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## **A conceptual model of perceived value and consumer satisfaction: a survey of Muslim travellers' loyalty on Umrah tour packages**

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**Abstract:** The global religious travel's market is growing tremendously as travelling is now becoming easy and cheap. However, there has been scant literature studying traveller's behaviour toward religious tourism, despite the fact that this sector is growing as the numbers of Muslim travellers are increasing each year. This paper is designed to analyse the impact of perceived value on satisfaction and loyalty toward Umrah tour package services. 190 samples were collected from Malaysian Muslim travellers visiting Mecca for Umrah and the data was analysed using the SmartPLS software. The results showed that the quality of package services and emotional values are significant predictors for the Muslim traveller's satisfaction, and this satisfaction mediates the link between perceived value and loyalty.

**Keywords:** religious tourism; perceived value; Muslim travellers; satisfaction; loyalty; Umrah.

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## 1 Introduction

Religious tourism is one of the oldest forms of tourism and is motivated by religious or spiritual commitment (Sharpley, 2009). It is uniquely different from other forms of tourism because it is motivated by a sense of duty and obligation rather than the pursuit of pleasure and leisure (Swarbrooke and Horner, 2007). Religious attendance strengthens and ensures a person's religious commitments and the particular narrative of their experience. In Islam, religious and spiritual journeys can be divided into three forms of activities (Haq and Wong, 2010; Timothy and Olsen, 2006). The first activity is performing Hajj, including Umrah, which is among the fundamental Islamic practices and institutions known as the five pillars of Islam. It is compulsory for all Muslims to visit Mecca from the specific time frame of the 8th to 12th Dhu al-Hijjah. The second spiritual journey is Rihla, the journey in search of knowledge, commerce, health, or research. The third activity is called Ziyara, which is to visit holy places such as shrines, mosques, or monasteries for spiritual growth (Timothy and Olsen, 2006).

Tourism is growing as many Muslims are now financially and physically able to travel around the world. In Islam, travelling is an important Sunnah as the Prophet Muhammad (peace be upon him) once said: "Be in the world as a traveller or stranger" (Al-Bukhari). Recently, as travelling has become easier and cheaper, Umrah pilgrimage in Mecca has become a trend as many Muslims around the world choose Madinah and Mecca as holiday destinations. Muslims now aim to go to Mecca to perform Umrah and then spend their holiday with families and friends. They regard visiting this place as the best way to strengthen their spiritual life and also spend time with loved ones. It is a type of religious tourism that is profoundly related to the Islamic Shari'ah.

Umrah is a type of religious pilgrim to Mecca that can be performed throughout the year by Muslims around the world. A Muslim is not obligated to perform Umrah – unlike Hajj – and it can be done once or many times as long as the individual is physically and financially capable. Umrah consists of a series of several Islamic activities such as *ihram*, which is to enter into a state of purity and holiness in which it is prohibited for a person to perform certain *Halal* (lawful) and *Mustahabb* (neither encouraged or discouraged) duties; *tawaf*, which is to revolve around the Kaabah seven times; *sa'I*, which is to traverse seven times between *Safa* and *Marwah*; and *tahallul*, a ritual shaving to signify the end of *ihram*. Each trip also covers the visit to other historical and holy places such as *Jabal Tsur*, *Arafah*, *Jabal Rahmah*, and the Mountain of *Jabal Nur*.

Based on recent reports, Muslims are one of the largest targets of the tourism sector since the Muslim population comprises a global market of 2.1 billion potential consumers (Muslim Population Worldwide, 2014). Thus, a comprehensive study must be conducted in a vigorous manner. However, the perceived value of this market, particularly regarding the offers by tourist agencies and the way it affects the Muslim consumer's perceived value have not yet been precisely defined (Fakharyan et al., 2012; Laderlah et al., 2011; Stephenson et al., 2010; Zamani-Farahani and Henderson, 2010). Notwithstanding, ample opportunities exist to determine the impact of perceived value on satisfaction and loyalty from the Muslim traveller's point of view.

In general, although religious-based tourism is expanding, there is not much information about the phenomenon of religious tourism, particularly pilgrimage tourism such as Umrah (Egresi et al., 2012). Research on this thriving sector is limited, thus knowledge about this trend remains scarce. Until recently, relatively little attention has

been given to the subject matter in tourism literature because of the complex relationship between tourism and religion. Researchers are now taking an interest in the study of religious tourism and the associated issues concerning the service quality provided by the tour operators. In Malaysia, religious tourism is now in the limelight. This, in turn, it might also be due to the urgent need among travel agents and tour operators to improve their services as well as their tour packages. Considering the lack of research conducted with respect to Umrah pilgrim, this paper is designed to analyse the factors influencing the pre-trip information acquisition behaviour among Umrah travellers that enhances their product knowledge concerning their travel destination. Therefore, this research aims to firstly identify and operationalise the Muslim traveller's perceived value; secondly, determine its link with their satisfaction; and finally determine the mediating role of satisfaction on the link between perceived values and loyalty among the Umrah Muslim travellers.

## **2 Literature review**

Recently, as travelling has become cheaper, Umrah tour packages have become a lucrative business for many Muslim's tour package providers within the tourist sector. The significant growth of this industry has attracted the attention of marketers to invest largely on understanding Muslim tourist's needs and their intention towards the travelling packages. Consequently, to fully understand what motivates pilgrims to purchase Umrah packages, the tour providers need to recognise the factors that affect the behaviour of Muslim travellers in regards to their satisfaction and loyalty. Previous literature has provided insights from other industries, such as services in general, which might be relevant to the religious tourism with regards to identifying the predicting factors. For example, according to Eid (2015), consumer's perceived value is identified as one of the main factors to predict and determine their satisfaction and loyalty which subsequently leads to consumer retention to a service firm. In a similar sense, consumers' perceived values are vital to know, particularly for firms with a high performance that focuses on consumer satisfaction.

Understanding the perceived value also provides ample opportunities to determine its link with their satisfaction and loyalty from a Muslim traveller's perspective. Zeithaml (1988) defined perceived value as "the consumer's overall assessment of the utility of a product based on the perception of what is received and what is given". Cravens and Piercy (2003) stated that perceived value is about "the benefits and costs resulting from the purchase and use of products". Iglesias and Guillén (2004) have suggested that perceived value is "an exchange of what is received and what is given". Indeed, according to Choi and Chu (2001), firms must offer superior consumer value if they want to obtain success in the hospitality and tourism sector and this has to be executed in a consistent and effective way. Generally, scholars have studied extensively on topics relating to the theme of perceived value and its behavioural consequences (e.g. Benkenstein et al., 2003; Fandos Roig et al., 2009; Gallarza and Gil Saura, 2006; Kwun and Oh, 2004; Nasution and Mavondo, 2008; Petrick, 2002; Sanchez et al., 2006). Although a myriad of research has been conducted with regard to the role of perceived value on consumer behaviour, this relationship is still in its infancy in the context of Islamic marketing.

