant portion of the questionnaire; and (iii) four respondents refused to divulge any information pertaining to key demographic and socio-economic status questions. The eleven unusable questionnaires were omitted from further analysis. In two instances, the missing values found in the categorical income variable E5 had to be imputed with the median as this variable was measured on an ordinal scale (higher values indicating higher income levels).

The remaining 389 questionnaires were coded and entered into the Statistical Package for Social Sciences (SPSS version 22.0) for further statistical analysis. While the response rate was 100 per cent, the survey's return rate was in fact 97.3 per cent in terms of usable questionnaires. This was an important achievement and it showed remarkable diligence on the part of the fieldworkers if one considers that it took, on average, 30 minutes to complete a questionnaire.

4.4.7 Data reliability and validity

For a research instrument to be valid, it must first be reliable. Reliability refers to the degree of consistency of an instrument. Field (2009: 11) refers to reliability as "an instrument's ability to produce the same results under the same conditions". Abbott and McKinney (2013: 81) refer to reliability as "the extent to which the questionnaire items are free from measurement error". Creswell (2008) divides reliability into five types, namely: (i) Test-retest reliability which describes how far a score of one sample is stable at different testing times; (ii) Alternate forms reliability which involves the use of the same instrument to measure the linkage concept or variable in a group of individuals; (iii) Alternate forms and test-retest reliability that takes into account the level of rate stability over time and the equality of items; (iv) Interrater reliability, a procedure that is used when making behavioural observations; and (v) Internallly consistent reliability, which deals the scores indicating internal reliability of all items on an instrument. Gray, Mills and Airasian (2006) put forward a sixth type, Split-half reliability, which focuses on the size of the internal consistency test.

Reliability, during the completion of this study, was pursued by means of a structured questionnaire that was derived from relevant literature and in consultation with numerous experts in the field of Islamic finance. Principal factors that threaten the reliability of research findings and conclusions include subject error, subject bias, observed error and observer bias. These potential threats to the research instrument's reliability were addressed when the questionnaires were administered to a diversified group of eligible respondents over the same period and in a controlled manner, with a trained interviewer on-site to ensure participants understood the research questions in the same way.

Furthermore, a research instrument is reliable if two results show similarity (Field, 2009: 12). According to Sekaran (2003: 307), an instrument's "Cronbach's coefficient alpha is an adequate test of reliability" and is the most common way to measure a construct's internal consistency (Pallant, 2007: 6). The value of Cronbach's coefficient alpha ranges from 0 to 1, where higher Cronbach-alpha values indicate higher reliability. Pallant (2007: 6) suggests 0.7 as a minimum acceptable value. However, the value can be smaller if the number of items get smaller. The Cronbach-alphas for

the Bartlett-based factor scores in this study were all above the cut-off point of 0.70. All the factors were reflective because their indicators were highly correlated and were largely interchangeable (Jarvis *et al.*, 2003).

Unlike reliability, there is no simple way to measure validity. Data validity refers to the extent to which the data collection method accurately measures what it intended to measure and the research findings reflect what they profess to be about (Saunders *et al.*, 2012: 127). This viewpoint is shared by Field (2003: 11) who defines validity as the extent to which "an instrument measures what it was designed to measure" or "the degree to which it measures what it is supposed to measure" (Pallant, 2007: 7). Linn (2000) as well as Stewart (2009) state that, as with the reliability, validity also consists of several types, namely: (i) Content validity which tests the validity of the content of the instrument by rational analysis or through professional judgment; (ii) Criteria validity which requires the availability of external criteria that can be used as the basis of test score instrument; and (iii) Construct validity which relates to the validity of the theoretical building blocks of the measurement instrument. An instrument is said to have construct validity if the items are arranged in a matter of instruments to measure every aspect of thinking of a variable to be measured by these instruments. According to Said, Badru and Shahid (2011: 1099) construct validity testing of an instrument is rarely carried out among students, but is often done to test the validity of the criteria. However, the use of scales used in past empirical studies often serve as a yardstick for scale validation. The principal factors that normally threaten the validity of the research findings (for example, subject selection, testing, mortality, ambiguity about causal direction, etc.) were addressed during the research design phase as well as during the development of the research instrument phase.

Every attempt was made to achieve internal validity in the design of the questionnaire. The design of the questionnaire was based on the researcher's understanding of the theory from the literature as well as statements made by the forty participants in the pilot study. The pilot survey of the questionnaire was conducted among family members, university colleagues and students as well as staff members working for Albaraka Bank, ABSA Bank and First National Bank. The results from pilot testing the questionnaire were evaluated to ensure that questions were understood as intended and the necessary changes were subsequently made. Replication of this study in other

geographical areas, which falls beyond the scope and objectives set out for this study, will ensure external validity.

4.4.8   Research ethics

Babbie and Mouton (2001) state that research is a social activity and the processes involved in a study require a form of human interaction on the part of the researcher. Babbie and Mouton (2001:239), focusing on the ethical issues that arise from the interaction between the researcher with people, institutions and other stakeholders within the research environment or the area of study, emphasise that care should be taken by the researcher in the collection of data so that the research do not negatively impact on any participant's right to privacy. In this context, it has to be stated that the issues of anonymity, privacy and confidentiality of data have been maintained in all the processes of the study. Personal and other details that could reveal the identity of respondents were not included in the instruments for collecting data. Instead, where necessary, and with the consent of the respondent, official designations were used.

This research project was conducted in accordance with the ethical requirements and regulations stipulated in the *Guidelines for Ethical Conduct in Research and Education at the Nelson Mandela Metropolitan University,* the NMMU's *Policy on Research Ethics* (NMMU Institutional Regulatory Code D/739/10, 2010) as well as generally accepted norms and values of social science research. The ethical integrity of the study was approved by the Research Ethics Committee for Humans (REC-H) of the university. The REC-H consists of a group of independent experts that has the responsibility to ensure that the rights and welfare of participants in research are protected and that studies are conducted in an ethical manner. Research studies that involve human participants may not be conducted without REC-H's approval. The Research Ethics clearance number for this study was H14-BES-ECO-060.

The type of information required for the research was clearly stated in the Preamble Letter of the questionnaire. Respondents were given a clear written and verbal description of the purpose, scope and intended outcomes of the research. The interview questions were designed to examine only the hypotheses and objectives of the research project and no confidential product or private information were elicited

from the respondents. Fieldworkers ensured that the respondent was made aware of the fact that (i) participation in the survey was completely voluntary; (ii) the respondent was free to withdraw from the survey at any point without any fear of reprisal; and (iii) his/her identity and personal information will be kept confidential at all times. The respondent was also made aware that the results of the research study would be presented at scientific conferences and in specialist publications, but were assured that the identity of all participants would be concealed.

4.5 DATA ANALYSIS

Five major types of statistical techniques were applied to achieve the primary and secondary objectives of this study, namely (i) exploratory (EFA) and confirmatory (CFA) factor analysis; (ii) structural equation modelling (SEM); (iii) discriminant function analysis (DFA); (iv) hierarchical binary logistic regression (BLR) analysis; and (v) CHAID decision tree analysis. The survey data was captured and analysed using Statistics for Social Sciences (SPSS version 22) Base Program and Data Entry modules. The normative structural equation model was constructed in MPlus7 (Muthén & Muthén, 2012). The predictive model was developed using IBM SPSS Modeller (version 14). The following subsections provide detailed motivation for using these statistical techniques.

4.5.1 Exploratory and confirmatory factor analysis

In survey research, it is quite common for researchers to apply factor analysis (FA) to assess commonality among variables. Somekh and Lewin (2009: 345) define FA as an interdependence multivariate analysis technique that "identifies the general dimensions or concepts within a set of responses to questions, bringing together a range of correlated measures into a smaller number of variables that can be interpreted more easily". Bartholomew, Knott and Moustaki (2011) state that FA assumes that measurable and observable variables can be reduced to fewer unobservable latent variables that share a common variance. Through a process of reduced dimensionality, these unobservable factors are not directly measured but are essentially hypothetical constructs used to represent variables (Cattell, 1973). In the context of this study, scores on perceived environmental barriers (for example, service quality, cost, and government support), were placed under a Bartlett-based factor

score called '*environmental factors*' (ENV). In this case, the latter construct was not directly measured as an observable variable in the questionnaire but was inferred from the former observable variables.

According to Yong and Pearce (2013) the two main factor analysis techniques are exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Traditionally, the EFA technique is applied to assess factorial structure of a measuring instrument (Mulaik, 1972; Gorsuch, 1983; Comrey & Lee, 1992). Exploratory factor analysis extracts unobserved factors from data without specifying the number of factors or without determining how the measurement items or the observed indicators are loaded onto which specific factors (Child, 2006). Instead, factors are defined <u>after</u> they are extracted. In other words, EFA is applied in situations where the factorial structure or the dimensionality of an instrument for a given population is unknown, usually in the situation where the researcher is in the process of developing new instruments.

Hence, without making *a priori* assumptions about relationships among variables within a dataset, the broad purpose of EFA is to isolate constructs and concepts in a concise form (Yong & Pearce, 2013: 79) by using mathematical procedures for simplification of interrelated measures to discover patterns in a set of variables (Child, 2006). A basic hypothesis of EFA is that there are *m* common 'latent' factors to be discovered in the dataset, and the goal is to find the smallest number of common factors that will account for the correlations (McDonald, 1985). Attempting to discover the simplest method of interpretation of observed data is known as parsimony, and this is essentially the aim of exploratory factor analysis (Harman, 1976).

Confirmatory factor analysis (CFA), in contrast, is used in situations where the researcher already has some knowledge of the dimensionality of the variables under study. This knowledge is based either on theory or on empirical findings (Bollen, 1989; Brown, 2006). According to Yong and Pearce (2013: 79), CFA attempts to confirm hypotheses and uses path analysis diagrams to represent variables and factors. The factors are theoretically defined, and how specific indicators or measurement items are loaded onto which factors is hypothesised before testing the model. By making use of CFA, researchers wish to determine and confirm that the factorial structures of the scales in the instrument under study are as hypothesised. In applying CFA,

researchers attempt to evaluate the extent to which a set of indicators/items in a particular instrument actually measures the latent variables/factors they were designed to measure.

The following standardised factor analysis model was used to identify the four latent constructs (BB, NB, EB, ENV) that were devised for this study:

$$X_j = a_{j1}F_1 + a_{j2}F_2 + a_{j3}F_3 + \dots a_{jm}F_m + e_j \qquad (4.2)$$

where j = 1, 2, 3, …, p. In the 'classical factor analysis' mathematical model, p denotes the number of variables ($X_1, X_2, \dots, X_p$), m denotes the number of underlying factors ($F_1, F_2, F_3, \dots, F_m$), and X_j denotes the variable represented in latent factors. Hence, the abovementioned model assumes that there are m underlying factors whereby each observed variable is a linear function of these factors together with a residual variate (Yong & Pearce, 2013: 79). The factor loadings are $a_{j1}, a_{j2}, \dots, a_{jm}$, which denotes that a_{j1} is the factor loading of jth variable on the 1st factor. The specific or unique factor is denoted by e_j. The factor loadings give the researcher an indication of how much the variable has contributed to the factor. The larger the factor loading, the more the variable has contributed to that factor (Harman, 1976). Factor loadings are very similar to weights in multiple regression analysis, and they represent the strength of the correlation between the variable and the factor (Kline, 1994).

Al-Sultan (1999), Gerrard and Cunningham (1997), as well as Metwally (1996) used EFA in their studies to identify the number of variables that influence a consumer's attitude towards Islamic banking. According to Hair, Black, Babin, & Anderson (2010) it is acceptable to use the factor scores from EFA in subsequent multivariate analysis such as discriminant function analysis, logistic regression or structural equation modelling, especially if the data is derived from the original sample. Therefore, in the context of this study, factor scores were used as the explanatory variables in the two subsequent multivariate techniques namely discriminant function analysis and binary logistic regression.

In order to determine whether factor analysis can be conducted on a set of variables, the values of Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity need to be checked. The KMO Measure of Sampling Adequacy is used to compare the magnitudes of the observed correlation coefficients in relation to

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the magnitudes of the partial correlation coefficients. The value of KMO ranges from 0 to 1, with a minimum cut-off value requirement for EFA suitability set above 0.5 (Yong & Pearce, 2013: 88). Large KMO values are good because correlations between pairs of variables (i.e. potential factors) are then explained by the other variables. If the KMO is below 0.5, then the researcher is advised not to conduct a factor analysis.

Factor analysis is suitable if Bartlett's Test of Sphericity produces a significant value when the p-value is less than 0.5 (Pallant, 2007: 181). In terms of the cut-off points for factor loadings and communalities, Hair *et al.* (2010) give rules of thumb for assessing the practical significance of standardised factor loadings as denoted by either the component coefficients (in the case of principal components), the factor matrix (in a single factor model or an uncorrelated multiple factor model) or the pattern matrix (in a correlated multiple factor model).

In the context of this study with a sample size of 389, EFA (Principal Components Method Varimax with Kaiser Normalisation) was carried out to determine whether the respondents perceived the four latent variables to be distinct. A factor loading greater than 0.70 and communalities greater than 0.60 were used as the cut-off criteria. To measure the appropriateness of FA, the researcher focused on Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy. In the Bartlett's Test of Sphericity, the general consensus was that the coefficient should be highly significant to use FA. High values of KMO (between 0.5 and 1.0) will indicate that factor analysis is appropriate (Yong & Pearce, 2013: 88).

Following an EFA, Bartlett factor scores were computed and used in subsequent analyses. Factor scores are composite variables that represent each individual's placement on the factor(s) identified from the EFA (DiStefano, Zhu & Mindrila, 2009: 1). The advantage of using Bartlett-based factor scores over Regression and Anderson-Rubin scores stemmed from the fact that the former produces unbiased estimates of the true factor scores by using maximum likelihood estimates – a statistical procedure which produces estimates that are most likely to represent the "true" factor scores (Hershberger, 2005).

4.5.2 Structural equation modelling

Structural equation modelling (SEM) is a confirmatory technique used for exploratory purposes (James, 2006; Kline, 2005). Schumacker and Lomax (2004: 2) defines SEM as a statistical methodology that takes a confirmatory approach to the analysis of a structural theory bearing on some phenomenon. In this context, SEM adopts a comprehensive statistical approach to testing hypotheses about relations among observed and latent variables. Structural equation models usually take into account potential errors of measurement in all observed variables, in particular the independent variables. This is achieved by including an error term for each fallible measure, whether it is an explanatory or predicted variable.

Structural equation modelling (SEM) includes two components, namely confirmatory factor analysis (CFA) and a structural model. According to Tabachnick and Fidell (2007: 639), the advantages of CFA in the development of a SEM over EFA include, but are not limited to, the following: First, all factors in EFA are either uncorrelated (orthogonal) or correlated (oblique). In CFA, relationships among factors are flexibly specified on a theoretical basis or based on empirical findings. Secondly, observed indicators/items in EFA are loaded onto all the factors, while observed indicators/items in CFA are only loaded onto factors that they are hypothesised to measure (Tabachnick & Fidell, 2007: 639). However, an indicator may also be loaded onto one or more factors in a CFA based on a theoretical concern. As a result, a CFA model is not only theoretically more meaningful, but is more parsimonious because the factor loadings of indicators to the irrelevant factors are all fixed, *a priori*, at 0 in a CFA model, thereby substantially reducing the number of parameters to estimate. Thirdly, measurement errors are not allowed to be correlated in EFA. This is not the case in CFA. However, appropriate specifications of error correlations in CFA can be used to test method effects (Marsh, 1996; Tomas & Oliver, 1999; Wang *et al.*, 2001). Fourthly, unlike the traditional EFA, CFA are conducted simultaneously in multiple groups so that measurement invariance across groups can be tested. Finally, covariates can be readily included to predict the factors, thus expanding the CFA model to a structural equation model (SEM). According to Hernandez (2010) confirmatory factor analysis plays the role of validating and finding the reliability of any instrument in most social science studies.

In the past two decades, SEM has quickly pervaded various fields of study, including psychiatry, psychology, sociology, economics, education, demography, political sciences, as well as biology and health studies. Wang and Wang (2012: 1) contend that the reason for the popularity of SEM stem from the fact that it is a generalised analytical framework that can deal better with many sophisticated modelling situations compared to other traditional statistical methods such as multiple regression, ANOVA, path analysis, and multilevel models. According to Wang and Wang (2012: 1), the advantages of SEM include, but are not limited to, its ability to:

- take into account measurement errors;
- model multiple dependent variables simultaneously;
- test overall model fit;
- estimate direct, indirect and total effects;
- test complex and specific hypothesis;
- handle difficult data (time series with auto-correlated error, non-normal, censored, and categorical outcomes);
- test model parameter invariance across multiple populations/groups; and
- conduct mixture modelling to deal with population heterogeneity.

Bollen and Long (1993, quoted in Wang & Wang, 2012: 2) suggest the following five-stage approach to develop a structural equation model:

(i) *Model formulation.* This step involves correctly specifying the SEM model the researcher wants to test. The model may be formulated on the basis of theory or empirical findings. A general SEM model is composed of two parts: the measurement model and the structural model.

(ii) *Model identification.* This step determines whether there is a unique solution for all the free parameters in the specified model. It is not possible to implement model estimation if a model was not properly identified, and model estimation may not converge or reach a solution if the model is misspecified.

(iii) *Model estimation.* This step requires the researcher to set model parameters to generate a fitting function. Various estimation methods are available for SEM. The most common method for SEM model estimation is Jöreskog and Sörbom's (1989: 21) Maximum Likelihood function specified as $F_{ML} = log\,|\,\Sigma\,| + tr[S\Sigma^{-1}] - log\,|\,S\,| - p$, where S and Σ are the sample and model estimated variance / covariance matrices, respectively, and *(p)* is the number of observed variables involved in the model;

(iv) *Model evaluation.* After meaningful model parameter estimates are obtained, the researcher needs to assess whether the model fits the data. If the model fits data well and results are interpretable, then the modelling process can stop after this step.

(v) *Model modification.* If the model does not fit the data, re-specification or modification of the model is required. In this instance, the researcher makes a decision regarding how to delete, add, or modify parameters in the model. The fit of the model could be improved through parameter re-specification. Once a model is re-specified, steps 1 through 4 has to be performed again.

The issue of model fit (i.e. how the model that best represents the data reflects underlying theory), is by no means agreed (Hooper, Coughlan & Mullen, 2008: 1). With the abundance of fit indices available to the researcher and the wide disparity in agreement on not only which indices to report but also what the cut-offs for various indices actually are, it is possible that researchers can become overwhelmed by the conflicting information available (Hooper *et al.*, 2008: 1). It is therefore essential that researchers using a specific technique are comfortable with the area since assessing whether a specified model 'fits' the data is one of the most important steps in structural equation modelling (Yuan, 2005).

Hooper *et al.* (2008: 1) state that absolute fit indices determine how well an *a priori* model fits the sample data whereas McDonald and Ho (2002) contend that absolute fit indices demonstrate which proposed model has the most superior fit. These measures provide the most fundamental indication of how well the proposed theory fits the data. Unlike incremental fit indices, their calculation does not rely on a comparison with a baseline model but is instead a measure of how well the model fits in comparison to no model at all (Jöreskog & Sörbom, 1993). Included in this category are the Chi-squared (X^2) test, the Root Mean Square Error of Approximation (RMSEA), the Normed Fit Index (NFI), the non-normed Tucker-Lewis Index (TLI), the Relative Fit Index (RFI), the Incremental Index of Fit (IFI), the Comparative Fit Indices (CFI), and the Parsimony Goodness-of-Fit Index (PGFI). The following subsections provide an overview of the various model fit indices and explains how these indices are commonly interpreted in structural equation models.

(i)   The model Chi-square statistic

In structural equation models, the Chi-square (X^2) value is the traditional measure for evaluating overall model fit as it "assesses the magnitude of discrepancy between the sample and fitted covariances matrices" (Hu & Bentler, 1999: 2). A good model fit would provide an insignificant result at a 0.05 threshold (Barrett, 2007). Thus the X^2 statistic is often referred to as either a "badness of fit" (Kline, 2005) or a "lack of fit" measure (Mulaik *et al.*, 1989). While the X^2 test retains its popularity as a fit statistic, there exist a number of severe limitations in its use. Firstly, this test assumes multivariate normality and severe deviations from normality may result in model rejections even when the model is properly specified (McIntosh, 2006). Secondly, because the X^2 statistic is in essence a statistical significance test, it is sensitive to sample size. This means that the X^2 statistic nearly always rejects the model when large samples are used (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993). On the other hand, where small samples are used, the X^2 statistic lacks power. Consequently, it may not discriminate between good fitting models and poor fitting models (Kenny & McCoach, 2003). Due to the restrictiveness of the model X^2, researchers have sought alternative indices to assess model fit. One example of a statistic that minimises the impact of sample size on the model X^2 is Wheaton *et al.*'s (1977) relative/normed Chi-square (X^2/df). Although there is no consensus regarding an acceptable ratio for this statistic, recommendations range from as high as 5.0 (Wheaton *et al.*, 1977) to as low as 2.0 (Tabachnick & Fidell, 2007).

(ii)   Root Mean Square Error of Approximation

The Root Mean Square Error of Approximation (RMSEA) was developed by Steiger and Lind (1980) and indicates how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix (Byrne, 1998). In recent years it has become regarded as "one of the most informative fit indices" (Diamantopoulos & Siguaw, 2000: 85) due to its sensitivity to the number of estimated parameters in the model. In other words, the RMSEA favours parsimony in that it will choose the model with the lesser number of parameters. Recommendations for RMSEA cut-off points have been reduced considerably in the last fifteen years. Up until the early nineties, an RMSEA in the range of 0.05 to 0.10 was considered an indication of fair fit and values above 0.10 indicated poor fit (MacCallum *et al.*, 1996).

It was then thought that an RMSEA of between 0.08 and 0.10 provided a mediocre fit and below 0.08 showed a good fit (MacCallum *et al.*, 1996). However, more recently, a cut-off value close to 0.06 (Hu & Bentler, 1999) or a stringent upper limit of 0.07 (Steiger, 2007) seems to be the general consensus amongst authorities in this area.

One of the greatest advantages of the RMSEA is its ability to calculate a confidence interval around its value (MacCallum *et al.*, 1996). This is possible due to the known distribution values of the statistic and subsequently allows for the null hypothesis (poor fit) to be tested more precisely (McQuitty, 2004). The confidence interval is generally reported in conjunction with the RMSEA and in a well-fitting model, the lower limit is close to zero while the upper limit should be less than 0.08.

(iii)   Normed and non-normed fit indices

The Normed Fit Index (NFI) statistic assesses the model by comparing the X^2 value of the model to the X^2 of the null model (Bentler & Bonnet, 1980). The null/independence model is the worst case scenario as it specifies that all measured variables are uncorrelated. Values for this statistic range between 0 and 1. Bentler and Bonnet (1980) recommend values greater than 0.90 as indicative of a good fit. More recent studies recommend NFI cut-off criteria ≥0.95 (Hu & Bentler, 1999). A major drawback to this index is that it is sensitive to sample size, underestimating fit for samples less than 200 (Mulaik *et al.*, 1989; Bentler, 1990), and is thus not recommended to be solely relied on (Kline, 2005). This problem was rectified by the Non-Normed Fit Index (NNFI, also known as the Tucker-Lewis Index), an index that prefers simpler models. However, in situations were small samples are used, the value of the NNFI can indicate poor fit despite other statistics pointing towards good fit (Bentler, 1990; Kline, 2005; Tabachnick & Fidell, 2007). A final problem with the NNFI is that, due to its non-normed nature, values can go above 1.0 and can thus be difficult to interpret (Byrne, 1998). Recommendations as low as 0.80 as a cut-off have been proffered. However, Bentler and Hu (1999) have suggested NNFI≥0.95 as the threshold.

(iv)   Comparative fit index

The Comparative Fit Index (CFI) is a revised form of the NFI that takes sample size into account (Byrne, 1998). The CFI performs well even when sample size is small

(Tabachnick and Fidell, 2007). This index was first introduced by Bentler (1990) and subsequently included as part of the fit indices in his EQS program (Kline, 2005). Similar to the NFI, this statistic assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model. As with the NFI, values for this statistic range between 0.0 and 1.0, with values closer to 1.0 indicating good fit. A cut-off criterion of CFI≥0.90 was initially advanced. However, Hu and Bentler (1999) state that recent studies have shown that a value greater than 0.90 is needed in order to ensure that misspecified models are not accepted. From this, a value of CFI≥0.95 is presently recognised as indicative of good fit (Hu & Bentler, 1999). This index is one of the most popularly reported fit indices reported in all SEM programs as it is least affected by sample size (Fan *et al.*, 1999).

(v) Parsimony Goodness-of-Fit Index

Having a nearly saturated, complex model means that the estimation process is dependent on the sample data. This results in a less rigorous theoretical model that paradoxically produces better fit indices (Mulaik *et al.*, 1989; Crowley and Fan, 1997). To overcome this problem, Mulaik *et al.* (1989) have developed two parsimony of fit indices; the Parsimony Goodness-of-Fit Index (PGFI) and the Parsimonious Normed Fit Index (PNFI). The PGFI is based upon the GFI by adjusting for loss of degrees of freedom. The PNFI also adjusts for degrees of freedom, but is based on the NFI (Mulaik *et al.*, 1989). Both of these indices penalise for model complexity that results in parsimony fit index values that are considerably lower than other goodness of fit indices. While no threshold levels have been recommended for these indices, Mulaik *et al.* (1989) do note that it is possible to obtain parsimony fit indices within the 0.50 region while other goodness-of-fit indices achieve values over 0.90 (Mulaik *et al.*, 1989). The authors strongly recommend the use of parsimony fit indices in tandem with other measures of goodness-of-fit. However, as no threshold levels for these statistics have been recommended, it is more difficult to interpret the PGFI.

(vi) Information criteria indices

A second form of parsimony fit index are 'information criteria' indices. Probably the best known of these indices is the Akaike Information Criterion (AIC) or the Consistent Version of AIC (CAIC) which adjusts for sample size (Akaike, 1974). These statistics

are generally used when comparing non-nested or non-hierarchical models estimated with the same data and indicates to the researcher which of the models is the most parsimonious. Smaller values suggest a good fitting, parsimonious model. However, as these indices are not normed to a 0-1 scale, it is difficult to suggest a cut-off other than that the model that produces the lowest value is the most superior. It is also worth noting that these statistics need a sample size of 200 to make their use reliable (Diamantopoulos & Siguaw, 2000). With regard to which indices should be reported, it is not necessary or realistic to include every index included in the program's output as it will burden both a reader and a reviewer. Given the plethora of fit indices, it becomes tempting to choose those fit indices that indicate the best fit. Such a practice should be avoided as it essentially amounts to sweeping important information under the carpet. In a review by McDonald and Ho (2002) it was found that the most commonly reported fit indices are the CFI, GFI, NFI and the NNFI. Therefore, in the context of this study, Table 4.7 shows the fit indices and threshold level indices used to evaluate the goodness-of-fit of the proposed model in this study.

Table 4.7: Acceptable thresholds of fit indices

Fit Index	Acceptable Threshold Levels	Source
Absolute Fit Indices		
X^2 Relative X^2 (X^2/ *df*)	Insignificant. Recommended relative X^2 between 1 and 3.	Hair et al., 2010 Tabachnik & Fidell, 2007; Hu & Bentler, 1999
RMSEA	Recommended value between 0.05 to 0.06, but < 0.07. Values less than 0.03 represent excellent fit.	Steiger, 2007 Byrne, 2001
GFI	Near to 0.90 but recommended value > 0.95 Scaled between 0 and 1, with higher values indicating better model fit. This statistic should be used with caution.	Schumacker & Lomax, 2010 Hu & Bentler, 1999
PGFI	Recommended value between 0 and 1, with higher values indicating a more parsimonious fit.	
Incremental Fit Indices		
NFI	>= 0.90 but recommended value > 0.95 Assesses fit relative to a baseline mode which assumes no covariance between the observed variables. Has a tendency to overestimate fit in small samples.	Sharma *et al.*, 2005
NNFI (TLI)	>= 0.90 but recommended value > 0.95 Non-normed, values can fall outside the 0-1 range. Favours parsimony.	McDonald & Marsh, 1990 Kline, 2005 Schumacker & Lomax, 2010
CFI	>= 0.90 but recommended value > 0.95; Normed, 0-1 range.	Hu & Bentler, 1999
SRMR	<= 0.090	Byrne, 2010

X^2 = Chi-square; *df* = degree of freedom; RMSEA = Root Mean Square Error of Approximation; GFI = Goodness-of-Fit Index; PGFI = Parsimonious Goodness-of-Fit Index; NFI = Normed Fit Index; NNFI = Non-normed Fit Index; CFI = Comparative Fit Index; SRMR = Standardised Root Mean Squared Residual.

Source: Researcher's compilation.

Hooper, Coughlan and Mullen (2012: 57) caution that, while fit indices are a useful guide, a structural model should also be examined with respect to substantive theory.

By allowing model fit to drive the research process, it moves away from the original, theory-testing purpose of structural equation modelling. Jöreskog and Sörbom (1996), Tomarken and Waller (2003) as well as Reisinger and Mavondo (2006) are of the opinion that, failing to examine well-fitting structural equation models within the context of substantive theory, could result in researchers adopting parts of a model that may fit poorly. In this context, Marsh *et al*., (2004) caution against researchers' strict adherence to recommended cut-off values as this could lead to instances of Type I errors (i.e. the incorrect rejection of an acceptable model) being made.

4.5.3 Discriminant function analysis

Discriminant function analysis (DFA), developed by Sir Ronald Fisher in 1936, is a valuable tool for the social researcher and has been successfully used across many social science disciplines (for example, anthropology, education, political science, psychology, and sociology) over the past eight decades. Gray and Kinnear (2011: 107) state that the primary goal of DFA is to develop a valid and reliable model that can <u>explain</u> the value of a categorical dependent variable. The rationale for using discriminant function analysis (DFA) as an alternative to regression analysis stems from the fact that the former is used in situations where (i) the measurement of the dependent variable is at the nominal level; or (ii) regression analysis is inappropriate because the assumption that the dependent variable is normally distributed, is not met (Jackson, 1995: 455). Discriminant function analysis is therefore useful to determine whether a set of variables is effective in <u>explaining</u> category membership. In this context, DFA is often preferred when the dependent variable (DV) is categorical with the predictor independent variables (IV's) at interval level such as age, income, attitudes, perceptions, and years of education. The categorical dependent variable in this study was dichotomous, i.e. "0" in the event that the respondent is unlikely to use Islamic finance, and "1" in the event that the respondent is likely to use it.

Key assumptions for deriving the discriminant function are multivariate normality of the IV and unknown (but equal) dispersion and covariance structures for the groups as defined by the DV (Jackson, 1995: 455). The process of DFA can either be direct (simultaneous inclusion of all predictor variables irrespective of discriminating power) or stepwise (predictor variables are entered sequentially and based on their ability to

discriminate among groups). Null hypotheses Ho_1 through Ho_8 were tested by means of the following regression-like linear discriminant function:

$$D = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_kX_{k.} \qquad (4.3)$$

where X_k represents the independent variables and b_k the values of the coefficients associated with each independent variable, weighted to maximise the prediction of D, the categories of the dependent variable (Jackson, 1995: 456). The b_k values are weighted to maximise the ratio of the between-groups sum of squares to the within-groups sum of squares. Discriminant function analysis therefore creates an equation that will minimise the possibility of misclassifying cases into their respective groups or categories. In other words, DFA determines the most parsimonious way to distinguish between groups.

4.5.4 Hierarchical binary logistic regression

To construct the predictive model depicting a Port Elizabethan Muslim's intention to use Islamic finance, the researcher could have used multiple regression analysis (MRA) or discriminant function analysis (DFA). However, these statistical methods present difficulties when the dependent variable (DV) only has two values, namely "1", the likelihood that an event will occur or "0", the likelihood that an event will not occur. Hierarchical binary logistic regression (BLR) is often used to model the probability that an event occurs, especially if one or more explanatory variables are used to predict a single DV. The DV is categorical (dichotomous) in BLR whereas, in the case of multiple regression analysis (MRA), the DV is metric. Furthermore, in contrast to MRA, hierarchical BLR does not produce negative predicted probabilities (Kleinbaum & Klein, 2010: 346). Mathematically, the hierarchical BLR model used in this study was expressed as a non-linear function of the predictors in the form:

$$\textit{Prob (event = 1)} \; = \; \frac{1}{1+e^{-z}} \qquad (4.4)$$

where e is the base of the natural logarithm, z is the linear combination, $Z = B_0 + B_1X_1 + B_2X_2 + \dots + B_PX_P$, $B_0 \dots B_P$ are logistic coefficients estimated from the data, and p is the number of independent variables. The coefficients imputed by the logistic response function allowed the researcher to make inferences about the effects of the explanatory variables on the probability that Muslims in Port Elizabeth will use or reject Islamic finance.

4.5.5   CHAID decision tree analysis

A common research situation is the need to predict a response variable based upon a set of explanatory variables. When most of the variables in the analysis are ratio- or interval-scaled, including the response variable, then multiple regression is a popular technique for finding linear patterns (Babinec, 1990). However, when the response variable is dichotomous, naïve use of multiple regression might not be appropriate as the assumptions of normal distribution with constant residual variance are not met (Babinec, 1990).

In the context of this study, the response variable (*intention*) was dichotomous (1=No, the respondent does not intend to open an account at an Islamic Bank; 2=Yes, the respondent intends to open an account at an Islamic Bank). The challenge that marketers of Islamic finance retail products will be confronted with would be to isolate those variables that would distinguish those who intend to accept Islamic finance from those who do not. This challenge is exacerbated when the response variable becomes skewed (i.e. when one response category contains the bulk of the responses). In this instance, multiple regression should be discarded in favour of other, more appropriate techniques. According to Babinec (1990), researchers turn to discriminant function analysis to determine which explanatory variables (and with what weight) can be used to distinguish membership in different response categories. This statistical technique was applied in section 4.5.3 of this study. However, discriminant function analysis is not an ideal prediction technique (Babinec, 1990). When the response variable has two categories, the objections to multiple regression analysis and discriminant function analysis as prediction techniques are identical.

Statisticians have developed techniques such as binary logistic regression and logit analysis for the situation when most or all of the variables are categorical. Despite their appropriateness, these techniques have the drawbacks of complexity and difficulty in interpreting results (Magidson, 1982; Ratner, 1997). In contrast, the Chi-Squared Automatic Interaction Detection (CHAID) analysis technique addresses the criticism levelled against the various forms of regression and logit analysis by producing prediction results that are not just statistically valid, but also intuitively appealing and understandable to the researcher. CHAID models reveal non-linearities and is able to

find the main effects of an explanatory variable on a response variable by means of Bonferroni adjustments in its built-in statistical tests (Babinec, 1990). The results of these tests are then presented in the form of a classification tree which highlights important variables, extraneous variables, interactions as well as detect segments that are statistically distinct in response. Furthermore, the classification tree shows which variables to use in further analysis and which variables to discard. It is for these reasons that the researcher has opted to use CHAID analysis to identify the key predictors of potential use of Islamic finance among Muslims in Port Elizabeth.

4.6 DELIMITATIONS AND DIFFICULTIES

Although this study contributes to the literature of Islamic finance research in South Africa, the following limitations and difficulties were faced during the execution of this study:

4.6.1 Sampling problem

In the present study, viewpoints were elicited from a single location using a systematic (purposive) stratified random sampling technique. Research findings may thus be subjected to regional clustering bias which, in turn, could limit the potential for generalisation of the findings. In order to address this limitation, future research need to replicate the study in other cities in South Africa.

4.6.2 Limited variables

The variables employed in the present study focused primarily on the impact subjective norms and other attitudinal components (for example, perceived knowledge and awareness of Islamic finance, behavioural beliefs, normative beliefs, efficacy beliefs, and environmental factors) have on a Port Elizabethan Muslim's intention to use or reject Islamic finance. These are not inclusive of all factors that impact on a Muslim's decision to use Islamic finance. Within this context, an opportunity exists for future studies to expand or create a richer set of variables by including not only the impact of subjective norms but also focus on the importance of 'governmental roles', 'personal experiences', 'perceived financial hardship', and 'corporate image of the bank' as key determinants of potential use of Islamic finance. This will provide

policymakers with a better understanding of the factors that influence Islamic finance acceptance and usage among Muslims.

4.6.3 Cost

There was a high cost involved in this research. This could be a barrier for researchers with financial constraints. Therefore, if this study were to be replicated, it would be advisable that funding be sought from either an educational research agency (e.g. the National Research Foundation), the research entity of an institution of higher learning or private sector scholarship bodies. In this case, the researcher was fortunate to have received dual funding from the National Research Foundation's (NRF) Thuthuka Programme supplemented with funding from the Nelson Mandela Metropolitan University's Research and Capacity Development (RCD) office.

4.6.4 Questionnaire length

Many respondents complained about the length of the 82-variable questionnaire. However, the nature of the present exploratory study justified the wide scope as well as the length of the questionnaire. Compiling a shorter questionnaire may address this shortcoming in the future. The structural equation model developed in sub-section 4.5.2 benefits future researchers who will be able to eliminate those variables/questions that were statistically insignificant predictors of potential use of Islamic finance in the present study. This will allow future researchers an opportunity to work with a smaller number of variables in a shorter questionnaire.

4.7 SUMMARY

This chapter introduced the reader to the three approaches to research, namely qualitative, quantitative and mixed method research and emphasised the need to consider three research framework elements, namely: (i) the philosophical assumptions about what constitutes knowledge claims; (ii) the general procedures of research called strategies of inquiry; and (iii) detailed procedures of data collection, analysis, and writing, called methods. Qualitative, quantitative, and mixed methods approaches frame each of these elements differently, and these differences were identified and discussed in this chapter.

This chapter is pivotal as it provided an overview of the processes undertaken by the researcher to complete the study. The chapter further discussed various matters and issues related to the research methods and fieldwork, including the population and sampling identification, questionnaire instrument development, data collection mode, data analysis techniques, and finally data quality and reliability.

This exploratory study, based on the researcher's positivist stance, adopted a sequential mixed method research design to collect cross-sectional data from a sample population of 389 Muslim respondents in Port Elizabeth. Extensive review of existing literature on the research area preceded exploratory discussions with prominent stakeholders within the Islamic finance sector and academia to get their viewpoints of the important internal and external variables that stifle the growth of the sector. This was followed by informal interviews with 40 members of the Muslim community in Port Elizabeth to ascertain what they considered to be important factors that influenced their attitude and behaviour towards Islamic finance. This was done to help inform the content of the draft questionnaire that was pre-tested, pilot-tested, amended and then administered by twenty fieldworkers to a representative sample of 400 Muslim respondents across 18 suburbs in Port Elizabeth. Subsequent statistical analysis of the data indicated that only 389 questionnaires were of usable quality, resulting in a 97.3 per cent response rate.

This chapter provided justification for analysing the primary data by means of various descriptive and inferential statistical methods and evaluated in terms of the research objectives and hypotheses stipulated in Chapter 1. The following chapter provides the results of the aforementioned statistical analyses performed on the survey data.

CHAPTER FIVE
EMPIRICAL FINDINGS

5.1   INTRODUCTION

The objective of this chapter is to present the results of statistical analyses undertaken on the primary data gathered during the fieldwork process, as defined in the research methodology chapter. The software programme Statistical Package for the Social Sciences (SPSS version 22) was used to capture and analyse the data obtained from the questionnaires. This chapter is presented in three distinct sections. The brief introductory section is followed by Section 5.2, which describes and analyses categorical background information about the respondents in terms of their gender, age, marital status, education level, monthly income and occupation. An analysis of these variables is intended to provide the reader with some insight into the characteristics and nature of the respondents. As mentioned in the introductory chapter of this thesis, a lack of knowledge of Islamic finance principles and retail products have been identified in at least one reputable research report as a key factor stifling the growth of the Islamic finance sector in South Africa (KFH Research, 2012; Ackerman, 2011; Saini *et al.*, 2011). In this context, Section 5.3 provides an analysis of the findings regarding the respondents' knowledge and awareness of Islamic finance retail providers, principles, objectives and retail products. In an attempt to address research question number 7 (RQ_7) outlined in Chapter 1 of this thesis, Section 5.4 of this chapter discusses the relevant factors that may attract respondents to use Islamic finance. Section 5.5 explains the results of parametric and non-parametric statistical techniques that were used to support the research hypotheses of the study.

5.2   CHARACTERISTICS OF THE SAMPLE

Information pertaining to the objective of this study was gathered by means of a survey conducted among a sample group of 389 Muslims residing in Port Elizabeth. Section E of the questionnaire included various questions related to the demographic information of the respondent. Figure 5.1 presents characteristics of the sample in terms of personal information and shows percentages that provide descriptive

statistics of categorical variables. The mean-value and standard deviations describe the characteristics of continuous variables.

Respondents to the survey were relatively representative of the research population in terms of gender, age, and socio-economic status. The gender distribution of the sample roughly mirrored the South African national population statistics. According to the 2011 national census figures released by Statistics South Africa (StatsSA), 49.0% of the total population of South Africa were male and 51% were female (StatsSA, 2011). Within the sample, 48.1% (n=187) of the respondents were male and 51.9% (n=202) were female. The majority (67.9%, n=264) of the respondents were between the ages of 25-49, while 14.4% (n=56) of the respondents fell within the age category of 20-24. The 'below-20' and 'above-55' age groups constituted 6.2% (n=24) and 11.6% (n=45) respectively. The survey figures indicated that the majority of the respondents were 'middle-aged' individuals who gained income either as salary earners or by running a business.

From the survey results, just over half (50.6%, n=197) of the respondents claimed to be married, while 40.4% (n=157) were single. The remaining 9.0% (n=35) were either living together as married partners (1.0%, n=4), widowed (3.6%, n=14) or separated from their spouses (4.4%, n=17). In terms of their level of education, some 49.1% (n=191) of the respondents had a post-matric qualification, which implied that the viewpoints of an educated sample were elicited during the completion of this study. It is worthwhile to note that a substantial percentage of the respondents only had primary school (4.4%, n=17) as the highest level of education, while some 1% (n=4) had no formal education.

The final two socio-economic status variables are described simultaneously, as they are deemed to have a significant relationship with each other. Notwithstanding the fact that self-reported monthly income levels were low (less than R1 600 per month) for 46.5% (n=181) of the sampled population, 1.3% (n=5) of the respondents indicated that they received a monthly income in excess of R51 201. The number of respondents employed in the private and public sectors were almost equally represented at 24.2% (n=94) and 22.6% (n=88) respectively.