### *2.1 Consumer loyalty*

Consumer loyalty indicates the predetermined attitude relating to the good or service which comprises the probability of future service contracts, how likely consumers are to change establishments and spread positive word-of-mouth, or the possibility of the consumers giving out their opinions (Andreassen and Lindestad, 1998). Satisfied consumers often tend to be loyal and thus would want to pursue different services. As a consequence, satisfied consumers intended to recommend the product or service to others and would like to revisit the place (Kozark and Rimmington, 2000). Perceived value and consumer satisfaction are closely related to the standards of consumer behaviour, especially consumer loyalty (Ganiyu et al., 2012). However, consumer loyalty is not directly achieved by consumer satisfaction (Ganiyu et al., 2012), but by continuously providing superior values (Butcher et al., 2002). Consumer loyalty's unique antecedent is satisfaction and consumer satisfaction's unique antecedent is perceived value (Gallarza and Gil Saura, 2006). Loyalty is one part of consumer behavioural intention which is defined as "the willingness of consumers to take action towards services offered" (Grewal et al., 1998). Eid (2015) states that consumer loyalty is seen from two perspectives: behavioural loyalty and attitudinal loyalty. Behavioural loyalty is the number of repeated purchases, while attitudinal loyalty is the psychological commitment that a consumer makes in the purchasing act, such as intentions to purchase and/or recommend it to others (Jacoby, 1971; Jarvis and Wilcox, 1976). Thus, satisfaction should mediate the relationship between perceived value and loyalty.

### *2.2 Perceived value*

Value can be defined as the comprehensive evaluation of the consumer on the use of a product based on view of what is received and offered (Sánchez-Fernández and Iniesta-Bonillo, 2007). Value is also the outcome of an evaluative perception whereby it refers to the principles, rules, criteria, norms, objectives, or ideals that assists as the base for such an evaluative perception. Perceived value is based on consumers' experiences which are seen as a 'trade-off' between advantage and sacrifice (Flint et al., 2002). Consumer's perceived value is conceptualised, based on previous literature, into dimensions of quality, price, emotional and social values. In addition, consumer value is important and it is at the centre of management thinking as it is closely linked with consumer satisfaction and retention (Eid, 2015; Ganiyu et al., 2012).

### *2.3 Quality value*

A positive distinguishing characteristic is viewed as a quality by means of 'what', 'while', and 'how'; referring to functional quality (Murphy et al., 2000). The core product (destination) being marketed is the depiction of the performance of the firm. As such, in service marketing, quality is its foundation (Berry and Parasuraman, 1991). Evaluation of quality is made when a product and/or service performed exceeded consumer expectations (Fick and Ritchie, 1991). It was found that consumer perception of quality is often influenced and linked with their expectation for problems (Sweeney and Soutar, 2001). Indeed, quality perceptions are thought to reflect a positive summary evaluation of the trip experience from the tourist's point of view. In summary, quality

evaluation is referred to the performance of the service and the degree to which traveller's expectations were sufficed.

The value of quality is a critical issue when conducting business in the tourism industry, as the service quality is highly related with consumer satisfaction and loyalty (Eid, 2015; Rahman, 2014; Wahab et al., 2013). Organisations always focused on producing products of high quality and expect them to be sold easily (Zikmund and D'Amico, 2002). Consumer perception of service value is based on factors that influence their decision making process, like service quality (Groth and Dye, 1999) and the quality of the package (Eid, 2015; Sweeney and Soutar, 2001). Gallarza and Gil Saura (2006) reviewed previous studies related to perceived value and found that there are 25 studies with perceived quality as an antecedent of perceived value, while 11 studies showed that satisfaction was a result of perceived value. Thus we hypothesise that:

- H1 Perceived quality value will have a positive effect on satisfaction of Muslim travellers.
- H2 Perceived quality value will have a positive effect on loyalty of Muslim travellers.
- H3 Consumer satisfaction positively mediates the relationship between perceived quality value and loyalty of Muslim travellers.

#### *2.4 Price value*

Price can be defined as the "the summation of all sacrifices made by a consumer to experience the benefits of a product" (Al-Sabbahy et al., 2004). In fact, value is placed on what is exchanged; therefore price is crucial in relationships with consumers (Eid, 2015; Rowley, 1997). Price means the value which the provider is ready to use in that exchange (e.g., buying power is exchanged for satisfaction or utility). Thus, consumers will feel satisfied when they feel that the price is relevant to the quality and services provided (Akama and Kieti, 2003). Consumers consider the price of different options and brands as an important factor in making choices after they plan to obtain a service that requires a high degree of commitment. Price is usually the main priority in identifying the best operator to be chosen in the context of performing Umrah (Wahab et al., 2013). Price is usually used as the key measure to indicate what consumers need to give up in pursuit of obtaining services (Tam, 2004). The dimensions that concern what is sacrificed or given include monetary and non-monetary prices. The monetary price represents the fiscal costs of services as perceived by consumers, whereas the non-monetary price relates to the time and effort used to find and purchase the service (Petrick, 2002).

The perceived monetary price of leisure service – or in the context of this research, Umrah service – is defined as the consumers' perception of service by comparing with the fiscal price, whether the money spent is worthy, and simultaneously if it is economical, fair, and reasonable (Ali, 2007). The ratio of quality received for the price paid during the process of purchase is considered in value awareness (Lichtenstein et al., 1993). The purchasing behaviour of consumers in developing countries is mostly affected by the price value compared to other determinants (Matanda et al., 2000). Consumers' perceived value influence the interests of the consumer for low price and high quality when they purchase products and/or services (Sweeney and Soutar, 2001; Zeithaml, 1988). Tam (2004) posits that the 'price paid' is one of the two items of one-dimensional measures. Based on the argument above, we can assume that there is a significant

relationship between price value and Muslim consumer satisfaction. Therefore, we hypothesise that:

- H4 Perceived price value will have a positive effect on satisfaction of Muslim travellers.
- H5 Perceived price value will have a positive effect on loyalty of Muslim travellers.
- H6 Consumer satisfaction mediates the relationship between perceived price value and loyalty of Muslim travellers.

### 2.5 *Emotional value*

Emotional value can be defined as “the ability of a service to build feelings or affective states” (Sheth et al., 1991). The emotional gain may influence options between instrumental alternatives which are similar in other characteristics (Havlena and Holbrook, 1986). Emotional value includes the ability to manage one’s feelings and experiences, and it is the key to decision making (Prayag et al., 2013; Sweeney and Soutar, 2001). It also relates with behaviours including the realistic evaluation of one’s limitations, self-sufficiency, and ability to effectively deal with stress (Barlow and Maul, 2000). Emotional value is also closely linked with satisfaction and loyalty (Prayag et al., 2013).

Consumers are always emotional when they engage in commercial transactions. The act of consumption is not an act of detachment, rather it is an experience filled with emotions, some positive and some negative. Apart from that, each situation elicits different emotions depending on what it means to experience as a consumer. In the tourism context, managers suggest that seasoned travellers should do everything they can to ensure that they are providing an authentic travel experience (Leung, 2005). Eid (2015) suggests that emotional value is certain to include subjective or emotional response that are generated in the consumers’ mind, as perceived value is an abstract and effective construct that differs among consumers and cultures at different times (Havlena and Holbrook, 1986). Emotional value is also included in one of the five dimensions of perceived value identified by Sweeney et al. (1999). A perceived value scale made by Petrick (2002) includes emotional responses as one of its components and relates it to how services make consumers feel. From the tourism perspective, an excellent product or service should be able to make the consumers feel comfortable (Eid, 2015) and safe (Strömngren, 2007).