Figure 5.1:   Demographic and socio-economic profiles of respondents
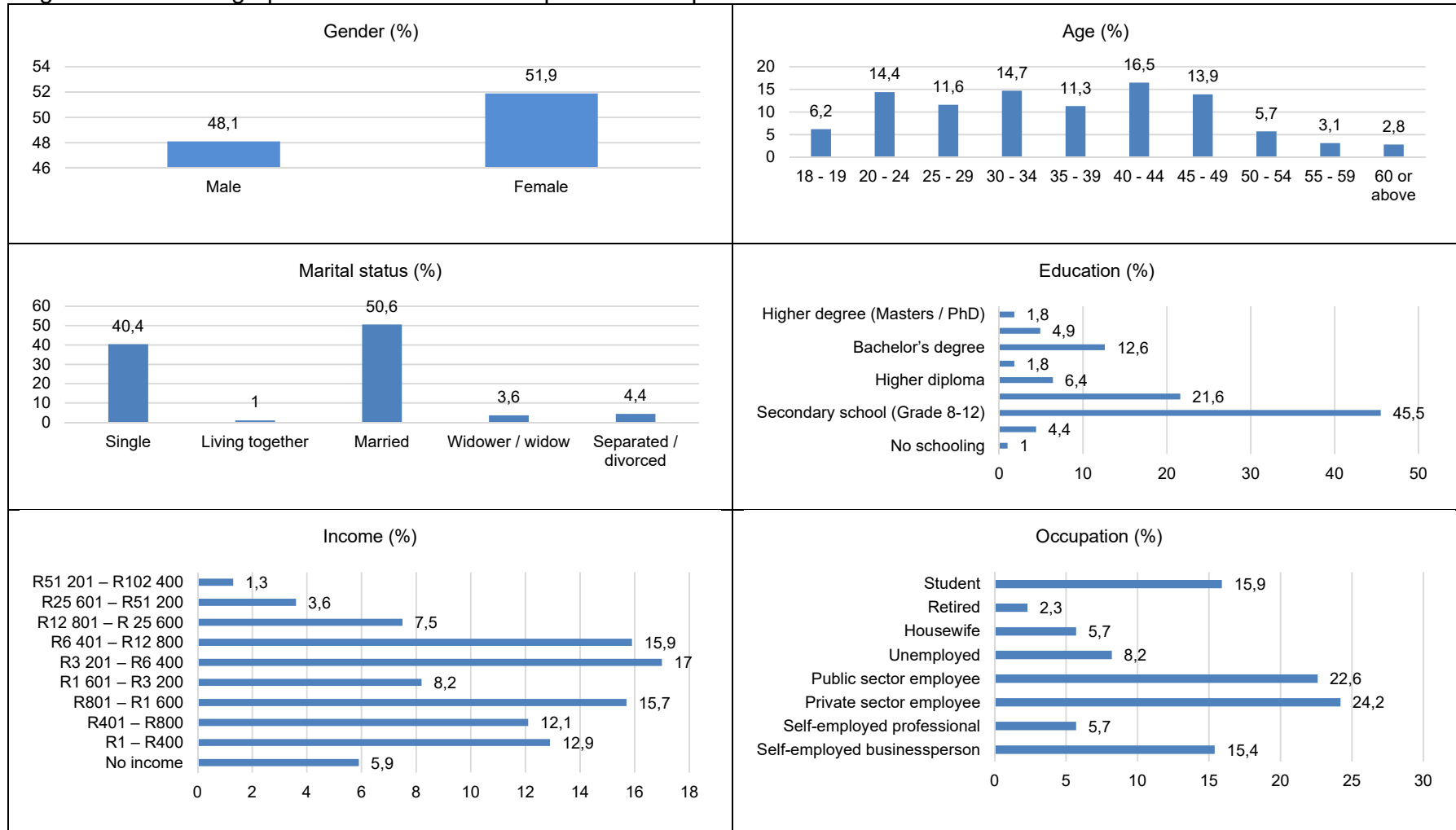
Source: Survey data.

The first two questions of the study's research instrument ascertained the respondent's knowledge of Islamic finance retail providers in Port Elizabeth. Respondents were presented with the following two binary-outcome (1=No, 2=Yes) questions: (1) Do you know the name of the full-fledged Islamic bank that is operative in Port Elizabeth?; and (2) Do you know whether your current bank provides Islamic finance retail services?

The results, depicted in Figure 5.2, showed that nearly half (46.8%, n=182) of the survey respondents did not know the name of the full-fledged Islamic bank that was operative in Port Elizabeth. A similar result was found to the second question posed in the questionnaire, where 45.0% (n=175) of the respondents indicated that they did not know whether their current bank provided Islamic finance retail services. These results should trigger some concern for the institutions directly involved in offering Islamic finance retail products and services as well as the regulators tasked with promoting the Islamic finance sector within the Port Elizabeth region.

By means of a ten-point self-rating scale, it was established that the level of awareness in terms of the principles and objectives of Islamic finance (M=4.24, SD=1.71, and median=4.00) and what the various Islamic finance retail products entail (M=4.18, SD=1.67, and median=4.0) were low among all the respondents. Nearly all (93.4% and 97.8%) non-potential users of Islamic finance indicated that they possessed a low level of familiarity with the basic principles, objectives and retail products on offer in Islamic finance. This was in contrast to potential users, where 47.8% and 43.0% respectively indicated that they were familiar with the principles, objectives and retail finance instruments offered by Islamic banks.

Figure 5.2:   Respondents' knowledge of Islamic finance service providers and retail instruments

Knowledge of Islamic finance service providers

No: 182 (Knows name of Islamic Bank in Port Elizabeth), 175 (Knows if current bank provides Islamic finance services)
Yes: 207 (Knows name of Islamic Bank in Port Elizabeth), 214 (Knows if current bank provides Islamic finance services)

■ Knows name of Islamic Bank in Port Elizabeth
■ Knows if current bank provides Islamic finance services

Awareness of Islamic finance principles, objectives and retail instruments

Low: 223, 213
Fair: 64, 87
High: 102, 89

■ Awareness of basic principles and objectives of Islamic finance
■ Awareness of various finance instruments available from Islamic banks

Difference in level of knowledge between potential and non-potential users of Islamic finance

Low: 178, 35
Neutral: 4, 83
High: 0, 89

■ Not a potential user ■ Potential user

Difference in level of awareness between potential and non-potential users of Islamic finance

Low: 170, 53
Neutral: 9, 55
High: 3, 99

■ Not a potential user ■ Potential user

Source: Survey data.

Respondents to the survey were asked to disclose their attitude, measured on a 10-point scale, towards Islamic finance. Figure 5.3 shows that, while 42.7% (n=166) of the respondents had a positive attitude towards Islamic finance, some 40.1% (n=156) of the 389 respondents harboured a negative attitude towards it. Some 17.2% (n=67) of the respondents reflected a neutral attitude towards Islamic finance.

Figure 5.3:   Respondents' attitude towards Islamic finance
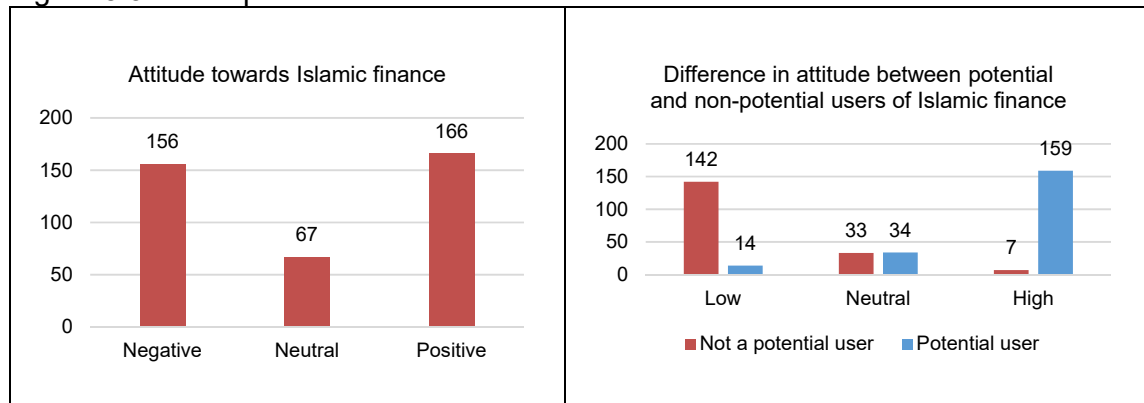
Source: Survey data.

From a sample of 389 Muslims in Port Elizabeth, almost every second respondent (53.2%) indicated an intention to use Islamic finance. Respondents' intention to use Islamic finance was strongly associated with their attitude towards it. Whereas 76.8% (n=159) of potential users revealed a positive attitude towards Islamic finance, only 3.8% (n=7) of non-potential users held a positive attitude towards it.

Using the "mean value rule" approach to rank criteria, respondents' perceptions of Islamic banks were evaluated. Table 5.1 shows that the majority (73.5%, n=286) of the respondents felt that an Islamic bank's methods of finance are interest-free and managed in accordance with *Shari'ah* law. However, some 65.6% (n=255) of the respondents felt that the marketing of the Islamic financial brand in South Africa was weak and unclear. Respondents were also of the opinion that Islamic bank administrators were not doing enough to educate the public on the merits of Islamic finance (64.3%, n=250).

Table 5.1:   Respondents' perceptions of Islamic banks compared to conventional banks

What is your opinion concerning the following statements?	Strongly disagree / Disagree[a]		Neutral / Not sure		Strongly agree / Agree[a]		Mean[b]	SD[b]	Median[b]	Rank
	N	%	N	%	N	%				
An Islamic bank's methods of finance are interest-free and in accordance with *Shari'ah* law.	32	8.2	71	18.3	286	73.5	3.82	.919	4.00	1
Marketing of the Islamic financial brand is weak and unclear.	74	19.0	60	15.4	255	65.6	3.66	1.137	4.00	2
Islamic bank administrators are not doing enough to educate the public on the merits of Islamic finance.	77	19.8	62	15.9	250	64.3	3.60	1.118	4.00	3
Islamic banks have an honest, open and transparent business culture.	46	11.8	168	43.2	175	45.0	3.39	.883	3.00	4
Islamic financial institutions properly reflect the values on which they are based.	44	11.3	169	43.4	176	45.2	3.36	.867	3.00	5
Current tax legislation is not favourable towards the returns generated by Islamic finance products.	30	7.7	248	63.8	111	28.5	3.23	.725	3.00	6
Islamic banking deposits not guaranteed by government, are riskier than conventional banking deposits.	66	17.0	225	57.8	98	25.2	3.13	.798	3.00	7
Islamic banks copy conventional banking products and use Arabic names to market their products.	107	27.5	149	38.3	133	34.2	3.07	.972	3.00	8
The profit paid on deposit by Islamic banks is similar (in principle) to the interest paid by conventional banks.	112	28.8	174	44.7	103	26.5	2.98	.925	3.00	9
Islamic windows are not permissible as they are merely divisions of conventional banks.	85	21.9	232	59.6	72	18.5	2.98	.788	3.00	10
Islamic finance retail products are more costly and have hidden charges.	124	31.9	176	45.2	89	22.9	2.91	.934	3.00	11
Islamic banks only cater for Muslim customers.	178	45.8	100	25.7	111	28.5	2.75	1.177	3.00	12
Islamic banking is not viable because the rest of the world's financial system is based on interest.	180	46.3	111	28.5	98	25.2	2.70	1.137	3.00	13

a. Categories collapsed to facilitate readability.   b. Calculations based on original data.

Source: Survey data.

Despite the fact that nearly half (45.0%, n=175) of the respondents believed that Islamic banks have an honest, open and transparent culture which properly reflected the values on which they are based, some 43.3% (n=169) were unsure that this was the case. Even though 46.3% (n=180) of the respondents perceived Islamic banking to be a viable financial system, a substantial number (63.8%, n=248) were unsure whether current tax legislation was favourably geared towards the returns generated by Islamic finance products and whether Islamic banking deposits not guaranteed by government, were riskier than conventional banking deposits (57.8%, n=225).

Nearly half of the respondents (45.8%, n=178) believed that Islamic banks did not only cater for Muslim customers, whereas 44.7% (n=174) could not decide whether they perceived the profit paid on deposit by Islamic banks to be similar (in principle) to the

interest paid by conventional banks. In this context, it was not surprising to note that some 34.2% (n=133) of the respondents felt that Islamic banks merely use Arabic names to copy and market conventional banking products. In terms of pricing, some 22.9% (n=89) of the respondents expressed a viewpoint that Islamic finance retail products are more costly compared to the financing services offered by conventional banks.

Respondents to the survey were asked to share their beliefs on Islamic finance. Those 'beliefs' statements were measured on a five-point Likert-style rating scale of 1=Strongly disagree, 2=Disagree, 3=Neutral/Not sure, 4=Agree, and 5=Strongly agree. The data in Table 5.2 reveals that respondents voiced a strong belief that investing in a conventional bank was in conflict with their religious beliefs (rank=1) and that opening an account at an Islamic bank was the right thing to do (rank=4). Some 68.6% (n=267) of the respondents believed that associating with an institution that provided *Halal* (lawful) products was part of their religious obligation (rank=2) and that the *Zakah* (charity) collected from customer accounts at an Islamic bank was distributed to the needy (rank=3). More than half (52.4%, n=204) of the respondents indicated they appreciated that Islamic finance was available in South Africa (rank=5) as it created an opportunity to harmonise personal and business objectives with religious obligation. However, respondents were divided (Agree=50.1%, n=195) in their belief whether choosing Islamic finance over conventional banking promoted Islam or whether participating in Islamic banking and finance was more beneficial than participation in traditional Western banking (Agree=41.1%, n=160).

Table 5.2:   Respondents' beliefs of Islamic finance

What is your viewpoint concerning the following statements?	Strongly disagree / Disagree[a]		Neutral / Not sure		Strongly agree / Agree[a]		Mean[b]	SD[b]	Median[b]	Rank
	N	%	N	%	N	%				
Investing in a conventional bank is in conflict with my religious beliefs.	29	7.5	74	19.0	286	73.5	3.89	0.850	4.00	1
Associating with an institution that provides *Halal* products is part of my religious obligation.	30	7.7	92	23.7	267	68.6	3.82	0.859	4.00	2
The *Zakah* collected from customer accounts at an Islamic bank is distributed to the needy.	34	8.7	95	24.4	260	66.8	3.73	0.901	4.00	3
Opening an account at an Islamic bank is the right thing to do.	40	10.3	98	25.2	251	64.5	3.69	0.938	4.00	4
I appreciate the fact that Islamic finance is available in South Africa.	32	8.2	153	39.3	204	52.4	3.58	0.868	4.00	5
Muslims should not care how much the return on deposits is as long as the return is *Shari'ah*-compliant.	72	18.5	83	21.3	234	60.2	3.57	1.025	4.00	6
Islamic finance creates the opportunity to harmonise personal and business objectives with religious obligation.	35	9.0	144	37.0	210	54.0	3.54	0.847	4.00	7
I do not know enough about Islamic finance to make an informed decision to use or reject it.	74	19.0	86	22.1	229	58.9	3.53	1.009	4.00	8
Having an Islamic bank account creates a sense of identity.	59	15.2	136	35.0	194	49.9	3.49	0.951	3.00	9
Choosing Islamic finance over conventional banking promotes Islam.	77	19.8	117	30.1	195	50.1	3.46	1.039	4.00	10
As a Muslim, it is important to have a *Shari'ah*-compliant investment portfolio.	86	22.1	90	23.1	213	54.8	3.44	1.077	4.00	11
My knowledge of Arabic is inadequate to make an informed decision to accept or reject Islamic finance.	78	20.1	110	28.3	201	51.7	3.43	1.119	4.00	12
As Muslims we should be concerned about the sources of our funds.	76	19.5	126	32.4	187	48.1	3.42	0.978	3.00	13
To gain the blessings of Allah (SWT), one needs to avoid paying and receiving *riba'h*.	90	23.1	110	28.3	189	48.6	3.41	1.065	3.00	14
The viewpoints expressed by the *Ulumah* (learned scholars) influence my decision to accept/reject Islamic finance.	113	29.0	89	22.9	187	48.1	3.23	1.179	3.00	15
Participation in Islamic banking and finance is more beneficial than participation in traditional Western banking.	107	27.5	122	31.4	160	41.1	3.20	1.037	3.00	16
Knowing that the first Islamic Bank in South Africa was liquidated in 1998 affects my attitude towards Islamic banking and finance.	94	24.2	142	36.5	153	39.3	3.18	1.074	3.00	17
Muslims should encourage each other to adopt Islamic finance.	113	29.0	106	27.2	170	43.7	3.18	1.167	3.00	18
My friends feel that the Muslim Brotherhood would be strengthened if I make use of Islamic finance.	132	33.9	76	19.5	181	46.5	3.16	1.205	3.00	19
An Islamic bank helps poor people with benevolent loans.	146	37.5	67	17.2	176	45.2	3.13	1.241	3.00	20
My spouse/parents think that I will fulfil my religious obligation if I make use of Islamic finance.	152	39.1	72	18.5	165	42.4	3.03	1.226	3.00	21

a. Categories collapsed to facilitate readability. b. Calculations based on original data.

Source: Survey data.

In terms of their efficacy beliefs, some 58.9% (n=229) of the respondents felt that they did not know enough about Islamic finance to make an informed decision to use or reject it. More than half (51.7%, n=201) of the respondents felt that their knowledge of Arabic was inadequate to understand what Islamic finance entails.

Section D of the questionnaire required respondents to consider a wide variety of patronage factors that could influence their decision to adopt or reject Islamic finance. These 20 factors included, *inter alia*, religiosity, service quality, financial gain and cost, as well as government support. The respondents needed to rate each of the factors according to their preferences (ranging from 'Not important at all' to 'Very important'). Table 5.3 presents the frequency results of their responses to each of these statements. The presentation of the descriptive analysis is based on the highest mean-value ranking system.

Table 5.3:   Factors influencing respondents' intention to adopt Islamic finance

To what extent would the following factors influence your decision to use an Islamic bank or any method of Islamic finance?	Not important at all / Not so important[a]		Neutral		Important / Very important[a]		Mean[b]	SD[b]	Median[b]	Rank
	N	%	N	%	N	%				
Greater knowledge of Islamic finance retail products	24	6.2	12	3.1	353	90.7	4.23	.884	4.00	1
Customer service quality factors	30	7.7	34	8.7	325	83.5	4.15	.990	4.00	2
Religious obligation to promote tenets of Islam	30	7.7	42	10.8	317	81.5	4.04	.941	4.00	3
Accessible banking services	36	9.3	37	9.5	316	81.2	3.99	.991	4.00	4
Reduced banking costs	36	9.3	46	11.8	307	78.9	3.98	1.005	4.00	5
Encouragement from family and friends	42	10.8	37	9.5	310	79.7	3.97	1.029	4.00	6
Less use of Arabic terminology to identify products	44	11.3	62	15.9	283	72.8	3.90	1.029	4.00	7
Government support to develop Islamic finance sector	27	6.9	36	9.3	326	83.8	3.90	.812	4.00	8
Expanded branch network	47	12.1	66	17.0	276	71.0	3.83	1.041	4.00	9
Attitude of knowledgeable bank staff	41	10.5	42	10.8	306	78.7	3.83	.940	4.00	10
Variety of financing options	47	12.1	53	13.6	289	74.3	3.78	.976	4.00	11
Profitability	39	10.0	129	33.2	221	56.8	3.55	.888	4.00	12
Saving for *Hajj*	69	17.7	92	23.7	228	58.6	3.54	1.049	4.00	13
Convenience	65	16.7	105	27.0	219	56.3	3.51	1.042	4.00	14
Increased marketing initiatives	71	18.3	97	24.9	221	56.8	3.50	1.081	4.00	15
Financial reputation and image of Islamic bank	69	17.7	116	29.8	204	52.4	3.45	1.041	4.00	16
Shari'ah Board composition	65	16.7	126	32.4	198	50.9	3.41	.963	4.00	17
Board Rate	109	28.0	86	22.1	194	49.9	3.37	1.206	3.00	18
Singular *Shari'ah* Advisory Board	116	29.8	76	19.5	197	50.6	3.34	1.213	3.00	19
Shari'ah standardisation	120	30.8	78	20.1	191	49.1	3.30	1.208	3.00	20

b. Categories collapsed to facilitate readability. b. Calculations based on original data.
Source: Survey data.

Table 5.3 shows that Muslims in Port Elizabeth ranked a lack of knowledge of what Islamic finance retail products entail (M=4.23, SD=0.884, median=4.00) as the most

important factor that influences their decision to adopt Islamic finance. Some 72.8% (n=283) of respondents expressed a strong belief that Islamic banks' use of Arabic terminology (rank=7) to market their products make it difficult to understand what Islamic finance entails.

The mean-value for the "Customer service quality factors" (rank=2) was 4.15, with a standard deviation of 0.990 and a median of 4.00. This result implied that respondents regarded the provision of high-quality customer service as a crucial factor in their bank patronage considerations. Some 83.5% (n=325) of the respondents strongly believed that speed and efficiency in service provision were important factors to consider when selecting a bank. The "Religious obligation to promote the tenets of Islam" factor (M=4.04, SD=0.941, median=4.00) ranked third highest according to the mean-value rule. The majority (81.5%) of the respondents indicated that they would use Islamic finance due to religious beliefs. This factor had the highest percentage of 'Very important' among all listed factors. Respondents identified "Accessible banking services" (rank=4), "Reduced banking costs" (rank=5) as well as government support (rank=8) to develop the sector as important factors that would increase their willingness to use Islamic finance.

Prior research (*cf.* Park & Lessing, 1977; Tan & Chua, 1986) suggest that the encouragement of family and friends are key factors that influence the decision of potential users to adopt Islamic finance. With a mean-value of 3.97, this factor was ranked sixth because 79.7% (n=310) of the respondents rated it as 'Important' and 'Very important'. In contrast, only 10.8% (n=42) of the respondents indicated that the recommendations from family and friends to use Islamic finance would not influence their intention to accept or reject Islamic finance. Mohd-Karim (2012) states that a bank's financial reputation and image are key factors that influence a customers' patronage decision. This stems mostly from the fact that a strong financial position of the bank serves as an indicator of the security of the clients' deposits. In spite of the fact that the first Islamic bank in South Africa was liquidated in 1997, the issue of "Financial reputation and image of the Islamic bank" was ranked only sixteenth (M=3.45, SD=1.041, median=4) on the respondents' list of key motivating factors. Respondents clearly placed greater importance on the development of an expanded branch network for Islamic banks (rank=9), the attitude of knowledgeable banking staff

(rank=10) as well as the possibility of high returns offered at competitive cost (rank=12) than they did on the composition of the *Shari'ah* Advisory Board (rank=17) and the standardisation of *Shari'ah* proclamations (rank=20). Some 71.0% of the respondents indicated that it was important to associate with a "highly-visible and accessible" bank that caters to their banking needs in terms of distance from their home or work. A wide range of financing options was an important criterion for 74.3% (n=289) of potential users of Islamic finance. Those who rated this factor as 'Important/Very Important' indicated that they would only consider using Islamic finance if they were able to take advantage of other financing facilities that, sometime, could be very difficult to obtain from other banks. However, when compared to other factors, an Islamic bank's "Range of financing options" was only ranked eleventh on potential users' list of bank selection criteria.

Equipped with this knowledge of the respondents' demographic profiles, their beliefs, and expectations of the Islamic finance sector, the researcher was in a position to develop a theoretical research instrument that could reliably measure the attitude of Muslims in Port Elizabeth towards Islamic finance. The following sub-section explains the process that was followed to develop and evaluate the study's measuring instrument in terms of reliability and validity.

5.3 THE MEASURING INSTRUMENT

Dixon (1992) asserts that people in Muslim-minority countries have failed to adopt a positive attitude towards Islamic finance. In this context, respondents to this survey were requested to indicate the extent of their agreement with 31 statements that represented their attitude towards Islamic finance. These statements were evaluated on a self-rating five-point interval scale (1=Strongly disagree, 2=Disagree, 3=Neutral/Not sure, 4=Agree, 5=Strongly agree). The construct 'attitude' was defined in Chapter 1 as a predisposition to think, feel, or behave in a positive or negative way toward an attitude object (Lantos, 2011: 501) which, in the context of this research project, related to the respondent's potential use of Islamic finance. The three attitudinal components that constitute the independent variable included a cognitive (think) measure, an affective (feel) measure, as well as a conative (behave) measure.

According to Lantos (2011), attitudes based on connation (intentions and actions) usually result from personal experience or behavioural intent.

Exploratory factor analysis (EFA) was performed as a data reduction method and to assess whether the 31 observed variables in the 'attitude' section of the questionnaire loaded together as expected, were adequately correlated, and met the criteria of reliability and validity. In this study, where no *a priori* assumption was made about which items belonged to which construct, it was expected that exploratory factor analysis would detect problematic variables. It was also expected that the constructs would not be correlated. Therefore, the commonly-used Principal Component Analysis with a Varimax Rotation was specified as the extraction and rotation method. According to Tabachnick and Fidell (2007), Principal Component Analysis (PCA) is used when the researcher seeks a linear combination of variables that would extract the maximum variance from the data set. The researcher used the 'eigenvalue rule' or Kaiser's criterion to determine the number of factors to retain. An eigenvalue of 1 and above was used as the benchmark. Any factor with an eigenvalue of 1 and above was retained as a principal component. Finally, the loadings pattern was rotated to improve interpretability. In rotation, this study used an orthogonal (uncorrelated) factor solution instead of an oblique (correlated) factor solution as the researcher assumed that no relationship existed between the underlying variables (Field, 2005: 644). The pattern matrix, presented in Table 5.4, reflected a clean factor structure whereby 31 items were reduced to six factor components with eigenvalues greater than 1. Factor structure refers to the intercorrelations among the variables tested in the EFA (Tabachnick & Fidell, 2007). Guadagnoli and Velicer (1988) is of the opinion that, if a dataset contains several high factor loading scores (>0.8), then a smaller sample size should be sufficient to regard a factor as reliable. However, Guadagnoli and Velicer (1988) stipulate that the dataset must have four or more loadings of at least 0.8 regardless of sample size. Stevens (1992) suggests using a factor loading cut-off of 0.4, irrespective of sample size, for interpretative purposes. When the items have different frequency distributions, Tabachnick and Fidell (2007) follow Comrey and Lee (1992) by suggesting more stringent cut-offs that range from 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent). In the context of this study, items with rotated factor loadings less than 0.70 were omitted to improve clarity.

Table 5.4:   Pattern matrix of the measuring instrument

Item	Factor loading						Communality
	Factor 1 (BB)	Factor 2 (NB)	Factor 3 (EB)	Factor 4 (ENV)	Factor 5 (KNOWLEDGE)	Factor 6 (AWARENESS)	
Choosing Islamic finance over conventional banking promotes Islam.	.732						.665
To gain the blessings of Allah (SWT), one needs to avoid paying and receiving *riba'h*.	.749						.621
I appreciate the fact that Islamic finance is available in South Africa.	.784						.736
Having an Islamic bank account creates a sense of identity.	.798						.724
As a Muslim, it is important to have a *Shari'ah*-compliant investment portfolio.	.813						.705
Participation in Islamic finance is more beneficial than participation in traditional Western banking.	.703						.655
An Islamic bank helps poor people with benevolent loans.	.802						.733
My spouse/parents think that I will fulfil my religious obligation if I make use of Islamic finance.		.739					.676
Muslims should encourage each other to adopt Islamic finance.		.758					.601
Most of the people that are important to me think that I should make use of Islamic finance.		.757					.714
My friends feel that the Muslim Brotherhood would be strengthened if I make use of Islamic finance.		.739					.673
I know enough about Islamic retail products to make an informed decision to use or reject it.			.759				.682
Using Arabic terminology for retail financial products makes it difficult to understand Islamic finance.			.948				.908
Knowing that the first Islamic Bank was liquidated in 1998 affects my attitude towards Islamic finance.			.915				.849
My knowledge of Arabic is inadequate to make an informed decision to accept/reject Islamic finance.			.951				.919
Customer service quality (e.g., fast and efficient service from Islamic banking staff).				.779			.634
Low or competitive service charges compared to conventional banks.				.838			.873
Priority given by the National Treasury to develop the Islamic finance sector in South Africa.				.844			.867
Knowledge of *Mudarabah*					.858		.744
Knowledge of *Musharakah*					.882		.782
Knowledge of *Murabahah*					.865		.757
Knowledge of *Bai Muajjall*					.900		.820
Knowledge of *Bai Salam*					.881		.782
Knowledge of *Istisnah*					.888		.801
Knowledge of *Ijarah*					.884		.794
Knowledge of *Qard-ul-Hassan*					.840		.732
Knowledge of *Takaful*					.833		.722
Knowledge of *Wadiah*					.818		.686
Awareness of *Shari'ah* edict in terms of the distribution of *Zakah* funds to the poor.						.700	.662
Awareness of *Shari'ah* edict in terms of associating with *Halal* products.						.762	.626
Awareness of *Shari'ah* edict relating to returns on deposits.						.731	.647

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation. Rotation converged in 5 iterations. Loadings < .70 are omitted.

Source: Survey data.

The first factor loaded most strongly on the first seven items, with loadings displayed in the first column. The seven variables included the following: (1) Choosing Islamic finance over conventional banking promotes Islam; (2) To gain the blessings of Allah (s.w.t.), one needs to avoid paying and receiving *riba'h*; (3) I appreciate the fact that Islamic finance is available in South Africa; (4) Having an Islamic bank account creates a sense of identity; (5) As a Muslim, it is important to have a *Shari'ah*-compliant investment portfolio; (6) Participation in Islamic banking/finance is more beneficial than participation in traditional Western banking; and (7) An Islamic bank helps poor people with benevolent loans. Noticeably, these variables focused, in general, on a Muslim's evaluation of his beliefs in terms of the favourableness and unfavourableness of performing a behaviour. Therefore, this factor was labelled '*behavioural beliefs*' (BB).

The second factor presented high coefficients (factor loadings greater than 0.7) on four items which are shown in column 2 of the table. These items included the following: (1) My spouse/parents think that I will fulfil my religious obligation if I make use of Islamic finance; (2) Muslims should encourage each other to adopt Islamic finance; (3) Most of the people that are important to me think that I should make use of Islamic finance; and (4) My friends feel that the Muslim Brotherhood is strengthened if I make use of Islamic finance. This factor reflected on the influence social and personal networks have on a Muslim's intention to accept or reject Islamic finance. Hence, this factor was labelled '*normative beliefs*' (NB).

The third factor was comprised of four items and their respective loadings are displayed in the third column of Table 5.4. These items included: (1) I know enough about Islamic retail products to make an informed decision to use or reject it; (2) The use of Arabic terminology for retail financial products makes it difficult to understand Islamic finance; (3) Knowing that the first Islamic Bank in South Africa was liquidated in 1998 affects my attitude towards Islamic banking and finance; and (4) My knowledge of Arabic is inadequate to make an informed decision to accept or reject Islamic finance. This factor focused on the Muslim respondent's evaluation of his/her own capability to originate and direct actions for given purposes. In other words, the issues of self-efficacy and perceived control over behavioural performance were encapsulated in this factor. Therefore, this factor was labelled '*efficacy beliefs*' (EB).

Factor four displayed high coefficients (factor loadings greater than 0.7) on three variables which are displayed in column 4 of Table 5.4. These items included: (1) Customer service quality (e.g., fast and efficient service from Islamic banking staff); (2) Low or competitive service charges compared to conventional banks; and (3) Priority given by the National Treasury to develop the Islamic finance sector in South Africa. This factor focused on those variables that constitute either a barrier or an opportunity to a behaviour. These could include, *inter alia*, government support for Islamic finance, pricing, tax legislation, regulatory framework, skills of bank staff, and service quality factors. Hence, this factor was labelled '*environmental factors*' (ENV).

Factor five displayed high coefficients (factor loadings greater than 0.7) on 10 items. These items included knowledge of *Mudarabah* (Capital trust when the lender share only profit but not loss), *Musharakah* (Full partnership in profits and losses), *Murabahah* (Mark-ups on sale), *Bai Muajjall* (Deferred payments), *Bai Salam* (Prepaid purchases), *Istisnah* (Manufacturing contracts), *Ijarah* (Lease financing), *Qard-ul-Hassan* (Benevolent loans), *Takaful* (Islamic insurance), and *Wadiah* (Safekeeping of a deposit held in trust). Consequently, this factor was labelled '*knowledge*' as it related to the respondent's perceived knowledge of the various retail products offered by Islamic banks

Finally, factor six was comprised of three items, namely: (1) The *Zakah* collected from customer accounts at an Islamic bank is distributed to the needy; (2) Associating with an institution that provides *Halal* products is part of my religious obligation; and (3) Muslims should not care how much the return on deposits is as long as the return is *Shari'ah*-compliant. This factor focused primarily on the respondent's perceived awareness of *Shari'ah* edicts and his/her evaluation thereof. This factor was labelled '*awareness*'.

A factor's eigenvalue is the total variance explained by each factor. Any factor that presented an eigenvalue of less than one did not have enough total variance explained to represent a unique factor, and was therefore disregarded. In the context of this study, 31 explanatory variables were reduced to the following six factors with eigenvalues greater than one: *behavioural beliefs* (BB), *normative beliefs* (NB),

efficacy beliefs (EB), *environmental factors* (ENV), *knowledge*, and *awareness*. Principal Component Analysis aims to summarise the information in a correlation matrix. Table 5.5 shows the communalities for these variables, along with the variance accounted for by each retained factor.

Table 5.5:   Eigenvalues and total variance explained

No	Initial eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.926	28.794	28.794	8.926	28.794	28.794	7.559	24.385	24.385
2	6.559	21.159	49.954	6.559	21.159	49.954	4.940	15.935	40.319
3	2.903	9.363	59.317	2.903	9.363	59.317	3.197	10.312	50.631
4	1.828	5.895	65.212	1.828	5.895	65.212	2.783	8.979	59.609
5	1.576	5.084	70.296	1.576	5.084	70.296	2.356	7.600	67.209
6	1.097	2.893	73.189	1.097	2.893	73.189	1.854	5.980	73.189
7	.721	2.327	75.516						
8	.670	2.162	77.678						
9	.591	1.908	79.586						
10	.559	1.804	81.390						
11	.513	1.654	83.044						
12	.482	1.555	84.599						
13	.460	1.483	86.082						
14	.442	1.427	87.509						
15	.391	1.262	88.771						
16	.362	1.169	89.940						
17	.339	1.093	91.032						
18	.319	1.028	92.061						
19	.312	1.005	93.066						
20	.284	.916	93.982						
21	.277	.893	94.875						
22	.251	.810	95.685						
23	.236	.760	96.445						
24	.220	.710	97.156						
25	.198	.639	97.795						
26	.168	.541	98.336						
27	.158	.510	98.846						
28	.135	.436	99.282						
29	.109	.350	99.632						
30	.073	.235	99.867						
31	.041	.133	100.000						

(a) Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is 0.910; (b) Bartlett's Test of Sphericity is 9891.130; (c) p<0.001.
Source: Survey data.

If the aim was to explain 100% of the variation in the correlation matrix, then the researcher would have had to retain as many components as observed variables, which would make no sense at all. The idea with exploratory factor analysis is to select an optimal number of components that would account for the maximum possible variance. Upon visual inspection of the correlation matrix in Table 5.5 above, it is intuitively evident that retaining six components were adequate for the current data set. After rotation, the first factor accounted for 28.8% of the variance. Factors two to six accounted for 21.2%, 9.4%, 5.9%, 5.1% and 2.9% of the variance respectively. These six factors resulted in the total cumulative explanatory power of 73.2%. All other

variables beyond these six factors made insignificant contributions to the measuring instrument's goodness-of-fit. Therefore, retaining six factors was indicative of an optimal fit of the component solution (Lorenzo-Seva, 2013).

In order to determine whether factor analysis could be conducted on a set of variables, the values of Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity have to be checked (Norusis, 2006). By comparing the magnitudes of the observed correlation coefficients in relation to the magnitudes of the partial correlation coefficients, the KMO measures the adequacy of the data (Lorenzo-Seva, 2013). The value of KMO ranges from 0 to 1, with a minimum cut-off value requirement for exploratory factor analysis suitability set above 0.5 (Yong & Pearce, 2013: 88; Rennie, 2002). If the KMO is below 0.5, then the researcher should not conduct a factor analysis. Large KMO values are preferred because correlations between pairs of variables (i.e. potential factors) could be explained by the other variables. Kaiser (1974) considers KMO values below 0.70 as 'unacceptable'. According to Pallant (2007: 181), Bartlett's Test of Sphericity is used to test the hypothesis that the correlation matrix is an identity matrix (i.e. all diagonal terms are ones and all off-diagonal terms are zeros). In other words, the Bartlett's Test of Sphericity tests the null hypothesis that the variables were uncorrelated in the population. Factor analysis is suitable if Bartlett's Test of Sphericity produces a significant value when the p-value is less than 0.5 (Pallant, 2007: 181). In terms of the cut-off points for factor loadings and communalities, Hair, Black, Babin, & Anderson (2010) give rules of thumb for assessing the practical significance of standardised factor loadings.

In terms of evaluating the measuring instrument's adequacy for this study, Table 5.5 shows that a KMO value of 0.910 was obtained. This meant that all of the partial correlation coefficients were small in comparison to the ordinary correlation coefficients. It was, therefore, reasonable to proceed with a factor analysis. The results also reveal that Bartlett's Test of Sphericity produced an approximate Chi-square (X^2) value of 9891.130 which was highly significant (p<0.001) and favoured a rejection of the null hypothesis.

MacCallum *et al.* (1999, 2001) advocate that all items in a factor model should have communalities of over 0.60 or an average communality of 0.60 to justify performing a factor analysis with small sample sizes. A communality is the extent to which an item correlates with all other items. Higher communalities are better as it reduces the chance that the variable will struggle to load significantly to any factor. In the context of this study, the communalities for each variable were sufficiently high (all above 0.3 and most above 0.6). This confirmed that the chosen variables were adequately correlated for a factor analysis. Additionally, the reproduced correlations matrix (not shown) had only 1% non-redundant residuals greater than 0.05, which confirmed the adequacy of the variables as well as the goodness fit for the six-factor model. Upon review of the pattern matrix, five items (C5BB, C7BB, C8BB, C13BB, and C21BB) with low communalities (<0.7) were systematically removed from further analysis because they displayed kurtosis issues and cross-loaded with other items.

Hair *et al.* (1998:117) state that testing the reliability of a measuring instrument involves assessing the degree of consistency between multiple measurements of a variable. Cronbach's alpha is a type of reliability estimate or coefficient of internal consistency. In the present study, a factor was deemed reliable if it had a Cronbach-alpha coefficient greater than 0.70 (Leech, Barrett & Morgan, 2008). The Cronbach-alpha coefficients for the extracted factors are provided below, along with their labels and specification. As Table 5.6 shows, the range of alpha coefficients of the six constructs of the present study was from 0.702 to 0.963. The factors were all reflective because their indicators were highly correlated, largely interchangeable and the direction of causality was from construct to measure (Jarvis *et al.*, 2003).

Table 5.6:   Cronbach-alpha coefficients

Factor label	Cronbach's alpha	Number of items	Specification
Behavioural beliefs (BB)	0.915	7	Reflective
Normative beliefs (NB)	0.835	4	Reflective
Efficacy beliefs (EB)	0.912	4	Reflective
Environmental factors (ENV)	0.865	3	Reflective
Knowledge	0.963	10	Reflective
Awareness	0.702	3	Reflective

Source: Survey data.

The six extracted factors demonstrated sufficient convergent validity and discriminant validity. In terms of convergent validity, factor loadings were all above the recommended minimum threshold of 0.35 for a sample size in excess of 300 (Hair *et*

al., 2010). In terms of discriminant validity, the correlation matrix showed no problematic cross-loadings with correlations above 0.70 (Hair *et al.*, 2010). Accordingly, *behavioural beliefs* (BB), *normative beliefs* (NB), *efficacy beliefs* (EB), *environmental factors* (ENV), *knowledge*, and *awareness* were complex variables that loaded together as expected, were adequately correlated, met the criteria of reliability and validity, and represented the 31-item latent construct '*attitude*' reliably (Cronbach-alpha=0.871).

5.4   RESULTS FROM DATA ANALYSIS

Four types of statistical techniques were undertaken to achieve the objectives of this study, namely (i) exploratory data analysis (EDA); (ii) confirmatory factor analysis (CFA) and structural equation (SEM) modelling; (iii) discriminant function analysis (DFA); and (iv) hierarchical binary logistic regression (BLR) analysis. The survey data was captured and analysed using the Statistical Package for the Social Sciences (SPSS version 22) Base Program (IBM, 2013). The normative structural equation model was constructed in MPlus7 (Muthén & Muthén, 2012), while the predictive BLR model was built and evaluated using IBM's (2013) SPSS Modeller (version 14). The following subsections provide the results of each of the aforementioned statistical techniques.

5.4.1 Exploratory data analysis

According to Sweet (1999: 49) exploratory data analysis (EDA) is typically the first procedure any researcher should perform when examining data for the first time. Exploratory data analysis refers to the process of looking at single variables in terms of frequency distributions, central tendency, coding and capturing errors, as well as checking for missing variables and outliers. Based on the statistical characteristics of the sample, a researcher is then able to make a decision of the most appropriate statistical procedures that can be applied during the multivariate stages of the analysis. One aspect of EDA that researchers find particularly useful relates to univariate analysis.

Univariate descriptive statistics are commonly used to describe basic features of specific data and provide the reader with simple summaries about sample

characteristics or indicate relationships between variables. Pallant (2007: 306) states that, by checking the dispersion and the central tendency of the data, the process of univariate analysis allows the researcher to get "a feel for the goodness of data". Pallant (2007: 306) contends that, if there is good variability and range on individual items, then it is likely that the respondents understood the questions and/or that the questions were properly phrased. However, if the respondents tended to provide similar answers to an item, it could show a bias. The researcher can obtain the "feel" for the data by analysing the values of various statistics including mean, variance, standard deviation, as well as minimum and maximum values (Sekaran, 2007). Sekaran (2007: 307) also suggests checking the intercorrelation matrix between dependent and independent variables to determine their relationship and to get "a good idea of how well the questions were framed for tapping the concept".

Park (2008) states that normality in the distribution of random variables is critical in many statistical methods. When this assumption is violated, interpretation and inferences made based on non-normal data may not be reliable or valid. It is for this reason that applied researchers always look at the shape of their data before conducting statistical tests as this process informs them whether their data are normally distributed. The basic assumption for a discriminant analysis, for example, is that the sample comes from a normally distributed population.

There are two ways to test for the normality in the distribution of data. Graphical methods (for example, stem-and-leave plots, box plots, histograms, P-P plots and Q-Q plots) provide a visual presentation of the distributions of random variables or differences between an empirical distribution and a theoretical distribution within data. In this study, EDA was conducted for all the variables in the questionnaire to investigate whether there were any problems in the distribution of the data. The outcome of this investigation is briefly explained by means of normal Q-Q plots in Figure 5.4.

Figure 5.4:   Q-Q plots of potential predictors of intention to use Islamic finance
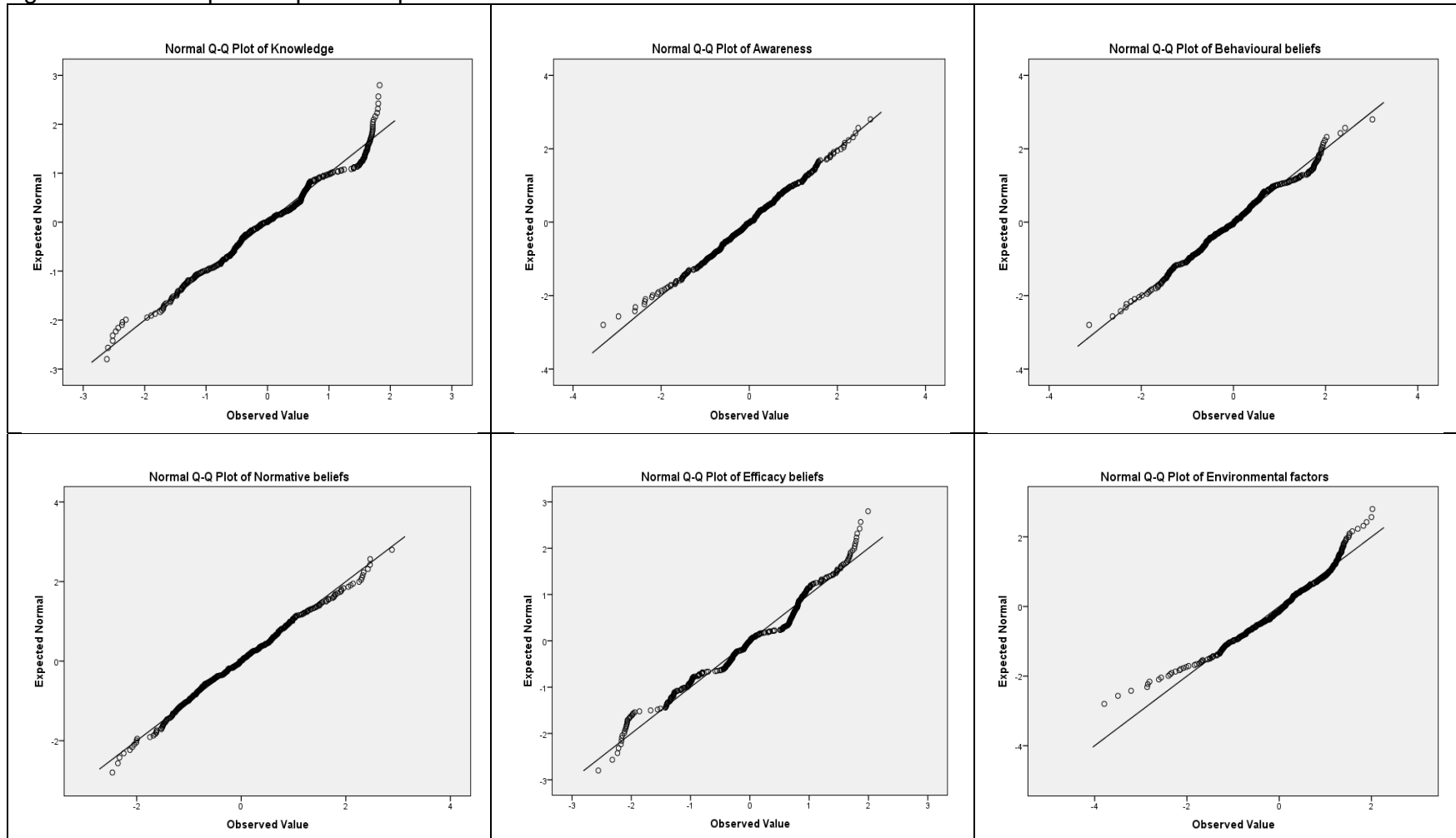
Source: Survey data.