A previous study’s result showed that consumers’ emotional response is the best predictor of their comprehensive value perceptions (Ali, 2007). Petrick (2002) suggests that the role of the emotional response of consumers towards services in value perceptions relates to how the services make them feel, in particular the feeling of joy. Iglesias and Guillén (2004) state that satisfaction is the emotional condition of consumers, either positive or negative, regarding the gain after the service has been experienced. Thus, it can be concluded that emotion plays an important role in obtaining satisfaction from using the service. Thus, we hypothesise that:

- H7 Perceived emotional value will have a positive effect on satisfaction of Muslim travellers.

- H8 Perceived emotional value will have a positive effect on loyalty of Muslim travellers.
- H9 Consumer satisfaction mediates the relationship between perceived emotional value and loyalty of Muslim travellers.

## 2.6 *Social value*

Social value is considered as one of the five dimensions of perceived value (Sweeney and Soutar, 2001; Sweeney et al., 1999). Apart from functional values, social value also dominates decisions on whether to acquire a product or service (Sweeney and Soutar, 2001). Social value is defined as “the perceived quality acquired from an alternative’s association with one or more specific social group” (Sheth et al., 1991). Likewise, Patterson and Spreng (1997) suggest the social aspects in adding value to consumer perception. Social benefits are included in the definition of a consumer’s perceived value as “perceived worth in monetary units of the set of economic, technical, service, and social benefits received by a consumer firm in exchange for the price paid for a product offering, taking into consideration the available alternative suppliers’ offerings and price” (Anderson et al., 1992).

Social benefits refer to consumers’ acknowledgement of services as a directional choice recommended by their friends or relatives (Sanchez et al., 2006). Individuals usually engage in leisure activities intentionally, pursuing personal and social benefits (Kelly and McKillop, 1996). Hence, social value is important in measuring consumer satisfaction as it portrays what the tourism products communicate with others, increasing social recognition, approval (Eid, 2015; Prebensen et al., 2013), and social self-concept (Sweeney and Soutar, 2001). Social value is difficult to quantify and measure; thus it is typically described as ‘soft’ outcomes. In turn, it poses a problem for scholars who seek to measure the potency of a specific interference or activity with light results (Leung, 2005). Generally, interactions with other travellers who hold similar interests, whether for the purpose of keeping in touch or sharing advice, is linked with personal values (Cova, 1997). Consumer’s perceived word of mouth interactions from other travellers as being of great value to them, followed by the value of keeping in touch with other travellers, and lastly, conversation with locals. Thus, we can conclude that social values play an important role in obtaining satisfaction from service. As a result, we hypothesise that:

- H10 Perceived social value will have a positive effect on satisfaction of Muslim travellers.
- H11 Perceived social value will have a positive effect on loyalty of Muslim travellers.
- H12 Consumer satisfaction positively mediates the relationship between perceived social value and loyalty of Muslim travellers.

## 2.7 *Consumer satisfaction*

Consumer satisfaction can be defined as “the cognitive state of the buyer about the appropriateness or inappropriateness of the reward received in exchange for the service experienced” (Howard and Sheth, 1969). Satisfaction depends on the experience of using the products or services. There is a unique correlation between perceived value and consumer satisfaction (Iglesias and Guillén, 2004). There is also a need to identify,

explore, and refine the correct models to explain the effect of perceived value and its related constructs on consumers' satisfaction and behavioural intentions (Green and Boshoff, 2002). The core of the marketing concept involves attaining organisational targets by determining the needs and wants of the target consumers, including providing satisfaction better than the competitors (Kotler and Keller, 2006). Value perceptions can occur before buying or consuming the services, whereas satisfaction relies on the experience during or after consuming the services (Sanchez et al., 2006). However, this statement is arguing that "consumer satisfaction is a strong predictor of value perceptions", whereby variables representing perceived value and satisfaction measure different constructs.

The measurement of satisfaction cannot be made independent of value perceptions as the former and the latter value both indicate the trade-off between what is received and what is given (Green and Boshoff, 2002). Oliver (1977) views consumer satisfaction as a consumer's comprehensive reaction to the whole service experience for a distinct transaction at the post purchasing point. When consumer loyalty is the main objective, especially for an industry, satisfaction becomes a very important factor; this includes the tourism industry (Farahdel, 2011; Rahman, 2014). Tourist satisfaction can be referred to as the tourist's impressions that utilisation fulfils several needs, desire, objectives, etc. and that this accomplishment is gratifying. In other words, satisfaction is achieved when a tourist's demands and needs are met (Rahman, 2014). It is the traveller's judgment about consumption which produces results against a standard of pleasure versus displeasure. In the case where a tourist is satisfied with the services received from a tour operator, the tourist appreciates the degree of fulfilment of his needs and desires, including the full range of goods or services offered.

Muslim tourists must be considered as a valuable segment of the tourism industry; their religious necessities should be provided for and satisfied, not just during religious tourism, but everywhere and anytime, given that satisfied consumers will bring consumer loyalty (Farahdel, 2011). Empirical research reports that tourist satisfaction is a good indicator of their intentions to revisit and recommend services to others (Kozark and Rimmington, 2000; Szymanski and Henard, 2001). Szymanski and Henard (2001) classified 15 positive and meaningful relationships between consumer satisfaction and consumer loyalty (Ganiyu et al., 2012). Jones and Sasser (1995) discussed that the correlation between consumer satisfaction and consumer loyalty is not simple; the effect of their behaviours may differ depending on consumer attributes (i.e. their belief in the effects of the consumer satisfaction and dissatisfaction assessment). Schweizer (2008) postulates that it is important to investigate two fields in exploring consumer loyalty – the behaviour of consumers and their intentions. Thus, satisfaction should act as a predictor of consumer behaviour. Hence, we concluded that:

H13 Consumer satisfaction will have a positive impact on loyalty of Muslim travellers.

### **3 Methodology**

A self-administered questionnaire was distributed and collected from individuals who had travelled to Mecca to perform Umrah in previous years. The target unit of analysis for

this study defined were individuals who had experienced performing Umrah in previous years using a product/service of local travel agents and tour operators in Malaysia.

A purposive sampling technique was used in this study due to several reasons. First, this study focuses on the particular type of respondents to have experience performing Umrah in previous months or years. According to the definition of purposive sampling, it relies on the judgment of the researcher when it comes to selecting the units (e.g. people, organisations, or events) that are to be studied by focusing on particular characteristics of a population that are of interest. This enables the researcher to answer the research questions. Since the focus of the study was to evaluate Umrah travellers' satisfaction of their packages, this sampling technique was a better alternative compared to that of the other sampling techniques.

Second, an unknown number of Muslim religious travellers live in Malaysia and it is not possible to acquire the exact number and size of the targeted populations. Therefore, the purposive sampling method provides the chance to be selective according to the topic of study. As a result, purposive sampling provides an alternative through the selection of the targeted population for the purpose of the study. Thus, the final number within the population was estimated based on the rule of thumb; the minimum number of respondents is a five-to-one ratio of the number of latent variables to be tested. Since we were not able to obtain the list of the total population for this study, a non-probability purposive sampling approach was employed whereby only Umrah travellers in Malaysia were chosen and the rest were excluded from the dataset. A total of 190 questionnaires were coded for the data analysis using the SmartPLS 2.0 software.

The questionnaire consists of four sections. In the first section, screening questions were asked including the general questions about Umrah tour packages, the price of the packages, durations, and travel agents respondents used. The second part includes variables relating to perceived value. Based on the literature, this study proposes that the perceived value is categorised as a function and relational aspect. The value is composed of four dimensions with sixteen items and revised accordingly to fit the characteristics of the Umrah packages. These dimensions are: quality value, price value, emotional value, and social value. The items for the dimensions were adapted from the previous studies, for example quality value (Eid, 2015; Sweeney and Soutar, 2001), price value (Eid, 2015; Sweeney and Soutar, 2001), emotional value (Eid, 2015; Strömngren, 2007; Sweeney and Soutar, 2001), and social values (Eid, 2015; Sweeney and Soutar, 2001). The third part includes questions related to consumer satisfaction and loyalty, adopted from Kozark and Rimmington (2000). The last section gathers demographic information of the respondents such as gender, age, and education level. All the items used the five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Structural equation modelling (SEM) was used to interpret the data of this study as it allows researchers to assess the overall fitness of a model as well as test the structural model altogether (Chin, 1998; Gefen et al., 2000). SEM contains two major approaches, which are a component-based approach, such as partial least square (PLS-SEM), and a co-variance-based approach (CB-SEM) (Marcoulides et al., 2009). There are some differences between PLS-SEM and CB-SEM in terms of their underlying statistical assumptions and the nature of fit statistics (Gefen et al., 2000). CB-SEM is suitable to adopt when the research objective is to test or confirm a theory, whereas PLS-SEM is considered an alternative method when CB-SEM distributional assumptions cannot be met, and is more appropriate to use when the research objective is for prediction in a less

developed theory (Hair et al., 2011). Therefore, because of its prediction orientation of a less developed theory in religious travelling; it seems that PLS-SEM is the preferred method for this study.

## 4 Results

A purposive sampling method was used given that a comprehensive list of populations was not available. About 600 self-administered questionnaires were used for gathering data from Umrah travellers in Malaysia. A total of 190 valid questionnaires were received by the end of the data collection period (31.7% response rate). The SmartPLS 2.0 software (Ringle et al., 2005) was used to evaluate the relationships among the constructs of the research model by conducting a partial least squares (PLS) analysis. The PLS analysis was preferred as the methodological choice because of several reasons: first, as a variance-based approach, it places minimal requirements on residual distributions and sample size to achieve a satisfactory numerical power (Hair et al., 2012); second, it advances the choice of analysis constructs' association compared with other techniques (Acedo and Jones, 2007); third, it allows us to simultaneously evaluate both measurement and the structural model (Chin, 1998), while it eliminates concerns about multicollinearity issues (Inkpen and Birkenshaw, 1994); and fourth, it allows for the analysis of data during the early stages of theory development (Tsang, 2002).

We followed the guidelines of Hair et al. (2013) to report the PLS-SEM findings. Since PLS-SEM is a non-parametric approach, it does not require the data to be normally distributed. However, it is important to verify datum that are not far from normal distribution. Subsequently, skewness and kurtosis were used prior towards data analysis to evaluate the extent at which a variables' distribution is symmetrical (Hair et al., 2013). The skewness and kurtosis values of most items ranged between  $-1$  and  $+1$ , which are well below the levels suggested for the transformation of variables (Ghisseli et al., 1981). Therefore, the non-normality of data was not an issue for this research. Furthermore, the common method bias was assessed by conducting Harman's single factor (Podsakoff et al., 2003). Accordingly, the single factor accounted for the majority of variance explained (14.28% only). This suggested that the common method bias is not a major issue in this study. Finally, with regard to the statistical control, Harman's single factor test was used to assess the potential problem of common method bias. The application of the Harmon single factor test prescribed by Podsakoff and Organ (1986) suggests that when taking all the  $s$  for the four constructs into an exploratory factor analysis, no one general factor accounted for the majority of variances explained (14.28% only). This suggests common method bias is not an issue in this study.

### 4.1 Demographic profiles of respondents

Table 1 depicts the demographic profile of 190 respondents in Malaysia. The demographic profile includes the respondent's gender, age, marital status, education level, income, and occupation.

**Table 1** Demographic profile of respondents (n = 190)

<i>Variable</i>	<i>Categories</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Male	113	59.5
	Female	77	40.5
Age	21–25	10	5.3
	26–30	34	17.9
	31–35	41	21.6
	36–40	22	11.6
	41–45	20	10.5
	46–50	19	10.0
	51–55	17	8.9
	56–60	18	9.5
	61–65	3	1.6
	66–70	6	3.2
Marital status	Single	21	11.1
	Married	169	88.9
Education level	SPM	24	12.6
	Diploma/matriculation/STPM	60	31.6
	Degree	88	46.3
	Masters	17	8.9
	Others	1	0.5
Income	Less than RM2,000	26	13.7
	RM2,000–3,499	69	36.3
	RM3,500–4,999	53	27.9
	RM5,000–6,499	36	18.9
	RM6,500–7,999	5	2.6
	RM8,000–9,500	1	0.5
Occupation	Government sector	63	33.2
	Private sector	84	44.2
	Owned-business	35	18.4
	Others	8	4.2

According to Table 1, the male respondents outnumbered female respondents with a rate of 59.9% to 40.5%. The age of respondents in this category varies. In fact, about 21.6% of the respondents were between 31 and 35 years old, while only 3% of the respondents were between 61 and 65 years old. Therefore, the results showed that the majority of respondents are middle aged. The majority of the respondents are married (88.9%) and educated having either a bachelor degree (46.3%), masters (8.9%), and/or diploma/matriculation/STPM (31.6%). 36.3% of respondents have a monthly salary of

between RM2,000 and RM3,499, while only few respondents have income more than RM6,500. The majority of the respondents work within the private sector (44.2%) and 33.2% works for the government sector.

Apart from the demographic profiles, respondents were asked about the time which they attended Umrah, how often, and the type of tour packages they chose. Based on the results, all 190 respondents performed Umrah at least once. The majority of respondents performed Umrah once (43.2%), twice (31.6), and three times (13.7) respectively, while only over 20 respondents performed more than three times. Over 90% of the pilgrims performed Umrah between 2010 and 2014 which shows that the number of Muslim travellers has been increased. Andalusia (17.4%) and TH (33.7%) are the two most popular tour package providers in Malaysia amongst Muslim tourists performing Umrah, while others are less popular among the respondents. The majority of respondents (96.3%) chose all-inclusive tour packages which provided transportation, accommodation, meals, and a tour-guide, as compared to the basic packages. Finally, 75.3% of respondents chose package prices ranging between RM5,001 and RM7,000, which shows the popular range prices for Muslim tourist performing Umrah from Malaysia, while only about 11% had chosen packages priced between RM3,000 and RM5,000, with 12.6% choosing ranges between RM7,001 and RM9,000.