Skewness and kurtosis show how the distribution of a variable deviates from a normal distribution. These statistics are based on the empirical data. A variable's skewness ratio measures the degree of symmetry of a probability distribution and is calculated by dividing the skewness level by the standard error of the skewness. Weinberg and Abramowitz (2002: 278) state that, if the skewness ratio of a variable is less than 2, normality is not violated. Porte (2002), in contrast, state that if the skewness level is under 1, there is no cause for concern. Since nearly all the variables in this study were based on Likert-type scales, there was no reason to exclude variables based on skewness unless the variables exhibited no variance. Consequently, instead of testing for skewness, emphasis was placed on kurtosis.

Howell (2002: 30) defines kurtosis as "the relative concentration of scores in the center, the upper and lower ends (tails), and the shoulders (between the center and the tails) of a distribution". In other words, kurtosis measures the thinness of tails or 'peakedness' of a probability distribution. If the kurtosis of a random variable is less than three (or if kurtosis-3 is less than zero), the distribution has thicker tails and a lower peak compared to a normal distribution. In contrast, kurtosis larger than 3 indicates a higher peak and thin tails (Howell, 2002: 30). According to Howell (2002: 30) a normally distributed random variable should have skewness and kurtosis near zero and three, respectively.

Observing that the circles for nearly all the variables under investigation lie quite close to the normality line, does not qualify the data as 'normal'. Closer inspection of the variables reflected the presence of positive (platykurtic) and negative (leptokurtic) kurtosis among certain variables in the data set. Therefore, graphical methods, although visually appealing, do not provide objective criteria to determine normality of variables and interpretations are a matter of judgment. Numerical methods, in contrast, use statistical tests to provide objective ways to examine normality. In the social sciences, the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk W test are commonly used to test for the skewness and kurtosis of random variables (Park, 2008).

According to Park (2008), the K-S test is a nonparametric test for the equality of continuous, one-dimensional probability distributions that can be used to compare

a sample with a reference probability distribution (one-sample K–S test), or to compare two samples (two-sample K–S test). In short, the K-S test tries to determine if two datasets differ significantly and provides the advantage of making no assumption about the distribution of data. The Shapiro-Wilk W test, in contrast, is the ratio of the best estimator of the variance to the usual corrected sum of squares estimator of the variance (Shapiro & Wilk, 1965). The statistic is positive and less than or equal to one. Being close to one indicates normality.

In the context of this study, the kurtosis-3 for some of the variables were severely high (in some instances greater than 3) which suggested that the distribution had high peak and flat tails with negative and positive skewness to the right and left. Kurtosis greater than or less than +/- 1.00 indicated potentially problematic kurtosis and a lack of sufficient variance. Table 5.7 provides the results of the normality tests conducted for the dependent variable (*intention*) as well as thirteen key predictor variables. Many of the variables from the *behavioural beliefs* factor as well as the *normative beliefs* factor had borderline kurtosis issues. Some items (for example, *gender*, *intention*, C7BB, C11BB, C21NB, D4, D6, D10, D16, D17, D18 and D20) were most significant, displaying absolute kurtosis values between 1 and 2. These borderline items were flagged for potential future issues in subsequent analyses. However, items C18NB, D3 and D9 had kurtosis values around 3. There was thus insufficient variance in those items to retain them.

Based on the fact that the Kolmogorov-Smirnov test as well as the Shapiro-Wilk W test rejected the null hypothesis of data normality at the $p<0.05$ level, it was decided to adopt a non-parametric statistical procedure to construct the predictive binary logistic regression model in Section 5.4.4. Binary logistic regression is a distribution-free procedure where the normality requirement is not needed (Ramayah, 2010: 1654). The non-normality in the distribution of data also had ramifications for the specification criteria of the structural equation model.

Table 5.7:   Skewness and kurtosis of dependent and key predictor variables

Dependent variable					Independent variables				
Variable	Skewness	Kurtosis	Kolmogorov-Smirnov test[a]	Shapiro-Wilk W test	Variable	Skewness	Kurtosis	Kolmogorov-Smirnov test[a]	Shapiro-Wilk W test
Intention	-.129	-1.994	.358**	.635**	Gender	-.077	-2.004	.351**	.636**
					Age	.187	-.757	.115**	.958**
					M/Status	.691	.578	.281**	.756**
					Education	1.072	.065	.267**	.809**
					Income	.046	-.945	.139**	.955**
					Occupation	.484	-.705	.194**	.895**
					Knowledge	-.131	-.405	.056*	.979*
					Awareness	-.111	.202	.030	.997
					Attitude	.158	-.754	.101**	.963**
					BB score	.072	-.053	.052*	.992*
					NB score	.176	-.235	.040	.994
					EB score	.356	-.524	.109**	.970**
					ENV score	-.696	.617	.064*	.968**

a.   Lilliefors Significance Correction. ** p<0.000, * p< 0.05.   Std. Error of Skewness = 0.124; Std. Error of Kurtosis = 0.247; p<0.05

Source: Survey data.

5.4.2 Confirmatory factor analysis and structural equation modelling

Structural Equation Modelling (SEM) was used to evaluate the relationships among the set of variables used in the proposed model of this study. SEM is a comprehensive statistical approach to test hypotheses about relations among observed and latent variables (Hoyle, 1995). According to Farrington (2009: 372) "theory" provides the rationale for almost all aspects of SEM because it is considered a confirmatory technique which is useful for testing and potentially confirming hypotheses. Consequently, theory is needed to specify relationships in both the measurement and the structural models (Hair *et al.*, 2006: 720). In the present study, the 'theory' for the SEM was found in Azjen and Fishbein's (1980) Theory of Reason Action (TRA) as well as Fishbein's (2000, 2008) Integrative Model of Behavioural Prediction (IMBP). These two theories propose that intention to engage in a behaviour is determined by an individual's attitude towards the behaviour (Ajzen & Fishbein, 1980)*.* When attitude influences a specific behaviour, the relationship between attitudes, intention and behaviour will be strong (Fishbein & Ajzen, 2010)*.*

Exploratory factor analysis, conducted in Section 5.3 of this study, identified 6 factors that potentially influenced the attitude of Muslims in Port Elizabeth towards Islamic finance. These six factors were labelled *behavioural beliefs* (BB), *normative beliefs* (NB), *efficacy beliefs* (EB), *environmental factors* (ENV), *knowledge*, and *awareness.* By using *socio-economic* and *demographic profiles* as external variables within a modified IMBP framework, confirmatory factors analysis (CFA) and structural equation modelling (SEM) were used to test and evaluate the following null (Ho_x) and alternative (Ha_x) hypotheses outlines in Table 5.8:

Table 5.8:   Research hypotheses

Null hypotheses		Alternative hypotheses	
Ho$_1$:	Differences in socio-economic status and other demographic factors <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.	Ha$_{1.1}$:	There is a statistically significant positive relationship between a Port Elizabethan Muslim's gender and his/her attitude and intention to use Islamic finance.
		Ha$_{1.2}$:	There is a statistically significant positive relationship between a Port Elizabethan Muslim's age and his/her attitude and intention to use Islamic finance.
		Ha$_{1.3}$:	There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of education and his/her attitude and intention to use Islamic finance.
		Ha$_{1.4}$:	There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of income and his/her attitude and intention to use Islamic finance.
		Ha$_{1.5}$:	There is a statistically significant positive relationship between a Port Elizabethan Muslim's occupation and his/her attitude and intention to use Islamic finance.
Ho$_2$:	Awareness of the basic principles and objectives of Islamic finance <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use thereof.	Ha$_2$:	Awareness of the basic principles and objectives of Islamic finance will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
Ho$_3$:	Knowledge of the various retail and finance instruments available from Islamic banks/windows <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.	Ha$_3$:	Knowledge of the various retail and finance instruments available from Islamic banks/windows have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
Ho$_4$:	Potential use of Islamic finance is <u>not</u> influenced by a Port Elizabethan Muslim's attitude towards it.	Ha$_4$:	Attitude will have a statistically significant positive effect on a Port Elizabethan Muslim's intention to use Islamic finance.
Ho$_5$:	Behavioural beliefs (BB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	Ha$_5$:	Behavioural beliefs (BB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
Ho$_6$:	Normative beliefs (NB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	Ha$_6$:	Normative beliefs (NB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
Ho$_7$:	Efficacy beliefs (EB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	Ha$_7$:	Efficacy beliefs (EB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
Ho$_8$:	Environmental factors (ENV) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to accept or reject Islamic finance.	Ha$_{8.1}$:	Environmental factors (ENV) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
		Ha$_{8.2}$:	Cost will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
		Ha$_{8.3}$:	Service quality factors will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.
		Ha$_{8.4}$:	Government support will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.

Source: Researcher's compilation.

The following sub-sections outline the steps taken to develop and assess the goodness-of-fit results of the SEM model.

(i)   Structural equation model formulation, identification and estimation

Unlike other multivariate techniques where the researcher is able to specify a basic model and allow the default values in the statistical programme to account for the other remaining estimation issues, SEM requires the researcher to specify the technique completely. In the context of this study, a multiple-indicator-multiple-cause (MIMIC) model was specified and constructed to determine how multiple indicators reflect the underlying latent variables/factors, and how the multiple causes (observed predictors) affect latent variables/factors. Bollen (1989) states that it is permissible for a researcher to assume more than one latent variable within a MIMIC model. The MIMIC model depicted in Figure 5.6 consisted of two parts, namely (i) a measurement model; and (ii) a structural model. The measurement model depicted how measured variables came together to represent constructs, whereas the structural model showed how constructs were associated with each other. By considering the objectives and the hypotheses of the present study, the measurement model of the SEM was estimated by means of confirmatory factor analysis.

Confirmatory factor analysis (CFA) tests how well the theoretical pattern represents the actual data (Hair *et al.*, 2010). According to Harrington (2009), CFA is a statistical technique used for investigating the validity of a measurement model. In other words, CFA allowed the researcher to determine how well the theoretical measurement model fits with the data of the study and provided a confirmatory test for the measurement model (Hair *et al.*, 2010). In the present study, MPlus7 (Muthén & Muthén, 2012) was used to assess the validity of the proposed MIMIC measurement model depicted in Figure 5.5. The measurement model measured six underlying latent factors, namely *behavioural beliefs*, *normative beliefs*, *efficacy beliefs*, *environmental factors*, *knowledge*, and *awareness* by means of 31 observed items. The proposed measurement model was reflective because the paths of causality were from the latent variables (constructs) to the observed variables (Coltman, Deviney, Midgley & Venaik, 2008). The measurement model of the study was also first order because none of the latent variables had dimensions (Byrne, 2010).

Figure 5.5:   MIMIC measurement model with interaction between covariates
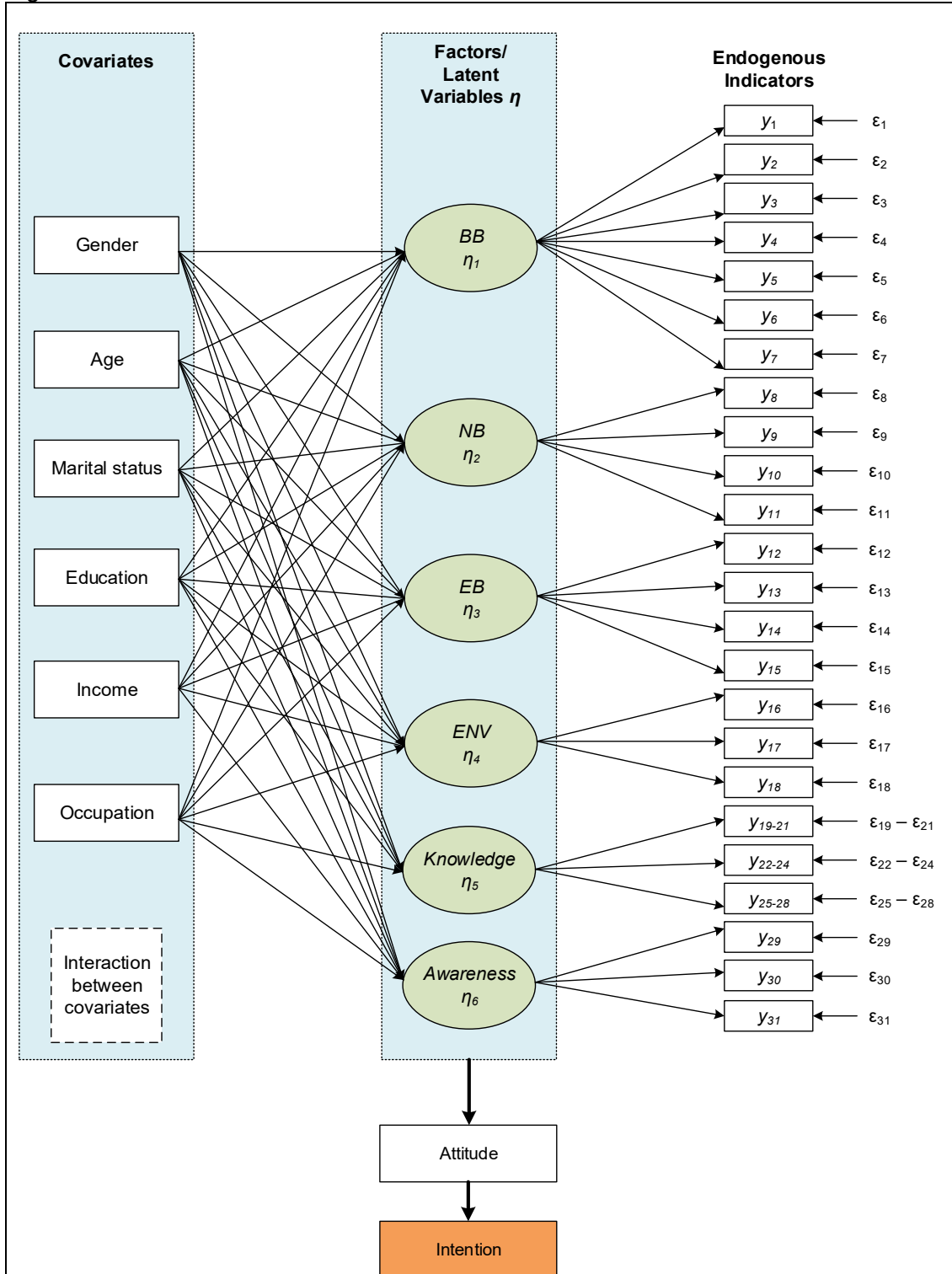
Source: Researcher's contextualisation of measurement model.

The structural equation part of the MIMIC model was specified in matrix notation as:

$$\begin{bmatrix} \eta1 \\ \eta2 \\ \eta3 \\ \eta4 \\ \eta5 \\ \eta6 \end{bmatrix} = \begin{bmatrix} \gamma11 & \gamma12 & \gamma13 & \gamma14 & \gamma15 & \gamma16 \\ \gamma21 & \gamma22 & \gamma23 & \gamma24 & \gamma25 & \gamma26 \\ \gamma31 & \gamma32 & \gamma33 & \gamma34 & \gamma35 & \gamma36 \\ \gamma41 & \gamma42 & \gamma43 & \gamma44 & \gamma45 & \gamma46 \\ \gamma51 & \gamma52 & \gamma53 & \gamma54 & \gamma55 & \gamma56 \\ \gamma61 & \gamma62 & \gamma63 & \gamma64 & \gamma65 & \gamma66 \end{bmatrix} \begin{bmatrix} Gender \\ Age \\ MStatus \\ Education \\ Income \\ Occupation \end{bmatrix} + \begin{bmatrix} \zeta1 \\ \zeta2 \\ \zeta3 \\ \zeta4 \\ \zeta5 \\ \zeta6 \end{bmatrix}$$

This was equivalent to

$\eta_1 = \gamma_{11}Gender + \gamma_{12}Age + \gamma_{13}MStatus + \gamma_{14}Education + \gamma_{15}Income + \gamma_{16}Occupation + \zeta_1$

$\eta_2 = \gamma_{21}Gender + \gamma_{22}Age + \gamma_{23}MStatus + \gamma_{24}Education + \gamma_{25}Income + \gamma_{26}Occupation + \zeta_2$

$\eta_3 = \gamma_{31}Gender + \gamma_{32}Age + \gamma_{33}MStatus + \gamma_{34}Education + \gamma_{35}Income + \gamma_{36}Occupation + \zeta_3$

$\eta_4 = \gamma_{41}Gender + \gamma_{42}Age + \gamma_{43}MStatus + \gamma_{44}Education + \gamma_{45}Income + \gamma_{46}Occupation + \zeta_4$

$\eta_5 = \gamma_{51}Gender + \gamma_{52}Age + \gamma_{53}MStatus + \gamma_{54}Education + \gamma_{55}Income + \gamma_{56}Occupation + \zeta_5$

$\eta_6 = \gamma_{61}Gender + \gamma_{62}Age + \gamma_{63}MStatus + \gamma_{64}Education + \gamma_{65}Income + \gamma_{66}Occupation + \zeta_6$

where the six multiple regression equations were functions of a set of explanatory variables or predictors. The residual terms (*i.e.*, ζ_1, ζ_2, ζ_3, ζ_4, ζ_5 and ζ_6) of the equations were allowed to correlate with each other. Compared to traditional simultaneous equation models, the dependent variables in MIMIC models are unobserved latent variables (Wang & Wang, 2012: 93). This approach is considered superior to traditional simultaneous equation models or multivariate analysis of variance (MANOVA) as MIMIC models assume that variables have measurement errors (Wang & Wang, 2012: 93).

Structural equation models are sensitive to the distributional nature of the data, particularly the departure from multivariate normality or the presence of strong kurtosis in the data. A lack of multivariate normality is particularly troublesome because it substantially inflates the Chi-square statistic and creates an upward bias in critical values for determining coefficient significance (Hair *et al.*, 1998: 601). However, Wang and Wang (2012: 61) state that, as the assumption of data normality barely holds in social science studies, several remedies are available to address non-normality issues that threaten the validity of a structural equation model. First, researchers may consider transforming non-normal variables to allow them to better approximate multi-normality. Secondly, researchers may opt to remove outliers from the data. Thirdly, bootstrap procedures may be used to estimate variances of parameter estimates for

significance tests (Bollen & Stine, 1993; Efron & Tibshirani, 1993; Shipley, 2000). Finally, alternative robust estimators that allow for non-normality may be applied. According to Wang and Wang (2012: 61), it is always safer to use robust estimators for model estimation.

The data in the present study contained no missing values or outliers. Data transformation was not possible due to the ordinal scales used in the collection of the data. In Section 5.4.1, the results of the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk W test confirmed that the data in this study was not normally distributed. Consequently, faced with non-normal data, the default Maximum Likelihood (ML) estimator available in MPlus7 (Muthén & Muthén, 2012) was replaced with Robust Maximum Likelihood (MLR), a rescaling-based estimator that provided standard errors and a X^2 test statistic that were robust to non-normality (Muthén & Muthén, 2012). The discrepancy function criterion for the MLR method of parameter estimation was $F_{MLR} = \log | \Sigma(\theta) | + \text{tr}[\Sigma(\theta)^{-1} S] - \log |S| - p$. This function provided the guideline to minimise the differences between the population covariance matrix, Σ, as estimated by the sample covariance, S, and the covariance matrix derived from the hypothesised model, $\Sigma(\theta)$ (Wang & Wang, 2012: 61).

Path analysis, a pictorial diagram that represents a model, is a highly flexible and comprehensive methodology that enables researchers to recognise the imperfect nature of their measures by not offering a default model (Muthén & Muthén, 2012). It also places few limitations on the types of relations that one can specify and provides no straightforward tests to determine model fit (Suhr, 2000). In this context, researchers are given the scope to specify relations between observed (measured) variables in a model *a priori* to support hypotheses. These specifications are then transformed into a set of equations that are solved simultaneously to test model fit and estimate parameters. Figure 5.6 shows the path diagram of the proposed structural model for this study. A '+' sign indicated a proposed positive relationship between the latent constructs and associated indicators, whereas a '-' sign denoted a proposed negative relationship.

Figure 5.6:   Path diagram of the structural model with no parameters
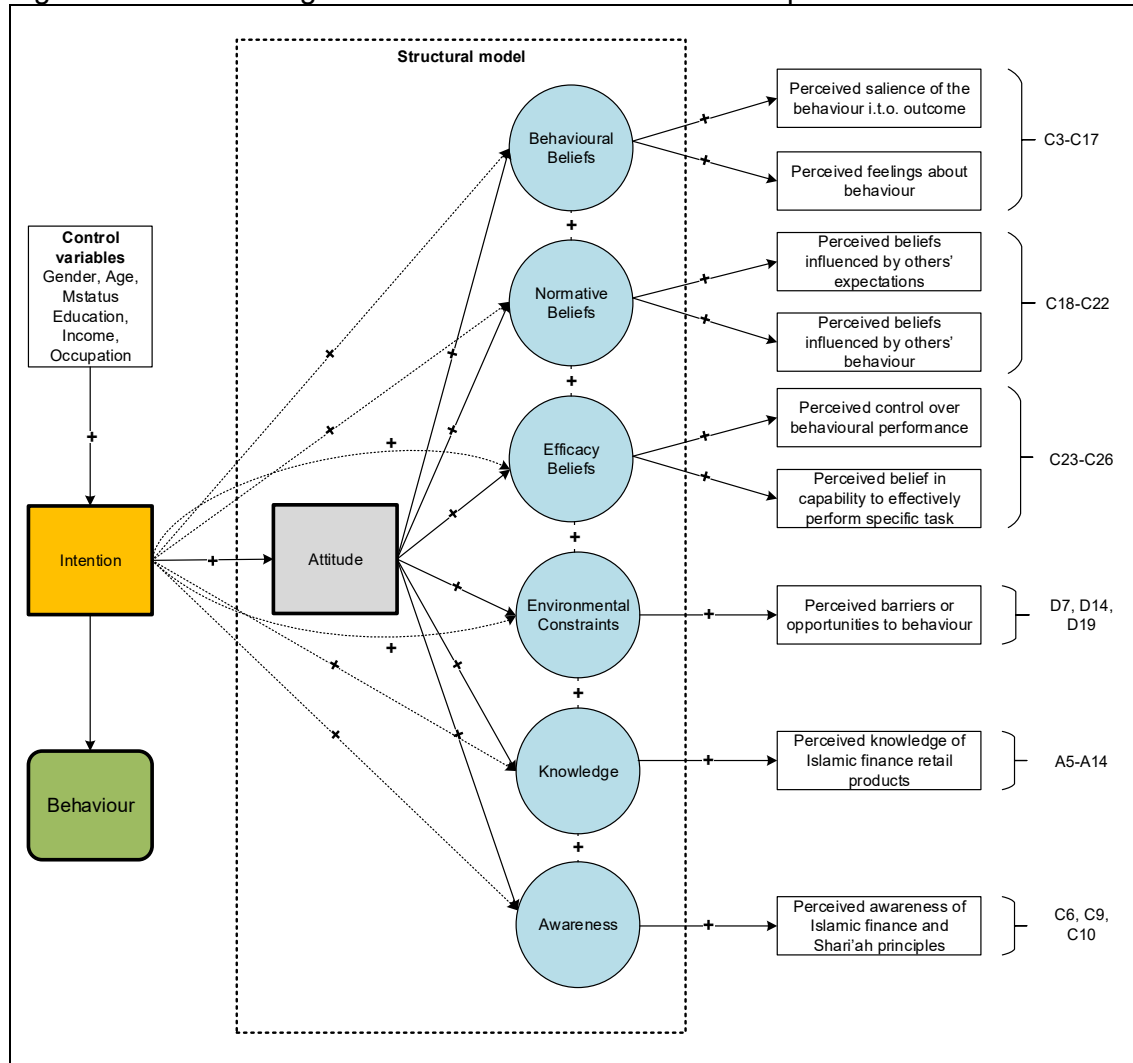
Source: Researcher's compilation.

(ii) Structural equation model evaluation and modification

In this study, two confirmatory factor analysis (CFA) models assessed how a Port Elizabethan Muslim's attitude influences his/her intention to use Islamic finance. In the first measurement model, a Robust Maximum Likelihood estimator was used to evaluate the fit between the hypothesised model with 31 items and the data. To assess model fitness, five absolute and incremental fit indices were considered: Chi-square (X^2), relative Chi-square (X^2/df), CFI, TLI, and RMSEA. The Chi-square test indicated the amount of difference between the observed and expected covariance matrices, with an acceptable model fit denoted by a Chi-square value close to zero and a probability value greater than or equal to 0.05 when the Chi-square is close to zero

(Suhr & Shay, 2008: 9). The value of RMSEA indicated the amount of unexplained variance or residual (Suhr & Shay, 2008: 9). In other words, the RMSEA showed sensitivity to the degree of freedom and the complexity of the proposed model (Erdogan & Marcinkowski, 2012). While a competing models strategy (Byrne, 2001) was adopted, only the initial and final measurement model are presented in Table 5.9.

Table 5.9: Goodness-of-fit measures of the structural equation models

Level of acceptance	Parsimonious fit Relative X^2 value should be between 1 and 3			Incremental fit CFI >= 0.90 TLI >= 0.90		Absolute fit RMSEA between 0.05 and 0.06 but < 0.07
Indices	X^2	df	X^2/df	CFI	TLI	RMSEA (90% CI)
Model 1: Default model with 31 items using robust MLR estimator.	1741.303*	635	2.742	0.877	0.866	0.067 (0.063 – 0.071)
Model 2: Refined model with 31 items using robust MLR with interaction between control and latent variables.	1458.11*	699	2.086	0.918	0.910	0.053 (0.049 – 0.057)

X^2 = Chi-square, df = degree of freedom; X^2/df = relative Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation (at 90% Confidence Interval). *$p<.01$; ** $p<.001$.

Source: Survey data.

The base model (Model 1) provided a parsimonious fit to the data (X^2/df=2.742). However, incremental fit (CFI=0.877, TLI=0.866) indices were just below the 0.90 range of acceptance. The absolute fit index (RMSEA) was at an acceptable 0.067 (90% CI: 0.063, 0.071) whereas the Standardised Root Mean Squared Residual (SRMR) for the model was calculated at 0.084. As the values of indices of the initial measurement model did not follow the criteria of indices, the need arose for some model modification to find the best fitting model for the data.

According to Chin (1998), Schumacker and Lomax (2010), as well as Urbach, Smolnik and Riempp (2010), items with factor loadings less than 0.7 are very unreliable and should be deleted. As reported in Section 5.3, those items with poor loadings (<0.7) had been systematically removed from the proposed measurement model during exploratory factor analysis. With the same 31 items, Model 2 was developed using a Robust Maximum Likelihood estimator, but this time the researcher opted to specify interaction between the error terms of the control variables (i.e. income and occupation, as well as income and education). Respecification improved the overall fit of the model, reducing the AIC by 169.599 to 29069.599. Furthermore, interaction

between the six latent variables were specified. This procedure reduced the AIC to 28640.664 and improved the model's Root Mean Square Error of Approximation (RMSEA) to 0.053. Figure 5.7 depicts the path diagram and standard parameter estimates for Model 2.

Figure 5.7:   Path diagram showing standardised coefficients for the six-factor SEM

* = p < 0.05, ** = p < 0.01, n = 389. Variable errors, disturbances and factor loadings not shown.

Model Fit Indices

Chi-square/*df* : 1458.11 / 699 = 2.086
RMSEA : Estimate = 0.053, 90 Percent C.I. = 0.049 0.057;
CFI = 0.918; TLI = 0.910; SRMR = 0.062;
Probability RMSEA <= .05 : 0.000
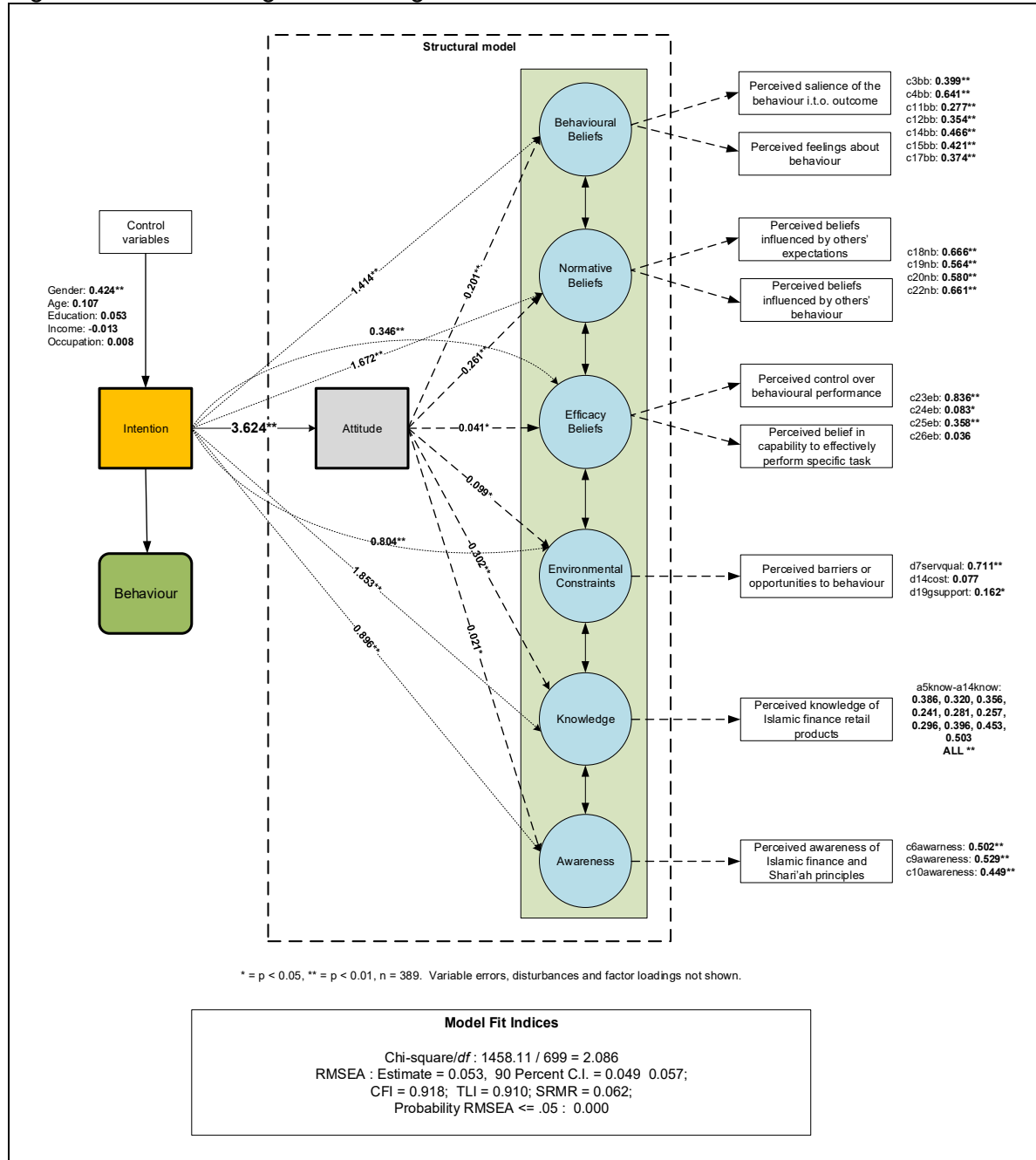
Source: Survey data.

In terms of model fit indices, the second structural equation model was substantially better than the first model. With error covariance specified in Model 2, relative Chi-square (X^2/df) was reduced to 2.086, CFI and TLI increased to 0.918 and 0.910 respectively, and RMSEA was reduced to 0.053 (90% CI: 0.049; 0.057). Model 2 was retained as the proposed model for this study because the relative Chi-square (X^2/df) fell within the recommended parameter of 3 or less. Furthermore, the proposed model's CFI (0.918) and TLI (0.910) were above the recommended 0.9 level.

Finally, the proposed model's estimated RMSEA (0.053) was within the recommended value of less than 0.07. It was therefore concluded that Model 2, constructed with the Robust Maximum Likelihood (MLR) estimator and covariates, resulted in a six-factor SEM that had good fit structure (SRMR=0.062), confirming that the observed variables assessed the theoretical constructs (Barroso, Carri'on & Rold'an, 2010). Confirmatory factor analysis for the modified measurement model showed that all path coefficients were positive and significant at p<0.05, representing a meaningful contribution of each item to the corresponding scale.

(iii) Validity of the structural equation model

Researchers in the social sciences create multi-item scales to measure unobservable latent variables and then proceed to evaluate the scale's reliability by focusing on the construct's Cronbach-alpha value (Zait & Bertea, 2011: 1). Thorndike, Cunningham, Thorndike and Hagen (1991) state that a scale's reliability refers to the accuracy and precision of a measurement procedure. This reliability scale views an instrument's relative lack of error and is evaluated in terms of the instrument's Cronbach-alpha. The minimum cut-off point for accepting construct reliability is 0.7 (Hair *et al*., 2010; Chin, 1998). Nunnaly (1967) confirms that a Cronbach-alpha value greater than 0.7 is considered acceptable. In this study, reliability analysis for each of the six factors was performed using SPSS version 22. Each analysis revealed sufficient results. The Cronbach-alpha reliability coefficient of the first seven-item factor labelled *behavioural beliefs* was 0.915. The internal consistency coefficient for the remaining five factors, namely *normative beliefs* (4 items), *efficacy beliefs* (4 items), *environmental factors* (3 items), *knowledge* (10 items), and *awareness* (3 items) were 0.835, 0.912, 0.865, 0.963, and 0.702 respectively.

Suhr and Shay (2008) caution that reliability is a function of properties of the underlying construct being measured, the test itself, the groups being assessed, the testing environment, as well as the purpose of assessment. In this context, Bertea (2010) notes that a construct's validity is influenced by convergent and discriminant validity. Convergent validity is the extent to which different assessment methods will be equivalent to the measurement of the same trait (Byrne, 2010). In other words, convergent validity refers to the extent indicators of latent variables are theoretically related as well as correlated within a factor. An indicator is said to converge if it has a high significant factor loading value with a standardised factor loading estimate greater than 0.5 (Said, Badru & Shahid, 2011: 1099). Said, Badru and Shahid (2011: 1099) state that the construct validity is determined by the average variance extracted (AVE) calculated by means of the following equation:

$$\text{AVE} = \frac{Sum\ of\ Standardised\ Loading\ Square}{Sum\ of\ Standardised\ Loading\ Square + measurement\ error} \qquad (5.1)$$

where the measurement error = $1 - (\text{standardised loading})^2$. The Discriminant Validity (DV) test, used to explain variance in the construct, can be obtained from the root of AVE value. On the other hand, Construct Reliability (CR), calculated by means of formula (2) below, is intended to determine the consistency of construct validity indicator (Said, Badru & Shahid, 2011: 1099):

$$\text{CR} = \frac{Square\ of\ Total\ Standardised\ Loading}{Square\ of\ Total\ Standardised\ loading + measurement\ error} \qquad (5.2)$$

Hair *et al.* (2010) suggest the following three ways to evaluate a construct's convergent validity: (i) check factor loadings; (ii) analyse the average variance extracted (AVE); and (iii) calculate construct reliability (CR). In estimating convergent validity, the size of factor loadings has to be 0.7 or higher (Chin, 1998). Fornell and Larcker (1981) state that, if the AVE extracted is less than 0.50, then the variance due to measurement error is greater than the variance due to the construct. In such an instance, the convergent validity of the construct is questionable.

In the present study, convergent validity was tested by means of factor loadings, average variance extracted (AVE) as well as construct reliability (CR). As the items with factor loadings less than 0.7 were already deleted, convergent validity was confirmed by means of the high factor loadings presented in the clean factor structure

of the pattern matrix. The CR for each factor was above the minimum threshold of 0.70, indicating that the factors were reliable. Except for the construct *efficacy beliefs* (EB) which had an AVE value of 0.496, all the other latent factors exhibited AVE values above 0.50. Table 5.10 shows that, while *efficacy beliefs* was not especially strong internally, it minimally correlated with the other factors in the model and had a reliability score of 0.912. As a result, the researcher opted to retain the construct *efficacy beliefs* as a distinct factor that exhibited construct convergent validity. The high values of the Cronbach-alpha coefficients suggest that the remaining constructs displayed adequate internal consistency. Table 5.10 provides a summary of the factor names, number of items and reliability score of each factor.

Table 5.10: Internal consistency and discriminant validity between the latent constructs

Latent variables	Cronbach alpha	Number of items	CR>0.7	AVE>0.5	BB	NB	EB	ENV	Know-ledge	Aware-ness
BB	0.915	7	0.876	0.703	**0.915**					
NB	0.835	4	0.900	0.693	0.197	**0.835**				
EB	0.912	4	0.804	0.496	0.227	0.007	**0.912**			
ENV	0.865	3	0.865	0.509	-0.252	-0.008	0.376	**0.865**		
Knowledge	0.963	10	0.836	0.573	0.572	0.472	0.342	0.243	**0.963**	
Awareness	0.702	3	0.872	0.510	0.535	0.433	0.323	0.235	0.173	**0.663**

CR = Composite Reliability; AVE = Average Variance Extracted; BB = Behavioural Beliefs; NB = Normative Beliefs; EB = Efficacy Beliefs; ENV = Environmental factors.

Source: Survey data.

The six latent constructs were tested for discriminant validity by means of inter-factor correlations between the variables' square root of the AVE (on the diagonal in the matrix above). To evaluate discriminant validity (i.e. the distinctness of constructs from each other), Fornell and Larcker (1981) suggest comparing the square root of the AVE against the inter-construct correlation. All factors demonstrated adequate discriminant validity because the diagonal values were greater than the correlations. The results presented in Table 5.10 above, confirm that the measurement model met discriminant validity and enjoyed construct as well as face validity. Face validity refers to the extent a construct was perceived by the researcher as covering the concept it purported to measure.

The data for both dependent and independent variables was collected by means of a single instrument, namely a survey. Therefore, to ensure that common method bias did not affect the results of the measurement model, Podsakoff *et al.*'s (2003) "unmeasured latent factor" test, recommended for studies that do not explicitly

measure a common factor, was conducted. Comparing the standardised regression weights before and after adding the common latent factor (CLF) revealed that the regression weights was not dramatically affected by the CLF – i.e. the deltas were less than 0.200 and the composite reliability (CR) and the AVE for each construct still met minimum thresholds. Nevertheless, to err on the conservative side, the researcher opted to retain the CLF (*attitude*) and construct a common methods bias-adjusted structural equation model.

(iv) The implications of SEM results for stipulated hypotheses

This study hypothesised that cognition, affect, and various external factors have no influence on a Port Elizabethan Muslim's attitude and behaviour towards Islamic finance. A respondent's cognitive measures were encapsulated by his/her perceived *knowledge* and *awareness* of Islamic finance whereas the respondent's *behavioural*, *normative* and *efficacy* beliefs of Islamic finance were captured by his/her affective measures. *Environmental* measures referred to the respondent's evaluation of external factors (e.g., service quality factors, cost, and government support) which he/she has no control over.

However, results from EFA, CFA as well as the SEM model showed that a positive relationship existed between a Port Elizabethan Muslim's conative measure (*intention*) and his/her cognitive, affective, and environmental measures. The results suggested that a statistically significant correlation existed between a Muslim's intention to use Islamic finance and his/her level of *knowledge* (R^2=1.853, p<0.01), *normative beliefs* (R^2=1.672, p<0.01), *behavioural beliefs* (R^2=1.414, p<0.01), level of *awareness* (R^2=0.896, p<0.01), *environmental factors* (R^2=0.804, p<0.01), and *efficacy beliefs* (R^2=0.346, p<0.01). Furthermore, a statistically significant relationship existed between a respondent's *gender* (R^2=0.424, p<0.01) and his/her intention to use Islamic finance. The data revealed that Muslim females were more inclined to adopt Islamic finance than their male counterparts were. It is evident from Figure 5.7 above that *attitude* (R^2=3.624, p<0.01) was directly related to a Muslim's intention to either use or reject it. A strong positive attitude toward Islamic finance led to a strong willingness to use it. Based on the results of the confirmatory factor analysis, all the null hypotheses stipulated in Section 5.4.2 above were rejected in favour of the

alternative hypotheses (see Table 5.8 for a formal presentation of the alternative hypotheses).

The effect of *knowledge* (R^2=0.302, p<0.01), *normative beliefs* (R^2=0.261, p<0.01) and *behavioural beliefs* (R^2=0.201, p<0.01) on *attitude* were positive and substantially larger than that of *environmental factors* (R^2=0.099, p<0.05), *efficacy beliefs* (R^2=0.041, p<0.05), and *awareness* (R^2=0.021, p<0.05) of Islamic finance. The standardised regression coefficient of a Muslim's perceived *knowledge*, *normative beliefs* and *behavioural beliefs* to perform a particular behaviour were 7.366 times, 6.366 times, and 4.902 times larger compared to the individual's *efficacy beliefs*. Therefore, the importance of a Muslim's efficacy beliefs to use Islamic finance were outweighed by his/her behavioural and normative beliefs. Expecting a favourable outcome to using Islamic finance coupled with a positive evaluation of what others think he/she should do were deemed more important than self-efficacy measures (i.e. the individual's evaluation of his own capability to originate and direct actions for given purposes).

While *efficacy beliefs* was a statistically significant predictor (R^2=0.041, p<0.05) of a Muslim's attitude towards Islamic finance, it only played a minor role in explaining it. It is possible that the underlying factors of *efficacy beliefs* were either poorly explained or that the statements were poorly phrased in the questionnaire. It is therefore important that the questions pertaining to this construct be re-formulated or that the number of items comprising this construct be increased in future research.

Finally, the structural equation model confirmed seven key factors that influenced a Muslim's intention to use Islamic finance. These factors included *knowledge*, *awareness*, *attitude*, *behavioural beliefs*, *normative beliefs*, *efficacy beliefs*, and *environmental factors*. The only statistically significant demographic variable, *gender* (R^2=0.424, p<0.01), was retained as a control variable. The following section explains how well this normative SEM model was able to discriminate between potential users and non-potential users of Islamic finance in Port Elizabeth.

5.4.3   Discriminant function analysis

Discriminant function analysis (DFA) is a parametric statistical technique that is often used when a researcher wants to predict an outcome to a dichotomous dependent variable from a set of predictor variables (Ramayah *et al.*, 2006). The assumptions for DFA are similar to those for linear regression, namely that (i) cases should be independent and group membership should be mutually exclusive; (ii) within-group variance-covariance matrices should be equal across groups; and (iii) predictor variables should have a multivariate normal distribution. According to Burns & Burns (2008: 591), DFA is fairly robust to violations of most of these assumptions, but highly sensitive to outliers. In the present study, there were no outliers in the data set, but it was pointed out in Section 5.4.1 that the predictor variables violated the normality assumption. As Wang and Wang (2012: 61) state that the assumption of data normality barely holds in social science studies, the researcher opted to proceed with the discriminant function analysis.

In the context of this study, potential use (*intention*) of Islamic finance was used as the dependent variable (DV). Based on the response to the question "*Would you open an account at an Islamic bank / Islamic window or make use of Islamic finance retail products?*", respondents were divided into two groups, namely those who were potential users (*intention*=2, Yes) of Islamic methods of finance and those who were not (*intention*=1, No).

Stepwise discriminant function analysis (DFA) allowed the researcher to predict group membership by firstly examining whether there were any significant differences between these two groups on each of the independent variables using means and ANOVA results data. Secondly, DFA combined the variable scores in such a way to create a single new composite variable, known as the discriminant score. This discriminant score minimised the possibility of misclassifying cases into their respective groups or categories and created the most parsimonious way to distinguish between groups. The results of the discriminant function analysis are explained in the next subsections.

(i) Results of discriminant function analysis

The Group Statistics presented in Table 5.11 provide basic descriptive statistics for each of the predictor variables for both outcome groups (i.e. respondent intended to use Islamic finance *versus* respondent did not intend to use Islamic finance). All control variables (i.e. demographic and socio-economic details of the respondent) were included in the DFA as they were needed to evaluate the outcomes of the study's alternative hypotheses.

Table 5.11:   Group statistics of the discriminant function analysis

DV = Intention	Variable	Mean	Std. Deviation	N	DV = Intention	Variable	Mean	Std. Deviation	N
Not a potential user	Gender	1.2362637	.42595787	182	Potential user	Gender	1.7681159	.42305847	207
	Age	3.7252747	2.02506904	182		Age	5.7826087	2.09624884	207
	M/status	2.2637363	1.20161185	182		M/status	2.4251208	1.34125968	207
	Education	4.1373626	1.74882112	182		Education	4.2367150	1.82405843	207
	Income	3.9505495	2.17539600	182		Income	5.7342995	1.99804088	207
	Occupation	3.8571429	2.25242131	182		Occupation	4.2850242	2.17686821	207
	Awareness	2.9505495	1.04208393	182		Awareness	5.3719807	1.34445551	207
	Knowledge	2.7912088	.89832851	182		Knowledge	5.4057971	1.16567628	207
	Attitude	3.1923077	1.51287153	182		Attitude	6.8164251	1.66783412	207
	BB score	-.5834037	.71105701	182		BB score	.5129443	.93496369	207
	NB score	-.6836189	.68816349	182		NB score	.6010562	.83155741	207
	EB score	-.1661756	1.02087295	182		EB score	.1461061	.96017923	207
	ENV score	-.3281977	.88877448	182		ENV score	.2885603	1.00528770	207

Source: Survey data.

At face value, large between-group differences existed between the means and standard deviations of the following variables: *age*, *income*, *awareness*, *knowledge*, and *attitude* scores. Therefore, these variables were deemed good discriminators of *intention.* However, the Tests of Equality of Group Means in Table 5.12 provided strong statistical evidence of significant between-means differences for basically all independent variables. In particular, the *awareness* (F=386.280), *knowledge* (F=601.481) and *attitude* (F=498.610) scores produced high F values with the smallest Wilks' lambda. These three independent variables were thus the most important predictors to the discriminant function. It is evident that, with the exception of *marital status*, *education*, and *occupation*, all other independent variables stated in the hypotheses (e.g., *gender*, *age*, *income*, *awareness*, *knowledge* as well as the four behavioural belief factor scores) were significant predictors of *intention* by themselves.

Table 5.12:   Tests of equality of group means

Variable	Wilks' Lambda	F	df1	df2	Sig.
Gender	.718	152.086	1	387	.000
Age	.801	96.292	1	387	.000
Marital status	.996	1.545	1	387	.215
Education	.999	.299	1	387	.585
Income	.845	71.029	1	387	.000
Occupation	.991	3.622	1	387	.058
Awareness	.500	386.280	1	387	.000
Knowledge	.392	601.481	1	387	.000
Attitude	.437	498.610	1	387	.000
BB score	.700	165.877	1	387	.000
NB score	.588	271.110	1	387	.000
EB score	.976	9.655	1	387	.002
ENV score	.905	40.600	1	387	.000

Source: Survey data.

In ANOVA, an assumption is made that the variances are equivalent for each group. However, in DFA, the basic assumption is that the variance-covariance matrices are equivalent. Box's M tests the null hypothesis that the covariance matrices do not differ between groups formed by the dependent variable. In the event that the Box's M test of equality of covariance matrices produce a non-significant probability and the log determinants are equal, the researcher is obliged to retain the null hypothesis that the groups do not differ. Table 5.13 shows substantial difference in variance-covariance matrices of the log determinants between the two groups and a significant ($p<0.05$) Box's M result. Consequently, the null hypothesis of equal covariance matrices was rejected.

Table 5.13:   Box's M test of equality of covariance matrices

Intention	Rank	Log determinant[a]	Test results[b]	
Not a potential user	7	-3.372	Box's M	46.219
Potential user	7	-1.947	F Approx.	1.619
Pooled within-groups	7	-2.494	df1	28
			df2	504410.726
			Sig.	.020

(a)   The ranks and natural logarithms of determinants printed are those of the group variance matrices.
(b)   Test null hypothesis of equal population covariance matrices.
Source: Survey data.

According to the Box's M test, the assumption of homogeneity of the covariance matrices was not met. However, this test is strongly influenced by non-normality (as this was the case highlighted in Section 5.4.1) and may therefore not be accurate. Matrix scatterplots for each group suggested that the assumption of homogeneity between groups was not violated. Multicollinearity was not a problem in this analysis as the Pooled Within-Group Matrix (not shown) indicated low correlations between the independent variables.

The eigenvalue is the ratio of the between-groups sum of squares to the within-groups sum of squares. A good discriminant function normally provides scores that vary significantly between groups and little within groups, resulting in a large eigenvalue. The eigenvalue of 8.257, depicted in Table 5.14, was remarkably large and accounted for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function was 0.944. The square of this coefficient suggested that the discriminant model explained 89.2% of the variation in the grouping variable, i.e. whether the respondent intended to use Islamic finance or not.

Table 5.14:   Eigenvalues and Wilks' Lambda

Function	Eigenvalue	% of variance	Cumulative %	Canonical correlation	Wilks' Lambda	Chi-square	df	Sig.
1	8.257[a]	100.0	100.0	.944	.108	853.419	7	.000

a. First 1 canonical discriminant functions were used in the analysis.

Source: Survey data.

Wilks' lambda indicates the significance of the discriminant function. Table 5.14 indicates a highly significant Wilks' lambda statistic ($\lambda = 0.108$, p<0.000) that was unable to explain 10.8% of the total variability with the groups. Given the fact that the Wilks' lambda values for all the retained variables were smaller than 1 (see Table 5.15 below), 89.2% of the observed variability was attributed to differences between groups. Moreover, the significance of the univariate ratios showed that, when the predictors were considered individually, all of the retained predictors significantly differentiated between the two groups. Therefore, it was acceptable to reject the null hypothesis that respondents who are potential users of Islamic finance had the same average discriminant function score in the population.

The standardised canonical discriminant function coefficients in Table 5.15 indicate how each variable was weighted in order to maximise discrimination of groups. Standardising the variables ensured that scale differences between the variables were eliminated. Thereafter, absolute weights were used to rank variables in terms of their discriminating power, the largest weight being associated with the most powerful

discriminating variable. These discriminant function coefficients were interpreted in the same way as the beta-weights in regression.

Table 5.15:   Structure matrix and standardised canonical discriminant function coefficients

Variable	Structure matrix - Correlations between variables and discriminant function[b]	Standardised canonical discriminant function coefficients
Gender	.218	.253
Age[a]	.089	
Marital status[a]	.054	
Education[a]	-.029	
Income[a]	.075	
Occupation[a]	.055	
Awareness	.113	.399
Knowledge	.434	1.025
Attitude	.395	.974
BB score	.261	.437
NB score	.264	.422
EB score	.052	.331
ENV score	.108	.577

(a) This variable was not used in the analysis. (b) Pooled within-groups correlations between discriminating variables and standardised canonical discriminant functions. Variables ordered by absolute size of correlation within function.

Source: Survey data.

In the context of the discriminant model, the socio-economic status of the respondent had very little impact on the intention of Muslims in Port Elizabeth to adopt or reject Islamic finance. The respondent's gender was the only demographic characteristic that was retained for the final discriminant function. It should be noted that, because *income* correlated with *occupation*, both variables had a low function coefficient and were omitted from the model. The variable *efficacy beliefs* failed to achieve the minimum tolerance and necessary F-value after Step 2 of the stepwise DFA and was consequently removed from further analysis. Controlling for all other variables in the equation, the discriminant function coefficients *b* indicated the partial contribution (and relative importance) of each variable to the discriminate function.

Table 5.16:   Variables retained in the stepwise DFA model

Variables Entered / Removed [a, b, c, d]									Unstandardised canonical discriminant function coefficients
		Wilks' Lambda = .108; Chi-square = 853.419; df = 7; Sig. = .000							
Step	Entered					Exact F			Constant = -3.867
		Statistic	df1	df2	df3	Statistic	df1	df2	Sig.	
1	Knowledge	.392	1	1	387	601.481	1	387	.000	1.285
2	Attitude	.263	2	1	387	542.192	2	386	.000	1.216
3	Awareness	.224	3	1	387	443.360	3	385	.000	.625
4	Environmental factors score	.158	4	1	387	510.484	4	382	.000	.603
5	Behavioural beliefs score	.126	5	1	387	533.201	5	383	.000	.599
6	Gender	.114	6	1	387	492.522	6	381	.000	.595
7	Normative beliefs score	.108	7	1	387	449.398	7	384	.000	.402

At each step, the variable that minimises the overall Wilks' Lambda is entered. (a) Maximum number of steps is 22. (b) Minimum partial F to enter is 3.84. (c) Maximum partial F to remove is 2.71. (d) F level, tolerance, or VIN insufficient for further computation.

Source: Survey data.

Based on the output from Table 5.16 above, the following discrimination function equation was generated from the unstandardised coefficients (*b*):

$$DF = 1.285(knowledge) + 1.216(attitude) + 0.625(awareness) + 0.603(ENV) +$$
$$0.599(BB) + 0.595(gender) + 0.402(NB) - 3.867 \qquad (5.3)$$

From the above discriminant function equation, it is clear that *knowledge* (1.285), *attitude* (1.216), and *awareness* (0.625) were weighted more as predictors of *intention* compared to *environmental factors* (0.603), *behavioural beliefs* (0.599), *gender* (0.595) and *normative beliefs* (0.402). The Functions at Group Centroids and the Classification Table depicted in Table 5.17 shows how well the retained seven independent variables predicted which of the respondents intended to use Islamic finance.

Table 5.17:   Functions at group centroids and classification results

Functions at group centroids		Classification table				Predicted group membership		Total
Intention	Function 1			Intention		Not a potential user	Potential user	
Not a potential user	-3.057	Original	Count	Not a potential user		182	0	182
Potential user	2.687			Potential user		1	206	207
			%	Not a potential user		100.0	.0	100.0
				Potential user		.5	99.5	100.0
		Cross-validated[a]	Count	Not a potential user		182	0	182
				Potential user		1	206	207
			%	Not a potential user		100.0	.0	100.0
				Potential user		.5	99.5	100.0

a. 99.7% of original grouped cases correctly classified. Cross validation was done only for those cases in the analysis. In cross validation, each case was classified by the functions derived from all cases other than that case.

Source: Survey data.

The table above shows that potential users of Islamic finance had a mean of 2.687 while non-potential users exhibited a mean of -3.057. This implied that, if a respondent's score on the discriminant function was positive and closer to 2.687, it was likely that the individual was a potential user of Islamic finance with a higher valuation of knowledge, attitude, and beliefs (normative as well as behavioural) of Islamic finance. However, if the person's score on the discriminant function was negative or closer to -3.057, then it was probable that the respondent did not intend to use Islamic finance because of a low self-rating in terms of knowledge, attitude, and subjective beliefs of Islamic finance. In practical terms, researchers normally calculate a 'cutting score' halfway [(-3.057 + 2.687) / 2 = -0.185] between the two centroids before allocating a respondent to a particular group (Ramayah *et al.*, 2010: 1655).

The Classification Table also provides information pertaining to the 'actual' group membership versus 'predicted' group membership. Overall, 99.7% of the sample was classified correctly. Therefore, discriminant function analysis did well at predicting who intended to use Islamic finance. In terms of model sensitivity, 100% (182/182) of non-potential users were correctly predicted, indicating that there were no false negative (Type II error) results. In terms of model specificity (i.e. the percentage of non-occurrences correctly predicted), 99.5% (206/207) of potential users were correctly predicted, indicating that there were few false positive (Type I error) results. Positive predictive values (PPV = 182 / 182 + 1) as well as negative (NPV = 206 / 206) predictive values were high at 99.5% and 100.0% respectively.

An examination of the histograms of the discriminant function in Figure 5.8 clearly showed that, with only a marginal overlap between the discriminant scores, the function discriminated well between the two groups, as confirmed by the previous model-fit tables. Apart from the control variable *gender*, the discriminant model confirmed that (i) *knowledge*, *attitude*, and *awareness* of Islamic finance were the most important attributes that contributed to group separation; and (ii) differences in *behavioural beliefs*, *normative beliefs, and environmental factors* among the Muslims in Port Elizabeth do have as much of an impact on an individual's intention to use Islamic finance.

Figure 5.8:   Histograms of discriminant scores for potential and non-potential users
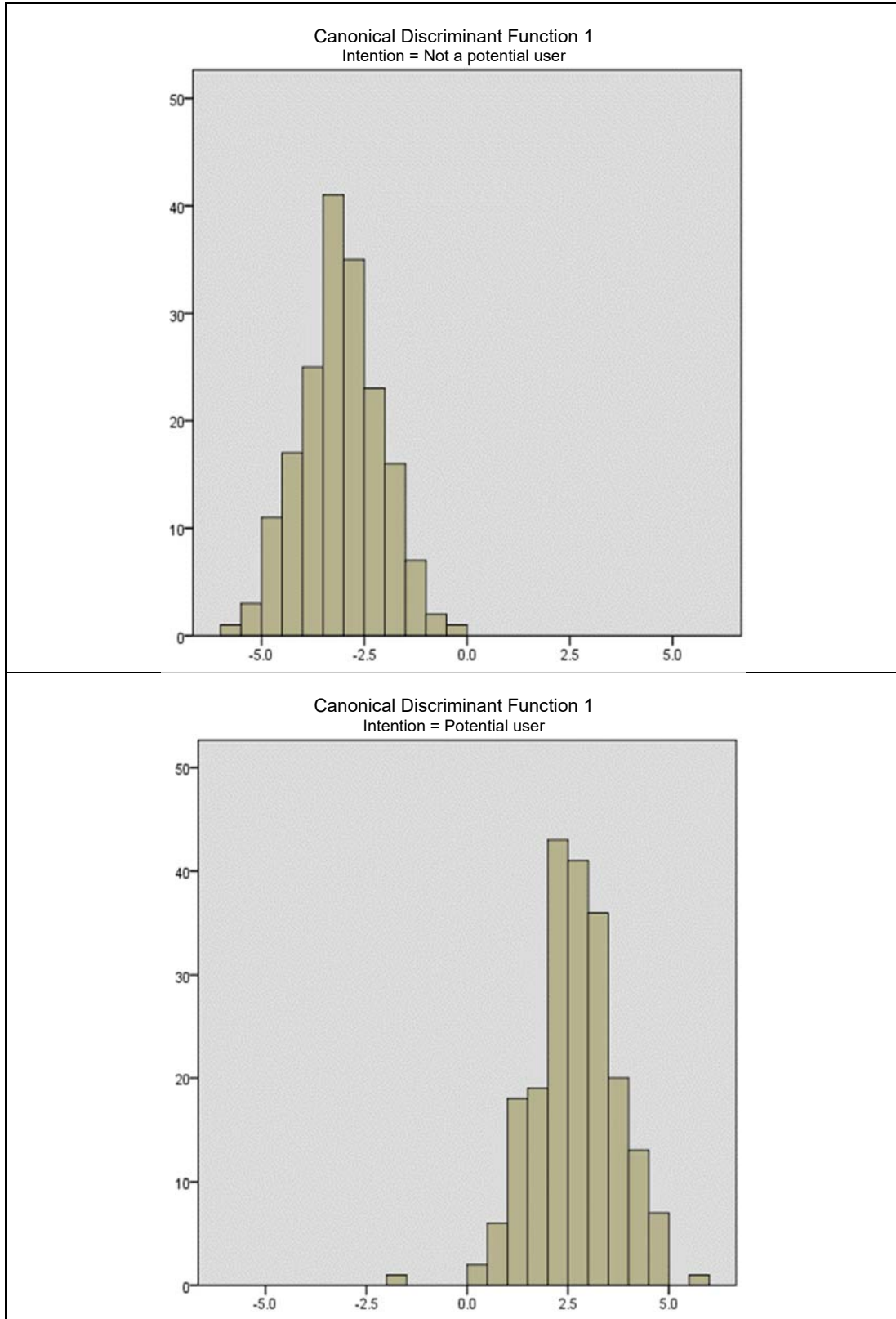
Source: Survey data.

(ii) Implications of DFA results for study's hypotheses

The null hypotheses for this study were tested by means of discriminant function analysis (DFA). The following criteria were used to evaluate the null hypothesis:

- To test for the proportion of the variance not explained by differences within groups, the Wilks' lambda (λ) procedure was focused on. The λ value varies between 0 and 1 (Tacq, 1997: 338). If $\lambda<1$, then most of the observed variability can be attributed to differences between groups (Tacq, 1997: 338). In such case, the null hypothesis was rejected.
- To test homogeneity of variance-covariance matrices, Box's M was used to accept or reject the null hypothesis that the covariance matrices are equal. A null hypothesis was rejected when the probability was lower than the Alpha (α) value of 0.05 and the difference between the within-groups covariance as well as the group centroids were significant.
- A significance or chance value close to 1 meant that it was likely that the hypothesised and sample means were the same. Assuming that they were the same, a small p-value (for example, 0.01) meant that it was unlikely (only a one in 100 chance) that such a difference occurred by chance. Therefore, the lower the p-value, the more certain the researcher was that a statistically significant difference existed between the observed and hypothesised mean. Most disciplines use an alpha value of 0.05. If the p-value was less than 0.05, then the difference was statistically significant. In such an instance, the null hypothesis was rejected. However, if $p>= 0.05$, the researcher was obliged to accept the null hypothesis.

Table 5.18 provides a summary of the DFA's Group Statistics, Tests of Equality of Group Means and Pooled Within-group Matrices for the eight null hypotheses specified in this study. The omnibus F ratios and statistically significant ($p<0.01$) Chi-square values depicted in Table 5.18 above, confirmed that the eight null hypothesis of equal group differences on the dependent variable had to be rejected. Depending on the type of variable scale used, various nonparametric hypothesis tests were employed to determine whether there were statistically significant differences between the eleven independent variables and the nominally-scaled binary dependent variable (*intention*). Table 5.19 presents the outcome of these tests.

Table 5.18: Results of null hypotheses tests

Null hypothesis		Discriminant Function Analysis							Decision
		Box's M	F Approx.	Sig.	Eigen value	Wilks' Lambda	Chi-square	Sig.	
Ho$_1$	Differences in socio-economic status and other demographic factors <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.	69.314	3.246**	.000	.674	.597	197.884**	.000	Reject Ho$_1$
Ho$_2$	Awareness of the basic principles and objectives of Islamic finance <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use thereof.	19.203	3.174*	.004	1.980	.336	420.937**	.000	Reject Ho$_2$
Ho$_3$	Knowledge of the various retail and finance instruments available from Islamic banks/windows <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.	12.792	12.759**	.000	1.554	.392	362.438**	.000	Reject Ho$_3$
Ho$_4$	Potential use of Islamic finance is <u>not</u> influenced by a Port Elizabethan Muslim's attitude towards it.	1.822	1.817	.017	1.288	.437	319.965**	.000	Reject Ho$_4$
Ho$_5$	Behavioural beliefs (BB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	484.084	5.133**	.000	2.514	.285	478.152**	.000	Reject Ho$_5$
Ho$_6$	Normative beliefs (NB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	119.333	7.845**	.000	2.515	.284	483.363**	.000	Reject Ho$_6$
Ho$_7$	Efficacy beliefs (EB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	220.392	21.793**	.000	.672	.598	197.902**	.000	Reject Ho$_7$
Ho$_8$	Environmental factors (ENV) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to accept or reject Islamic finance.	554.953	91.711**	.000	.534	.652	165.069**	.000	Reject Ho$_8$

a.   Lilliefors Corrected. The significance level is 0.05.

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Source: Survey data.

Table 5.19:   Alternative hypothesis tests

	Alternative hypotheses	Pearson r	Approx. Sig.	Decision
$Ha_{1.1}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's gender and his/her attitude and intention to use Islamic finance.	.531**	.000	Accept $Ha_{1.1}$
$Ha_{1.2}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's age and his/her attitude and intention to use Islamic finance.	.446**	.000	Accept $Ha_{1.2}$
$Ha_{1.3}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's marital status and his/her attitude and intention to use Islamic finance.	.063	.215	Reject $Ha_{1.3}$
$Ha_{1.4}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of education and his/her attitude and intention to use Islamic finance.	.028	.585	Reject $Ha_{1.4}$
$Ha_{1.5}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of income and his/her attitude and intention to use Islamic finance.	.394**	.000	Accept $Ha_{1.5}$
$Ha_{1.6}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's occupation and his/her attitude and intention to use Islamic finance.	.096	.058	Reject $Ha_{1.6}$
Ha_2	Awareness of the basic principles and objectives of Islamic finance will have a statistically significant positive effect on attitude and intention to use Islamic finance.	.707**	.000	Accept Ha_2
Ha_3	Knowledge of the various retail and finance instruments available from Islamic banks / windows have a statistically significant positive effect on attitude and intention to use Islamic finance.	.780**	.000	Accept Ha_3
Ha_4	Attitude will have a statistically significant positive effect on a Port Elizabethan Muslim's intention to use Islamic finance.	.750**	.000	Accept Ha_4
Ha_5	Behavioural beliefs (BB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.600**	.000	Accept Ha_5
Ha_6	Normative beliefs (NB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.604**	.000	Accept Ha_6
Ha_7	Efficacy beliefs (EB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.147*	.004	Accept Ha_7
$Ha_{8.1}$	Environmental factors (ENV) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.296*	.002	Accept $Ha_{8.1}$
$Ha_{8.2}$	Cost will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.586**	.000	Accept $Ha_{8.2}$
$Ha_{8.3}$	Service quality factors will have a statistically significant positive effect on a Port Elizabethan Muslim' attitude and intention to use Islamic finance.	.340**	.000	Accept $Ha_{8.3}$
$Ha_{8.4}$	Government support will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.566**	.000	Accept $Ha_{8.4}$

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Source: Survey data.

Based on the results in Table 5.19, it was concluded that *marital status* (p=0.215), level of *education* (p=0.585) as well as *occupation* (p=0.058) did not significantly influence a respondent's intention to use or reject Islamic finance. This was evident from the p-values that were higher than the critical p-value of 0.05. In this context, the alternative hypotheses containing these predictors were rejected in favour of the null hypothesis that no significant difference existed between *intention* and *marital status*, *education*, as well as *occupation*. All other alternative hypotheses were accepted at the p<0.05 level.

(iii) Evaluating the effect size of the study

Statistical measures used in the social sciences rely on some type of statistical significance measure (for example, t-tests, ANOVA, Chi-square and even correlations tied to a p-value) to authenticate results or to test hypotheses. While most published statistical reports include information on significance, such measures can cause problems for practical interpretation. Biddix (2013), for example, states that a significance test does not reflect the size of a difference between two measures nor does it make comparison across studies easy. To account for this, the American Psychological Association (APA) recommends that all published statistical reports reflect a study's effect size. One of the main advantages of using effect size is that, when a particular experiment has been replicated, the different effect size estimates from each study can easily be combined to give an overall best estimate of the size of the effect. A study's effect size provides a simple way to quantify the difference between two groups and provides a standard measure from any number of statistical outputs. Therefore, a study's effect size is a true measure of the significance of the difference.

According to Biddix (2013), the standardised mean effect size calculation expresses the mean difference between two groups in standard deviation units. Typically, this effect size is reported as Cohen's *d* (Biddix, 2013). While the meaning of effect size varies by context, Cohen (1988) prescribes the following standard interpretation, namely (i) $d \geq 0.8$ (8/10 of a standard deviation unit) as 'large'; (ii) $d \leq 0.5$ (1/2 of a standard deviation unit) as 'moderate'; and (iii) $d \leq 0.2$ (1/5 of a standard deviation unit)

as 'small'. Table 5.20 provides a summary of the Cohen's *d* effect sizes for each of the predictor variables in the stated hypotheses.

Table 5.20:   Cohen's *d* effect size tests

Independent variables	Dependent variable Intention	N	Mean	Std. Deviation	Cohen's d (absolute value)	Interpretation
Gender	Not a potential user	182	1.24	.426		Large
	Potential user	207	1.77	.423	1.248	
Age	Not a potential user	182	3.73	2.025		Large
	Potential user	207	5.78	2.096	0.994	
Marital status	Not a potential user	182	2.26	1.202		Small
	Potential user	207	2.43	1.341	0.134	
Education	Not a potential user	182	4.14	1.749		Small
	Potential user	207	4.24	1.824	0.056	
Income	Not a potential user	182	3.95	2.175		Large
	Potential user	207	5.73	1.998	0.852	
Occupation	Not a potential user	182	3.86	2.252		Small
	Potential user	207	4.29	2.177	0.194	
Awareness	Not a potential user	182	2.95	1.042		Large
	Potential user	207	5.37	1.344	2.012	
Knowledge	Not a potential user	182	2.79	.898		Large
	Potential user	207	5.41	1.166	2.517	
Attitude	Not a potential user	182	3.19	1.513		Large
	Potential user	207	6.82	1.668	2.279	
Behavioural beliefs	Not a potential user	182	-.583	.711		Large
	Potential user	207	.512	.934	1.319	
Normative beliefs	Not a potential user	182	-.683	.688		Large
	Potential user	207	.601	.831	1.683	
Efficacy beliefs	Not a potential user	182	-.166	1.020		Moderate
	Potential user	207	.146	.960	0.315	
Environmental factors	Not a potential user	182	-.328	.888		Moderate
	Potential user	207	.288	1.005	0.650	

Source: Survey data.

In the present study, the Cohen's *d* effect sizes between potential users and non-potential users of Islamic finance in Port Elizabeth (N=389) were large for *gender* (*d*=1.248, p<0.05), *age* (*d*=0.994, p<0.05), *income* (*d*=0.852, p<0.05), *awareness* (*d*=2.012, p<0.05), *knowledge* (*d*=2.517, p<0.05), *attitude* (*d*=2.279, p<0.05), *behavioural beliefs* (*d*=1.319, p<0.05), as well as *normative beliefs* (*d*=1.683, p<0.05). Relatively high Cohen's *d* effect size values suggested high practical significance. Therefore, in terms of these eight predictors, the null hypotheses that no differences existed between these groups' intention to use Islamic finance were rejected in favour of the alternative hypotheses. The effect size for *efficacy beliefs* (*d*=0.315, p<0.05) and *environmental factors* (*d*=0.650, p<0.05) were moderate. However, Table 5.20 above shows that the correlation between these predictors and the dependent variable were statistically significant (p<0.05). Relatively high R^2 values found in the structural equation model in Section 5.4.2 also confirmed a statistically significant and positive relationship between the binary dependent variable *intention* and *efficacy beliefs* (R^2=0.346, p<0.01) as well as *environmental factors* (R^2=0.804, p<0.01). Therefore,

the null hypotheses containing these predictors were rejected in favour of the alternative hypotheses. Small effect sizes were found between the dependent variable, *intention*, and the following three independent variables: *marital status* (d=0.134, p<0.05), *education* (d=0.056, p<0.05), and *occupation* (d=0.194, p<0.05). Considering that these three independent variables failed at the significance level (p>0.05) and the fact that their calculated Cohen's *d* effect size values were small, suggested low practical significance. These variables also exhibited statistically insignificant relations with the dependent variable in the structural equation model developed in Section 5.4.2. In this context, the null hypotheses containing these predictors were not rejected in favour of the alternative hypotheses.

5.4.4 Binary logistic regression

The primary objective of this study was to investigate how demographic, subjective and environmental factors influenced a Port Elizabethan Muslim's attitude and intention to adopt or reject Islamic finance. Confirmatory factor analysis (CFA) conducted and explained in Section 5.4.2 identified *gender* (R^2=0.424, p<0.01) as the only statistically significant demographic variable in the structural equation model. By means of CFA, it was established that a Muslim's attitude towards Islamic finance was formed after an evaluation of *behavioural beliefs* (BB), *normative beliefs* (NB), *efficacy beliefs* (EB), and *environmental factors* (ENV). The influence of *BB* (R^2=0.201, p<0.01), *NB* (R^2=0.261, p<0.01), *EB* (R^2=0.041, p<0.05) and *ENV* (R^2=0.099, p<0.05) on *attitude* were positive (see Figure 5.7). A strong positive relationship was detected between a Muslim's *attitude* (R^2=3.624, p<0.01), *knowledge* (R^2=1.853, p<0.01) as well as *awareness* (R^2=0.896, p<0.01) of Islamic finance and his/her willingness to use it. The researcher further extended the analysis to establish whether the variables discussed above (*knowledge*, *attitude*, *gender* and *awareness*) constitute good predictors of potential use of Islamic finance. In order to achieve this objective, the researcher applied binary logistic regression (BLR). Table 5.21 presents the outcome of the hierarchical BLR analysis to determine how well *knowledge*, *attitude*, *gender*, and *awareness* were able to <u>predict</u> that a Port Elizabethan Muslim would accept or reject Islamic finance.

Table 5.21:   Hierarchical binary logistic regression model

Dependent variable = Intention					Observed	Predicted — Not a potential user	Predicted — Potential user	Classification Table - Predicted % correct
Block 0	**B**	**S.E**	**Sig.**	**Exp(B)**	Not a potential user	0	182	
Constant	.129	.102	.205	1.137	Potential user	0	207	53.2%

Block 1	**B**	**df**	**Sig.**	**Exp(B)**	Omnibus Tests of Model Coefficients	Chi-square	df	Sig.	Model Summary — -2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Classification Table - Predicted % correct
Knowledge	2.449	1	.000	11.582	Step	348.947	1	.000	188.714	.592	.791	87.9%
Constant	-9.776	1	.000	.000	Block	348.947	1	.000				
					Model	348.947	1	.000				

Block 2	**B**	**df**	**Sig.**	**Exp(B)**	Omnibus Tests of Model Coefficients	Chi-square	df	Sig.	Model Summary — -2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Classification Table - Predicted % correct
Knowledge	2.390	1	.000	10.914	Step	103.481	1	.000	85.233	.687	.918	95.1%
Attitude	1.688	1	.000	5.409	Block	103.481	1	.000				
Constant	-17.963	1	.000	.000	Model	452.428	2	.000				

Block 3	**B**	**df**	**Sig.**	**Exp(B)**	Omnibus Tests of Model Coefficients	Chi-square	df	Sig.	Model Summary — -2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Classification Table - Predicted % correct
Knowledge	2.405	1	.000	11.078	Step	14.925	1	.000	70.308	.699	.934	96.1%
Attitude	1.588	1	.000	4.896	Block	14.925	1	.000				
Gender	2.373	1	.000	10.734	Model	467.353	3	.000				
Constant	-21.242	1	.000	.000								

Block 4	**B**	**df**	**Sig.**	**Exp(B)**	Omnibus Tests of Model Coefficients	Chi-square	df	Sig.	Model Summary — -2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Classification Table - Predicted % correct
Knowledge	1.652	1	.000	5.217	Step	9.365	1	.002	60.943	.706	.943	96.9%
Attitude	1.710	1	.000	5.526	Block	9.365	1	.002				
Gender	3.083	1	.000	21.817	Model	476.718	4	.000				
Awareness	1.106	1	.002	3.021								
Constant	-23.973	1	.000	.000								

Source: Survey data.

In the context of this study, Table 5.21 suggests that the likelihood of estimating correctly who intended to use Islamic finance was 96.9% if one knew the respondent's levels of awareness and knowledge of Islamic finance as well as his/her gender and attitude towards it. The probability scores for these four variables were less than the alpha value of 0.05. This implied that there was less than a 1/1000 chance that the relationship observed between the four predictors (*knowledge*, *attitude, gender, and awareness*) and intention to use Islamic finance were due to the influence of random chance.

Block 0 provides information about the baseline situation, when only the constant was entered into the model and all other predictor variables were omitted. If one simply guessed that no Port Elizabethan Muslim intended to use Islamic finance, one would classify 53.2% of the respondents correctly by chance. However, when the *knowledge* variable was added as a covariate to the model in a stepwise manner, the predictive power of the model increased significantly to 87.9%. This substantial improvement in the model's predictive ability is attributed to the fact that the independent variable, initially left out of the equation at Block 0, was a statistically significant predictor of intention. The Omnibus Tests of Model Coefficients table indicated that, when the respondent's knowledge of Islamic finance was considered, the model at Block 1, was significant (X^2=348.947, *df*=1, N=389, p<0.001).

When all four predictor variables were considered in the final BLR model, they significantly predicted whether or not a Muslim in Port Elizabeth intended to accept Islamic finance (X^2=476.718, *df*=4, N=389, p<0.001). The estimated beta coefficients shown in Table 5.21 indicate that the factors representing *knowledge*, *gender*, *attitude*, and *awareness* respectively were statistically significant and carried a positive sign. This suggested that there was a greater willingness among respondents to adopt Islamic finance if their attitude, as well as levels of knowledge and awareness improved. An increase of one unit in the respondent's *knowledge* of Islamic finance, increases the odds of potential use by a factor of 5.217, when other variables are controlled. Similarly, a one-unit increase in the respondent's *attitude* and *awareness*, *ceteris paribus*, increased the likelihood of potential use by a factor of 5.526 and 3.021 respectively.

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The Model Summary table, presented in Block 4 above, indicates that, according to the understated Cox & Snell R Square statistic, approximately 71% of the variance was explained by the four predictors. The Nagelkerke R^2 statistic indicated that 94% of the variance in the dependent variable was explained by the linear combination of the four independent variables.

The BLR equation generated from Table 5.21, can be numerically expressed as follows:

$$\text{BLR}_{\text{intention}} = -23.973 + 3.083(\text{gender}) + 1.652(\text{knowledge}) + 1.710(\text{attitude}) + 1.106(\text{awareness}) \quad (5.4)$$

Employing a 0.05 criterion of statistical significance, it was found that *gender*, *knowledge*, *attitude,* and *awareness* had significant partial effects on a Muslim's intention to use Islamic finance. The effect that *knowledge* of Islamic finance had on *intention* was bigger than the influence *attitude* and *awareness* had on a Muslim's intention to adopt Islamic finance (see Figure 5.7).

An important piece of information that is provided in the SPSS output of a binary logistic regression model relates to the odd ratios, as indicated in the Exp(B) column. Tabachnick and Fidell (2007: 461) defines the odd ratios as "the change in odds of being in one of the categories of outcome when the value of a predictor increases by one unit". In other words, it can also be interpreted as the magnitude of changes in independent variables that may be caused by changes in the dependent variable. By focusing on Block 4 in Table 5.21, it was possible to predict the odds that a respondent of a given gender will use Islamic finance. The odds prediction equation used in this study was $\text{ODDS} = e^{a+bx}$. If the respondent was male (*gender* = 2), then the odds of accepting Islamic finance were 1.847 ($\text{ODDS} = e^{-23.973+3.083(2)} = e^{-17.807} = 1.847$). In other words, a Muslim male was 1.847 times likely to adopt Islamic finance than he was to reject it. In contrast, if the respondent was female (*gender* = 1), the odds of accepting Islamic finance was 8.464 ($\text{ODDS} = e^{-23.973+3.083(1)} = e^{-20.890} = 8.464$). This indicated that Muslim females in Port Elizabeth were more likely to accept Islamic finance than their Muslim male counterparts were. By converting the odds to probabilities, the BLR model predicted that 89% of Muslim females in Port Elizabeth

$(Prob = \frac{ODDS}{1+ODDS} = \frac{8.464}{9.464} = 0.89)$ intended to accept Islamic finance whereas 65% $(Prob = \frac{ODDS}{1+ODDS} = \frac{1.847}{2.847} = 0.65)$ of Muslim males in Port Elizabeth were predicted as potential users.

In this analysis, the odds-ratio was computed by raising the base of the natural log to the bth power, where b is the slope of the variable noted in the logistic equation. Hence, in terms of *gender* ($e^{3.083}$), the odds-ratio predicted by the BLR model was 21.817. Muslim females in Port Elizabeth were nearly twenty-two times more likely to accept Islamic finance compared to Muslim males. The odds-ratio for *gender* therefore confirmed the hypothesis that, while holding all other variables constant, potential use of Islamic finance among Muslims in Port Elizabeth was influenced by a respondent's gender. This finding is substantiated in Figure 5.9.

Confirmatory factor analysis revealed statistically insignificant differences between potential and non-potential users of Islamic finance across *age*, *marital status*, *education*, *income* and *occupation*. Consequently, these variables were omitted from the BLR. However, a cursory glance at Figure 5.9 revealed the following:

- In terms of age, older females between the age categories of 40-44 and 45-49 reflected a greater propensity to adopt Islamic finance retail products compared to younger females;

- Most of the males who indicated an intention to reject Islamic finance were less than 40 years old; and

- Respondents in the R3201-R6400 monthly income category expressed the strongest ($R^2=0.394$, $p<0.01$) intention to use Islamic finance compared to any of the other age categories. No discernible difference or correlation was detected between the occupation ($R^2=0.096$, $p>0.05$) of respondents and their intention to use or reject Islamic finance.

Figure 5.9:   Potential use of Islamic finance by demographic and socio-economic factors
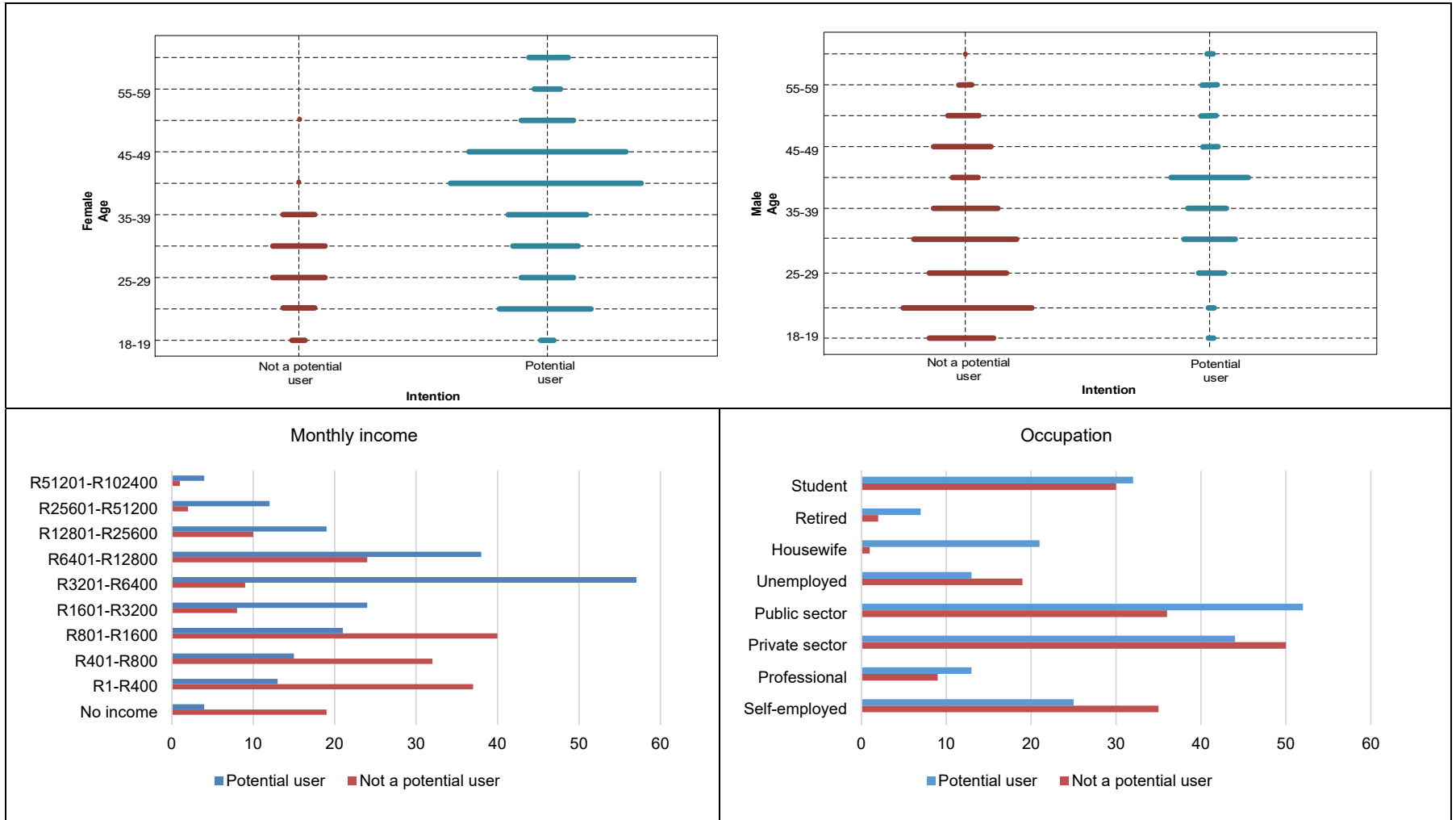
The Hosmer and Lemeshow (H-L) goodness-of-fit test evaluated the overall fit of the BLR model. The H-L test indicates the extent to which the model provided better fit than a null model with no predictors. According to Pallant (2007: 174), the H-L Test is "the most reliable test of model fit available in SPSS." In this test, the output was interpreted differently from the results of Omnibus Tests of Model Coefficients: if the significant value was less than 0.05, it meant that the overall model was poor. However, if the Chi-square goodness-of-fit was not significant, then the model had adequate fit. In other words, well-fitting models show non-significance on the goodness-of-fit test, which indicates model prediction that is not significantly different from observed values. From the result, the H-L test yielded a Chi-square statistic of 0.929 (df=8, p=0.999). Since the p-value was greater than 0.05, it was concluded that the model's estimates fit the data at an acceptable level. Furthermore, the Nagelkerke R^2 value was 0.943. This was considered adequate as 94% of the variation was explained by the BLR model.

To test multicollinearity, the correlations between the predicted factors were calculated. The correlation matrix (not shown) showed that the highest correlation was 0.367, which suggested that multicollinearity was not a serious problem in this analysis. Table 5.22 reflects an overall correct prediction rate of 96.9%, suggesting that the BLR model was accurate in predicting potential users of Islamic finance.

Table 5.22:   Classification table of binary logistic regression model

Classification table[a]		Observed	Predicted		Percentage correct
			Intention		
			Not a potential user	Potential user	
Step 1	Intention	Not a potential user	176	6	96.7
		Potential user	6	201	97.1
	Overall percentage				96.9

a.   The cut value is .500

Source: Survey data.

5.4.5 CHAID decision tree analysis

Marketers of Islamic finance retail products will be confronted with the challenge of having to isolate the variables that would distinguish those who intend to accept Islamic finance from those who do not. This challenge is exacerbated when the response variable becomes skewed (i.e. when one response category contains the bulk of the responses). In such an instance, researchers turn to discriminant function

analysis (DFA) to determine which explanatory variables (and with what weight) can be used to distinguish membership in different response categories. Discriminant function analysis (DFA) was applied in section 5.4.3 of this study. However, DFA is not an ideal prediction technique (Babinec, 1990). When the response variable has two categories, the objections to multiple regression analysis and discriminant function analysis as prediction techniques are identical (Babinec, 1990).