#### 4.2 *Measurement results*

A reflective measurement models assessment in the PLS analysis included a composite reliability (CR) to evaluate the internal consistency among the items for each construct, item loading, and the average extracted variance (AVE) to assess convergent validity. It also involved cross loading and the Fornell-Larcker criterion to evaluate discriminant validity among constructs of the research model of study (Chin, 1998; Hair et al., 2013; Henseler et al., 2009). Item loading and reliabilities were examined to evaluate the properties of the reflective measurement models. Item loading values should be 0.708 or higher, such that a latent variable can explain a substantial part of each indicator's variance (Hair et al., 2013). Table 2 depicts the item loading for the most reflective measurement items that are above the value of 0.708. Composite reliability (CR) for constructs and the Cronbach's alpha were confirmed satisfactory with values above 0.70 (see Table 2) (Fornell and Larcker, 1981). Hence, the internal consistency among the items for each construct was confirmed. Moreover, Table 2 illustrates the AVE values for each construct of the study model. AVE is well-defined as the mean value of the squared item loadings associated with the construct and an AVE value of 0.50 or higher is adequate for each construct to explain more than half of its correspondent items (Hair et al., 2013). According to Table 2, the AVE values for all constructs were above 0.50 and hence satisfactory.

In the PLS analysis, two criteria were used to evaluate discriminant validity (i.e., cross loading and correlation) for reflective measurement models. First, items should strongly load more on their correspondent constructs than on other constructs. Second, the square root of each constructs' AVE should be higher than the level of correlations involving the construct (Chin, 1998). Table 3 illustrates the cross loading for the constructs which shows that the main loading under each construct is higher than the cross loading for other constructs.

**Table 2** Convergent validity and reliability results

<i>Constructs</i>	<i>Items</i>	<i>Item loading</i>	<i>AVE</i>	<i>Composite reliability</i>	<i>Cronbachs alpha</i>
Quality value	The Umrah package purchased was well made.	0.737	0.566	0.887	0.847
	The Umrah package purchased was well organised.	0.761			
	The Umrah package had an acceptable level of quality.	0.796			
	The employees of the tour operator were professional.	0.689			
	The employees of the tour operator were attentive for my enquiries.	0.780			
	The services given by the tour operator exceeded my expectations	0.748			
Price value	The price of the Umrah package was reasonable for me.	0.832	0.667	0.889	0.833
	The price of the Umrah package was relevant to the activities provided.	0.814			
	The price of the Umrah package was relevant to the quality of services given.	0.860			
	I feel it was worthy spending my money on the Umrah package	0.759			
Emotional value	I felt comfortable throughout the Umrah.	0.795	0.602	0.819	0.669
	The Umrah gave me pleasure.	0.743			
	I felt safe throughout the Umrah.	0.788			
Social value	The Umrah has helped me to feel acceptable.	0.814	0.594	0.853	0.773
	The Umrah package improved the way people perceived me.	0.846			
	The Umrah package purchased gave me social approval.	0.670			
	Many people that I know purchased the Umrah package.	0.741			
Consumer satisfaction	I am satisfied with the overall quality value of the tour of Umrah journey provided by the tour operator.	0.843	0.579	0.845	0.763
	I am satisfied with the overall price value of the Umrah package.	0.677			
	I am satisfied with the overall social value of the Umrah package.	0.786			
	I am satisfied with the overall Umrah package provided by the tour operator.	0.727			

**Table 2** Convergent validity and reliability results (continued)

<i>Constructs</i>	<i>Items</i>	<i>Item loading</i>	<i>AVE</i>	<i>Composite reliability</i>	<i>Cronbachs alpha</i>
Consumer loyalty	I will choose the same tour operator when I have the chance to go for the next Umrah	0.879	0.815	0.946	0.924
	I will suggest the tour operator to other people who going to perform Umrah.	0.940			
	I will say positive things about this tour operator to other people.	0.868			
	I do not mind to pay high price for the Umrah package from the same tour operator.	0.923			

**Table 3** Cross loading results

<i>Item</i>	<i>Quality value</i>	<i>Price value</i>	<i>Emotional value</i>	<i>Social value</i>	<i>Consumer satisfaction</i>	<i>Consumer loyalty</i>
QV1	<b>0.737</b>	0.457	0.458	0.394	0.261	0.521
QV2	<b>0.761</b>	0.510	0.529	0.502	0.277	0.519
QV3	<b>0.796</b>	0.599	0.494	0.471	0.216	0.516
QV4	<b>0.689</b>	0.512	0.483	0.543	0.401	0.514
QV5	<b>0.780</b>	0.590	0.580	0.483	0.447	0.593
QV6	<b>0.748</b>	0.572	0.525	0.488	0.253	0.508
PV1	0.587	<b>0.814</b>	0.437	0.428	0.247	0.509
PV2	0.614	<b>0.860</b>	0.509	0.436	0.202	0.543
PV3	0.559	<b>0.759</b>	0.579	0.424	0.417	0.492
PV4	0.590	<b>0.832</b>	0.484	0.419	0.236	0.594
EV1	0.571	0.507	<b>0.795</b>	0.506	0.312	0.448
EV2	0.449	0.485	<b>0.743</b>	0.412	0.294	0.382
EV3	0.564	0.448	<b>0.788</b>	0.641	0.372	0.401
SV1	0.594	0.502	0.555	<b>0.814</b>	0.391	0.438
SV2	0.507	0.426	0.512	<b>0.846</b>	0.261	0.474
SV3	0.381	0.304	0.399	<b>0.670</b>	0.256	0.253
SV4	0.462	0.350	0.595	<b>0.741</b>	0.285	0.406
CS1	0.420	0.318	0.413	0.346	<b>0.843</b>	0.397
CS2	0.201	0.206	0.179	0.172	<b>0.677</b>	0.225
CS3	0.372	0.294	0.378	0.387	<b>0.786</b>	0.386
CS4	0.215	0.176	0.232	0.212	<b>0.727</b>	0.283
CL1	0.720	0.625	0.512	0.591	0.322	<b>0.879</b>
CL2	0.643	0.614	0.505	0.517	0.485	<b>0.940</b>
CL3	0.545	0.546	0.386	0.256	0.415	<b>0.868</b>
CL4	0.630	0.578	0.496	0.483	0.378	<b>0.923</b>

The Fornell and Larcker (1981) criteria needed to be evaluated to confirm the discriminant validity for reflective constructs of second-order models. Therefore, inter-construct correlation statistics were examined during the measurement model assessment (see Table 4). As shown in Table 4, all constructs share more variance with their items (AVE) than with other constructs. Additionally, all the correlations are below the cut-off value of 0.80 (Hair et al., 2010). Since both cross loading and the Fornell-Larcker criteria were met, discriminant validity among constructs of the study were also confirmed.

**Table 4** Inter-construct correlations

<i>Constructs</i>	<i>AVE</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1 Consumer loyalty	0.815	<b>0.903</b>					
2 Consumer satisfaction	0.579	0.442	<b>0.761</b>				
3 Emotional value	0.602	0.530	0.422	<b>0.776</b>			
4 Price value	0.667	0.656	0.341	0.618	<b>0.817</b>		
5 Quality value	0.566	0.707	0.423	0.684	0.720	<b>0.752</b>	
6 Social value	0.594	0.521	0.391	0.675	0.523	0.641	<b>0.771</b>

Notes: N = 190. Diagonals (in bold) represent the square root of the average variance extracted and off-diagonals represent the correlation.