Statisticians have developed techniques such as binary logistic regression and logit analysis for the situation when most or all of the variables are categorical. Despite their appropriateness, these techniques have the drawbacks of complexity and difficulty in interpreting results (Magidson, 1982; Ratner, 1997). In contrast, the Chi-Squared Automatic Interaction Detection (CHAID) analysis technique addresses the criticism levelled against the various forms of regression and logit analysis by producing prediction results that are not just statistically valid, but also intuitively appealing and understandable to the researcher.

CHAID models reveal non-linearities and is able to find the main effects of an explanatory variable on a response variable by means of Bonferroni adjustments in its built-in statistical tests (Babinec, 1990). The results of these tests are then presented in the form of a classification tree which highlights important variables, extraneous variables, interactions as well as spot segments that are statistically distinct in response. Furthermore, the classification tree shows which variables to use in further analysis and which variables to discard. It is for these reasons that the researcher has opted to use CHAID analysis to identify the key predictors of potential use of Islamic finance among Muslims in Port Elizabeth. Eight independent variables were specified in the construction of the CHAID model, but only six predictors were retained in the final model. The variables *efficacy beliefs* and *environmental factors* did not make a significant contribution to the model, and were automatically removed from the final CHAID model. According to the results depicted in Figure 5.10, knowledge of what Islamic finance entails was identified by CHAID analysis as the best predictor around which to begin segmenting the market of potential users of Islamic finance.

Figure 5.10: Key predictors of potential use of Islamic finance

Predictor Importance
Target = Intention
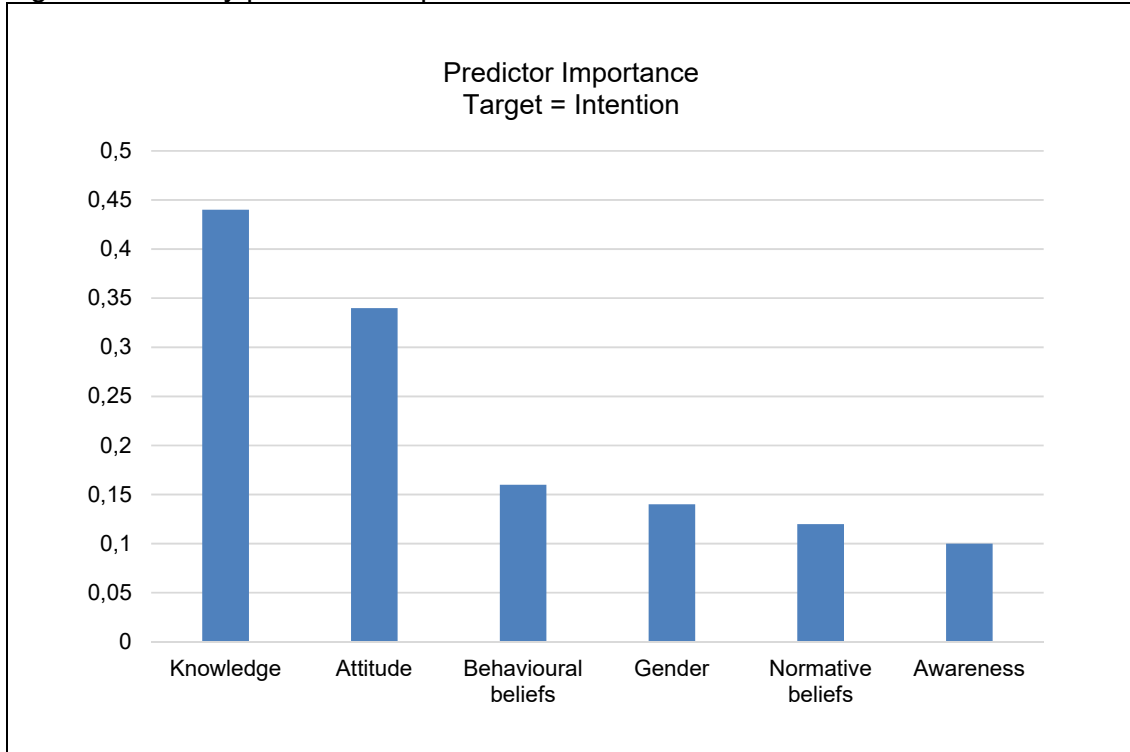
Source: Survey data.

The CHAID decision tree, reflected in Figure 5.11 overleaf, confirmed that *knowledge* of Islamic finance is the best predictor of *intention* to use it. For respondents with a mean *knowledge* score greater than 4.00 on a 10-point knowledge scale (Node 12), 97.7% (172 of 176 respondents) were classified as potential users of Islamic finance. In the event that respondents possessed a mean *knowledge* score less than 4.00 on a 10-point knowledge scale (Node 1), 35 of the 213 (16.4%) respondents were classified as potential users of Islamic finance. Figure 5.11 provides information about the terminal nodes (i.e. nodes at which the tree stops growing) in the model. For respondents with a low mean *attitude* score (Node 2, *attitude*<=5.000) as well as a low mean *behavioural beliefs* score (Node 3, *BB*<=0.341), the CHAID model predicted that 0.63% (1 of 160 respondents) would be potential users of Islamic finance.

Figure 5.11: CHAID decision tree
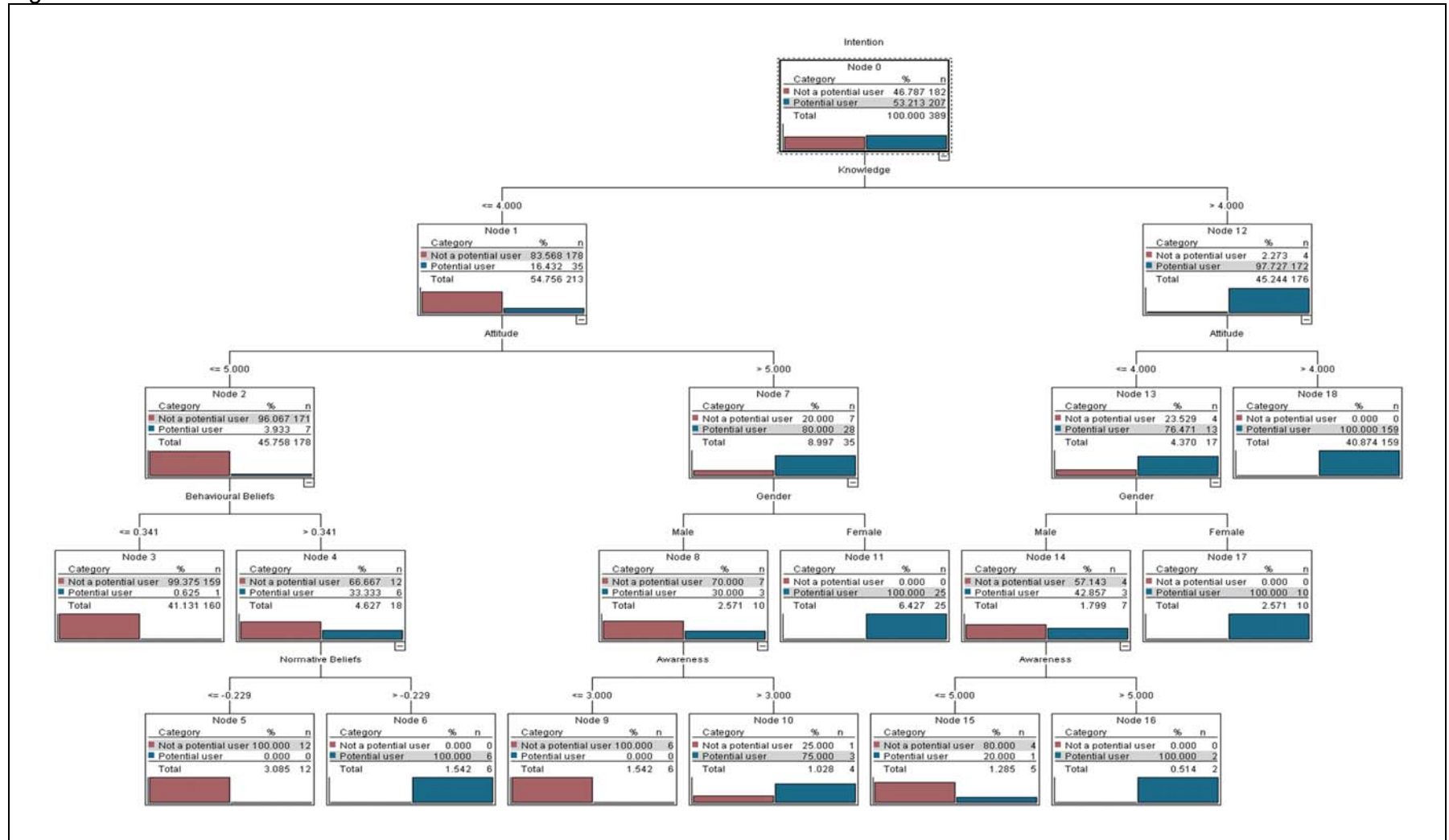
Source: Survey data.

Since there were no child nodes below it, this was considered a terminal node. For nodes with a high mean *knowledge* score (Node 12, *knowledge*>4.000) and high mean *attitude* score (Node 18, *attitude*>4.000), 159 (100.0%) respondents were classified as potential users of Islamic finance. This suggested that, not only was there a strong positive relationship between a respondent's level of knowledge of Islamic finance and his intention to use it, but a strong positive relationship also existed between a respondent's attitude and his/her intention to use it. Therefore, in terms of potential use of Islamic finance, a respondent's knowledge of Islamic finance and attitude towards it, were considered the best predictors thereof.

In the event that the respondents reflected a low mean *attitude* score (Node 13, *attitude*<=4.000), the model included *gender* (Nodes 14 and 17) as a determining factor. In such a case, the number of potential users decreased dramatically to 42.85% (3 males) and 100.0% (10 females) respectively. The CHAID model terminated with the introduction of the *awareness* variable. Nearly all (80.0%) male respondents with a low mean *awareness* level (Node 15, *awareness*<=5.000) as well as a low mean *attitude* level (Node 13, *attitude*<=4.000) were predicted to be non-potential users of Islamic finance.

The results from the CHAID Gains Table presented in Table 5.23 indicated that, by improving respondents' knowledge of Islamic finance, potential use among Muslims in Port Elizabeth increased fivefold, from 16.9% to 83.1%.

Table 5.23:   CHAID gains for nodes

Node	Node		Gain		Response	Index
	N	%	N	%		
2	176	45.2	172	83.1	97.7%	183.7%
1	213	54.8	35	16.9	16.4%	30.9%

Growing Method: CHAID; Dependent variable: Intention

Source: Survey data.

The risk estimate for this study's CHAID model is presented in Table 5.24. The risk and classification tables provided a quick evaluation of how well the model works. In the context of this study, the risk estimate of 0.100 indicated that the categories predicted by the model (potential users of Islamic finance versus non-potential users of Islamic finance) was wrong in 10.0% of the cases. Therefore, the risk of

misclassifying a respondent in the full model was approximately 10.0%. The results in the classification table were consistent with the risk estimate.

Table 5.24:   Risk estimate and classification tables

Risk		Classification			
			Predicted		
Estimate	Std. Error	Observed	Not a potential user	Potential user	Percent Correct
.100	.015	Not a potential user	178	4	97.8%
		Potential user	35	172	83.1%
		Overall Percentage	54.8%	45.2%	90.0%

Growing Method: CHAID; Dependent Variable: Intention

Source: Survey data.

Overall, the model had a correctly classification rate of 90.0%. This was reflected in most of the terminal nodes, where the predicted category – i.e. the highlighted category in the node – was the same as the actual category for 90% of the cases. Table 5.24 shows that the model classified 83.1% of potential users and 97.8% of non-potential users correctly.

For a statistically sound model, the gains chart will rise steeply toward 100% and then level off. Cumulative index charts of good CHAID models, in contrast, tend to start well above 100%, remain on a high plateau and then gradually descend until they reach 100%. For a model that provides no information, the line hovers around 100% for the entire chart. In this context, it can be seen from Figure 5.12, that the model's gains and index charts were fairly good.

In short, based on the CHAID model above, it was proven that *gender*, *knowledge*, *attitude* and *awareness* are significant elements that enhance the willingness of Muslims in Port Elizabeth to use Islamic finance. These results were consistent with the previous findings in this chapter (i.e. the SEM, the DFA model, and the BLR model) where the same factors were identified as significant predictors of *intention*.

Figure 5.12: Gains and index charts for potential users of Islamic finance category
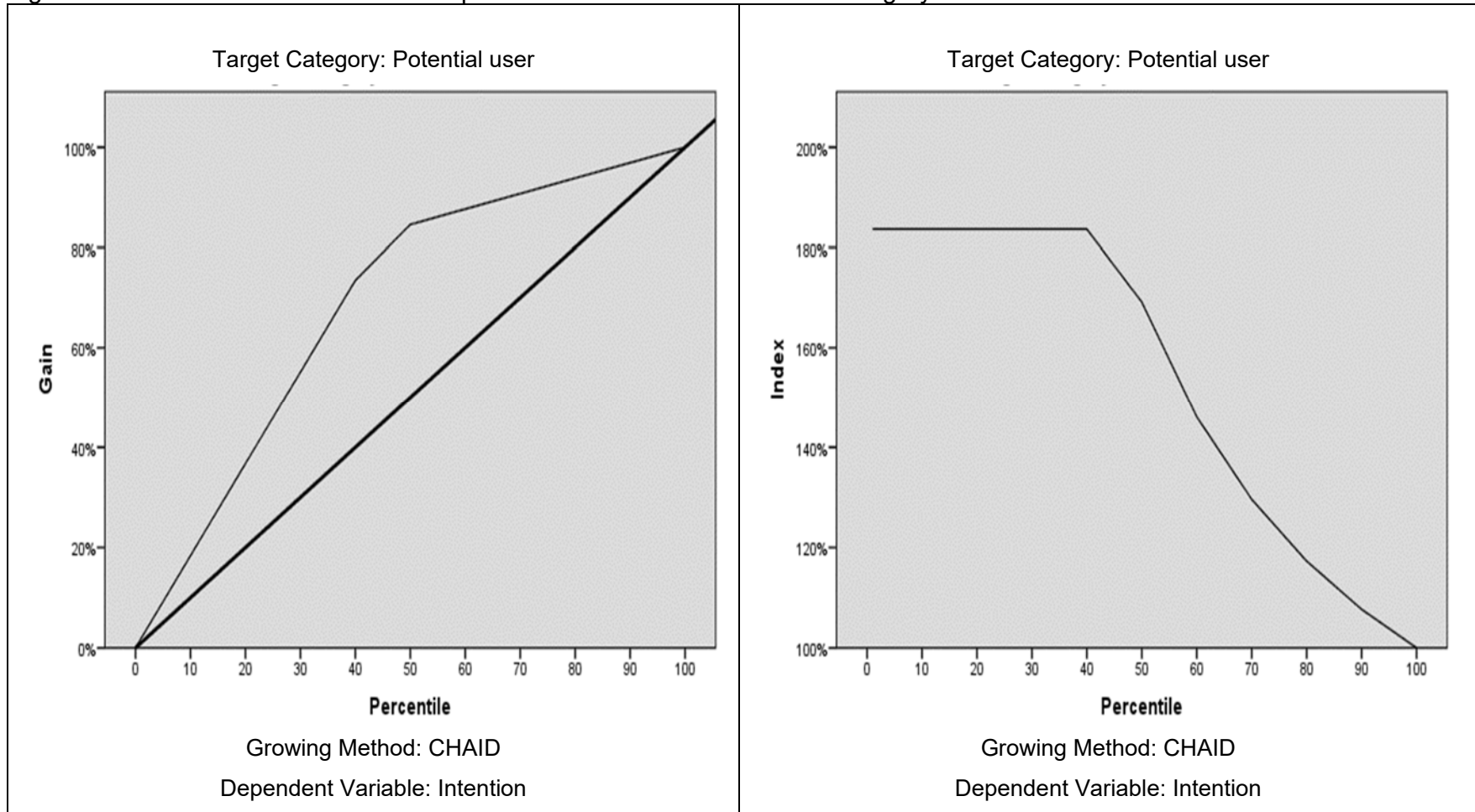
Source: Survey data.

If the conclusions derived from these models hold, then the stakeholders of the Islamic banking industry (*i.e.* regulators, Islamic banks, government, institutions of higher learning, researchers, *Shari'ah* advisors, and even the religious authorities) should intensify their efforts to improve on the public's level of knowledge and awareness of Islamic finance retail products and services. It is only through concerted effort from these stakeholders to improve the knowledge level among Muslims in Port Elizabeth that the potential use of Islamic finance retail products will improve.

5.5   SUMMARY

This chapter provided information on the characteristics of the survey's respondents and discussed their perceptions, beliefs, and expectations of the Islamic finance sector. From a sample of 389 Muslims in Port Elizabeth, almost every second respondent (53.2%) have indicated an intention to use Islamic finance. However, the results of the descriptive analyses identified a gap in terms of respondents' knowledge and awareness of Islamic finance. Almost half of the survey respondents did not know the name of the full-fledged Islamic bank in Port Elizabeth. Similarly, nearly half of the respondents did not know if their existing conventional bank provided any Islamic finance retail products.

Respondents perceived it to be *haram* (not permissible) for any Muslim to receive or charge interest in Islam and that Islamic banks were operating within the prescriptions of *Shari'ah* law. However, nearly half (46.3%) of the respondents believed that Islamic banking was not viable because the rest of the world's financial system is based on interest. Some 49.6% of the respondents felt that this perceived problem was exacerbated by the fact that Islamic bank administrators are not doing enough to educate the public on the merits of Islamic finance and that the marketing of the Islamic financial brand was weak and unclear. Nearly one-fifth (21.9%) of the respondents believed that Islamic windows are not permissible as they perceived them to be merely divisions of conventional banks that use Arabic names to market conventional retail banking products. Consequently, 39.1% of the respondents were of the opinion that money and religious scholars should not 'mix'.

In order to achieve the primary objective of this study, data extracted from Section C of the questionnaire were subjected to exploratory factor analysis (principal component method with Varimax rotation). Results from the factor analysis were evaluated in terms of reliability, as well as discriminant and construct validity. All KMO values for the individual items (>0.90) were well above 0.5 and the overall KMO measure of 0.910 indicated that the data were sufficient for exploratory factor analysis. The Bartlett's Test of Sphericity (X^2(389)=9891.130, p<0.001) showed that there were patterned relationships between the items. Using an eigenvalue cut-off of 1.0, there were 6 factors that explained a cumulative variance of 73.19%. Accordingly, *knowledge*, *awareness*, *behavioural beliefs*, *normative beliefs*, *efficacy beliefs* and *environmental factors* were (i) complex variables that loaded together as expected; (ii) adequately correlated; and (iii) met the criteria of reliability and validity.

Six key factors that influenced potential use of Islamic finance among Muslims in Port Elizabeth were identified by means of confirmatory factor analysis, structural equation modelling, as well as CHAID analysis. Stepwise discriminant function analysis (DFA) confirmed the rejection of all the null hypotheses in favour of the alternative hypotheses.

Knowledge of what Islamic finance entails was identified by CHAID analysis as the best predictor around which to begin segmenting the market of potential users of Islamic finance. A respondent's attitude towards Islamic finance was the second most important predictor of potential use of Islamic finance. Overall, the CHAID model classified 83.1% of potential users and 97.8% of non-potential users correctly.

The following chapter aims to contextualise this thesis by providing the reader with a summary of the objectives and research hypotheses of the study. Thereafter, the results of this chapter will be discussed in relation to theory and the findings of similar studies undertaken elsewhere.

CHAPTER SIX
RECOMMENDATIONS AND CONCLUDING REMARKS

6.1   INTRODUCTION

In Chapter 6, the final chapter of this thesis, an overview of the study in terms of its research objectives, hypotheses and significant findings are provided. The cross-referencing of the theory with the findings of previous studies, as well as the pertinent main findings of this study, enables the researcher to present a holistic strategy on how attitudes and adoption rates of Islamic finance among Muslims in Port Elizabeth can be improved. The chapter concludes by highlighting the contributions of this study, its limitations, and offers suggestions for future research.

6.2   OVERVIEW OF THE RESEARCH

The resurgence of Islam across the globe combined with the resilience that Islamic financial assets have shown against the onslaught of the current financial crisis, make Islamic finance an attractive alternative financial system. Islamic finance encompasses financial banking institutions, products and services designed to comply with the central tenets of *Shari'ah* (Islamic) law which forbids any form of exploitation. The sector's broad appeal is attributed to its ethical banking theory and practice where *riba'h* (usury or interest) and *gharar* (impermissible contractual uncertainties) are forbidden. Islamic financial institutions are obliged to focus on activities that promote greater social justice by sharing risk and reward. This unconventional mode of finance has proven that it is more than just a niche industry by showing double digit growth rates beyond the traditional areas of the Gulf Cooperation Council (GCC) regions of Asia as well as other parts of the Middle-East and North Africa (MENA) regions. However, opportunities exist for Islamic finance to flourish in Muslim-minority countries. Research suggests that the future of Islamic finance in Africa depends on business opportunities in South Africa, Kenya, Nigeria and Senegal. The South African government, in conjunction with the national finance authorities, have made their intention clear to position the country as the Islamic finance hub for the rest of the African continent. A number of established conventional banks in South Africa have shown support for this vision by creating Islamic windows at the majority of their retail

outlets. The fiscal authorities have introduced tax neutrality laws for Islamic finance products to ensure that the full potential of Islamic finance is realised. Despite having access to Islamic banking and finance facilities for more than twenty years, bank patronage and utilisation of this mode of finance among the 1.5 million South African Muslims are estimated at a modest 15 per cent. This lack of interest among the Muslim population in South Africa to utilise Islamic banking and finance retail products is impacting negatively on the country's aspirations to establish itself as the gateway of Islamic finance to the rest of Africa. Research have shown that it is not possible for Islamic banking in a non-Muslim country to grow on the strength of Muslim participation alone. However, increasing the usage of Islamic finance retail products and services among local Muslims would surely contribute towards expanding the size and growth of the domestic Islamic financial sector.

In the finance realm the attitude, perceptions and expectations market participants have of a product or service impact on the sector's expansion and development. However, people's attitudes toward utilising Islamic finance have often been cited as a key obstacle to the development of the Islamic banking and finance system in Muslim-minority countries. This viewpoint was shared in a Kuwait Finance House research report which highlighted attitude as well as a lack of awareness and knowledge of Islamic finance products and services as key factors stifling the growth of the Islamic finance sector in South Africa. In this context, it was deemed necessary to understand why Muslims in South Africa behave the way they do. Specifically, the primary objective of this exploratory study was to investigate and empirically test how potential use of Islamic finance among Muslims in Port Elizabeth is influenced by their attitude towards it. For the purpose of this study, *potential use* referred to the likelihood that a Port Elizabethan Muslim will accept or reject Islamic finance after evaluating an attitude he/she has formulated from various subjective beliefs and environmental factors. This research objective was achieved by applying and adapting Fishbein's Integrated Model of Behavioural Prediction (IMBP) to suit the hypotheses of this study. In order for the researcher to achieve the identified research aims and objectives of this study and to provide guidance on the overall execution of the research, the following research questions (RQs) were formulated:

RQ$_1$: Do Muslims in Port Elizabeth understand the concept, principles and objectives of Islamic finance?

RQ$_2$: What factors influence a Port Elizabethan Muslim's decision to adopt or reject Islamic finance?

RQ$_3$: Are there any significant differences between the socio-economic and demographic factors of those Muslims who intend to use Islamic modes of finance and those who prefer not to?

RQ$_4$: To what extent do cognitive measures (for example, an individual's knowledge and awareness of Islamic finance), and affective measures (for example, an individual's behavioural and normative beliefs) impact on a Port Elizabethan Muslim's intention to accept or reject Islamic finance?

RQ$_5$: Is there any correlation between a Port Elizabethan Muslims' attitude towards Islamic finance and their intention to engage with the sector?

RQ$_6$: Which environmental factors contribute most to the likelihood among Muslims in Port Elizabeth to engage or disengage with the Islamic finance sector?

RQ$_7$: What can be done to encourage Muslims in Port Elizabeth to change their behaviour towards the Islamic finance sector?

The extensive literature review carried out for Chapters 2, 3 and 4 of this study helped to understand the issues related to the subject area and was used to identify as many factors as possible that could influence a Muslim's attitude and decision to accept (or reject) Islamic finance. In Chapter 2 emphasis was placed on explaining how Islamic finance differs from the conventional finance system. This provided the reader with the theoretical background to evaluate the outcomes of studies undertaken in this particular research area. Chapter 3 was presented in two distinct sub-sections. Sub-section 3.2 provided the reader with a review of literature relating to the following six major theories and models of behaviour change: (i) the Social Cognitive Theory of Self-Regulation; (ii) the Health Belief Model; (iii) the Transtheoretical Model of Behavioural Change; (iv) the Theory of Reasoned Action; (v) the Theory of Planned Behaviour; and (vi) the Integrative Model of Behavioural Prediction. These attitudinal-behavioural models have received broad support in empirical studies of consumer decision making as well as in the literature on social psychology and were evaluated in terms of their respective scope, strengths and weaknesses, as well as their ability to predict behaviour. Two key observations from sub-section 3.2 related to the

recommendation from a COI Report which states that policymakers will do well to investigate factors affecting behavioural change at the personal, social as well as the external level. Additionally, a CommGAP Report states that policymakers who want to effect behaviour change must pay attention to the following eleven key elements, namely: (i) threat; (ii) fear; (iii) response efficacy; (iv) self-efficacy; (v) barriers; (vi) benefits; (vii) subjective norms; (viii) attitudes; (ix) intentions; (x) cues to action; and (xi) reactance. After careful evaluation of six major models of behaviour change, it was decided to adapt Fishbein's Integrative Model of Behavioural Prediction (IMBP) as the theoretical framework of this study as it analyses most of the key elements highlighted in the CommGAP as well as the COI reports. Additionally, the IMBP has been used successfully to understand behavioural intention and behaviour for condom use and other HIV/STD-prevention behaviours and served as the theoretical framework for two large multi-site intervention studies, namely the AIDS Community Demonstration Projects and Project Respect. Lastly, the IMBP was the only model that provided the theoretical basis from which to understand behaviour by identifying specific beliefs and issues policymakers need to target. Research questions RQ_4, RQ_5, and RQ_6, relating to cognitive, affective and environmental measures, were addressed by adapting the IMBP to suit the study's research hypotheses. Sub-section 3.3 reviewed the literature relating to consumers' level of knowledge of Islamic finance and reasons for choosing Islamic banks. The literature findings indicated that 'religiosity' (or piety) is only one of many motivating factors for choosing a bank. Other key variables in a Muslim's bank selection criteria included awareness and knowledge of Islamic finance, beliefs and norms, service-quality factors, and a host of other environmental factors beyond the control of the decision maker.

Chapter 4 explained the appropriateness of various research techniques used in the social sciences and provided the rationale for adopting certain parametric and nonparametric statistical techniques to pursue the objectives of this study. Five types of statistical techniques were undertaken to achieve the objectives of this study, namely (i) exploratory factor analysis (EFA); (ii) confirmatory factor analysis (CFA) and structural equation (SEM) modelling; (iii) discriminant function analysis (DFA); (iv) hierarchical binary logistic regression (BLR) analysis; and (v) CHAID tree analysis. Exploratory factor analysis was conducted to identify unique factors in the data. Confirmatory factor analysis was used to identify key variables influencing potential

use of Islamic finance in Port Elizabeth and also to identify the variables to be used in the construction of the BLR model. Discriminant function analysis allowed the researcher to develop a valid and reliable model that <u>explained</u> the value of a categorical dependent variable ("0" in the event that the respondent was unlikely to use Islamic finance, and "1" in the event that the respondent was likely to use it). In this research study, BLR analysis was used to analyse and <u>predict</u> the extent to which demographic, socio-economic status variables, cognitive, affective and environmental factors influenced an individual's attitude and intention to adopt or reject Islamic finance. By utilising CHAID tree analysis, the key predictors of potential use of Islamic finance among Muslims in Port Elizabeth were evaluated. CHAID is a Classified Tree technique that not only evaluates complex interactions among predictors, but also displays the modelling results in an easy-to-interpret tree diagram. Section 4.5 of this thesis provide detailed motivation for using each of these statistical techniques.

The survey data was captured and analysed using the Statistical Package for the Social Sciences (SPSS version 22) Base Program. The normative structural equation model was constructed in MPlus7, while the predictive BLR model was built and evaluated using IBM's SPSS Modeller (version 14). In terms of developing and evaluating the final research instrument, exploratory factor analysis (EFA principal component method with Varimax rotation) identified six key variables that accounted for 73.19% of the variance in a Port Elizabethan Muslim's decision to accept or reject Islamic finance. The Cronbach-alpha coefficients of the six constructs ranged from 0.702 to 0.963. The factors were all reflective because their indicators were highly correlated, largely interchangeable and the direction of causality was from construct to measure. Results from the factor analysis were evaluated in terms of reliability, as well as discriminant and construct validity. All KMO values for the individual items (>0.90) were well above 0.5 and the overall KMO measure of 0.910 indicated that the data were sufficient for exploratory factor analysis. The Bartlett's Test of Sphericity showed that there were patterned relationships between the items. Using an eigenvalue cut-off of 1.0, there were six factors that explained a cumulative variance of 73.19%. Accordingly, *knowledge*, *awareness*, *behavioural beliefs*, *normative beliefs*, *efficacy beliefs* and *environmental factors* were (i) complex variables that loaded together as expected; (ii) adequately correlated; and (iii) met the criteria of reliability and validity.

This study hypothesised that cognition, affect, and various external factors have no influence on a Port Elizabethan Muslim's attitude and behaviour towards Islamic finance (see Figure 1.2 and Figure 4.3). A respondent's cognitive measures were encapsulated by his/her perceived *knowledge* and *awareness* of Islamic finance whereas the respondent's *behavioural*, *normative* and *efficacy* beliefs of Islamic finance were captured by his/her affective measures. *Environmental* measures referred to the respondent's evaluation of external factors (e.g., service quality factors, cost, and government support) which he/she has no control over. By using the respondent's socio-economic and demographic profiles as external variables and moderators in a modified version of the IMBP, the following conceptual model was evaluated: Intention = f(Demographics, SES, Awareness, Knowledge, BB, NB, EB, ENV) *ceteris paribus*, where an individual formulates an 'attitude' after evaluating his/her knowledge, awareness, behavioural beliefs (BB), normative beliefs (NB), efficacy beliefs (EB), and environmental factors (ENV) pertaining to an attitude object. Eight null hypotheses (Ho_x) and fifteen alternative hypotheses (Ha_x) were specified to operationalise the research (see Section 1.6). However, results from Confirmatory Factor Analysis (CFA), Discriminant Function Analysis (DFA) as well as Pearson r significant tests showed that a positive relationship existed between a Port Elizabethan Muslim's conative measure (*intention*) and his/her cognitive, affective, and environmental measures. The results, depicted in Figure 6.1 as well as Tables 6.1 and 6.2 overleaf, suggested that a statistically significant correlation existed between a Muslim's intention to use Islamic finance and his/her level of *knowledge*, *normative beliefs*, *behavioural beliefs*, level of *awareness*, *environmental factors*, and *efficacy beliefs*. Furthermore, a statistically significant relationship existed between a respondent's *gender* and his/her intention to use Islamic finance. However, CFA revealed statistically insignificant differences between potential and non-potential users of Islamic finance across *age*, *marital status*, *education*, *income* and *occupation*. Consequently, these variables were omitted from the subsequent binary logistic regression (BLR) analysis. It was also proven that *attitude* was directly related to a Muslim's intention to either use or reject it. A strong positive attitude towards Islamic finance led to a strong willingness to use it. Based on the results of the CFA as well as the DFA, all the null hypotheses stipulated in Chapter 1 of this study were rejected in favour of the alternative hypotheses.

Figure 6.1:   Research hypotheses evaluated in terms of CFA
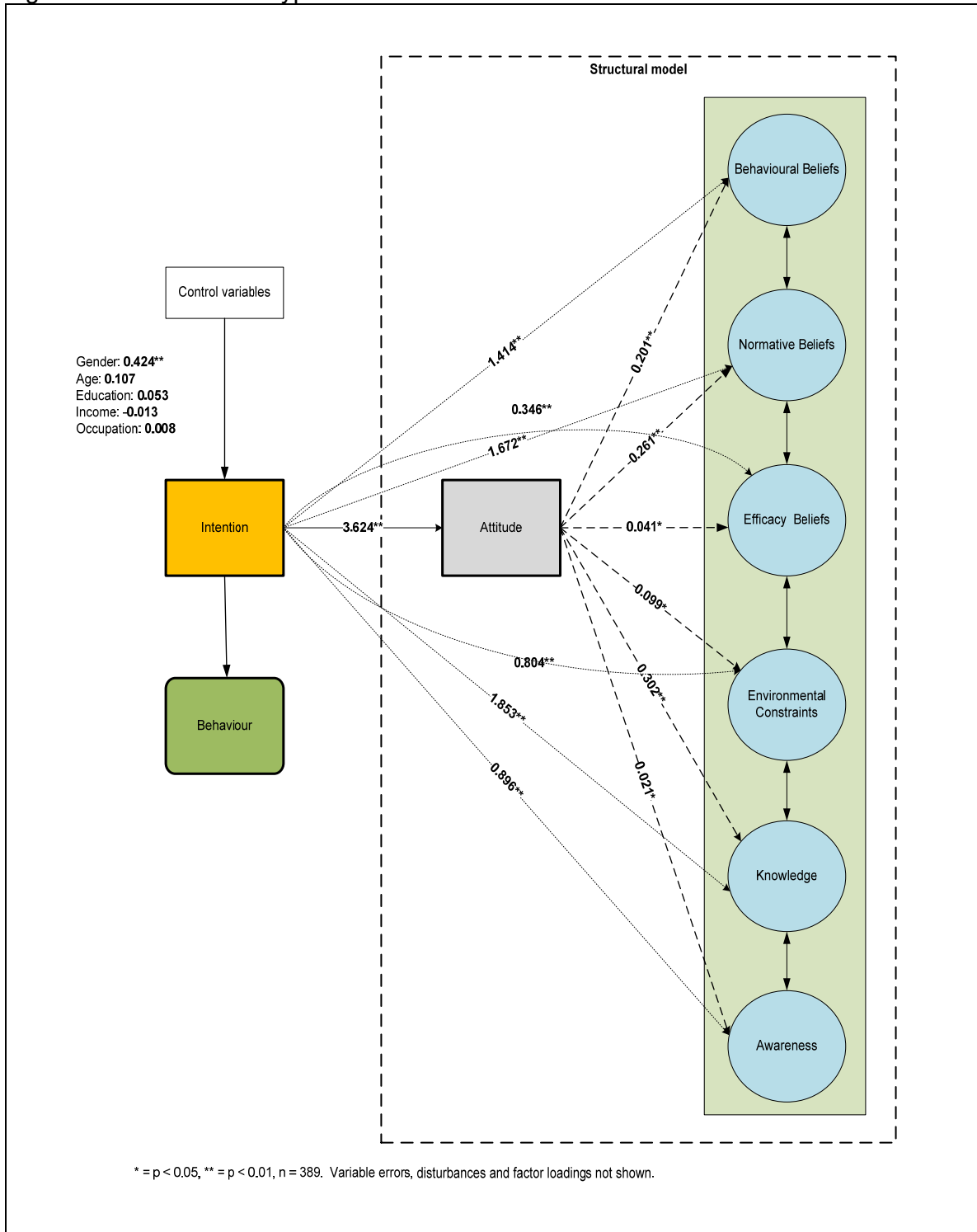
Source: Survey data.

Table 6.1:   Null research hypotheses evaluated in terms of DFA

Null hypothesis		Discriminant Function Analysis							Decision
		Box's M	F Approx.	Sig.	Eigen value	Wilks' Lambda	Chi-square	Sig.	
Ho$_1$	Differences in socio-economic status and other demographic factors <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.	69.314	3.246**	.000	.674	.597	197.884**	.000	Reject Ho$_1$
Ho$_2$	Awareness of the basic principles and objectives of Islamic finance <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use thereof.	19.203	3.174*	.004	1.980	.336	420.937**	.000	Reject Ho$_2$
Ho$_3$	Knowledge of the various retail and finance instruments available from Islamic banks/windows <u>do not</u> influence a Port Elizabethan Muslim's attitude and potential use of Islamic finance.	12.792	12.759**	.000	1.554	.392	362.438**	.000	Reject Ho$_3$
Ho$_4$	Potential use of Islamic finance is <u>not</u> influenced by a Port Elizabethan Muslim's attitude towards it.	1.822	1.817	.017	1.288	.437	319.965**	.000	Reject Ho$_4$
Ho$_5$	Behavioural beliefs (BB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	484.084	5.133**	.000	2.514	.285	478.152**	.000	Reject Ho$_5$
Ho$_6$	Normative beliefs (NB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	119.333	7.845**	.000	2.515	.284	483.363**	.000	Reject Ho$_6$
Ho$_7$	Efficacy beliefs (EB) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to use or reject Islamic finance.	220.392	21.793**	.000	.672	.598	197.902**	.000	Reject Ho$_7$
Ho$_8$	Environmental factors (ENV) <u>do not</u> influence a Port Elizabethan Muslim's attitude and intention to accept or reject Islamic finance.	554.953	91.711**	.000	.534	.652	165.069**	.000	Reject Ho$_8$

b.   Lilliefors Corrected. The significance level is 0.05.
    **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Source: Survey data.

Table 6.2:   Alternative research hypotheses evaluated in terms of Pearson r significant tests

	Alternative hypotheses	Pearson r	Approx. Sig.	Decision
Ha$_{1.1}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's gender and his/her attitude and intention to use Islamic finance.	.531**	.000	Accept Ha$_{1.1}$
Ha$_{1.2}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's age and his/her attitude and intention to use Islamic finance.	.446**	.000	Accept Ha$_{1.2}$
Ha$_{1.3}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's marital status and his/her attitude and intention to use Islamic finance.	.063	.215	Reject Ha$_{1.3}$
Ha$_{1.4}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of education and his/her attitude and intention to use Islamic finance.	.028	.585	Reject Ha$_{1.4}$
Ha$_{1.5}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's level of income and his/her attitude and intention to use Islamic finance.	.394**	.000	Accept Ha$_{1.5}$
Ha$_{1.6}$	There is a statistically significant positive relationship between a Port Elizabethan Muslim's occupation and his/her attitude and intention to use Islamic finance.	.096	.058	Reject Ha$_{1.6}$
Ha$_2$	Awareness of the basic principles and objectives of Islamic finance will have a statistically significant positive effect on attitude and intention to use Islamic finance.	.707**	.000	Accept Ha$_2$
Ha$_3$	Knowledge of the various retail and finance instruments available from Islamic banks / windows have a statistically significant positive effect on attitude and intention to use Islamic finance.	.780**	.000	Accept Ha$_3$
Ha$_4$	Attitude will have a statistically significant positive effect on a Port Elizabethan Muslim's intention to use Islamic finance.	.750**	.000	Accept Ha$_4$
Ha$_5$	Behavioural beliefs (BB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.600**	.000	Accept Ha$_5$
Ha$_6$	Normative beliefs (NB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.604**	.000	Accept Ha$_6$
Ha$_7$	Efficacy beliefs (EB) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.147*	.004	Accept Ha$_7$
Ha$_{8.1}$	Environmental factors (ENV) will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.296*	.002	Accept Ha$_{8.1}$
Ha$_{8.2}$	Cost will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.586**	.000	Accept Ha$_{8.2}$
Ha$_{8.3}$	Service quality factors will have a statistically significant positive effect on a Port Elizabethan Muslim' attitude and intention to use Islamic finance.	.340**	.000	Accept Ha$_{8.3}$
Ha$_{8.4}$	Government support will have a statistically significant positive effect on a Port Elizabethan Muslim's attitude and intention to use Islamic finance.	.566**	.000	Accept Ha$_{8.4}$

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Source: Survey data.

In the present study, the Cohen's *d* effect sizes between potential users and non-potential users of Islamic finance in Port Elizabeth were large for *gender*, *age*, *income*, *awareness*, *knowledge*, *attitude*, *behavioural beliefs*, as well as *normative beliefs*. Relatively high Cohen's *d* effect size values suggested high practical significance. The effect size for *efficacy beliefs* and *environmental factors* were moderate. However, the correlation between these predictors and the dependent variable were statistically significant. Relatively high R^2 values found in the structural equation model also confirmed a statistically significant and positive relationship between the binary dependent variable *intention* and *efficacy beliefs* as well as *environmental factors*. Therefore, the null hypotheses containing these predictors were rejected in favour of the alternative hypotheses. Small effect sizes were found between the dependent variable, *intention*, and the following three independent variables: *marital status*, *education*, and *occupation*. Considering that these three independent variables failed at the significance level ($p > 0.05$) and the fact that their calculated Cohen's *d* effect size values were small, suggested low practical significance. These variables also exhibited statistically insignificant relations with the dependent variable in the structural equation model. In this context, the null hypotheses containing these predictors were not rejected in favour of the alternative hypotheses (see Table 5.20 and Table 6.2).

In terms of the structural equation model (SEM), a multiple-indicator-multiple-cause (MIMIC) model was specified and constructed to determine how multiple indicators reflect the underlying latent variables/factors, and how the multiple causes (observed predictors) affect latent variables/factors. The data in the present study contained no missing values or outliers. Data transformation was not possible due to the ordinal scales used in the collection of the data. The results of the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk W test confirmed that the data was not normally distributed. Faced with non-normal data, the default Maximum Likelihood (ML) estimator available in MPlus7 was replaced with Robust Maximum Likelihood (MLR), a rescaling-based estimator that provided standard errors and a X^2 test statistic that were robust to non-normality. The discrepancy function criterion for the MLR method of parameter estimation was $F_{MLR} = \log | \Sigma(\theta) | + tr[\Sigma(\theta)^{-1} S] - \log |S| - p$. This function provided the guideline to minimise the differences between the population covariance matrix, Σ, as estimated by the sample covariance, S, and the covariance matrix

derived from the hypothesised model, $\Sigma(\theta)$. The SEM constructed with the Robust Maximum Likelihood (MLR) estimator and covariates, resulted in a six-factor SEM that had good fit structure, confirming that the observed variables assessed the theoretical constructs. Confirmatory factor analysis for the modified measurement model showed that all path coefficients were positive and significant at $p<0.05$, representing a meaningful contribution of each item to the corresponding scale. The six latent constructs were tested for discriminant validity by means of inter-factor correlations between the variables' square root of the AVE. To evaluate discriminant validity (i.e. the distinctness of constructs from each other), the square root of the AVE was compared against the inter-construct correlation. All factors demonstrated adequate discriminant validity because the diagonal values were greater than the correlations. The results confirmed that the measurement model met discriminant validity and enjoyed construct as well as face validity. Face validity refers to the extent a construct was perceived by the researcher as covering the concept it purported to measure. Figure 6.1 reveals a strong positive relationship between a Muslim's *attitude*, *knowledge* and *awareness* of Islamic finance and his/her willingness to use it.

Knowledge of what Islamic finance entails was identified by CHAID analysis as the best predictor around which to begin segmenting the market of potential users of Islamic finance. For respondents with a mean *knowledge* score greater than 4.00 on a 10-point knowledge scale, 97.7% (172 of 176 respondents) were classified as potential users of Islamic finance. In the event that respondents possessed a mean *knowledge* score less than 4.00 on a 10-point knowledge scale, 35 of the 213 (16.4%) respondents were classified as potential users of Islamic finance. The results from the CHAID Gains Table indicated that, by improving respondents' knowledge of Islamic finance, potential use among Muslims in Port Elizabeth increased fivefold, from 16.9% to 83.1%. A respondent's attitude towards Islamic finance was the second most important predictor of potential use of Islamic finance. Overall, the CHAID model classified 83.1% of potential users and 97.8% of non-potential users correctly.

6.3 INTERPRETATION OF EMPIRICAL RESULTS

This exploratory study, based on the researcher's positivist stance, adopted a survey research strategy where the viewpoints of 400 Muslim respondents in 18 suburbs of Port Elizabeth were elicited. Data, at an individual-level, was collected by completing a structured interviewer-administered questionnaire within the identified sampling frame. Respondents, identified by means of a Muslim Judicial Council (MJC) sticker attached to the door of the house, were randomly selected within each stratum on the following basis: The respondent had to be a consenting Muslim adult (18-years and older) who resided within the designated suburb and who, at the time of the interview, did not use Islamic banking or any form of Islamic finance. The fieldworker was instructed to complete one questionnaire per household and to alternate respondents on a gender basis. This ensured that, at the end of the survey, both genders were equally represented within the sample. Subsequent statistical analysis of the data indicated that only 389 questionnaires were of usable quality, resulting in a 97.3 per cent response rate.

Respondents to the survey were relatively representative of the research population in terms of gender, age, and socio-economic status. Within the sample, 48.1% of the respondents were male and 51.9% were female. The majority (67.9%) of the respondents were between the ages of 25-49, while 14.4% of the respondents fell within the age category of 20-24. The 'below-20' and 'above-55' age groups constituted 6.2% and 11.6% respectively. The survey figures indicated that the majority of the respondents were 'middle-aged' individuals who gained income either as salary earners or by running a business. From the survey results, just over half (50.6%) of the respondents claimed to be married, while 40.4% were single. The remaining 9.0% were either living together as married partners (1.0%), widowed (3.6%) or separated from their spouses (4.4%). In terms of their level of education, some 49.1% of the respondents had a post-matric qualification, which implied that the viewpoints of an educated sample were elicited during the completion of this study. It is worthwhile to note that a substantial percentage of the respondents only had primary school (4.4%) as the highest level of education, while some 1% had no formal education. Notwithstanding the fact that self-reported monthly income levels were low

(less than R1 600 per month) for 46.5% of the sampled population, 1.3% of the respondents indicated that they received a monthly income in excess of R51201. The number of respondents employed in the private and public sectors were almost equally represented at 24.2% and 22.6% respectively. From a sample of 389 Muslim respondents in Port Elizabeth, almost every second respondent (53.2%) indicated an intention to use Islamic finance. Respondents' intention to use Islamic finance was strongly associated with their attitude towards it. The survey results asserted that religiously motivated respondents with Islamic and Arabic education were more positive about Islamic banking, and as a result, may require less research and marketing effort. Survey results suggest that less religious respondents and users of conventional banking were less positive about Islamic banking practices, products and services.

To recapitulate the research questions (RQs) posed in Chapter 1 of this thesis: RQ_1 attempted to ascertain whether Muslims in Port Elizabeth understand the concept, principles and objectives of Islamic finance; RQ_2 wanted to determine which factors influenced a Port Elizabethan Muslim's decision to adopt or reject Islamic finance; and RQ_3 set out to find whether there were any significant differences between the socio-economic and demographic factors of those Muslims who intend to use Islamic modes of finance and those who prefer not to? The following sub-sections contextualises the main research findings in relation to the research questions outlined above.

6.3.1 RQ_1 – Respondents' knowledge and awareness of Islamic finance

In the context of this study, it was established that approximately half of the survey respondents did not know the name of the full-fledged Islamic bank in Port Elizabeth. Similarly, nearly half of the respondents did not know if their existing conventional bank provided any Islamic finance retail products. Respondents' level of awareness in terms of the principles and objectives of Islamic finance and what the various Islamic finance retail products entail were low. Nearly all (93.4% and 97.8%) non-potential users of Islamic finance indicated that they possessed a low level of familiarity with the basic principles, objectives and retail products on offer in Islamic finance. This was in contrast to potential users, where 47.8% and 43.0% respectively indicated that they

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were familiar with the principles, objectives and retail finance instruments offered by Islamic banks. Some 58.9% of the respondents felt that they did not know enough about Islamic finance to make an informed decision to use or reject it. More than half (51.7%) of the respondents felt that their knowledge of Arabic was inadequate to understand what Islamic finance entails. These results are similar to the research findings of Haron, Ahmed and Planisek (1992) where it was found that almost all Muslims and 75% of non-Muslims in Malaysia were aware of the existence of Islamic banks but expressed a desire to have a better understanding of the system. Gerard's (1997) study found that, although the Malaysian Muslim respondents were aware of the fundamental term in Islam, they were unaware of the meaning of specific Islamic financial terms such as *Mudarabah*, *Musharakah*, *Murabahah, Bai Salam, Bai Muajjal, Istisnah, Takaful* and *Ijarah*. Similarly, Abdul Halim and Norizaton (2001) found that Malaysian commercial bank customers had a high level of awareness of Islamic banking, but possessed poor self-reported knowledge of specific Islamic products as well as a poor understanding of the difference between Islamic and conventional banking. The aspect of "poor knowledge" in Islamic banking was supported by a study from Norafifah and Sudin (2002) whereby 60% of the respondents admitted to having limited knowledge of Islamic banking. However, respondents in the Norafifah and Sudin (2002) study believed the concept had a good potential in the Malaysian market. In research undertaken on the level of awareness, knowledge, and understanding among the participants of Islamic banking in the United Kingdom (UK), it was found that a low level of awareness among British Muslims was a major hindrance to the development of the Islamic banking sector (Dar, 2004; Haque, 2007; Karbhari *et al.*, 2004; Omer, 1992; Tameme, 2009; Warsame, 2009). Subsequent studies (*cf.* Okumus, 2005; Bley & Kuehn, 2004; Hamid & Nordin, 2001; Naser, Jamal & Al-Khatib, 1999; Haron, Ahmad & Planisek, 1994; Omer, 1992) in the GCC and MENA regions have also cited a lack of awareness of Islamic finance products as a key reason why Muslims do not engage with the sector. A survey by Bley and Kuehn (2004) investigated the knowledge of 700 graduate and undergraduate students of the American University of Sharjah (UAE) in terms of conventional and Islamic banking products. The results showed that Muslim male students and students with a high level of Arabic fluency perceived Islamic finance more favourably than conventional finance.

The use of Arabic language terminology for Islamic finance products seemed difficult for the non-Arabic consumers to understand.

6.3.2 RQ$_2$ – Factors influencing potential use of Islamic finance

Section D of the questionnaire required respondents to consider a wide variety of patronage factors that could influence their decision to adopt or reject Islamic finance. These 20 factors included, *inter alia*, religiosity, service quality, financial gain and cost, as well as government support. The respondents needed to rate each of the factors according to their preferences (ranging from 'Not important at all' to 'Very important'). Using the "mean value rule" approach to rank criteria, respondents ranked a lack of knowledge of what Islamic finance retail products entail (M=4.23, SD=0.884, median=4.00) as the most important factor that influenced their decision to reject Islamic finance. The mean-value for the "Customer service quality factors" (rank=2) was 4.15, with a standard deviation of 0.990 and a median of 4.00. This result implied that respondents regarded the provision of high-quality customer service as a crucial factor in their bank patronage considerations. The "Religious obligation to promote the tenets of Islam" factor (M=4.04, SD=0.941, median=4.00) ranked third highest according to the mean-value rule. The majority (81.5%) of the respondents indicated that they would use Islamic finance due to religious beliefs. This factor had the highest percentage of 'Very important' among all listed factors. Respondents identified "Accessible banking services" (rank=4), "Reduced banking costs" (rank=5) as well as government support (rank=8) to develop the sector as important factors that would increase their willingness to use Islamic finance. Prior research (*cf.* Park & Lessing, 1977; Tan & Chua, 1986) suggest that the encouragement of family and friends are key factors that influence the decision of potential users to adopt Islamic finance. With a mean-value of 3.97, this factor was ranked sixth with 79.7% (n=310) of the respondents rating it as 'Important' and 'Very important'. Respondents clearly placed greater importance on the development of an expanded branch network for Islamic banks (rank=9), the attitude of knowledgeable banking staff (rank=10) as well as the possibility of high returns offered at competitive cost (rank=12) than they did on the composition of the *Shari'ah* Advisory Board (rank=17) and the standardisation of *Shari'ah* proclamations (rank=20).

6.3.3 RQ$_3$ – Influence of demographic and socio-economic variables on potential use of Islamic finance

In the context of this study, confirmatory factor analysis (CFA) identified *gender* as the only statistically significant demographic variable to influence a Port Elizabethan Muslim's decision to accept or reject Islamic finance. Confirmatory factor analysis revealed statistically insignificant differences between potential and non-potential users of Islamic finance across *age*, *marital status*, *education*, *income* and *occupation*. Consequently, these variables were omitted from the subsequent binary logistic regression (BLR) analysis. However, in terms of age, older females between the age categories of 40-44 and 45-49 reflected a greater propensity to adopt Islamic finance retail products compared to younger females. Most of the males who indicated an intention to reject Islamic finance were less than 40 years old. Respondents in the R3201-R6400 monthly income category expressed the strongest (R^2=0.394, p<0.01) intention to use Islamic finance compared to any of the other age categories. No discernible difference or correlation was detected between the occupation of respondents and their intention to use or reject Islamic finance. In terms of *gender* ($e^{3.083}$), the odds-ratio predicted by the BLR model was 21.817. Muslim female respondents were nearly twenty-two times more likely to accept Islamic finance compared to Muslim males. Studies by Rashid and Hassan (2009), Kabir and Rashid (2009), Okumus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2001), Naser, Jamal and Al-Khatib (1999) and Hegazy (1995) have found demographic and socioeconomic variables to be key factors that influence the patronage decisions of Islamic bank customers. In general, the results of these studies, conducted mostly in the GCC and MENA regions, suggest that the elderly and public officials prefer to deal with Islamic banks as opposed to conventional banks, as did those with relatively low incomes (Metwally, 2001; Zainuddin *et al.*, 2004) and a moderate level of education (Metwally, 2001). In analysing the attitudes of customers of Pakistan's Meezan Bank (the first full-fledged Islamic bank), Hassan (2007) found that Islamic banking was more popular among the young, highly educated and high-income segment.

6.3.4 RQ₄ – Influence of affective measures on potential use of Islamic finance

Respondents to the survey were asked to share their beliefs on Islamic finance. Those 'beliefs' statements were measured on a five-point Likert-style rating scale of 1=Strongly disagree, 2=Disagree, 3=Neutral/Not sure, 4=Agree, and 5=Strongly agree. Respondents voiced a strong belief that investing in a conventional bank was in conflict with their religious beliefs (rank=1) and that opening an account at an Islamic bank was the right thing to do (rank=4). Some 68.6% of the respondents believed that associating with an institution that provided *Halal* (lawful) products was part of their religious obligation (rank=2) and that the *Zakah* (charity) collected from customer accounts at an Islamic bank was distributed to the needy (rank=3). More than half (52.4%) of the respondents indicated they appreciated that Islamic finance was available in South Africa (rank=5) as it created an opportunity to harmonise personal and business objectives with religious obligation. However, respondents were divided (Agree=50.1%) in their belief whether choosing Islamic finance over conventional banking promoted Islam or whether participating in Islamic banking and finance was more beneficial than participation in traditional Western banking (Agree=41.1%). In terms of their efficacy beliefs, some 58.9% of the respondents felt that they did not know enough about Islamic finance to make an informed decision to use or reject it. More than half (51.7%) of the respondents felt that their knowledge of Arabic was inadequate to understand what Islamic finance entails. Respondents perceived it to be *haram* (not permissible) for any Muslim to receive or charge interest in Islam and that Islamic banks were operating within the prescriptions of *Shari'ah* law. However, nearly half (46.3%) of the respondents believed that Islamic banking was not viable because the rest of the world's financial system is based on interest. Some 49.6% of the respondents felt that this perceived problem was exacerbated by the fact that Islamic bank administrators are not doing enough to educate the public on the merits of Islamic finance and that the marketing of the Islamic financial brand was weak and unclear. Nearly one-fifth (21.9%) of the respondents believed that Islamic windows are not permissible as they perceived them to be merely divisions of conventional banks that use Arabic names to market conventional retail banking products. Consequently, 39.1% of the respondents were of the opinion that money and religious scholars should not 'mix'.

Studies by Zainuddin, Jahys and Ramayah (2004), Bley and Kuehn (2004), Gerrard and Cunningham (1997), Metwally (1996), Hegazy (1995), as well as Haron, Ahmad and Planisek (1994) have shown that an evaluation of one's beliefs is a motivating factor that influences a retail consumer's attitude towards Islamic finance. These studies have found that a consumers' religion (or extent of religious obligation or degree of piety) plays a significant role in their preferences for Islamic methods of finance. Abduh *et al.* (2011), investigating factors that influence depositors' withdrawal behaviour from Islamic banks in Malaysia, applied the Theory of Reasoned Action framework. Using a total of 368 respondents from the Klang Valley, they have found normative beliefs, subjective norms, behavioural beliefs, and attitude towards behaviour to be distinct constructs influencing respondents' bank selection. In addition, the structural equation model also verified the structural relationship between subjective norms, attitude towards behaviour and behavioural intention. In Abduh *et al.*'s (2011) study, subjective norms give more influence to depositors' decision on deposit withdrawal compared to attitude towards behaviour (Abduh *et al.,* 2011: 2078).

6.3.5   RQ$_5$ – Influence of attitude on potential use of Islamic finance

Respondents to the survey were asked to disclose their attitude, measured on a 10-point scale, towards Islamic finance. While 42.7% of the respondents had a positive attitude towards Islamic finance, some 40.1% of the 389 respondents harboured a negative attitude towards it. Some 49.6% of the respondents felt that this perceived problem was exacerbated by the fact that Islamic bank administrators are not doing enough to educate the public on the merits of Islamic finance and that the marketing of the Islamic financial brand was weak and unclear. Respondents' intention to use Islamic finance was strongly associated with their attitude towards it. Whereas 76.8% of potential users revealed a positive attitude towards Islamic finance, only 3.8% of non-potential users held a positive attitude towards it. By means of CFA, this strong positive relationship was confirmed between a Muslim's *attitude* towards Islamic finance and his/her willingness to use it. It was also established that a Muslim's attitude towards Islamic finance was formed after an evaluation of *behavioural beliefs* (BB), *normative beliefs* (NB), *efficacy beliefs* (EB), and *environmental factors* (ENV). The influence of *BB*, *NB*, *EB* and *ENV* on *attitude* were positive.

6.3.6 RQ$_6$ – Influence of environmental factors on potential use of Islamic finance

According to Park and Lessing (1977), the influences of society, family and reference groups on consumer behaviour are profound. Conforming to such social influences and pressures, consumers consciously engage in certain types of consumption patterns that are acceptable to the social groups to which they belong. Such group influences are also captured in the normative component of attitude-behaviour models (Miniard & Cohen, 1983; Ryan, 1982; Sheth, Newman & Gross, 1991). In a study undertaken in Singapore into the factors that motivated individuals to select a bank, Tan and Chua (1986) have found that advice from friends, neighbours and family members has a stronger influence on respondents' decisions compared to other variables. This finding is consistent with the ethos of oriental culture that emphasises social and family ties. Research undertaken by Gait (2009) found several correlated factors that motivate consumers to use Islamic banking services and products. These variables include, *inter alia*, profitability, religious obligation and unique services offered by Islamic banks. Kaynak (1991), investigating the influence of demographic and socio-economic status on respondents' bank selection criteria in Turkey, observed that Muslim males attached a greater weighting to the Islamic bank's reputation, business hours, parking facilities, and the availability of a wide range of services compared to Muslim female respondents. In contrast, female customers placed more emphasis on longer term aspects related to organising their finances to become more financially secure. For customers younger than 40 years old, "convenience" and "bank location" were regarded as important factors that influenced their decision to patronise Islamic banks. In terms of socio-economic status, educated customers of Islamic banks ranked "fast and efficient transactions" as well as "location of the Islamic bank" higher than uneducated respondents. In the context of this study, section D of the questionnaire required respondents to consider a wide variety of patronage factors that could influence their decision to adopt or reject Islamic finance. These 20 factors included, *inter alia*, religiosity, service quality, financial gain and cost, as well as government support. In this study the mean-value for the "Customer service quality factors" (rank=2) was 4.15, with a standard deviation of 0.990 and a median of 4.00. This result implied that respondents regarded the provision of high-quality customer

service as a crucial factor in their bank patronage considerations. Some 83.5% of the respondents strongly believed that speed and efficiency in service provision were important factors to consider when selecting a bank. The "Religious obligation to promote the tenets of Islam" factor ranked third highest according to the mean-value rule. Respondents identified "Accessible banking services" (rank=4), "Reduced banking costs" (rank=5) as well as government support (rank=8) to develop the sector as important factors that would increase their willingness to use Islamic finance. The survey results also reflect that the "Influence of family and friends" factor was ranked sixth with 79.7% of the respondents rating it as 'Important' and 'Very important'.

6.4   RECOMMENDATIONS TO ISLAMIC BANK MANAGERS

Over the past few decades, Islamic banks/windows have been able to introduce a variety of financial products that are compliant with *Shari'ah* law, while at the same time offering alternatives to conventional interest-based lending. However, Islamic banks/windows have always depended on those individuals who are steadfast in their Islamic faith to be the bank's target market. While the results of this study have found pious Muslims in Port Elizabeth to have a higher propensity to use Islamic finance, it is not possible for Islamic banking in a non-Muslim country to grow on the strength of pious Muslim participation alone (Anwar, 2009). It is therefore recommended that Islamic bank managers address the misconception held by non-Muslims that Islamic finance is only for Muslims. In doing so, Islamic banks will be able to broaden their customer base.

The study's survey findings revealed the existence of an information deficit gap (see Section 3.2.2). The majority of the respondents indicated that the terms *Murabahah*, *Mudarabah*, *Musharakah*, *Istisnah*, *Ijarah* and *Wadi'ah* were unbeknown to them. Nearly 59 per cent of the respondents felt that they did not know enough about Islamic finance to make an informed decision to use or reject it. Consequently, knowledge of what Islamic finance entails was identified by CHAID analysis as the best predictor around which to begin segmenting the market of potential users of Islamic finance. Addressing the aspect of "poor knowledge" in Islamic banking was supported by a study from Norafifah and Sudin (2002). In the context of the aforementioned it is

recommended that Islamic bank managers intensify their educative and informative marketing campaigns to increase knowledge and awareness among potential users of Islamic finance in Port Elizabeth. In rational choice models, information generates knowledge, shapes attitudes, and ultimately lead to behaviour. As discussed in Chapter 3 of this thesis, the AIDA (Attention, Interest, Desire, Action) information deficit model is based on the idea that providing information will spark interest, which in turn, will lead to desire and subsequently to action. As a source of knowledge, information is a prerequisite for many behaviours as it can be used to direct people to communication channels or services (e.g. a website) that aim more directly at changing behaviour. However, Barr and Gilg (1998: 1447) argue that merely increasing information (in order to address the information deficit gap) will not necessarily lead to a behaviour change as different people will respond and interpret the same information in various ways and sometimes it is interpreted in an opposite way to what is expected (Myers & Macnaghten, 1998: 15). Similarly, Jackson (2005) cautions that increasing information does not itself guarantee action at the individual level and information campaigns intended to raise awareness of Islamic finance may not turn out to be as effective as some may expect. In support of this notion, Sammer and Wüstenhagen (2006: 189) point out that while Muslims may be aware and have knowledge of Islamic finance, it does not necessarily mean that these factors will play a major role in their actions and, for this reason, information-intensive campaigns tend to be unproductive. It is therefore important for Islamic bank marketers to investigate and understand the important role affective measures (such as norms, beliefs, and attitude) as well as external environmental factors play in an individual's behaviour towards Islamic finance. Survey findings reflect that affective measures, environmental factors as well as gender have a statistically significant positive relationship with a Port Elizabethan Muslim's behaviour towards Islamic finance. Success in marketing relies on the information retrieved from complete and up-to-date consumer profiles. The availability of such a database is needed for making plausible and effective decisions regarding the marketing of Islamic financial products. Moreover, Islamic financial institutions need recourse to periodic customer surveys to investigate whether potential users are aware of new products and to ascertain what benefits are sought by potential consumers. Previous studies have shown that, with an intimate knowledge of potential customers' behaviour, attitude, profile and

demographic, Islamic banks could reach the target market with messages that were more appropriate. Based on the findings of this study, Islamic banks in Port Elizabeth should generally target the following segments: younger generation, female consumers, educated consumers, wealthy consumers, and non-Muslim consumers. Each of these segments requires different marketing strategies. It is therefore recommended that Islamic banks intensify market research efforts to understand the perceptions, attitudes and expectations specific target groups have of Islamic finance. This will greatly assist marketers of Islamic finance retail products to deliver messages accurately, make accurate forecasts in acquiring new customers, identify issues and accordingly develop new products or service features that new and existing customers require.

Although Islamic financial institutions employ classical marketing tools encompassing the four Ps of marketing-mix (product, price, promotion and place/distribution), nearly 66 per cent of the respondents felt that the marketing of the Islamic brand in South Africa was weak and unclear. Compared to most advertisements on South African television channels that aggressively market conventional financial products, none of the existing Islamic banks in Port Elizabeth (i.e. Albaraka Bank, ABSA, and FNB) seem to market their Islamic products via the televised medium nor the radio. Instead, Islamic banks/windows depend largely on marketing their products by means of word of mouth promotion and distributing flyers among attendees of mosques, Islamic educational institutions and Islamic centres. It is in this context that nearly two-thirds of the respondents believed that Islamic bank administrators were not doing enough to educate the public on the merits of Islamic finance. Therefore, in order to effectively address this intractable problem, it is recommended that Islamic banks use multichannel and multistage marketing campaigns to erase sceptical perceptions about Islamic banking products. This would ensure that potential customers become familiar with the Arabic terminology and understand the structure and objectives of the various Islamic finance contracts.

Marketing success hinges on having a highly-qualified and trained staff compliment. According to Kahf (1999) many problems in Islamic banks arise because of insufficient training of their marketing, sales and administrative personnel. Based on survey

results, respondents regarded the provision of high-quality service as the second most important factor in their bank patronage considerations. However, with Albaraka Bank being the only full-fledged Islamic bank in the city, potential users raised their concern for having to use Islamic windows available at ABSA and FNB. Alarmingly, there was a perception among respondents that the perceived skill level and knowledge of staff working at these quasi-Islamic banks were lacking. The Islamic financial industry cannot develop without the professional human capital for Islamic finance. It is therefore recommended that emphasis be placed on training conventional Islamic bank/window staff because they have to serve both Islamic and conventional financial products, whereas staff of full-fledged Islamic banks have to focus solely on endorsing their Islamic product range. However, in both cases, front-line staff have to speak with credibility and conviction while offering an exclusive advisory service to customers about various Islamic products' features as well as the terms and conditions of these contracts. This would also be beneficial for those customers who were not satisfied with a simple statement that the products are *Shari'ah*-compliant, but wanted to understand the differences and the underlying cost and features of the product/service. Therefore, greater professionalism and competence instituted by proper training programmes for Islamic bank staff are key ingredients for forging successful relationships with existing and potential clients (Metawa & Almossawi, 1998).

Lee and Ullah (2011) found that *Shari'ah*-compliance was a key factor and that any institution that was seen to be in breach of *Shari'ah* principles on more than one occasion could expect to see its customers move their accounts. Nevertheless, the management of Islamic banks must acknowledge that competition with commercial banks demonstrates a need to consider product features and service quality as equally important to "*Shari'ah*-compliance" in designing the positioning strategy of Islamic banking services. Islamic banking services should be augmented with value-added services such as online banking facilities, convenient and accessible customer support services and an interactive communication system to facilitate their existing and potential customers' needs. Another potentially motivating factor that could be seen to be linked to religious devotion is that of social responsibility which was found to be important by Ajmi *et al*., (2009) and Dusuki and Abdullah (2007). Social responsibility

can also be linked to the reputation and branding of the institution in question and has important consequences for banks in terms of reporting and general communication with stakeholders regarding its activities. It is therefore recommended that internal as well as external communication systems should be made compatible to the local conditions of a specific context.

Albaraka Bank, ABSA, and FNB use their websites for promotional messages, with a greater amount of information provided through hyperlinks. Based on the detail provided on the landing page of Albaraka Bank, in comparison to that of ABSA and FNB, this researcher is of the opinion that the former's website is very informative as it provides articles about Islamic banking as well as detailed explanations of the different modes of finance. However, the information displayed on the FNB website was lacking. It would be advisable for Islamic bank websites to use video presentations about modes of Islamic finance, as well as diagrams and pictures, to help customers understand the concepts easily, rather than using plenty of text on the bank webpage. Furthermore, videos could be used to demonstrate the process for opening online accounts or online security. In this context, it is recommended that Islamic bank managers improve the structure and the detail provided on Islamic bank websites. A grave concern arising from the evaluation of Islamic bank websites was that most of their marketing targeted large groups. None of three Islamic bank websites under investigation focused on products for females. Along with the literature findings, the research findings also considered that messages could be delivered more powerfully if campaigns were directed at specific groups (e.g. females, expatriates, conventional bank users, specific age groups) as each group has different needs (Ahmad *et al*., 2010; Metwally, 2001; Dave, 2005; Ahmed, 2008; Mokhlis, 2009; Maran *et al*., 2010). Specifically, Islamic financial service providers in Port Elizabeth should pay special consideration to the needs of women, as they have different attributes and preferences than men in choosing financial products. For that reason, they should also receive a focus on the website. While evaluating the websites, it was further noted that FNB did not make any effort to collect information about customers, and therefore did not provide any special services. Islamic banks could further improve their websites by measuring the number of consumers visiting their website, noting the most viewed bank page that contains a product or service advertisement, and evaluating the nature

of complaints registered by customers (website technicality, product issue, card issue, Internet banking). An additional suggestion in this regard would be to collect customer responses through forms/feedback/surveys/polls on a regular basis in order to solve customer service issues. To give accurate answers while reducing response times, websites could provide an email address that customers can contact directly about their concerns. This option was available on the ABSA website, but not on the websites of Albaraka Bank and FNB. To provide appropriate web-services, Islamic banks need to determine the following: (i) Who is using their websites? (gender, age group, users/non-users of internet and Islamic banking?); (ii) Which products on the websites are most/least frequently visited? (iii) What are the rates of successful and unsuccessful requests online? (iv) How well does the marketing on Islamic bank websites convey their message compared to traditional marketing media?; and (v) Is there sufficient explanation of products from a *Shari'ah* perspective?

6.5   CONTRIBUTIONS OF THE STUDY

It was stated in Chapter 1 of this thesis that policymakers and researchers can benefit from the insights provided by social psychological theory and behavioural economics as both provide us with a deeper understanding of human behaviour. From an academic perspective this research contributes to the existing body of knowledge on the behavioural aspects, expectations and reservations potential users have in respect of Islamic finance. It was believed that an understanding of these factors would create an opportunity for policymakers to formulate national and institutional marketing strategies that will ensure the sector's potential is realised. This study also developed a model to deal with this intractable problem in the future. To date, no normative model exists that can assist policymakers to predict, on the basis of a respondent's cognitive and affective measures, whether an individual will use (or reject) Islamic finance retail products. Therefore, from a theoretical perspective, this study contributes towards the perceived limited literature on consumer behaviour in the Islamic finance sector of the country. Based on the review of the relevant literature, and to the best of the researcher's knowledge, no other piece of academic research has attempted to study the decision-making behaviour of Port Elizabethan Muslims in terms of Islamic finance. Apart from studies undertaken by Ackermann and Jacobs (2008), Suleman (2011),

the Research Division of the Kuwait Finance House (2011) as well as Saini *et al*. (2011), comparatively little research has been done in the field of consumer behaviour in the Islamic finance sector in South Africa. Therefore, the present exploratory study was a first step towards understanding the perceptions, reservations, and expectations potential users of Islamic finance in Port Elizabeth may have of this sector. The findings of this study inform Islamic bank managers on the key role subjective factors play in a Port Elizabethan Muslim's decision to adopt (or reject) Islamic finance and provide an opportunity for them to incorporate these variables into their marketing strategies to ensure that the country becomes the hub of Islamic finance to the rest of Africa.

6.6   LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

Although this study contributes to the literature of Islamic finance research in South Africa, the following limitations and difficulties were faced during the execution of this study: (i) **Sampling problem:** In the present study, viewpoints were elicited from a single location using a systematic (purposive) stratified random sampling technique. Research findings may thus be subjected to regional clustering bias which, in turn, may limit the potential for generalisation of the findings. In order to address this limitation, future research need to replicate the study in other cities in South Africa; (ii) **Limited variables:** The variables employed in the present study focused primarily on the impact subjective norms and other attitudinal components (for example, perceived knowledge and awareness of Islamic finance, behavioural beliefs, normative beliefs, efficacy beliefs, and environmental factors) has on a Port Elizabethan Muslim's intention to use or reject Islamic finance. These are not inclusive of all factors that impact on a Muslim's decision to use Islamic finance. Within this context, an opportunity exists for future studies to expand or create a richer set of variables by including not only the impact of subjective norms but also focus on the importance of 'governmental roles', 'personal experiences', 'perceived financial hardship', and 'corporate image of the bank' as key determinants of potential use of Islamic finance. This will provide policymakers with a better understanding of factors influencing Islamic finance acceptance and usage among Muslims; (iii) **Cost:** There was a high cost involved in this research. This could be a barrier for researchers with financial

constraints. Therefore, if this study were to be replicated, it would be advisable that funding be sought from either an educational research agency (e.g. the National Research Foundation), the research entity of an institution of higher learning or private sector scholarship bodies. In this case, the researcher was fortunate to have received dual funding from the National Research Foundation's (NRF) Thuthuka Programme supplemented with funding from the Nelson Mandela Metropolitan University's Research and Capacity Development (RCD) office; and (iv) **Questionnaire length:** Many respondents complained about the length of the 82-variable questionnaire. However, the nature of the present exploratory study justified the wide scope as well as the length of the questionnaire. Compiling a shorter questionnaire may address this shortcoming in the future. The structural equation model developed in this study benefits future researchers who will be able to eliminate those variables/questions that were statistically insignificant predictors of potential use of Islamic finance in the present study. This will allow future researchers an opportunity to work with a smaller number of variables in a shorter questionnaire.

6.7   CONCLUDING REMARKS

The numbers for Islamic finance professionals needed over the next few years vary but there is a strong consensus across the board that the Islamic finance industry, regardless of jurisdiction, is facing a severe shortage of Islamic finance talent. A pessimist may view this as a lack of progress in the academic space. An optimist is likely to say that this indicates strong demand for Islamic finance qualified professionals in line with global industry expansion. A realist would perhaps see this journey to bridge the talent gap as a long and arduous endeavor but achievable nonetheless as long as market participants and academics synergise their efforts toward this common goal. Albeit, the Islamic financial industry cannot develop without the professional human capital for Islamic finance. A qualified and skilled workforce well-versed in both *Shari'ah* and modern corporate financial management is indispensable for the growth of the sector. Therefore, it is necessary to create large pools of experts and highly qualified professionals with in-depth expertise in *Shari'ah* law and conventional financial practices. In this context, academic institutions should be encouraged to set up Islamic finance research units and centres of excellence to

drive awareness and address the shortage of research material and data on Islamic finance. The government should also introduce professional degree programmes, Islamic finance talent development programmes and courses for Islamic finance in collaboration with the central bank, universities, schools and *Shari'ah* scholars. However, advances must also be made at an institutional level. Continuous research into the expectations and perceptions potential customers have of Islamic finance will also help Islamic bank managers to craft specific strategies aimed at capturing unexplored market segments. Collaboration efforts between Islamic banks and conventional banks could also bring Islamic products to the mass-market and ultimately develop global distribution capabilities. The IT revolution might also help the Islamic institutions by creating new information portals enabling them to deliver products to consumers through different distribution channels at reduced cost and competitive prices (Aziz, 2004).

This is in line with what have been done globally in the Islamic finance sphere. In 2016, proactive steps were taken to meet market demand for Islamic finance professionals needed to navigate a changing learning environment. To some, these steps may have been small, but they are significant nonetheless and signal interesting imminent developments in the years to come. One of the biggest talks in the Islamic finance education space, as with the *Shari'ah* banking and finance industry, is the increasing integration of technology into business models and products. Over the past year (2016), training and education providers have forayed into the e-learning space, particularly into the realm of massive open online courses (MOOCs). The Islamic Research and Training Institute (IRTI) of the IDB took the lead by aligning itself with *edX*, the online learning platform founded by Massachusetts Institute of Technology and Harvard University, to deliver MOOCs in Islamic economics, banking and finance to a global audience at no charge. Since February 2016, IRTI has rolled out five MOOCs and expects to offer another one in April 2017. Malaysia's International Center for Education in Islamic Finance (INCEIF) followed suit with its own MOOCs, launching its second one in December 2016.

Virtual learning and knowledge platforms are not only becoming the heart of many training/education providers but also for standard-setting bodies as a means to disseminate information and educate the market. The AAOIFI is also in the process of developing an e-learning platform in partnership with the Bahrain Institute of Banking and Finance (BIBF) whereby all AAOIFI standards will be presented in an interactive manner via video-recorded lectures, animated explanation and self-assessments among others; the first phase of the initiative is expected to commence in January 2017. The IFSB also launched its Standards e-Learning Portal to enhance the understanding and implementation of its standards. Several academic institutions, including Pakistan's IBA Center for Excellence in Islamic Finance (IBA CEIF), will be expanding their product suites to include online modules and virtual supplementary courses to complement their degree offerings. This trend is expected to carry on into the future, and is likely to become a mainstay of the education landscape as more individuals seek (and increasingly have access to) cheaper education courses from reputed providers at the comfort of their own homes at their own pace.

Globally, the academic community is making major strides in consolidating and deepening the fragmented and relatively nascent Islamic finance research body as several institutions begin to engineer online repositories to gather and store Islamic finance journals, research reports, theses and dissertations and analytical data among other academic components to facilitate and promote academic research. IRTI and the General Council for Islamic Banks and Financial Institutions revealed in February 2016 that they will jointly establish an Islamic financial industry data repository; In November 2016, INCEIF officially launched the INCEIF Knowledge Repository while Arab-based electronic database e-Marefe rolled out its dedicated databank for Islamic economics and finance in December 2016.

There is also a growing chorus of market participants calling for the use of big data to analyse, formulate and develop core competencies for the Islamic finance industry in order to better facilitate the design of academic programs and national education policies. Understanding the movement, behavior and character of the Islamic finance industry in its human resource approach through a systematic scientific mechanism

will be key in effecting meaningful changes and measures to develop the human capital pool for the *Shari'ah* finance industry.

One of the most enduring issues in the quest to develop qualified Islamic finance professionals who are able to adapt and react effectively to the demanding needs of the industry is the lack of harmonisation in academic curriculums and the dearth of academic material that reflect real-life scenarios and practices. A key factor to these is the lack of synergy between industry players and academic institutions, although this has begun to change in 2016. From Pakistan to Malaysia to the GCC, an increasing number of Islamic financial institutions are joining hands with academic institutions to assist in developing new programs and enhancing existing modules as well as creating new materials to educate the new generation of Islamic finance professionals. For example, in Islamabad, the Islamic Banking Group of Allied Bank and the International Islamic University Islamabad signed an MOU to promote learning, research and development awareness of Islamic finance and banking throughout the country. Additionally, the IBA CEIF launched the 'Advanced Certificate in AAOIFI *Shari'ah* Standards', a six-month certification in collaboration with Dubai Islamic Bank Pakistan and is developing a collection of real-life industry case studies to serve as a reference point for the students and faculty members. Lastly, in Malaysia, the central bank worked closely with educators and industry players to introduce the Educator's Manual on *Shari'ah* Standard *Murabahah*, the first of 14 series of manuals designed for educational institutions.

As a cautionary note, though, it should be mentioned that a vocal and assertive segment of ultra-religious Muslim consumers have voiced serious reservations about non-Islamic banks' involvement in marketing Islamic financial products. They have demonstrated resentment towards the entry of Western and traditional banks in the foray of Islamic banking industry as their vast and traditional operations are contrary to the tenets of Islamic piety. In their opinion, funds drawn by conventional banks (operating as Islamic windows) are, at least partially, from earnings sources that are Islamically doubtful, and are carried over into the Islamic financial products. Purifying or cleansing these assets originating from prohibited earnings is an almost insurmountable challenge, as well as shifting the burden of purification to Muslim

users. Hence conventional banks, practising both Islamic and non-Islamic banking, generally concentrate on more liberal segments of Muslim consumers, who are more lenient about the Western versus Islamic bank distinction, and ignore the ultra-religious segments who resent conventional banks' entering the Islamic financial industry, as they cannot meet their strict religious criteria. The bottom line is that conventional non-Islamic banks are perceived as not having entered this industry to serve the 'Muslim *Ummah*', but to make money under the pretext of 'Islamic banking'. Ultra-religious Muslims do not wish to ban these banks from serving Islamic financial products when these products are sought by fund users (Muslims and non-Muslims); they simply prefer not to deal with them. This poses a unique problem to the development of the Islamic finance sector in South Africa. It is thus contended that tomorrow's successful marketers of Islamic financial products among the Muslim population in Port Elizabeth will be those who are able to identify and anticipate the evolving needs of the Islamic consumer and pioneer product innovations and improvements to meet the financing needs of Muslims (pious and non-pious) as well as non-Muslims.

In conclusion, with the objective of becoming the hub of Islamic finance to the rest on the African continent, Islamic finance stakeholders in South Africa (i.e. policymakers and bank managers) cannot rest on their laurels and should take note of the different strategies utilised in other parts of the world to develop the Islamic finance sector. Operating within a secular country, changing the public's attitude towards Islamic finance is only one of the challenges local policymakers face. Despite various marketing campaigns in the last decade to convince the public that Islamic banking is for everyone, non-Muslims generally view Islamic banking as being for Muslims alone (Loo, 2010). This misperception will have to change. By means of adapting Fishbein's (2000; 2008) Integrative Model of Behavioural Prediction, a universally-acceptable behavioural-change model, this research explains in a holistic manner how cognitive, affective and environmental measures impact on a Port Elizabethan Muslim's attitude and eventual decision to accept (or reject) Islamic finance. This study has found that *knowledge* was the most important variable influencing *attitude* and *intention* to use (or reject) Islamic finance. Consequently, this thesis proposed that Islamic institutions should focus their efforts on promoting knowledge and awareness of their products

among the South African Muslim and non-Muslim population. As the global *Shari'ah* finance industry continues its positive growth trajectory, it is imperative that Islamic finance stakeholders in South Africa ensure that they exploit the benefits derived from online learning platforms and assist, by means of cross-border collaborations, more students to have greater access to Islamic finance courses. Furthermore, universities and training institutions are encouraged to offer courses and qualifications in Islamic finance to close the talent gap that currently exist in this particular field of study.

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REFERENCES

Abbott, M.L. & McKinney, J. (2013) *Understanding and applying research design*. New Jersey: John Wiley & Sons Inc.

Abdiseid, S. (2011) *Islamic finance revolution gains steam in Africa*. [Online] Available: http://islamicbankethiopia.wordpress.com/ (Accessed 16 February 2015).

Abduh, M. & Omar, M.A. (2010) "Who patronizes Islamic banks in Indonesia". Unpublished article, Universitas Andalas, Indonesia.

Abduh, M., Duasa, J. & Omar, M.A. (2011) "Factors influence depositors' withdrawal behaviour in Islamic banks: A Theory of Reasoned Action". *World Academy of Science,* 60:2074-2079.

Abdul-Gafoor, A. (1999) "Islamic banking and finance: Another approach". *Islamic Hinterland Conference on Critical Debates among Canadian Muslims, Toronto, Canada.*

Abdul-Gafoor, A. (2003) Islamic banking. A.S. Noor Deen, Kuala Lumpur.

Abdul-Gafoor, A. (2006) "Mudaraba-based investment and finance". *Journal of Islamic Banking and Finance*, 23(4):78-98.

Abdullah, A.A., Sidek, R. & Adnan, A.A. (2012) "Perception of non-Muslims customers towards Islamic banks in Malaysia". *International Journal of Business and Social Science*, *3*(11)

Abdullah, N.I. & Dusuki, A.W. (2006) "Customers' perception of Islamic hire purchase (AITAB) in Malaysian financial institutions: Empirical evidence". *INCEIF Islamic banking and finance,* 3(2):25-39.

Abdul-Rahman, Y. (2010) *The art of Islamic banking and finance: Tools & techniques for community-based banking.* New Jersey: John Wiley.

Ackermann, P.L.S. & Jacobs, E. (2008) "Developing banking products for Islamic corporate clientele". *Southern African Business Review*, *12*(1):67-88.

AfricaTimesNews. (2010) *Standard Bank launches Islamic banking product.* [Online] Available from: http://www.africa-times-news.com/2010/05/standard-bank-launches-islamic-banking-product/ (Accessed 25 January 2013).

Aggarwal, R.K. & Yousef, T. (2000) "Islamic banks and investment financing". *Journal of Money, Credit and Banking.* 93-120.

Ahmad, N. & Haron, S. (2002) "Perceptions of Malaysian corporate customers towards Islamic banking products & services". *International Journal of Islamic Financial Services, 3*(4).

Ajzen, I. & Driver, B.L. (1991) "Prediction of leisure participation from behavioural, normative, and control beliefs: An application of the theory of planned behaviour". *Leisure Sciences*, *13*(3):185-204.

Ajzen, I. & Fishbein, M. (1977) "Attitude-behaviour relations: A theoretical analysis and review of empirical research". *Psychological bulletin*, *84*(5):888.

Ajzen, I. & Fishbein, M. (1980) *Understanding attitudes and predicting social behaviour.* Prentice-Hall: New Jersey.

Ajzen, I. & Madden, T.J. (1986) "Prediction of goal-directed behaviour: Attitudes, intentions, and perceived behavioural control". *Journal of Experimental Social Psychology*, 22(5):453-474.

Ajzen, I. (1991) "The theory of planned behaviour". *Organisational Behaviour and Human Decision Processes,* 50:179-211.

Akacem, M. & Gilliam, L. (2002) "Principles of Islamic banking: Debt versus equity financing". *Middle East Policy*, 9(1):124.

Akaike, H. (1973) "Information theory and an extension of the maximum likelihood principle". In *Second International Symposium on Information Theory* (eds B.N. Petrov & F. Csaki), Akademiai, Kiado, Budapest: 267–281.

Akaike, H. (1983) "Information measures and model selection". *International Statistical Institute*, 44:277-291.

Akaike, H. (1987) "Factor analysis and AIC". *Psychometrika*, 52:317-332.

Akaike, H., (1974) "A new look at the statistical model identification". *IEEE Transactions on Automatic Control*, 19(6):716-723.

Al Zaabi, O.S.H.A. (2007) "Measuring the perceived service quality: an empirical study of Islamic banks in the UAE". In *IIUM International Conference on Islamic Banking* (pp. 23-25).

Albarracín, D., Johnson, B.T., Fishbein, M., & Muellerleile, P.A. (2001) "Theories of reasoned action and planned behaviour as models of condom use: a meta-analysis". *Psychological Bulletin*, 127(1):142-161.

Al-Darir, S. (1997) "Al-gharar in contracts and its effects on contemporary transactions". *IDB Eminent Scholars' Lecture Series*, (16).

Algaoud, L.M. & Lewis, M.K. (2001) *Islamic Banking*. Massachusetts: Islamic Edward Elgar.

Ali, S.S. (2011) "Islamic banking in the MENA region". *The World Bank and Islamic Development Bank, February*.

Al-Jarhi, M.A. & Iqbal M. (2001) *Islamic banking: Answers to some frequently asked questions*. Occasional Paper No.4, Islamic Research and Training Institute, Islamic Development Bank, Jeddah. Available at http://www.irtipms.org/PubAllE.asp. (Accessed 4 October 2015).

Almossawi, M. (2001) "Bank selection criteria employed by college students in Bahrain: An empirical analysis". *International Journal of Bank Marketing*, 19(3): 115-125.

Al-Omar, F. & Abdel-Haq, M. (1996) *Islamic banking: theory, practice, and challenges*. Zed Books.

Alreck, P.L. & Settle, R.B. (1995) *The survey research handbook: Guidelines and strategies for conducting a survey (2nd edition)*. Chicago: Richard D. Irwin.