In general, internal reliability, convergent validity, and discriminant validity were assessed for the measurement model of the study and were proven by conducting several statistical approaches. Therefore, we can conclude that our model has adequate validity and reliability to continue with the analysis of the structural model.

### 4.3 Structural model results

The validity of the structural model was assessed using the coefficient of determination ( $R^2$ ) and path coefficients. In addition, this study also assessed the mediation relationships that were being proposed in the research model. The results of the structural model estimate are illustrated in Table 5. We ran the structural model using the bootstrap procedure through generating 5,000 resamples as recommend by Hair et al. (2013).

**Table 5** Structural estimates for the direct effects

<i>Path</i>	<i>Std beta</i>	<i>Std error</i>	<i>T-value</i>	<i>Decision</i>
Consumer satisfaction → Consumer loyalty	0.161	0.055	2.903**	Supported
Emotional value → Consumer loyalty	-0.057	0.067	0.860	Not supported
Emotional value → Consumer satisfaction	0.214	0.106	1.808*	Supported
Price value → Consumer loyalty	0.302	0.076	3.929***	Supported
Price value → Consumer satisfaction	0.008	0.100	0.094	Not supported
Quality value → Consumer loyalty	0.406	0.076	5.448***	Supported
Quality value → Consumer satisfaction	0.199	0.114	1.784*	Supported
Social value → Consumer loyalty	0.082	0.067	1.123	Not supported
Social value → Consumer satisfaction	0.126	0.099	1.281	Not supported

Notes: \* $p < 0.05$ , \*\* $p < .01$ , \*\*\* $p < 0.001$ , one-tailed.

From Table 5, the relationship between Emotional value  $\rightarrow$  Consumer satisfaction ( $\beta = 0.214$ ,  $p < 0.05$ ), and Quality value  $\rightarrow$  Consumer satisfaction ( $\beta = 0.199$ ,  $p < 0.05$ ) were positively significant with an  $R^2$  value of 0.219 which shows that 21.9% of variance in consumer satisfaction can be explained by two dimensions of perceived value including emotional and quality values. Moreover, the link between Consumer satisfaction  $\rightarrow$  Loyalty ( $\beta = 0.161$ ,  $p < 0.01$ ) with an  $R^2$  value of 0.569 means that 56.9% variation in loyalty can be explained by consumer satisfaction. Thus, H1, H3, and H5 are supported in this study.

To test the mediation effect, we followed the method suggested by Preacher and Hayes (2004); as they argued that the four-step causal procedure of Baron and Kenny (1986) has low power. This new procedure is called 'bootstrapping the indirect effect'. We had four paths that were mediated as such; we first calculated the indirect effects as the product of the four paths involving them. According to Table 6, the indirect path results are illustrated for the four paths.

**Table 6** Structural model path coefficient results for mediating effect

<i>Path</i>	<i>Indirect path coefficient</i>	<i>Standard error (SE)</i>	<i>T. statistics</i>	<i>Decision</i>
QV $\rightarrow$ CS $\rightarrow$ CL	(0.199 * 0.161) = 0.032	0.023	1.391 <sup>NS</sup>	Not supported
PV $\rightarrow$ CS $\rightarrow$ CL	(0.008 * 0.161) = 0.001	0.017	0.059 <sup>NS</sup>	Not supported
EV $\rightarrow$ CS $\rightarrow$ CL	(0.214 * 0.161) = 0.0345	0.021	1.646*	Supported
SV $\rightarrow$ CS $\rightarrow$ CL	(0.126 * 0.161) = 0.020	0.018	1.127 <sup>NS</sup>	Not supported

Notes: \* $p < 0.05$ , one-tailed, NS: 'not significant'.

Next we ran a bootstrapping procedure with 5,000 resamples and calculated the standard errors. The results are presented in Table 6. The bootstrapping analysis showed that the indirect effect of  $\beta = 0.0345$  was significant with a t-value of 1.646. Thus, we can conclude that consumer satisfaction mediates the relationship between emotional value and consumer value. However, the results of this study did not provide support for the mediating effect with regard to the other dimensions of perceived value. Generally speaking however, the two hypotheses developed in this study are supported based on the results obtained from the PLS analysis.

## 5 Discussion

In this paper, we identified the impact of perceived value on satisfaction and loyalty of Muslim travellers. In particular, the results from structural modelling indicated that emotional and quality values are good predictors of satisfaction from the Muslim traveller's perspective. This result is in line with previous literature which showed that perceived value in general, and quality value in particular, have a significant effect on consumer satisfaction (Gallarza and Gil Saura, 2006). Indeed, Beerli et al. (2004) determined and found a positive relationship between perceived quality, consumer satisfaction, and loyalty within the retail banking service providers. The result in this study reveals that Muslim consumers are highly concerned about the quality of tour packages when they attempt to perform Umrah. Therefore, tour package providers need to understand the quality criteria as an important factor leading to consumer satisfaction

and loyalty. Additionally, emotional value is considered as another factor playing a key role among Muslim travellers when deciding the proper tour packages they choose. The result of this study is aligned with that of previous consumer behaviour literature (Iglesias and Guillén, 2004). In fact, in the context of tourism, marketing managers targeting Muslim tourists should do everything they can to ensure that they are providing an authentic travel experience by understanding concepts such as co-creation value; when a greater sense of control is felt by the consumer, the more appealing this is likely to be (Leung, 2005). Furthermore, with regard to the mediating effect, Muslim consumer's satisfaction mediates the link between emotional value and loyalty based on the findings of this study. The results are in line with the seminal work of Eid (2015) who identified the mediating role of consumer satisfaction on the link between emotional value, loyalty, and consumer retention in the tourism sector. Moreover, previous research proved that the integration of perceived value with consumer satisfaction in a single mode can better explain and predict post-purchase behaviour (Tam, 2004).

Generally, this paper is intended to respond to calls from different scholars for the need to broaden our theoretical understanding of consumer perceived value (e.g. Eid, 2015). Based on this work, we have distinguished four dimensions which occupy and explain Muslim's consumer behaviour: price, quality, emotional, and social values. When we consider the model with the total effect, our results indicate that quality value is a significant factor for loyalty among the Umrah travellers. However, the indirect effect showed contradictory results with that of the findings from the direct effect. In particular, Umrah travellers are loyal to the tour package providers while they may not be satisfied with the quality of the services offered. It may be because of the monopoly held by tourist services in the market and Muslims may not have many options to switch to another package provider. In the same sense, based on the direct effect, the greater the consumer perceived the value of the price with respect to the Umrah packages, the greater the loyalty of the travellers toward the provided services. However, the importance of the direct effect of perceived value decreases considerably in favour of the price when we analyse the mediating effect. On the one hand, the social dimension of the perceived value is neither a good predictor to estimate the behaviour of Muslim consumers with respect to loyalty, nor a good determinant for consumer satisfaction. On the other hand, emotional value seems not to be a good predictor in directly affecting the loyalty of Muslim consumers towards the tour packages, rather it indirectly affects loyalty by the mediating role of consumer satisfaction. The results are consistent with the seminal work of previous scholars (Eid, 2015; Tam, 2004).