Al-Saati, A. (2003) "The permissible gharar (risk) in classical Islamic jurisprudence". *Islamic Economics*, 16(2):3-19.

Al-Sarakhsi, M.I.A. (1971) Sharh kitab al-siyar al-kabir li-Muhammad Ibn Al-Hassan Al-Shaybani. *Ma'had al-makhtutat bi-gami'at al-duwal al-'arabiyyah, Cairo*.

Al-Sultan, W. (1999) *Financial characteristics of interest-free banks and conventional banks*. Unpublished doctoral thesis, University of Wollongong, Wollongong.

Amin, H. (2007) "Borneo Islamic automobile financing: Do demographics matter?". *Labuan e-Journal of Muamalat and Society,*1(1):68-81.

Amin, H., Abdul Rahman, A.R., Sondoh, S.L. & Choo Hwa, A.M. (2011) "Determinants of customers' intention to use Islamic personal financing – The case of Malaysian Islamic banks". *Journal of Islamic Accounting and Business Research*, 2(1):22-42.

Amin, H., Ghazali, M.F. & Supinah, R. (2010) "Determinants of *Qardhul Hassan* financing acceptance among Malaysian bank customers: An empirical analysis". *International Journal of Business and Society*, 11(1):1-16.

Amin, H., Rahim Abdul Rahman, A., Laison Sondoh Jr, S. & Hwa, A. (2011) "Determinants of customers' intention to use Islamic personal financing: The case of Malaysian Islamic banks. *Journal of Islamic Accounting and Business Research*, *2*(1):22-42.

Anderson, W., Cox, E. & Fulcher, D. (1976) "Bank selection decisions and market-segmentation". *Journal of Marketing,* 40(1):40-45.

Anwar, M. (2009) *Islamicity of banking and modes of Islamic banking*. Malaysia: International Islamic University Malaysia.

Anwar, Z. (ed). (2009) *Wanted: equality and justice in the Muslim family*. Musawah.

Ariff, M. (1989) "Islamic banking in Malaysia: framework, performance, and lessons", *International Journal of Economics, Management and Accounting*, *2*(2).

Armitage, C.J. & Christian, J. (2003) "From attitudes to behaviour: basic and applied research on the theory of planned behaviour", *Current Psychology: Developmental*, 22(3):187-195.

Armitage, C.J. & Conner, M. (2000) "Social cognition models and health behaviour: A structured review", *Psychology & Health*, 15(2):173-189.

Arner, D.W. & Buckley, R.P. (2010) "Redesigning the architecture of the global financial system". *Melbourne Journal of International Law*, *11*(2).

Askari, H., Iqbal, Z. & Mirakhor, A. (2010) *Globalization & Islamic finance: Convergence, prospects & challenges.* Singapore: John Wiley.

Aziz, N.A. (2009) *Factors that influence consumer to choose Islamic House financing in Hong Leong Bank Berhad.* Unpublished masters dissertation, Universiti Utara Malaysia, Sintok.

Babakus, E.E.S. & Yavas, U. (2004) "Modeling consumers' choice behaviour: An application in banking". *Journal of Services Marketing*, 18(6):462-470.

Babbie, E. & Mouton, J. (2001) *The practice of social research*: Cape Town: Oxford University Press Southern Africa.

288

Babinec, T. (1990) "CHAID response modeling and segmentation". *Quirck's Marketing Research Review*:12-15.

Badroen, S.R.T. (2008) *Islamic banking in South Africa*. [Online] Available: www.global-islamic-finance.com (Accessed 23 April 2014).

Bagozzi, R.P. & Lee, K.H. (2002) "Multiple routes for social influence: The role of compliance, internalization, and social identity". *Social Psychology Quarterly*, 226-247.

Ballard, D. & Ballard, S. (2005) *Warm Hearts and Cool Heads: The Leadership Potential for Climate Change Champions.* Alexander, Ballard & Associates for Hampshire County Council.

Bamberg, S. & Schmidt, P. (2003) "Incentives, morality, or habit? Predicting students' car use for university routes with the models of Ajzen, Schwartz, and Triandis". *Environment & Behaviour,* 35(2):264-285.

Bandura A. (1991) "Social cognitive theory of self-regulation". *Organizational Behaviour and Human Decision Processes,* 50(2):248-287.

Bandura, A. (1977) "Self-efficacy: toward a unifying theory of behavioural change". *Psychological Review,* 84:191–215.

Bandura, A. (1986) *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Baptist, A.P., Ross, J.A., Yang, Y., Song, P.X. & Clark, N.M. (2013) "A randomized controlled trial of a self-regulation intervention for older adults with asthma". *Journal of the American Geriatrics Society*, *61*(5):747-753.

Baranowski, T. (2005) "Integration of two models, or dominance of one?". *Journal of Health Psychology*, 10(1):19-21.

Baranowski, T., Cullen, K.W., Nicklas, T., Thompson, D., & Baranowski, J. (2003) "Are current health behavioural change models helpful in guiding prevention of weight gain efforts?". *Obesity Research*, 11 Suppl: 23S-43S.

Barr, S. & Gilg, A. (2006) "Sustainable lifestyles: Framing environmental action in and around the home". *Geoforum*, *37*(6):906-920.

Barr, S., Gilg, A. & Shaw, G. (2005) *Promoting Sustainable Lifestyles: A Social Marketing Approach – Technical Paper.* Stewart Barr *et al.* at the University of Exeter for Defra CAD.

Barrett, P. (2007) "Structural equation modelling: Adjudging model fit. Personality and individual differences", 42(5):815-824.

Barroso, C., Carrión, G.C. & Roldán, J.L. (2010) "Applying maximum likelihood and PLS on different sample sizes: studies on SERVQUAL model and employee behavior model". In *Handbook of Partial Least Squares* (pp. 427-447). Berlin Heidelberg: Springer.

Bartholomew, D.J., Knott, M. & Moustaki, I. (2011) *Latent variable models and factor analysis: A unified approach (Vol. 904)*. John Wiley & Sons.

Becker, M., Haefner, D. & Maiman, L. (1977) "The health belief model in the prediction of dietary compliance: a field experiment". *Journal of Health and Social Behaviour,* 18:348-366.

Becker, M.H. (1974) "The health belief model and personal health behaviour". *Health Education Monographs, 2:324-508.*

Begg, I. (2003) "Complementing EMU: rethinking cohesion policy". *Oxford Review of Economic Policy, 19*(1):161-179.

Bentler, P.M. & Bonett, D.G. (1980) "Significance tests and goodness of fit in the analysis of covariance structures". *Psychological Bulletin*, 88:588-606.

Bentler, P.M. & Chou, C. (1987) "Practical issues in structural modeling". *Sociological Methods and Research*, 16:78-117.

Bentler, P.M. & Hu, L.T. (1999) "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives". *Structural Equation Modeling: A multidisciplinary Journal*, 6(1):1-55.

Bentler, P.M. & Yuan, K.H. (1999) "Structural equation modeling with small samples: test statistics". *Multivariate Behavioral Research*, 34:181-197.

Bentler, P.M. (1980) "Multivariate analysis with latent variables: Causal modeling". *Annual Review of Psychology*, 31:419-456.

Bentler, P.M. (1983) "Some contributions to efficient statistics in structural models: Specification and estimation of moment structures". *Psychometrika*, 48:493-517.

Bentler, P.M. (1990) "Comparative fit indexes in structural models". *Psychological Bulletin*, 107:238–246.

Bentler, P.M. (1995) EQS: *Structural Equations Program Manual*. Encino, CA: Multivariate Software, Inc.

Bentler, P.M. (2005) *EQS 6.1: Structural Equations Program Manual*. Encino, CA: Multivariate Software, Inc.

Bentler, P.M. (2007) "On tests and indices for evaluating structural models". *Personality and Individual Differences*, 42:825-829.

Benton, T. & Redclift, M. (2013) *Social theory and the global environment*. Routledge.

Bertea, P. & Zait, A. (2011) "Methods for testing discriminant validity". *Management and Marketing-Craiova*, (2):217-224.

Bhattacherjee, A. (2012) *Social science research: principles, methods, and practices.*

Biddix, J.P., Matney, M.M., Norman, E.M. & Martin, G.L. (eds) (2013) *The influence of fraternity and sorority involvement: A critical analysis of research (1996-2013).* John Wiley & Sons.

Blake, J. (1999) "Overcoming the 'value-action gap' in environmental policy: Tensions between national policy and local experience". *Local environment*, *4*(3):257-278.

Bley, J. & Kuehn, K. (2004) "Conventional versus Islamic finance: Student knowledge and perception in the United Arab Emirates". *International Journal of Islamic Financial Services, 5*(4).

Blue, C.L. (1995) "The predictive capacity of the theory of reasoned action and the theory of planned behaviour in exercise research: an integrated literature review". *Research in Nursing & Health*, 18(2):105-121.

Bollen, K.A. & Long, J.S. (1993) *Testing structural equation models (Volume 154)*. Sage.

Bollen, K.A. & Stine, R.A. (1993) "Bootstrapping goodness-of-fit measures in structural equation models". *Sage Focus Editions*, 154:111.

Bollen, K.A. (1989) "A new incremental fit index for general structural equation models". *Sociological Methods & Research*, 17(3):303-316.

Bookstaber, R. (2007) *A demon of our own design: Markets, hedge funds, and the perils of financial innovation*. New York: John Wiley.

Brown, T.A. (2006) *Confirmatory factor analysis for applied research*. New York: The Guildford Press.

Bryman, A. & Bell, E. (2003) *Business research methods (1st edition)*. New York: Oxford University Press.

Bryman, A. & Bell, E. (2007) *Business research methods* (2nd edition) New York: Oxford University Press.

Bryman, A. & Bell, E. (2007) *Business research methods (2nd edition)*. New York: Oxford University Press.

Bryman, A. (1988) "Qualitative research and the study of leadership". *Human Relations*, 41(1):13-29.

Bryman, A. (2004) *Social Research Methods (2nd edition)*. New York: Oxford University Press.

Burgess, J., Harrison, C.M. and Filius, P. (1998) "Environmental communication and the cultural politics of environmental citizenship". *Environment and Planning A*, *30*(8):1445-1460.

Burns, A.C. & Bush, R.F. (2003) *Marketing research: Online research applications* (4th edition) Upper Saddle River: Prentice-Hall.

Burns, R.P. & Burns, R. (2008) *Business research methods and statistics using SPSS*. Sage.

Burrell, G. & Morgan, G. (1982) *Sociological paradigms and organisational analysis*. London: Heinemann.

Butt, I., Saleem, N., Ahmed, H., Altaf, M., Jaffer, K. & Mahmood, J. (2011) "Barriers to adoption of Islamic banking in Pakistan". *Journal of Islamic Marketing,* 2(3):259-273.

Byrne, B.M. (1998) *Structural Equation Modeling with LISREL, PRELIS, and SIMPLIS: Basic Concepts, Applications, and Programming*. Mahwah NJ: Lawrence Erlbaum Associates.

Byrne, B.M. (2001) "Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument". *International Journal of Testing*, 1(1):55-86.

Byrne, B.M. (2013) *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.

Cattell, R.B. (1973) *Personality and mood by questionnaire*. Jossey-Bass.

Chapra, M. (2008) In *Innovation and Authenticity in Islamic Finance", a keynote Forum lecture delivered at the inaugural session of the Eighth Harvard University Forum on Islamic Finance held on* April 2008, (pp. 19-20).

Cheteni, P. (2014) "Awareness of Islamic banking products and services among consumers in South Africa". *Mediterranean Journal of Social Sciences*, *5*(9):96.

Child, D. (2006) *The essentials of factor analysis*. A&C Black.

Chin, W.W. (1998) "The partial least squares approach to structural equation modelling". *Modern Methods for Business Research*, 295(2):295-336.

Churchill, G.A. (1983) *Marketing Research: Methodological foundations* (3rd edition) Chicago: Dryden Press.

Cialdini, R., Reno, R. & Kallgren, C. (1990) "A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places". *Journal of Personality and Social Psychology,* 58(6):1015-1026.

Cohen, J. (1992) "A power primer". *Psychological Bulletin*, 112(1):155.

COI. (2008) *How public service advertising works.* World Advertising Research Centre, London.

Collis, J. & Hussey, R. (2003) *Business Research*. New York: Palgrave Macmillan.

Coltman, T. Devinney, T.M., Midgley, D.F. & Venaik, S. (2008) "Formative versus reflective measurement models: Two applications of formative measurement". *Journal of Business Research*, 61(12):1250-1262.

CommGAP. (2010) *Reference Report: An overview of behaviour change models and their uses*. Westminster: Centre for Sustainable Development, University of Westminster.

Comrey, A.L. & Lee, H.B. (2013) *A first course in factor analysis*. Psychology Press.

Conner, M. & Armitage, C.J. (1998) "Extending the theory of planned behaviour: a review and avenues for further research". *Journal of Applied Social Psychology*, 28(15):1429-1464.

Conner, M. & Armitage, C.J. (1998) "Extending the Theory of Planned Behaviour: A review and avenues for further research". *Journal of Applied Social Psychology,* 28(15):1429-1464.

Conner, M. (2005) "Commentary on Hobbis and Sutton". *Journal of Health Psychology*, 10(1):23-25.

Cooper, D.R. & Schindler, P.S. (2007) *Business research methods*. McGraw-Hill.

Corbetta, P. (2003) *Social research: Theory, methods and techniques*. Sage.

Coyle, D. (2007) "Are economists conquering the world?". *Royal Economic Society Newsletter* 137:7-8.

Creswell, J.W. & Garrett, A.L. (2008) "The movement of mixed methods research and the role of educators". *South African Journal of Education*, 28(3):321-333.

Creswell, J.W. & Plano Clark, V.L. (2007) *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

Creswell, J.W. & Plano Clark, V.L. (2011) *Designing and conducting mixed methods research (2nd edition)*. Sage: Los Angeles.

Croonenberg, H. & von Pock, A. (2006) "Islamic finance: What leaders do differently". *Eine Studie von AT Kearney*.

Crowley, S.L. & Fan, X. (1997) "Structural equation modeling: Basic concepts and applications in personality assessment research". *Journal of Personality Assessment*, 68(3):508-531.

Cunningham, G., Thorndike, R.L. & Hagen, E.P. (1991) "Measurement and evaluation in psychology and education". *International Journal of Bank Marketing*, 17(5):221-233.

Da Silva, I.S. (2011) "*80% of Africa population is unbanked – banking conference*". [Online] Available http://www.bizcommunity.com/Article/410/87/62217.html (Accessed 28 April 2013).

Dar, H.A. & Presley, J.R. (1999) "Islamic finance: a Western perspective". *International Journal of Islamic Financial Services*, *1*(1):3-11.

Dar, H.A. (2004) *Demand for Islamic financial services in the UK: Chasing a mirage?* Loughborough University.

Darnton, A. (2005) *Understanding young people's drug use*. Andrew Darnton for the FRANK and the COI. London.

Darnton, A. (2006) *Shaping the energy-related behaviour of future consumers*. Andrew Darnton for the Energy Saving Trust.

Darnton, A. (2007) *15 Principles for practice from behavioural theory*. Andrew Darnton for the Energy Saving Trust.

Darnton, A. (2008) *Reference report: An overview of behaviour change models and their uses*. London: HMT Publishing Unit. [Online] Available: www.civilservice.gov.uk/Assets/Behaviour_ change_reference_report_tcm6-9697.pdf (Accessed 7 June 2014).

Darnton, A. (2008) *GSR behaviour change knowledge review. Practical guide: An overview of behaviour change models and their uses.* London: HMT Publishing Unit. [Online] Available: www.civilservice.gov. uk/Assets/Behaviour%20change_ practical_guide_tcm6-9696.pdf (Accessed 8 June 2014).

Darnton, A., Elster-Jones, J., Lucas, K. & Brooks, M. (2006) *Promoting pro-environmental behaviour: Existing evidence to inform better policy making, Chapter 1: Theory*. London: Defra.

Davis, F., Bagozzi, R. & Warshaw, P. (1989) "User acceptance of computer technology: a comparison of two theoretical models". *Management Science,* 35(8):982-1003.

De, P.K., Shakeel, A. & Somashekar, M.A. (2004) "Impediments to technology transfer and technology absorption in the UAE". In *13th conference of IAMOT (International Association for Management of Technology) in Washington DC*.

Demos / Green Alliance. (2003) *Carrots, sticks and sermons: influencing public behaviour for environmental goals.* A Demos/Green Alliance Report for Defra.

Denzin, N.K. & Lincoln, Y.S. (1998) *The landscape of qualitative research: Theories and issues*. Sage.

Devlin, J. (2002) "An analysis of choice criteria in the home loans market". *International Journal of Bank Marketing*, 20(5):212-226.

Devlin, J.F., & Gerrard, P. (2004) "Choice criteria in retail banking: An analysis of trends". *Journal of Strategic Marketing*, 12(1):13-27.

Diamantopoulos, A. & Siguaw, J.A. (2000) *Introducing LISREL: A guide for the uninitiated*. Sage.

DiStefano, C., Zhu, M. & Mindrila, D. (2009). "Understanding and using factor scores: Considerations for the applied researcher". *Practical Assessment, Research & Evaluation*, 14(20):1-11.

Dixon, R., 1992. Islamic banking. *International Journal of Bank Marketing*, *10*(6):32-37.

Doraisamy, B., Shanmugam, A. & Raman, R. (2011) "A study on consumers' preferences of Islamic banking products and services in Sungai Petani". *Academic Research International*, *1*(3):290.

Downs, D.S. & Hausenblas, H.A. (2005) "Elicitation studies and the theory of planned behaviour: a systematic review of exercise beliefs", *Psychology of Sport and Exercise*, 6(1):1-31.

Durkin, M., McCartan-Quinn, D., O'Donnell, A. & Howcroft, B. (2003) "Retail bank customer preferences: personal and remote interactions". *International Journal of Retail & Distribution Management*, 31(4):177-189.

Dusuki, A.W. & Abdullah, N. (2007) "Why do Malaysian customers patronise Islamic banks?". *International Journal of Bank Marketing,* 25(3): 142-160.

Dusuki, A.W. (2005) *Corporate social responsibility of Islamic banks in Malaysia: a synthesis of Islamic and stakeholders' perspectives.* Unpublished doctoral thesis, Durham University, Durham.

Dusuki, A.W. (2007) "The ideal of Islamic banking: A survey of stakeholders' perception". *Review of Islamic Economics, 11* (Special Issue):29-52.

Eagly, A.H. & Chaiken, S. (1993) *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.

Eboh, M. (2011) *CBN grants Islamic banking licence to Stanbic IBTC.* [Online] Available: http://www.vanguardngr.com/2011/07/cbn-grants-islamic-banking-licence-to-stanbic-ibtc/ (Accessed 25 January 2013).

Eden, S. (1996) "Public participation in environmental policy: considering scientific, counter-scientific and non-scientific contributions". *Public Understanding of Science*, *5*(3):183-204.

Efron, B. & Tibshirani, R.J. (1993) *An introduction to the bootstrap, monographs on statistics and applied probability (volume 57)*. New York: Chapman and Hall/CRC.

El-Gamal, M.A. (2000) *A basic guide to contemporary Islamic banking and finance*. Rice University: Houston.

El-Gamal, M.A. (2006) *Islamic finance: Law, economics, and practice*. Cambridge University Press.

Erdogan, M., Ok, A. & Marcinkowski, T.J. (2012) "Development and validation of children's responsible environmental behaviour scale". *Environmental Education Research*, 18(4):507-540.

Ernst & Young. (2014) "Islamic Finance in Africa". In *SAICA (Ed.)*, (pp. 1-14). South Africa: Ernst & Young Inc.

Erol, C. & El-Bdour, R. (1989) "Attitudes, behaviour, and patronage factors of bank customers towards Islamic banks". *International Journal of Bank Marketing, 7*(6):31-37.

Errico L. & Farahbaksh M. (1998) *Islamic Banking: Issues in prudential regulations and supervision*. International Monetary Fund Working Paper 98/30.

Es-Sadr, M.B. (1980) *İslam Ekonomi Doktrini*.

Fan, X., Thompson, B., & Wang, L. (1999) "Effects of sample size, estimation method, and model specification on structural equation modeling fit indexes". *Structural Equation Modeling*, 6:56-83.

Farook, S., Kabir Hassan, M. & Lanis, R. (2011) "Determinants of corporate social responsibility disclosure: The case of Islamic banks". *Journal of Islamic Accounting and Business Research*, 2(2):114-141.

Farrington, S.M. (2009) *Sibling partnerships in South African small and medium-sized family businesses*. Unpublished doctoral thesis, Nelson Mandela Metropolitan University, Port Elizabeth.

Ferguson, E. (1996) "Predictors of future behaviour: A review of the psychological literature on blood donation". *British Journal of Health Psychology*, 1(4):287-308.

Field, A. (2005) *Discovering statistics using SPSS (2nd edition)*. London: Sage Publications.

Field, A. (2009) *Discovering statistics using SPSS*. London: Sage Publications.

Fishbein, M. & Ajzen, I. (1975) *Belief, attitude, intention and behaviour: An introduction to theory and research.* Reading, Mass.: Addison-Wesley.

Fishbein, M. & Yzer, M.C. (2003) "Using theory to design effective health behaviour interventions". *Communication Theory*, 1*3*(2):164-183.

Fishbein, M. (2000) "The role of theory in HIV prevention". *AIDS Care*, *12*(3):273-278.

Fishbein, M. (2008) "A reasoned action approach to health promotion". *Medical Decision Making, 28*(6):834-844.

Fishbein, M., & Ajzen, I. (2010) *Predicting and changing behaviour: The reasoned action approach.* New York: Psychology Press.

Fishbein, M., Bandura, A., Triandis, H.C., Kanfer, F.H., Becker, M.H., Middlestadt, S.E. & Eichler, A. (1992) *Factors influencing behaviour and behaviour change: Final report – Theorist's workshop*. Bethesda: NIMH.

Fornell, C. & Larcker, D.F. (1981) "Structural equation models with unobservable variables and measurement error: Algebra and statistics". *Journal of Marketing Research*, 382-388.

Frankfort-Nachmias, C. & Nachmias, D. (1996) *Research methods in the social sciences (5th edition)*. London: Edward Arnold.

French, D.P. & Hankins, M. (2005) "The expectancy-value muddle in the theory of planned behaviour - and some proposed solutions". *British Journal of Health Psychology*, 8(1):37-55.

Furber, S., Butler, L., Phongsavan, P., Mark, A. & Bauman, A. (2010) "Randomised controlled trial of a pedometer-based telephone intervention to increase physical activity among cardiac patients not attending cardiac rehabilitation". *Patient Education and Counseling*, *80*(2):212-218.

Gait, A. & Worthington A. (2008) "An empirical survey of individual consumer, business firm and financial institution attitudes towards Islamic methods of finance". *International Journal of Social Economics,* 35(11):783-808.

Gait, A. & Worthington, A. (2009a) *Attitudes, perceptions and motivations of Libyan retail consumers toward Islamic methods of finance.* Paper presented at the Asian Finance Association 2009 International Conference on 30 June - 03 July 2009, Brisbane.

Gait, A. & Worthington, A. (2009b) *Libyan business firm attitudes towards Islamic methods in finance.* South East Queensland*:* Griffith University.

Gerrard, P. & Cunningham, J.B. (1997) "Islamic banking: A study in Singapore". *International Journal of Bank Marketing*, 15(6):204-216.

Glanz, K., Rimer, B.K. & Viswanath, K. eds. (2008) *Health behaviour and health education: Theory, research, and practice*. John Wiley & Sons.

Glanz, K.E., Lewis, F.M.E. & Rimer, B.K. (1990) *Health behaviour and health education: Theory, research, and practice*. Jossey-Bass.

Glazyev, S. (2005) *We need a new world financial architecture.* Available from: http://wakeupfromyourslumber.blogspot.com/2005/11/we-need-new-world-financial.html (Accessed 25 January 2013).

Godin, G. & Kok, G. (1996) "The theory of planned behaviour: a review of its applications to health-related behaviours". *American Journal of Health Promotion*, 11(2):87-98.

Gorsuch, R.L. (1990) "Common factor analysis versus component analysis: Some well and little known facts". *Multivariate Behavioral Research*, 25(1):33-39.

Gorsuch, R.L. (1997) "New procedure for extension analysis in exploratory factor analysis". *Educational and Psychological Measurement*, 57(5):725-740.

Gray, C.D. & Kinnear, P.R. (2011) *IBM SPSS Statistics 19 made simple.* New York: PsyPress, Taylor & Francis.

Grizzell, J. (2007) "Behaviour change theories and models". *Perspectives on Health Promotion. No.* 1.

Guadagnoli, E. & Velicer, W.F. (1988) "Relation to sample size to the stability of component patterns". *Psychological Bulletin*, 103(2):265.

Hagger, M.S., Chatzisarantis, N.L.D. & Biddle, S.J.H. (2002) "A meta-analytic review of the theories of reasoned action and planned behaviour in physical activity: predictive validity and the contribution of additional variables". *Journal of Sport & Exercise Psychology*, 24(1):3-32.

Hair, J., Black, W., Babin, B. & Anderson, R. (2010) *Multilevel data analysis: a global perspective*. New York: Pearson.

Hair, J.F., Anderson R., Tatham, R.L. & Black, W.C. (1998) *Multivariate data analysis with readings.* Prentice-Hall. Upper Saddle River.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R.L. (2006) *Multivariate data analysis, volume 6*. Upper Saddle River: Prentice Hall.

Halpern, D. (2001) "Moral values, social trust and inequality: can values explain crime?". *British Journal of Criminology*, 41:236-251.

Halpern, D., Bates, C. & Beales, G. (2003) *Personal responsibility and behaviour change.* Prime Minister's Strategy Unit, Cabinet Office.

Hamid, A. & Nordin, N. (2001) "A study on Islamic banking education and strategy for the new millennium - Malaysian experience". *International Journal of Islamic Financial Services,* 2(4):14-32.

Hamid, A., Halim, A., & Azmin, N.M.N. (2001) "A study on Islamic banking education and strategy for the new millennium: Malaysian experience". *International Journal of Islamic Financial Services*, 2(4):3-11.

Hamid, M.A., Yaakub, N.I., Mujani, W.K., Sharizam, M. & Jusoff, K. (2011) "Factors adopting Islamic home financing: A case study among consumers of Islamic banks in Malaysia". *Middle-East Journal of Scientific Research*. Special Issue of Diversity of Knowledge on Middle East, 7:47-58.

Haque, A. (2010) Islamic banking in Malaysia: a study of attitudinal differences of Malaysian customers. *European Journal of Economics, Finance and Administrative Sciences*, *18*:7-18.

Haque, A., Osman, J. & Ismail, A.Z. (2009) "Factor influences selection of Islamic banking: A study on Malaysian customer preference". *American Journal of Applied Sciences, 6*(5):922-928.

Hardeman, W., Johnston, M., Johnston, D.W., Bonetti, D., Wareham, N.J. & Kinmonth, A.L. (2002) "Application of the theory of planned behaviour in behaviour change interventions: a systematic review", *Psychology & Health*, 17(2):123-158.

Harding, J. (2011) "Where the Jihadis are". *London Review of Books*, *33*(4):17.

Harford, T. (2008) *The Logic of Life: Uncovering the New Economics of Everything*. London: Little, Brown.

Harman, H.H. (1976) *Modern factor analysis*. University of Chicago Press.

Haron, S. & Wan Azmi, W.N. (2009) *Islamic finance and banking system: Philosophies, principles & practices*. Kuala Lumpur: McGraw-Hill.

Haron, S. (1995) "The framework and concept of Islamic interest-free banking". *Journal of Asian Business,* 11(1):26-39.

Haron, S., Ahmad, N. & Planisek, S. (1994) "Bank patronage factors of Muslim and non-Muslim customers". *International Journal of Bank Marketing,* 12(1): 32-40.

Haron, S.A.N. & Planisek, S.L. (1994) "Bank patronage factors of Muslim and non-Muslim customers". *International Journal of Bank Marketing*, 12(1):32-40.

Harrington, D. (2009) *Confirmatory factor analysis*. Oxford University Press.

Harrison, J.A., Mullen, P.D. & Green, L.W. (1992) "A meta-analysis of studies of the health belief model with adults". *Health Education Research*, 7(1):107-116.

Hartigh, W.D. (2012) "South Africa to lead in Islamic finance". [Online] Available: http://www.mediaclubsouthafrica.com (Accessed 10 May 2015).

Hasan, M.M. & Dridi, J. (2010) "The effects of the global crisis on Islamic and conventional banks: A comparative study". *IMF Working Papers,* 1-46.

Hassan, M.H. & Kabir, M.F. (2011) "Customers' attitude toward Islamic banking: In the case of Bangladesh". [Online] Available: http://ssrn.com/abstract=1753526 (Accessed 16 May 2014).

Hausenblas, H.A., Carron, A.V. & Mack, D.E. (1997) "Application of the theories of reasoned action and planned behaviour to exercise behaviour: A meta-analysis". *Journal of Sport & Exercise Psychology*, 19(1):36-51.

Hegazy, I. (1995) "An empirical comparative study between Islamic and commercial banks' selection criteria in Egypt". *International Journal of Commerce & Management,* 5(3):46-61.

Heimlich, J.E. & Ardoin, N.M. (2008) "Understanding behaviour to understand behaviour change: A literature review". *Environmental Education Research*, *14*(3):215-237.

Hernández, B., Jiménez, J. & Martín, M.J. (2010) "Customer behaviour in electronic commerce: The moderating effect of e-purchasing experience". *Journal of Business Research*, 63(9):964-971.

Hershberger, S.L. (2005) Factor score estimation. *Encyclopedia of Statistics in Behavioral Science*.

Hobson, K. (2001) "Sustainable Lifestyles: rethinking barriers and behaviour change", Chapter 11 in Cohen and Murphy (eds) *Exploring Sustainable Consumption: environmental policy and the social sciences*. Amsterdam: Elsevier Science.

Hochbaum, G.M. (1958) *Public participation in medical screening programs: A socio-psychological study*. US Department of Health, Education, and Welfare, Public Health Service, Bureau of State Services, Division of Special Health Services, Tuberculosis Program.

Homoud, S. (1982) *Development of Banking Operations to Accommodate the Islamic Sharia*. Unpublished doctoral thesis, Cairo University, Cairo.

Hooper, D., Coughlan, J. & Mullen, M.R. (2012) "The servicescape as an antecedent to service quality and behavioral intentions". *Journal of Services Marketing*, 27(4):271-280.

Hooper, D., Coughlan, J., & Mullen, M. (2008) "Structural equation modelling: Guidelines for determining model fit". *Electronic Journal of Business Research Methods*, 6(1):53-60.

Howcroft, B. (1991) "Customer service in selected branches of a UK clearing bank: a pilot study". In *The Service-Manufacturing Divide: Synergies and Dilemmas, Proceedings of the Service Industries Management Research Unit Conference* (No. 25-26 September). Cardiff Business School, University of Wales College of Cardiff.

Howcroft, B., Hewer, P. & Durkin, M. (2003) "Banker-customer interactions in financial services". *Journal of Marketing Management*, 19(9-10):1001-1020.

Howell, M. (2002) "Investing on the edge of chaos". *The Handbook of Risk*, 207.

Howells, P.G. & Bain, K. (2008) *The economics of money, banking and finance: A European text*. New York: Pearson Education.

Hoyle, R.H. (ed). (1995) *Structural equation modeling: Concepts, issues, and applications*. New York: Sage Publications.

HSBC Amanah. (2013) *"What is the purpose of Islamic financial providers?"* [Online] Available: http://www.hsbc.ae/1/2/ALL_SITE_PAGES/amanah-global/about-hsbc-amanah/amanah-faq#07 (Accessed 27 October 2012).

Hu, L.T. & Bentler, P.M. (1999) "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives". *Structural Equation Modelling*, 6:1-55.

Huberty, C.J. & Olejnik, S. (2006) *Applied MANOVA and Discriminant Analysis, 2nd Edition.* New Jersey: John Wiley & Sons, Inc.

INCEIF. (2006) Deposits Mobilisation and Financing Management (First edition) Kuala Lumpur: International Centre for Education in Islamic Finance (INCEIF).

International Monetary Fund. (2009) *Global financial stability report: Responding to the financial crisis and measuring systemic risk.* Washington D.C.: IMF.

Iqbal, M. & Khan, T. eds. (2005) *Financial engineering and Islamic contracts*. Palgrave Macmillan.

Iqbal, M. & Molyneux, P. (2005) "Thirty years of Islamic banking: Theory and practice". *International Journal of Bank Marketing*, 17(5):221-233.

Iqbal, Z. & Mirakhor, A. (2011) *An introduction to Islamic finance: Theory and practice.* (2nd edition) Singapore: John Wiley.

Iqbal, Z. (1997) "Islamic financial systems". *Finance and Development*, 34:42-45.

Ismail, A.H. (1989) "Al Qur'an on deferred contracts of exchange: Commentary on three verses of injunctions", Paper presented to a workshop on Thoughts Relating to Islamic Economic System Based on Shari'ah, Islamic Affairs Division, Prime Ministry, Kuala Lumpur, March 21, 1989.

Israel, G.D. (1992) *"Determining sample size".* Program Evaluation and Organizational Development, IFAS, University of Florida. PEOD-6.

Jaccard, J., Dodge, T. & Dittus, P. (2002) "Parent-adolescent communication about sex and birth control: A conceptual framework". *New Directions for Child and Adolescent Development*, *2002,* (97):9-42.

Jackson, T. (2005) *Motivating sustainable consumption: A review of evidence on consumer behaviour and behavioural change*. A report to the Sustainable Development Research Network. London: SDRN.

Jackson. W. (1995) *Methods: doing social research*. Prentice-Hall: Ontario.

Jamal, A. & Naser, K. (2002) "Customer satisfaction and retail banking: an assessment of some of the key antecedents of customer satisfaction in retail banking". *International Journal of Bank Marketing*, *20*(4):146-160.

Jamaldeen, F. (2012) *Islamic finance for dummies*. New Jersey: John Wiley.

Janz, N.K. & Becker, M.H. (1984) "The health belief model: A decade later". *Health Education & Behaviour*, *11*(1):1-47.

Jarvis, C.B., MacKenzie, S.B. & Podsakoff, P.M. (2003) "A critical review of construct indicators and measurement model misspecification in marketing and consumer research". *Journal of Consumer Research*, *30*(2):199-218.

Javalgi, R.G., Armaco, R.L. & Hosseini, J.C. (1989) "Using the analytical hierarchy process for bank management: analysis of consumer selection decisions". *Journal of Business Research*, 19:33-49.

Johnson, S. & Kwak, J. (2012) *13 bankers: The Wall Street takeover and the next financial meltdown*. Vintage Books USA.

Jöreskog, K.G. & Sörbom, D. (1989) *LISREL 7: A Guide to the program and applications (2nd edition)*. Chicago: SPSS Inc.

Joyner, J. (2008) *"Islamic banks surge, thanks to financial crisis".* Updated December 24, 2008. [Online] Available: http://www.acus.org/new_atlanticist/islamic-banks-surge-thanks-financial-crisis (Accessed 12 March 2012).

Kabir Hassan, M. (2011) "Islamic banking in theory and practice: The experience of Bangladesh". *Managerial Finance*, *25*(5):60-113.

Kader, R.A. (1993) *Performance and market implications of Islamic banking: A case study of Bank Islam Malaysia Berhad.* Unpublished doctoral thesis, Durham University, Durham.

Kahf, M. & Khan, T. (1992) "Principles of Islamic financing". *Research paper,* (16).

Kahf, M. (2002) "Strategic trends in the Islamic banking and finance movement". In *Harvard Forum on Islamic Finance and Banking, Harvard University* (pp. 6-7).

Kahf, M. (2006) "Innovation and risk management in Islamic finance: Shari'ah considerations", In *Seventh Harvard International Forum on Islamic Finance* (pp. 22-23).

Kaiser, Henry F. (1974) "An index of factorial simplicity". *Psychometrika*, 39(1).

Kamb, M.L., Fishbein, M., Douglas Jr, J.M., Rhodes, F., Rogers, J., Bolan, G., Zenilman, J., Hoxworth, T., Malotte, C.K., Latesta, M. & Kent, C. (1998) "Efficacy of risk-reduction counseling to prevent human immunodeficiency virus and sexually transmitted diseases: a randomized controlled trial". *Jama*, *280*(13):1161-1167.

Karbhari, Y., Naser, K., & Shahin, Z. (2004) "Problems and challenges facing the Islamic banking system in the West: The case of the UK". *Thunderbird International Business Review, 46*(5), 521-543.

Kasprzyk, D., Montaño, D.E. & Fishbein, M. (1998) "Application of an integrated behavioural model to predict condom use: A prospective study among high HIV risk groups". *Journal of Applied Social Psychology*, *28*(17):1557-1583.

Kassie, M. (2012) *Islamic Finance - Changing the face of banking in Africa*. [Online] Available: http://www.accountacysa.org.za/resources/ShowItemArticle.asp?ArticleID=2374&Issue=1112 (Accessed 1 September 2012).

Kaynak, E. & Harcar, T. (2005) "American consumers' attitudes towards commercial banks". *International Journal of Bank Marketing*, 23(1):73-89.

Kaynak, E. & Whiteley, A. (1999). "Retail bank marketing in Western Australia". *International Journal of Bank Marketing*, *17*(5):221-233.

Kaynak, E., Küçükemiroglu, O. & Odabasi, Y. (1991) "Commercial bank selection in Turkey". *International Journal of Bank Marketing*, *9*(4):30-39.

Kazarian, E.G. (1993) "Islamic versus traditional banking: financial innovations in Egypt". *International Journal of Bank Marketing*, 17(5):221-233.

Keen, P. & McDonald, M. (2000) *The reprocess edge.* Berkeley, Osborn: McGraw-Hill.

Kelemen, M. & Rumens, N. (2008) *An introduction to critical management research*. London: Sage.

Kelly, J.A., Murphy, D.A., Sikkema, K.J. & Kalichman, S.C. (1993) "Psychological interventions to prevent HIV infection are urgently needed: new priorities for behavioural research in the second decade of AIDS". *American Psychologist*, *48*(10):1023.

Kennington, C., Hill, J. & Rakowska, A. (1996) "Consumer selection criteria for banks in Poland". *International Journal of Bank Marketing,* 14(4):12-21.

Kenny, D.A. & McCoach, D.B. (2003) "Effect of the number of variables on measures of fit in structural equation modeling". *Structural Equation Modeling*, 10(3):333-351.

Kenski, K., Appleyard, J., Von Haeften, I., Kasprzyk, D. & Fishbein, M. (2001) "Theoretical determinants of condom use intentions for vaginal sex with a regular partner among male and female injecting drug users". *Psychology, health & medicine*, *6*(2):179-190.

Kettell, B. (2010) *Islamic finance in a nutshell: A guide for non-specialists*. West Sussex: Wiley.

Khan, M.A. (1984) "Islamic economics: Nature and need". *Journal of Research in Islamic Economics*, *1*(2):55-61.

Khan, M.S.N., Hassan, M.K. & Shahid, A.I. (2008) "Banking behaviour of Islamic bank customers in Bangladesh". *Journal of Islamic Economics, Banking and Finance*, *3*(2):159-194.

Khattak, N.A. & Kashif U.R. (2010) "Customer satisfaction and awareness of Islamic banking system in Pakistan". *African Journal of Business Management, 4*(5):662-671.

Khir, M.K., Gupta, L., & Shanmugam, B. (2008) *Longman Islamic banking: A practical perspective*. Kuala Lumpur: Pearson Malaysia Sdn Bhd.

Khoirunissa, D. (2003) "Consumers' preference toward Islamic banking (Case study in Bank Muamalat Indonesia and Bank Bni Syariah)". *IQTISAD Journal of Islamic Economics, 4*(2):145-168.

Kippax, S. & Crawford, J. (1993) "Flaws in the theory of reasoned action" in *The Theory of Reasoned Action: Its application to AIDS preventive behaviour*, D.J. Terry, C. Gallois, & M.M. McCamish, eds., Pergamon, New York: 253-269.

Kleinbaum, D.G. & Klein, M. (2010) *Logistic regression: A self-learning text* (3rd edition) New York: Springer.

Kline, P. (1994) *An easy guide to factor analysis*. London: Routledge.

Kline, R.B. (2005) *Principles and practice of structural equation modeling (2nd edition)*. New York: Routledge.

Kollmuss, A. & Agyeman, J. (2002) "Mind the Gap". *Environmental Education Research, 8*(3):239-260.

Kovar, P.A., Allegrante, J.P., MacKenzie, C.R., Peterson, M.G., Gutin, B. & Charlson, M.E. (1992) "Supervised fitness walking in patients with osteoarthritis of the knee: a randomized, controlled trial". *Annals of Internal Medicine*, *116*(7):529-534.

Kumar, C.R. (2008) *Research methodology* (1st edition) New Delhi: S.B. Nangia for APH Publishing Corporation.

Kumar, C.R. (2008) *Research methodology (1st edition)*. New Delhi: APH Publishing Corporation.

Kumar, V., Aaker, D.A. & Day, G.S. (2002) *Essentials of Marketing Research (2nd edition)*. New York: Wiley.

Kuran, T. (1997) "The genesis of Islamic economics: a chapter in the politics of Muslim identity". *Social Research,* 301-338.

Lall, R.D. (2013) *Islamic finance versus conventional finance and the taxation consequences.* Unpublished masters dissertation, University of Cape Town, Cape Town.

Lantos, G.P. (2011) *Consumer behaviour in action: Real-life applications for marketing managers*. New York: The Copy Workshop.

Lee, S. & Littrell, M. (2005) "Global e-tailing: US consumers' intention to shop for cultural products on the internet". *International Journal of Retail & Distribution Management.* 33(2/3):133-147.

Leech, N.L., Barrett, K.C., George, A. & Morgan, B. (2008) *SPSS for intermediate statistics: Use and interpretation*.

Levin, C. & Coburn, T. (2011) *"U.S. Senate Investigations Subcommittee Releases Levin-Coburn Report On the Financial Crisis".* Updated April 13, 2011. [Online] Available: http://www.levin.senate.gov/newsroom/press/release/us-senate-investigations-subcommittee-releases-levin-coburn-report-on-the-financial-crisis (Accessed 10 February 2013).

Lewin, K. (1951) *Field Theory in Social Science: Selected Theoretical Papers*, In D Cartwright (ed.) New York: Harper & Row.

Lewis, M.K. & Algaoud, L.M. (2001) *Islamic banking*. Massachusetts: Islamic Edward Elgar.

Lindsay, J.J. & Strathman, A. (1997) "Predictors of recycling behaviour: an application of a modified health belief model". *Journal of Applied Social Psychology*, 27(20):1799-1823.

Linn, M.C. (2000) "Designing the knowledge integration environment". *International Journal of Science Education*, 22(8):781-796.

Littell, J. H. & Girvin, H. (2002) "Stages of change - a critique". *Behaviour Modification*, 26(2):223-273.

Loo, M. (2010) "Attitudes and perceptions towards Islamic banking among Muslims and non-Muslims in Malaysia: implications for marketing to baby boomers and X-generation". *International Journal of Arts and Sciences*, 3(13):453-485.

Lorenzo-Seva, U. & Ferrando, P.J. (2013) "Factor 9.2: A comprehensive program for fitting exploratory and semiconfirmatory factor analysis and IRT models". *Applied Psychological Measurement*, 37(6):497-498.

MacCallum, R.C., Browne, M.W. & Sugawara, H.M. (1996) "Power analysis and determination of sample size for covariance structure modeling". *Psychological Methods*, 1:130–149.

Magidson, J. (1982) "Some common pitfalls in causal analysis of categorical data". *Journal of Marketing Research*, 461-471.

Maio, G., Verplanken, B., Manstead, A., Stroebe, W., Abraham, C., Sheeran, P. & Conner, M. (2007) "Social psychological factors in lifestyle change and their relevance to policy". *Journal of Social Issues and Policy Review,* 1(1):99-137.