From the results, we can also see the positive relationship between consumer satisfaction and the way it leads to consumer loyalty. As stated by Gallarza and Gil Saura (2006), they found that there is a logical link between perceived value, satisfaction, and loyalty in the context of tourism, therefore the results can be supported by that statement. This proves that for firms to achieve consumer loyalty they need to work to provide the best services that can guarantee satisfaction by the consumers. However, there are several other hypotheses that are not supported and as the results show, Umrah travellers do not focus on the value of social and pricing aspects to provide them with satisfaction. This shows that price is not necessarily an issue for Muslim consumers in relation to religious tourism, likewise for social approval. In conclusion, Muslim consumers take note of the quality and their emotional values in gaining satisfaction from Umrah tour packages; the technical attributes of the package and the way the experience of the tour made them feel, contrasted with price and social value are not necessarily important for them to be

satisfied with the services. Otherwise, consumer satisfaction eventually leads to consumers being loyal to the tour operator.

## **6 Implication and recommendation**

This study brings some important insights to marketing managers regarding the impact of perceived value and its effect on their satisfaction and loyalty among the Muslim travellers. The implication of this study can be examined in a managerial perspective to form an effective marketing and advertising strategy to encourage and promote tour packaging services, particularly for Umrah travellers. From this study, we can conclude that quality, value, and emotional value are predictors of Muslim's consumer satisfaction which affect their behaviour toward repurchasing the same tour packages in the future. To increase the sales for Umrah tour packages, the providers may focus more on these two perceived value dimensions to retain their consumers. Moreover, tour package providers might take the notion into account that emotional value perceived by the Muslim consumers may not always lead to their loyalty, but rather bring them satisfaction first and then loyalty.

In general, tour package providers for Muslim travellers need to understand that some dimensions of perceived value which are applicable to other services, might not be true in this context. For example, price and social values in this study are not good factors to show consumer behaviour towards loyalty. To further improve the findings of this research, future research should improve the theoretical framework by incorporating other relevant independent and dependent variables based on the new findings from the latest literature. It is also recommended that future studies acquire ideas or suggestions by the respondents on the way their satisfaction can be improved and what kind of specific improvements the tour operators need to focus on to gain their loyalty for the Umrah tour packages. Other than that, it is suggested that in order to reduce the potential error in data collection the targeted respondents need should be consumers of one particular tour operator rather than a collection of random data.

## **7 Conclusions**

The growth in the Muslim tourism sector had led to a large number of pilgrims performing Umrah annually around the world. Malaysia is one of the emerging countries that has experienced a myriad of visitors to Mecca. To understand Muslim's consumer behaviour, identifying their perception of 'value' is one way to reach the suitable target. Therefore, this study is aimed to determine the impact of consumer perceived value on satisfaction, and loyalty of Muslim travellers. Unlike previous research, only two dimensions of perceived value, that is, quality and emotional value were found to affect consumer satisfaction, leading to consumer loyalty in the context of the study. Additionally, emotional value has been mediated by consumer satisfaction on the link between emotional value and loyalty among the Umrah travellers.

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## **Commitment of Islamic banks to long-term economic development and society welfare: the Sudan experience**

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**Abstract:** This paper attempts to evaluate the overall commitment of Islamic banks in Sudan to the economic development and social welfare, by analysing the pattern of financing provided by these institutions to the interested parties. The study developed three hypotheses with respect to the issue at hand and used annual data to test these hypotheses. The results indicated that the stated hypotheses of the study: commitment to long-term economic development, community development and social welfare, and risky investments could not be supported. The results revealed that there have been steady decline in the proportion of banks funds which were allotted to the long-term economic development, community development and social welfare, and risky investments in Sudan. The study helps in directing attention to the search for new ways of bringing Islamic banks to true spirit, and not artificial Islamic finance. Microfinance, new sub-institutions, entrepreneurship activities and private equity-like investments are only a few in that regard.

**Keywords:** Sudan; Islamic finance; economic development; equity-based; society welfare; long-term; Murabahah; Mudarabah; Musharakah; Salam; Islamic banks.

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## **1 Introduction**

Islamic banking industry has witnessed a rapid growth at unprecedented rates during the last three decades. In the last decade non-Islamic countries started to embrace the concept of Islamic banking and finance though for different purposes. The non-Islamic countries turned to Islamic banking after the credit crises of 2007 and 2008 which hit the international financial markets, to see if the Islamic model offers solution to their financial system woes (Eljelly, 2013). However, Islamic banking and finance have been founded on the prohibition of Riba (interest). It is believed that profit and loss sharing alternative offered by Islamic banking will be able to offer equitable distribution of income and wealth and may lead to more efficient and optimal allocation of resources.

However, the practices of Islamic banks have received much criticism from scholars over the last decade or so. Some argue that Islamic banks failed in providing the type of banking that was originally aspired for by the Islamic Shariah. The evidence presented by those critics rest on the observation that those Islamic banks have opted for and concentrated on profit generated modes of finance such as ‘murabahah’ which are profitable, secure and safe, and avoid the other risky contracts such as ‘mudarabah’ and ‘musharakah’ (Akram et al., 2011; Ansari, 2006). The ultimate result, it is argued, is that the proportion of these later contracts reduced to only a small percentage of the total investment portfolio of Islamic banks (Abdul Rahim, 2007; Asutay, 2008).

The critics further argue that risky contracts provide real opportunities for equitable resources allocation and real economic development for the Islamic communities.

Thus, this paper attempts to examine the economic and community development roles of Islamic banks in Sudan. Sudan is one of few countries in the world in which Islamic banks operate under a whole and all-embracing Islamic banking system (Haron and Azmi, 2009). Riba-based transactions are completely prohibited since early 1980s and all the public and private financing rest completely on Islamic financing rules. However, the practice of Islamic banks in Sudan needs to be examined in light of the principles of equity-based financing and investment. The remainder of this paper is organised as follows. Section 2, that follows immediately, reviews the relevant literature for similar or related research and studies. Section 3 describes the sample and methodology used in this study. Section 4 analyses the results while Section 5, the last section of the study, concludes this paper.

## **2 Literature review**

Sudan has been classified as one of the few countries in the world (including Iran and Pakistan) that have been condoning complete (total) Islamic banking. This has been in effect since 1983, during President Nimeri regime, and more formalised with the coming of the Revolution of National Salvation, led by the current President Basheer. The origin of Islamic banking in Sudan goes back to 1978 when Faisal Islamic Bank of Sudan became the first bank to be licensed to operate on Islamic principles by the government of President Nimeiri, followed by the Sudanese Islamic Bank in 1982, and the Tadamon Islamic Bank in 1983 (Elkhalifa and Musa, 2004; Dau, 2004). The popularity of the Islamic banks led President Nimeri in 1983 to pass comprehensive Islamic banking laws, transforming the entire financial system to Islamic banking methods. The Islamic banks

performance in the following decades, in the 1980s and the first half of the 1990s, was not good due to the difficult and poor economic situation, the spread of civil wars in the country, and the economic boycotts and sanctions led by the USA, against the National Salvation Revolution Government (Dar, 2010; Eljelly, 2013). The economy has improved since 1996, however, due to the efforts made by the government, helped by signing of the peace agreement between the north and the south in 2003, and the commercial production and export of oil. Gross domestic product growth has averaged 5.5%, and inflation has fallen from 133% to 16%. Thus, the improved economic conditions have given an impetus for the Islamic banks to expand their operations and financing.