Mansoor Khan, M. & Bhatti, M. (2006). "Why interest-free banking and finance movement failed in Pakistan". *Humanomics*, 22(3):145-161.

Marimuthu, M., Jing, C.W., Gie, L.P., Mun, L.P. & Ping, T.Y. (2010) "Islamic banking: selection criteria and implications". *Global Journal of Human Social Science*, 10(4):52-62.

Marsh, H.W. (1996) "Positive and negative global self-esteem: A substantial meaningful distinction or artifactors?". *Journal of Personality and Social Psychology*, 70:810–819.

Marsh, H.W., Balla, J.R. & McDonald, R.P. (1988) "Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size". *Psychological Bulletin*, 103(3):391.

Marsh, H.W., Hau, K.T. & Wen, Z. (2004) "In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu & Bentler's (1999) findings". *Structural Equation Modeling*, 11(3):320-341.

Mathews, R., Tlemsani, I. & Siddiqui, A. (2003) "Recent developments in the market for Islamic mortgages: Theory and practice". *Review of Islamic Economics*, 14:49-65.

McClintock, A. (2013) *Imperial leather: Race, gender, and sexuality in the colonial contest*. Routledge.

McCormick, K., Abbott, D., Brown, M.S., Khabaza, T. & Mutchler, S.R. (2013) *IBM SPSS modeler cookbook*. Packt Publishing.

McDonald, R. (1985) *Factor analysis and related methods*. New Jersey: Lawrence Erlbaum Associates.

McDonald, R.P. & Ho, M.H.R. (2002) "Principles and practice in reporting structural equation analyses". *Psychological Methods*, 7(1):64.

McDonald, R.P. & Marsh, H.W. (1990) "Choosing a multivariate model: Non-centrality and goodness of fit". *Psychological Bulletin*, 107(2):247.

McKenzie-Mohr, D. (2000) "Promoting sustainable behaviour: An introduction to community-based social marketing". *Journal of Social Issues,* 56(3):543-554.

McQuitty, S. (2004) "Statistical power and structural equation models in business research". *Journal of Business Research*, 57(2):175-183.

Metawa, S.A. & Almossawi, M. (1998) "Banking behaviour of Islamic bank customers: Perspectives and implications". *International Journal of Bank Marketing,* 16(7):299-313.

Metwally, M. (1996) "Attitudes of Muslims towards Islamic banks in dual-banking system". *American Journal of Islamic Finance, 6:*11-17.

Metwally, M. (2001) "The impact of demographic factors on consumers' selection of a particular bank within a dual banking system: a case study". *Journal of International Marketing and Marketing Research,* 27(1):35-44.

Metwally, M. (2003) "Attitudes of consumers in developing countries towards use of credit cards: The case of the state of Qatar". *Journal of International Marketing and Marketing Research,* 28(2):83-96.

Metwally, M. (2006) "Economic consequences of applying Islamic principles in Muslim societies". *Journal of Islamic Banking & Finance,* 23(1):11-33.

Metwally, M., & Prasad, J. (2004) "Factors restricting use of credit cards in GCC countries". *International Journal of Applied Business and Economic Research,* 2(2):171-188.

Mills, P.S. & Presley, J.R. (1999) "The prohibition of interest in Western literature", In *Islamic Finance: Theory and Practice*. Palgrave Macmillan UK.

Miniard, P.W. & Cohen, J.B. (1983) "Modeling personal and normative influences on behaviour". *Journal of Consumer Research*, *10*(2):169-180.

Mohd-Karim, M.U. (2010) *Profit-sharing deposit accounts in Islamic banking: Analysing the perceptions and attitudes of the Malaysian depositors.* Unpublished doctoral thesis, Durham University, Durham.

Montaño, D.E., Phillips, W.R., Kasprzyk, D. & Greek, A. (2008) "STD/HIV prevention practices among primary care clinicians: risk assessment, prevention counseling, and testing". *Sexually transmitted diseases*, *35*(2):154-166.

Morgan, D.L. (1998) "Practical strategies for combining qualitative and quantitative methods: Applications to health research". *Qualitative Health Research*, 8(3):362-376.

Morgan, D.L. (2007) "Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods". *Journal of Mixed Methods Research*, 1(1):48-76.

Morris, J., Marzano, M., Dandy, N. & O'Brien, L. (2012) "Theories and models of behaviour and behaviour change". *Forest Research: Surrey, United Kingdom*.

Mosad, Z. (1996) "Bank strategic positioning and some determinants of bank selection". *International Journal of Bank Marketing*, 14(6):12-22.

Mulaik, S.A. (1972) *The foundations of factor analysis*. New York: McGraw-Hill.

Mulaik, S.A. (1983) "Some comments on the over-identification of models in structural equation modeling with latent variables". Proceedings of the *Society for Multivariate Experimental Psychology*, Atlanta, GA.

Mulaik, S.A., James, L.R., Van Alstine, J., Bennett, N., Lind, S. & Stilwell, C.D. (1989) "Evaluation of goodness-of-fit indices for structural equation models". *Psychological Bulletin*, 105(3):430.

Murphy, A. (2008) *An analysis of the financial crisis of 2008: Causes and solutions.* Working Paper. Oakland, CA: Oakland University.

Murphy, K.R. & Myors, B. (2004) *Statistical power analysis*. Mahwah: Earlbaum.

Muthén, L.K. & Muthén, B.O. (2012) *MPlus User's Guide*, *7*.

Myers, G. & Macnaghten, P. (1998) "Rhetorics of environmental sustainability: commonplaces and places". *Environment and planning A*, *30*(2):333-353.

Naser, K., Jamal A., & Al-Khatib, K. (1999) " Islamic banking: a study of customer satisfaction and preference in Jordan". *International Journal of Bank Marketing,* 17(3):135-150.

National Treasury. (2010) Address by the Minister of Finance, on the Taxation Laws Amendment Bill, National Assembly, Cape Town (24/08/2010) [Online] Available: http://www.polity.org.za/article/sa-gordhan-address-by-the-minister-of-finance-on-the-taxation-laws-amendment-bill-national-assembly-cape-town-24082010-2010-08-24 (Accessed 15 March 2013).

Nayyab, H.H., Sehr, A., Adnan, M. & Ali, Z. (2011) "Impact of customer demographics on bank selection criteria – A study of banking sector of Okara, Punjab (Pakistan)". *Interdisciplinary Journal of Contemporary Research in Business*, 3(2):773-779.

Niglas, K. (2010) "The multidimensional model of research methodology: an integrated set of continua". *Handbook of Mixed Methods in Social and Behavioural Research*, 215-236.

Nisbet, E.K. & Gick, M.L. (2008) "Can health psychology help the planet? Applying theory and models of health behaviour to environmental actions". *Canadian Psychology / Psychologie Canadienne*, *49*(4):296.

Norusis, M. (2006) *SPSS 15.0 Statistical Procedures Companion*. Upper Saddle River, NJ: Prentice Hall.

Nunnally, J.C., Bernstein, I.H. & Berge, J.M.T. (1967) *Psychometric theory (volume 226)*. New York: McGraw-Hill.

OASIS Group Holdings. (2016) [Online] Available: http://www.oasis.co.za/default/content.aspx?initial=true&moveto=204 (Accessed 27 October 2015).

Office of the Press Secretary of the White House. (2008) *"Declaration - Summit on financial markets and the world economy: November 15, 2008"*. [Online] Available: http://www.financialstabilityboard.org/press/pr_151108.pdf (Accessed 20 November 2012).

OIC SESRIC Series. (2012) *Islamic finance in OIC member countries*.

Ökte, K.S. (2010) "Fundamentals of Islamic economy and finance: Theory and practice." *Electronic Journal of Social Sciences*, 9(31):180-208.

Okumus, H.S. (2005) "Interest-free banking in Turkey: A study of customer satisfaction and bank selection criteria". *Journal of Economic Cooperation among Islamic Countries, 26*(4):51-86.

Olson, J.M. & Zanna, M.P. (1993) "Attitudes and attitude change". *Annual Review of Psychology*, *44*(1):117-154.

Omer, H.S.H. (1993) *The implications of Islamic beliefs and practice on the Islamic financial institutions in the UK: Case Study of Albaraka International Bank UK*. Unpublished doctoral thesis, Loughborough University, Loughborough.

Omoyibo, K.U. & Ajayi, B.I. (2012) "Sociological analysis of Islamic banking in national development in Nigeria". *Journal of Money, Investment and Banking*, 24:39-48.

Othman, A.Q. & Owen, L. (2001) "Adopting and measuring customer service quality (SQ) in Islamic banks: A case study in Kuwait Finance House". *International Journal of Islamic Financial Services*, 3(1).

Owens, S. (2000) "Engaging the Public: Information and deliberation in environmental policy". *Environment and Planning A*, *32*(7):1141-1148.

Owusu-Frimpong, N. (1999) "Patronage behaviour of Ghanaian bank customers". *International Journal of Bank Marketing*, 17(7):335-341.

Oxford Business Group. (2014) *The Report: South Africa 2016*. [Online] Available: http://www.oxfordbusinessgroup.com/south-africa-2016 (Accessed 30 November 2014).

Painter, J.E., Borba, C.P., Hynes, M., Mays, D. & Glanz, K. (2008) "The use of theory in health behaviour research from 2000 to 2005: a systematic review". *Annals of Behavioural Medicine*, *35*(3):358-362.

Pallant, J. (2007) *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows (3rd edition)*. Maidenhead: Open University Press.

Palmgreen, P. (1984) "Uses and gratifications: A theoretical perspective". *Annals of the International Communication Association*, *8*(1):20-55.

Park, C.W. & Lessing, V.P. (1977) "Judgmental rules and stages of the familiarity curve: Promotional implications". *Journal of Advertising*, *6*(1):10-16.

Park, H.M. (2008) *Univariate analysis and normality test using SAS, Stata, and SPSS*. Indiana University: The University Information Technology Services (UITS) Center for Statistical and Mathematical Computing.

Perry, C.L., Baranowski, T. & Parcel, G.S. (1990) *How individuals, environments, and health behaviour interact: Social learning theory*.

Pew Research Center Forum on Religion & Public Life. (2011) *The future of the global Muslim population*. [Online] Available: http://www.pewforum.org/global-religious-landscape-muslim.aspx (Accessed 27 November 2012).

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. & Podsakoff, N.P. (2003) "Common method biases in behavioural research: a critical review of the literature and recommended remedies". *Journal of Applied Psychology*, *88*(5):879.

Prochaska, J. & Velicer, W. (1997) "The Transtheoretical Model of Health Behaviour Change". *American Journal of Health Promotion,* 12(1):38-48.

Prochaska, J.O. & DiClemente, C.C. (1986) "Toward a comprehensive model of change", In Miller, W. & Heather, N. (eds.), *Treating addictive behaviours*. New York: Plenum.

Prochaska, J.O., DiClemente, C.C. & Norcross, J.C. (1992) "In search of how people change: Applications to addictive behaviours". *American Psychologist*, *47*(9):1102.

Qorchi, M. (2005) "Islamic finance gears up". *Finance and Development*, *42*(4):46.

Ramayah, T., Ahmad, N.H., Halim, H.A. & May-Chiun, S.R.M.Z. (2010) "Discriminant analysis: An illustrated example". *African Journal of Business Management*, 4(9):1654.

Ramayah, T., Taib, F.M. & Ling, K.P. (2006) "Classifying users and non-users of internet banking in northern Malaysia". *Journal of Internet Banking and Commerce*, 11(2):1-13.

Rashid, M. & Hassan, M.K. (2009) "Customer demographics affecting bank selection criteria, preference, and market segmentation: Study on domestic Islamic banks in Bangladesh". *International Journal of Business and Management, 4*(6):131-146.

Rashid, M., Hassan, M.K., & Ahmad, A. (2009) "Quality perception of the customers towards domestic Islamic banks in Bangladesh". *Journal of Islamic Economics, Banking and Finance, 5*(1):109-128.

Ratner, B. (2010) "Variable selection methods in regression: Ignorable problem, outing notable solution". *Journal of Targeting, Measurement and Analysis for Marketing*, 18(1):65-75.

Ravi, V., Carr, M. & Sagar, N. (2006) "Profiling of internet banking users in India using intelligent techniques". *Journal of Services Research,* 6(2):61-73.

Reisinger, Y. & Mavondo, F. (2006) "Cultural consequences on traveler risk perception and safety". *Tourism Analysis*, 11(4):265-284.

Rhodes, F., Stein, J.A., Fishbein, M., Goldstein, R.B. & Rotheram-Borus, M.J. (2007) "Using theory to understand how interventions work: Project RESPECT, condom use, and the integrative model". *AIDS and Behaviour*, *11*(3):393-407.

Riggall, J. (1980) "A new study: how newcomers select banks". *ABA Banking Journal*, 72(7):92.

Robson, C. (2002) *Real world research (2ⁿᵈ edition)*. Malden: Blackwell Publishing.

Rogers, E. (1995) *Diffusion of Innovation* (5ᵗʰ edition) New York, NY: Free Press.

Rogers, R. (1975) "A protection motivation theory of fear appeals and attitude change". *Journal of Psychology,* 91:93-114.

Rosenstock, I.M. (1975) "Patients' compliance with health regimens". *Jama*, *234*(4):402-403.

Rosly, S.A. (1999) "Al-Bay'Bithaman Ajil financing: impacts on Islamic banking performance". *Thunderbird International Business Review*, *41*(4):461-480.

Roubini, N. & Uzan, M. (2005) *New international financial architecture*. Edward Elgar Publishing.

Rustam, S., Bibi, S., Zaman, K., Rustam, A. & Haq, Z.U. (2011) "Perceptions of corporate customers towards Islamic banking products and services in Pakistan". *The Romanian Economic Journal*, *41*:107-123.

Rutter, J. ed., (2002) *Changing health behaviour* (Vol. 17) Buckingham: Open University Press.

Ryan, M.J. (1982) "Behavioural intention formation: The interdependency of attitudinal and social influence variables". *Journal of Consumer Research*, *9*(3):263-278.

Saeed, A. (1996) *Islamic banking and interest: A study of the prohibition of riba and its contemporary interpretation* (Volume 2). Brill.

Said, H., Badru, B.B. & Shahid, M. (2011) "Confirmatory factor analysis (CFA) for testing validity and reliability instrument in the study of education". *Australian Journal of Basic and Applied Sciences*, 5(12):1098-1103.

Saini, Y., Bick, G. & Abdulla, L. (2011) "Consumer awareness and usage of Islamic banking products in South Africa". *South African Journal of Economic and Management Sciences,* 14(3):298-313.

Samad, A., Gardner, N.D. & Cook, B.J. (2005) "Islamic banking and finance in theory and practice: The experience of Malaysia and Bahrain". *The American Journal of Islamic Social Sciences*, *22*(2):69-86.

Sammer, K. & Wüstenhagen, R. (2006) "The influence of eco-labelling on consumer behaviour - Results of a discrete choice analysis for washing machines". *Business Strategy and the Environment*, *15*(3):185-199.

Sarkar, S. (1999) "Conversions and politics of Hindu Right". *Economic and Political Weekly*, 1691-1700.

Saunders, M. & Lewis, P. (2012) *Doing research in business management – An essential guide to planning your project*. Essex: Pearson.

Saunders, M., Lewis, P. & Thornhill, A. (2007) *Research methods for business students,* (4th edition) Harlow: Prentice Hall Financial Times.

Saunders, M., Lewis, P. & Thornhill, A. (2012) *Research methods for business students,* 6th edition. Essex: Pearson.

Schultz, P.W., Nolan, J., Cialdini, R., Goldstein, N. & Griskevicius, V. (2007) "The constructive, destructive, and reconstructive power of social norms". *Psychological Science,* 18(5):429-434.

Schumacker, R.E. & Lomax, R.G. (2004) *A beginner's guide to structural equation modelling.* New Jersey: Lawrence Erlbaum Associates.

Schumacker, R.E. & Lomax, R.G. (2010) *Structural equation modelling*. New York: Routledge.

Schwarcz, S.L. (2009) "*Understanding the 'Subprime' Financial Crisis*". Working Paper. Durham, NC: Duke University.

Schwartz, S. (1977) "Normative influences on altruism". *Advances in Experimental Social Psychology,* 10:222-279.

Sekaran, U. (1992) *Research methods for business (2nd edition)*. New York: John Wiley & Sons.

Sekaran, U. (2000) *Research methods for business.* New York: John Wiley & Sons.

Sekaran, U. (2003) *Research methods for business: A skills approach*. New Jersey: John Wiley & Sons.

Shaffaii, S. (2008) "How Shariah governance empowers Islamic finance". *Islamic Finance News*, *5*(36):1-3.

Shanmugam, B., Alam, N. & Zahari, Z.R. (2008) *Encyclopedia Islamic Finance*. Insight Network Sdn Bhd.

Shapiro, S.S. & Wilk, M.B. (1965) "An analysis of variance test for normality (complete samples)". *Biometrika*, 52(3/4):591-611.

Sharma, S (1996) *Applied Multivariate Techniques*. New York: John Wiley & Sons.

Sharma, S., Mukherjee, S., Kumar, A. & Dillon, W.R. (2005) "A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models". *Journal of Business Research*, 58(7):935-943.

Sheeran, P. & Taylor, S. (1999) "Predicting intentions to use condoms: a meta-analysis and comparison of the theories of reasoned action and planned behaviour". *Journal of Applied Social Psychology*, 29(8):1624-1675.

Sheppard, B., Hartwick, J. & Washaw, P. (1988) "The theory of reasoned action: a meta-analysis of past research with recommendations for modification and future research". *Journal of Consumer Research,* 15:325-343.

Sheth, J.N., Newman, B.I. & Gross, B.L. (1991) *Consumption values and market choices: Theory and applications* (pp. 16-74) Cincinnati, OH: South-Western Publishing Company.

Shih, Y. & Fang, K. (2006) "Effects of network quality attributes on customer adoption intentions of internet banking". *Total Quality Management & Business Excellence*, 17(1):61-77.

Shipley, B. (2000) *Cause and correlation in biology: A user's guide to path analysis, structural equations and causal inference*. Cambridge, UK: Cambridge University Press.

Shuttleworth, M. (2008) *Validity and reliability*. [Online] Available: https://explorable.com/validity-and-reliability (Accessed 10 February 2013).

Siddiqi, M.N. (1983) *Banking without interest*. Leicestershire: The Islamic Foundation.

Siddiqi, M.N. (1994) *Issues in Islamic banking: Selected papers*. Leicester: Islamic Foundation.

Siddiqi, M.N. (2004) *Riba, bank interest and the rationale of its prohibition*. Jeddah, Saudi Arabia: Islamic Research and Training Institute.

Solé, J. (2007) *Introducing Islamic banks into conventional banking systems.* IMF Working Paper WP/07/175. Washington: International Monetary Fund.

Somekh, B. & Lewin, C. (2009) *Research methods in the social sciences*. Sage: London.

SPSS. (2013) *IBM SPSS Statistics 22. Chicago: IBM SPSS Inc*.

Statistics South Africa. (2011) *Mid-year population estimates. Statistical release P302*. [Online] Available: https://www.statssa.gov.za/publications/P0302/P03022015.pdf (Accessed 12 July 2011).

Steiger, J.H. (2007) "Understanding the limitations of global fit assessment in structural equation modeling". *Personality and Individual differences*, 42(5):893-898.

Stiglitz, J. (2003) "Dealing with debt: How to reform the global financial system". *Harvard International Review*, Spring 2003: 54.

Struwig, F.W. & Stead, G.B. (2001) *Planning, designing and reporting research*. Cape Town: Pearson.

Struwig, F.W. & Stead, G.B. (2013) *Research: Planning, designing and reporting research*. Cape Town: Pearson.

Subhani, M.I., Hasan, S.A., Rafiq, M.F., Nayaz, M. & Osman, A. (2012) "Consumer criteria for the selection of an Islamic bank: Evidence from Pakistan". *International Research Journal of Finance and Economics*, 94:114-122.

Suhr, D. (2006) "The basics of structural equation modelling". Presented: Irvine, CA, SAS User Group of the Western Region of the United States (WUSS).

Suhr, D. (2008) "Step your way through path analysis". In Western users of SAS software conference proceedings.

Suleman, Y. (2011) *The legislative challenges of Islamic banks in South Africa.* Unpublished doctoral thesis, University of Stellenbosch: Stellenbosch.

Sutton, S. (1998) "Predicting and explaining intentions and behaviour: How well are we doing?". *Journal of Applied Social Psychology*, 28(15):1317-1338.

Sutton, S. (2000) "A critical review of the transtheoretical model applied to smoking cessation" In *Understanding and changing health behaviour: From health beliefs to self-regulation*, P. Norman, C. Abraham, & M. Conner, (eds), Amsterdam: Harwood Academic Press.

Sutton, S. (2005) "Another nail in the coffin of the transtheoretical model? A comment on West (2005)", *Addiction*, 100(8):1043-1046.

Ta, H. & Har, K. (2000) "A study of bank selection decisions in Singapore using the analytical hierarchy process". *International Journal of Bank Marketing*, 18(4):170-179.

Tabachnick, B.G. & Fidell, L.S. (2007) *Using multivariate statistics (5th edition)*. London: Pearson.

Tacq, J. (1997) *Multivariate analysis techniques in social science research – From problem to analysis*. London: Sage.

Tahir, S. (2003) "Current issues in the practice of Islamic banking". Course on Islamic Banking and Finance, Tehran, Iran.

Talbot, C. (2007) *Understanding consumers: What influences their behaviour?* DWP Strategic Analysis Unit.

Talbot, C., Canavan, E. & Miles, K. (2007) *Understanding behavioural change: Theoretical principles and guidelines for policy*. DWP Strategy Unit.

Tameme, M.E.M. (2009) *Demand and supply conditions of Islamic housing finance in the United Kingdom: Perceptions of Muslim clients.* Unpublished doctoral thesis, Durham University, Durham.

Tan, C. & Chua, C. (1986) "Intention, attitude and social influence in bank selection: a study in an oriental culture". *International Journal of Bank Marketing*, *4*(3):43-53.

Tashakkori, A. & Creswell, J.W. (2007) "Editorial: The new era of mixed methods". *Journal of Mixed Methods Research*, 1(1):3-7.

Taylor, D., Bury, M., Campling, N., Carter, S., Garfield, S., Newbould, J. & Rennie, T. (2006) "A review of the use of the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and the Transtheoretical Model (TTM) to study and predict health related behaviour change". *National Institute for Health and Clinical Excellence,* London, UK: 1-215.

Taylor, S. & Todd, P. (1995) "Decomposition and crossover effects in the theory of planned behaviour: A study of consumer adoption intentions". *International Journal of Research in Marketing*, *12*(2):137-155.

Terry, D., Hogg, M. & McKimmie, B. (2000) "Attitude-behaviour relations: The role of in-group norms and mode of behavioural decision-making". *British Journal of Social Psychology,* 39:337-361.

Thambiah, S., Eze, U.C., Santhapparaj, A.J. & Arumugam, K. (2011) "Customers' perception on Islamic retail banking: A comparative analysis between the urban and rural regions of Malaysia". *International Journal of Business and Management*, *6*(1):187.

The Banker. (2011) *Islamic finance roars again*. [Online] Available: http://www.thebanker.com/Markets/Islamic-Finance/Islamic-finance-roars-again?ct=true (Accessed 15 September 2012).

The Economist. (2008) *"The risk business"*, In Chapra, M.U. (2008) *Innovation and Authenticity in Islamic Finance*, Forum speech presented at the 8th Harvard University Forum on Islamic Finance: Innovation and Authenticity Finance, April 19-20, 2008. [Online] Available: http://ifp.law.harvard.edu/login/view_pdf/?file=Ummer_Chapra.pdf&type=forums (Accessed 7 January 2012).

Thøgersen, J. & Ölander, F. (2003) "Spillover of environment-friendly consumer behaviour". *Journal of Environmental Psychology,* 23:225-236.

Thøgersen, J. & Ölander, F. (2006) "To what degree are environmentally beneficial choices reflective of a general conservation stance?". *Environment and Behaviour,* 38(4):550-569.

Thøgersen, J. (2007) "The motivational roots of norms for environmentally responsible behaviour". *Proceedings of the Nordic Consumer Policy Research Conference 2007,* 1-16.

Thomson Reuters. (2011) *Thomson Reuters guide to Islamic finance*. Hong Kong: PPP Company Limited.

Tomarken, A.J. & Waller, N.G. (2003) "Potential problems with well-fitting models". *Journal of Abnormal Psychology*, 112(4):578.

Tomas, J.M. & Oliver, A. (1999) "Rosenberg's self-esteem scale: Two factors or method effects". *Structural Equation Modelling: A Multidisciplinary Journal*, 6:84-98.

Tougas, M.E., Hayden, J.A., McGrath, P.J., Huguet, A. & Rozario, S. (2015) "A systematic review exploring the Social Cognitive Theory of Self-regulation as a framework for chronic health condition interventions". *PloS One*, *10*(8):p.e0134977.

Triandis, H.C. (1977) *Interpersonal Behaviour*. Monterey, CA: Brooks/Cole.

Triandis, H.C. (1980) "Reflections on trends in cross-cultural research". *Journal of Cross-cultural Psychology*, *11*(1):35-58.

United Nations. (2009) *The global economic and financial crisis: Regional impacts, responses and solutions.* New York: United Nations.

Urbach, N., Smolnik, S. & Riempp, G. (2010) *Improving the success of employee portals: A causal and performance-based analysis*.

*Usm*ani, A. (1998) "Evaluating the financial performance of Islamic and conventional banks of Pakistan: A comparative analysis". *International Journal of Business and Social Science*, *3*(7).

Vaus, D.D. (2002) *Surveys in social research* (5th edition) London: Routledge.

Vawda, M. (2013) *Islamic banking in South Africa: An exploratory study of perceptions and bank selection criteria among chartered accountants in South Africa.* Unpublished masters dissertation, University of the Witwatersrand, Johannesburg.

Vogel, F.E. & Hayes, S.L. (1998) *Islamic law and finance: religion, risk, and return (Volume 16)*. Brill.

Von Haeften, I., Fishbein, M., Kasprzyk, D. & Montano, D. (2001) "Analyzing data to obtain information to design targeted interventions". *Psychology, Health & Medicine*, *6*(2):151-164.

Wahib, M., Munawar, A., Munetomo, M. & Akama, K. (2007) "Mhgrid: Towards an ideal optimization environment for global optimization problems using grid computing". In *Eighth International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT 2007)* (pp. 167-168). IEEE.

Wang, J. & Wang, X. (2012) *Structural equation modeling: Applications using MPlus*. John Wiley & Sons.

Wang, J., Siegal, H.A., Falck, R.S., & Carlson, R.G. (2001) "Factorial structural of Rosenberg's self-esteem scale among crack-cocaine drug users". *Structural Equation Modelling*, 8:275-286.

Warde, I. (2000) *Islamic finance in the global economy*. Edinburgh University Press.

Warsame, M.H. (2009) *The role of Islamic finance in tackling financial exclusion in the UK.* Unpublished doctoral thesis, Durham University, Durham.

Webb, T., Joseph, J., Yardley, L. & Michie, S. (2010) "Using the internet to promote health behaviour change: a systematic review and meta-analysis of the impact of theoretical basis, use of behaviour change techniques, and mode of delivery on efficacy". *Journal of Medical Internet Research*, *12*(1):4.

Weber, M. (1905) *The Protestant ethic and the 'spirit' of capitalism and other writings.* New York: Penguin Books.

Weinberg, S.L. & Abramowitz, S.K. (2002) *Data analysis for the behavioural sciences using SPSS*. Cambridge: Cambridge University Press.

Wheaton, B., Muthén, B., Alwin, D.F. & Summers, G.F. (1977) "Assessing reliability and stability in panel models". *Sociological Methodology*, 8(1):84-136.

Wicker, A.W. (1969) "Attitudes versus actions: The relationship of verbal and overt behavioural responses to attitude objects". *Journal of Social Issues*, 25(4):41-78.

Wigglesworth, R. (2011) *Islamic finance: Niche market defies its critics, gaining in depth and sophistication*. [Online] Available: http://www.ft.com/intl/cms/s/0/2cb63e42-d3c8-11e0-bc6b-00144feab49a.html (Accessed 17 June 2014).

Wilson, A.M. (2006) *Marketing research: An integrated approach* (2nd edition) Harlow, England: Prentice Hall/Financial Times.

Wilson, R. (2000) "The interface between Islamic and conventional banking", In Munawar Iqbal & David T. Llewellyn (Eds.), *Islamic banking and finance: New perspectives on profit-sharing and risk* (pp. 196) Cheltenham: Edward Elgar Publishing Limited.

Xu, Y & Paulins, V. (2005) "College students' attitudes toward shopping online for apparel products". *Journal of Fashion Marketing and Management,* 9(4):420-433.

Yong, A.G. & Pearce, S. (2013) "A beginner's guide to factor analysis: Focusing on exploratory factor analysis". *Tutorials in Quantitative Methods for Psychology*, 9(2):79-94.

Yu, T. & Wu, G. (2007) "Determinants of internet shopping behaviour: An application of Reasoned Behaviour Theory". *International Journal of Management,* 24(4):744-762.

Yuan, K.H. (2005) "Fit indices versus test statistics". *Multivariate Behavioral Research*, 40(1):115-148.

Yudistira, D. (2003) "Efficiency in Islamic banking: An empirical analysis of 18 banks". *Islamic Financial Architecture*, 479.

Yusuf, E.Z., & Kusumastutie, G. (2006) *Consumer behaviour in choosing Islamic bank: Indonesian case.* Paper presented at the INCEIF Islamic Banking and Finance Educational Colloquium 2006 organised by INCEIF on 3-5 April 2006, Kuala Lumpur, Malaysia.

Zaher, T.S. & Kabir Hassan, M. (2001) "A comparative literature survey of Islamic finance and banking". *Financial Markets, Institutions & Instruments*, 10(4):155-199.

Zainuddin, Y., Jahys, N. & Ramayah, T. (2004) "Perception of Islamic banking: does it differ among users and non-users". *Journal Management & Business,* 6(3): 221-232.

Zanna, M.P. & Rempel, J.K. (1988) "Attitudes: A new look at an old concept". *International Journal of Bank Marketing, 17(5):221-233.*

Zarqa, M.A. (1981) "Islamic values and criteria in project evaluation". *International Centre for Research in Islamic Economics*.

Zikmund, W.G. (2003) *Essentials of Marketing Research (2nd edition)*. Australia: Thomson South-Western.

Zimmerman, R.S. & Vernberg, D. (1994) "Models of preventive health behaviour: comparison, critique, and meta-analysis". *Advances in Medical Sociology*, 4:45-67.

Zineldin, M. (1990) *The economics of money and banking: A theoretical and empirical study of Islamic interest-free banking*. Stockholm: Coronet Books Incorporated.

ANNEXURE A1: QUESTIONNAIRE

• PO Box 77000 • Nelson Mandela Metropolitan University

• Port Elizabeth • 6031 • South Africa • www.nmmu.ac.za

Nelson Mandela Metropolitan University
for tomorrow

Faculty of Business & Economic Sciences
Tel: +27 (0)41 504-4063 Fax: +27 (0)41-504-4840
Faculty RTI Ethics Chairperson: chantal.rootman@nmmu.ac.za

21 May 2014

Ref: H14-BES-ECO-060
Contact person: Badroen Ismail

السَّـلاَمُ عَلَيْكُمْ وَرَحْمَةُ اللَّهِ وَبَرَكَاتُهُ

May the peace, mercy, and blessings of Allah (SWT) be with you.

Dear Respondent

My name is Badroen Ismail and I am a doctoral candidate in Islamic Finance at the Nelson Mandela Metropolitan University. I am conducting research into the potential use of Islamic Finance among Muslims in Port Elizabeth. The purpose of this survey is to measure your attitude towards and opinion of Islamic banks and Islamic methods of finance. Your valued opinion would certainly contribute towards the success of this research project.

Your participation in this study is completely voluntary and your identity and personal information will be kept completely confidential at all times. However, the results of the research study may be presented at scientific conferences and/or in specialist publications. Most of the questions require you to shade/circle the appropriate option and it should not take more than 20 minutes to complete the questionnaire. However, you may withdraw from the survey at any time without any fear of reprisal. If you wish to make any comment, please feel free to use the space at the end of the questionnaire.

The ethical integrity of the study has been approved by the Research Ethics Committee for Humans (REC-H) of the university. The REC-H consists of a group of independent experts that has the responsibility to ensure that the rights and welfare of participants in research are protected and that studies are conducted in an ethical manner. Research studies that involve human participants cannot be conducted without REC-H's approval. The Research Ethics clearance number for this study is H14-BES-ECO-060.

Your participation in this study is greatly appreciated. Should you have any questions pertaining to the study, feel free to get in touch with the principal investigator on 0835172544 or at badroen.ismail@nmmu.ac.za .

جَزَاكَ اللهُ خَيْرًا (May Allah SWT reward you with goodness)

Badroen Ismail
Department of Economics & Economic History

POTENTIAL USE OF ISLAMIC FINANCE AMONG MUSLIMS IN PORT ELIZABETH

	SECTION A: KNOWLEDGE AND AWARENESS OF ISLAMIC FINANCE TERMINOLOGY, PRINCIPLES & PROVIDERS

Please shade (●) the appropriate option

A1	Do you know the name of the fully-fledged Islamic Bank that is operative in Port Elizabeth?	No ①	Yes ②
A2	Do you know whether your current bank provides Islamic finance retail services?	No ①	Yes ②

On a scale of 1 (unfamiliar) to 10 (very familiar), how would you rate your knowledge of the following:

A3	The basic principles and objectives of Islamic finance	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
A4	The various retail and finance instruments that are available from Islamic banks / Islamic windows	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Please shade (●) the appropriate option

	How familiar are you with the following?	Very familiar	Familiar	Not sure / Neutral	Unfamiliar	I know nothing about it
A5	*Mudarabah* (Capital trust when the lender share only profit but not loss)	①	②	③	④	⑤
A6	*Musharakah* (Full partnership in profits and losses)	①	②	③	④	⑤
A7	*Murabahah* (Mark-ups on sale)	①	②	③	④	⑤
A8	*Bai Muajjall* (Deferred payments)	①	②	③	④	⑤
A9	*Bai Salam* (Prepaid purchases)	①	②	③	④	⑤
A10	*Istisna* (Manufacturing contracts)	①	②	③	④	⑤
A11	*Ijarah* (Lease financing)	①	②	③	④	⑤
A12	*Qard-ul-Hassan* (Benevolent loans)	①	②	③	④	⑤
A13	*Takaful* (Islamic insurance)	①	②	③	④	⑤
A14	*Wadiah (*Safekeeping of a deposit held in trust)	①	②	③	④	⑤

Please shade (●) the appropriate option

	What is your opinion concerning the following statements?	Strongly disagree	Disagree	Neutral / Not sure	Agree	Strongly agree
B1	Islamic banks only cater for Muslim customers.	①	②	③	④	⑤
B2	Islamic banking is not viable because the rest of the world's financial system is based on interest.	①	②	③	④	⑤
B3	The profit paid on deposit by Islamic banks is similar (in principle) to the interest paid by conventional banks.	①	②	③	④	⑤
B4	Marketing of the Islamic financial brand is weak and unclear.	①	②	③	④	⑤
B5	An Islamic bank's methods of finance are interest-free and in accordance with *Shari'ah* law.	①	②	③	④	⑤
B6	Islamic banks copy conventional products and use Arabic names to market their products.	①	②	③	④	⑤
B7	The profit/loss sharing (PLS) method allows you to invest or borrow on a fair basis.	①	②	③	④	⑤
B8	It is haram (not permissible) to receive or charge interest in Islam.	①	②	③	④	⑤
B9	Islamic retail products are more costly and have hidden charges.	①	②	③	④	⑤
B10	Islamic bank administrators are doing enough to educate the public on the merits of Islamic finance.	①	②	③	④	⑤
B11	Islamic banks have an honest, open and transparent business culture.	①	②	③	④	⑤
B12	Islamic financial institutions properly reflect the values on which they are based.	①	②	③	④	⑤
B13	Current tax legislation is not favorable towards the returns generated by Islamic finance products.	①	②	③	④	⑤
B14	Islamic banking deposits not guaranteed by government, are riskier than conventional banking deposits.	①	②	③	④	⑤
B15	Money and religious scholars do not 'mix'.	①	②	③	④	⑤
B16	Islamic windows are not permissible as they are merely divisions of conventional banks.	①	②	③	④	⑤

SECTION C: INTENTION, ATTITUDE, PERCEIVED NORMS AND PERSONAL AGENCY (SELF-EFFICACY)

Please shade (●) the appropriate option

C1	Would you open an account at an Islamic Bank / Islamic Window or make use of Islamic finance retail products?	No ①	Yes ②

C2	On a scale of 1 to 5, how would you rate your ATTITUDE towards Islamic banks / Islamic finance?	Extremely negative ①	Negative ②	Neutral ③	Positive ④	Extremely positive ⑤

Please shade (●) the appropriate option

	What is your viewpoint concerning the following statements?	Strongly disagree	Disagree	Neutral / Not sure	Agree	Strongly agree
C3	Choosing Islamic finance over conventional banking promotes Islam.	①	②	③	④	⑤
C4	To gain the blessings of Allah (SWT), one needs to avoid paying and receiving *riba'h*.	①	②	③	④	⑤
C5	Opening an account at an Islamic bank is the right thing to do.	①	②	③	④	⑤
C6	The *Zakah* collected from customer accounts at an Islamic bank is distributed to the needy.	①	②	③	④	⑤
C7	Investing in a conventional bank is in conflict with my religious beliefs.	①	②	③	④	⑤
C8	Islamic finance creates the opportunity to harmonise personal and business objectives with religious obligation.	①	②	③	④	⑤
C9	Associating with an institution that provides *Halal* products is part of my religious obligation.	①	②	③	④	⑤
C10	Muslims should not care how much the return on deposits is as long as the return is *Shari'ah*-compliant.	①	②	③	④	⑤
C11	I appreciate the fact that Islamic finance is available in South Africa.	①	②	③	④	⑤
C12	Having an Islamic bank account creates a sense of identity.	①	②	③	④	⑤
C13	Muslims are morally obligated to adopt Islamic retail products.	①	②	③	④	⑤
C14	As a Muslim, it is important to have a fully *Shari'ah*-compliant investment portfolio.	①	②	③	④	⑤
C15	Participation in Islamic banking and finance is more beneficial than participation in traditional Western banking.	①	②	③	④	⑤
C16	As Muslims we should be concerned about the sources of our funds.	①	②	③	④	⑤
C17	An Islamic bank helps poor people with benevolent loans.	①	②	③	④	⑤

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Please shade (●) the appropriate option

	What is your viewpoint concerning the following statements?	Strongly disagree	Disagree	Neutral / Not sure	Agree	Strongly agree
C18	My spouse/parents think that I will fulfil my religious obligation if I make use of Islamic finance.	①	②	③	④	⑤
C19	Muslims should encourage each other to adopt Islamic finance.	①	②	③	④	⑤
C20	Most of the people that are important to me think that I should make use of Islamic finance.	①	②	③	④	⑤
C21	The viewpoints expressed by the *Ulumah* (learned scholars) influence my decision to accept/reject Islamic finance.	①	②	③	④	⑤
C22	My friends feel that the Muslim Brotherhood is strengthened if I make use of Islamic finance.	①	②	③	④	⑤
C23	I know enough about Islamic retail products to make an informed decision to use or reject it.	①	②	③	④	⑤
C24	The use of Arabic terminology for retail financial products makes it difficult to understand Islamic finance.	①	②	③	④	⑤
C25	Knowing that the first Islamic Bank in South Africa was liquidated in 1998 affects my attitude towards Islamic banking and finance.	①	②	③	④	⑤
C26	My knowledge of Arabic is adequate to make an informed decision to accept or reject Islamic finance.	①	②	③	④	⑤

SECTION D: MOTIVATING FACTORS THAT INFLUENCE RESPONDENT'S DECISION TO ADOPT ISLAMIC FINANCE

Please shade (●) the appropriate option

	To what extent would the following factors influence your decision to use an Islamic bank or any method of Islamic finance?	Not important at all	Not so important	Neutral	Important	Very Important
D1	Financial reputation and image of Islamic bank.	①	②	③	④	⑤
D2	Encouragement from family and friends.	①	②	③	④	⑤
D3	Greater knowledge and understanding of what Islamic finance entails.	①	②	③	④	⑤
D4	An expanded Islamic bank branch network (eg. more ATMs, vendor support, branches, etc.).	①	②	③	④	⑤
D5	Standardisation of *Shari'ah* opinion.	①	②	③	④	⑤
D6	Saving money for your *Hajj* in a *Shari'ah*-compliant manner.	①	②	③	④	⑤
D7	Customer service quality (eg. fast and efficient service from Islamic banking staff).	①	②	③	④	⑤

		Not important at all	Not so important	Neutral	Important	Very Important
D8	Convenience (eg. available parking space, interior comfort, proximity of bank to home or work).	①	②	③	④	⑤
D9	Professional attitude of knowledgeable bank staff.	①	②	③	④	⑤

	To what extent would the following factors influence your decision to use an Islamic bank or any method of Islamic finance?	Not important at all	Not so important	Neutral	Important	Very Important
D10	Greater effort made by Islamic bank managers to market their product to the public.	①	②	③	④	⑤
D11	Less use made of Arabic terminology to identify Islamic banking accounts and retail products.	①	②	③	④	⑤
D12	Composition of the Islamic bank's *Shari'ah* board (eg. *Shafi'i, Hanafi, Maliki & Hanbali madhabs*).	①	②	③	④	⑤
D13	The Islamic bank's Board Rate (i.e. the deposit return you earn on your existing deposit).	①	②	③	④	⑤
D14	Low or competitive service charges compared to conventional banks.	①	②	③	④	⑤
D15	A wider variety of financing options offered by Islamic banks.	①	②	③	④	⑤
D16	Profitability (possibility of high returns at competitive cost).	①	②	③	④	⑤
D17	Ease of accessing banking services (eg. cellphone and internet banking service facilities).	①	②	③	④	⑤
D18	Religious obligation.	①	②	③	④	⑤
D19	Priority given by the National Treasury to develop the Islamic finance sector in South Africa.	①	②	③	④	⑤
D20	The establishment of a singular *Shari'ah* advisory board that oversees all Islamic banking institutions.	①	②	③	④	⑤

SECTION E: BIOGRAPHICAL DETAILS

Please shade (■) the appropriate option

E1. **Gender:** ☐ Male ☐ Female   **E2.**   **Age:** ☐ 18 - 19 ☐ 20 - 24 ☐ 25 – 29 ☐ 30 - 34 ☐ 35 – 39

☐ 40 - 44 ☐ 45 - 49 ☐ 50 - 54 ☐ 55 - 59 ☐ 60 or above

E3. **Marital status:** ☐ Single ☐ Living together like married partners ☐ Married ☐ Widower / widow ☐ Separated / divorced

E4. **Highest level of education attained:**

☐ No schooling ☐ Primary School (Grade 0-7) ☐ Secondary School (Grade 8-12) ☐ Diploma or Certificate ☐ Higher Diploma (BTech)

☐ Post Higher Diploma (M/D Diploma) ☐ Bachelor's degree ☐ Honours degree ☐ Higher degree (Masters or PhD)

☐ Other: *(specify)* _____

E5. **Gross monthly income:**

☐ No income   ☐ R3 201 – R6 400   ☐ R102 401 – R204 800

☐ R1 – R400   ☐ R6 401 – R12 800   ☐ R204 801 - R500 000

☐ R401 – R800   ☐ R12 801 – R25 600   ☐ R500 001 or more

☐ R801 – R1 600   ☐ R25 601 – R51 200

☐ R1 601 – R3 200   ☐ R51 201 – R102 400

E6. **Occupation:**

☐ Self-employed businessman ☐ Self-employed professional (eg lawyer, doctor, etc) ☐ Private sector employee ☐ Public sector employee

☐ Unemployed ☐ Housewife ☐ Retired ☐ Student ☐ Other: *(specify)* _____

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Thank you for taking the time to complete this questionnaire.

Your assistance in providing this information is appreciated.

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