However, Islamic banking and finance in its current form has received a lot of criticism from Shariah scholars, bankers and academics. The major criticisms laid against the experiment are the role and contribution to economic development and social and community activities (Saleem, 2007). Some argue that the rapid growth of the Islamic finance industry all over the world does not reflect the true spirit and philosophy of Islamic moral economy. Asutay (2008), quoting Iqbal Khan, put forward a list of objectives that Islamic banking and finance should adhere to in order to qualify as true followers of the Shariah economic principles. Two values are included in the list that are: serving communities, not markets, and an alternative paradigm linking financial services to the productive real economy. Asutay strongly argued that a critical examination of these objectives indicates that the reality is far from fulfilling these objectives. As such Islamic banks are looked upon as contributing little, if any, to societies and economies capacity building.

However, the lag in fulfilling the true aspirations of Islamic economy is usually attributed to the absence of a universally accepted regulatory body that checks on Islamic finance suppliers. But how can one reconcile the phenomenal growth of the industry globally, and this utter failure to comply with its root philosophy? With respect to real economy financing the Islamic financial institutions are more inclined to follow debt financing as opposed to equity-based financing and retail activities rather than agriculture or manufacturing. The debt-based modes, like *murabahah*, are safer and are usually used for trade financing or working capital financing. In equity-based financing, such as *musharakah* and *mudabah*, the focus is on profit and loss sharing. Banks and Islamic financial institutions invest their money to become partners in business instead of becoming creditors. There is a risk-reward sharing of financing outcomes. The Islamic banks, however, shy away from the rather riskier modes, the equity-based which are more prone to be used in the longer term and economic development oriented enterprising. This is by far the most serious claim against Islamic banks and financing institutions that are supposed to originally and fundamentally, pursue community and development goals (van Schaik, 2001).

These claims against the Islamic banks have not gone without defence from the sympathisers of these banks or the bankers themselves. The defence centres around two main points. The first one is that these banks work usually in a rather unfriendly regulatory environment, where no consideration of the special nature of these institutions with respect to their different deposits and portfolio structures is given. The second point, which is related to the first one, is that these banks have to compete in the marketplace with the conventional banks which are not required to abide by Shariah principles. Others tried to find excuses for Islamic banks in their abandonment of social and economic goals by attributing this partly to the early stages of the industry (Warde, 2000; Haron and Hisham, 2003).

However, these claims may be partly true in the case of banks working in mixed banking systems where Islamic banks work side by side with non-Islamic banks and institutions. But the problem becomes much more serious and of concern to all interested parties in the Islamic financing experiment, in the case of Sudan where the whole banking system and the economic activity is *riba*-free and devoid, at least theoretically, from all sorts of non-Shariah compliant transactions and activities. That makes it more important to examine these claims more closely and to suggest ways to reduce or eliminate these problems.

Many believe that Islamic banks and financial institutions have more than a profit-motive to work under. They have social and economic goals (socio-economic) to pursue primarily and vigorously. Siddiqi (1980) as quoted by Sairally (2007) summarised the socio-economic goals of the Islamic economic system as follows:

- the promotion of economic well-being
- attainment of sufficiency and peace, eradication of fear and hunger in the society
- fulfilment of basic human needs
- provision of ease and convenience in life and optimisation in the utilisation of natural resources
- fulfilment of spiritual needs
- establishment of economic and social justice, equality of opportunity and cooperation
- promotion of universal brotherhood and justice, equitable distribution of income, and freedom of the individual within the context of social welfare.

It goes without saying, and from a casual amateur observation, that these morally-based objectives go far beyond the realities of any prevalent existing economic system, Islamic or otherwise. But they serve a purpose in that they act, collectively or partially, as a benchmark against which any economic system claim to be Islamic, can be measured.

The Islamic modes of financing are promoted by many as being oriented in their original form to economic growth and development as they financed real and asset backed transactions (Sairally, 2007). Specifically, the Islamic financing modes based on profit and loss sharing principle (namely *musharakah* and *mudarabah*) have been regarded as being prone to Islamic finance and economics. Some argue that the economic and social role of Islamic banks go back to their original launch and establishment. They enumerate early attempts in Egypt (serving very local communities – Nasser Social Bank), Malaysia (performance of Hajj), and the establishment of the Islamic Development Bank in Jeddah, Saudi Arabia.

The concentration of portfolios of Islamic banks on *murabahah*, with its safe and fixed return elements, rather than profit and loss sharing, is seen as a failure to deliver on the spirit and philosophy of Islamic banking. Asutay (2008) argued that most empirical studies showed that long-term financing is not widely used as most of financing is granted to short term opportunities. Also, retail and trade financing is the sector receiving most of financing, with little or nothing allotted to real sectors of the economy. Hence the financing granted does not contribute to widening ownership or social capacity building which can be done through profit sharing modes.

### 3 Methodology

To fulfil the objectives of this study it is imperative to develop hypotheses to test the arguments and claims that are stated in this study. Three hypotheses related to the long term, economic development and social welfare financing are developed.

The first hypothesis is stated as follows:

- Islamic banks in Sudan have a commitment to supporting long-term economic development.

To test this hypothesis this study uses the ratio of financing provided by the Islamic banks to the real economic sectors which are represented by the agricultural, industrial and to some extent the export sector to total financing for the year. Extending financing to productive sectors reflects commitment to long-term development, especially in Sudan where these sectors are risky and broad. The agricultural sector suffers from variability in production and as such providing financing to this sector requires commitment and a risk taking spirit by the Islamic banks. The industrial sector also suffers from many setbacks such as power shortages and a lack of hard currency for importing inputs and raw materials. Such obstacles make financing this sector risky and require commitment. Exports are also agricultural and livestock-based which both require financing in terms of export infrastructure required to make it successful and contribute to the overall economic progress. So to test this first hypothesis we use the following simple formula:

$$\frac{\text{Financing provided to the (Agricultural Sector + Industrial Sector + Export Sector)}}{\text{Total financing for the year}} \quad (1)$$

On the other hand, the commitment by Islamic banks to community development is reflected in their higher financing to both musharakah and mudarabah-based projects rather than only murabahah activities which are usually indicative of profit taking and risk avoidance on the part of the Islamic banks. Based on these arguments the second hypothesis is stated as follows:

- Islamic banks in Sudan have a commitment to community development and social welfare.

In order to test this hypothesis, this study uses the simple following ratios:

$$\frac{\text{Musharakah Financing + Mudarabah Financing}}{\text{Total financing for the year}} \quad (2)$$

and

$$\frac{\text{Social development funds}}{\text{Total financing for the year}} \quad (3)$$

It is frequently argued that Islamic finance philosophy rests on the profit and loss sharing principle. Hence Islamic banks and financial institutions are expected to adopt and seek risky projects and investment opportunities with counterparts. If, however, banks are risk averse they avoid risky modes such as musharakah and mudarabah and also embrace government bonds which have lower risks, provide more liquidity and almost fixed returns. Thus, the third hypothesis is stated as follows:

- Islamic banks in Sudan seek risky investment avenues and have low investment in less risky and liquid opportunities.

This hypothesis is tested using two measures: The first one, suggested by Samad and Hassan (2000), is the ratio of Islamic banks holdings of government bonds to the total deposits of the Islamic banks and the second is the ratio of their holdings of government bonds to their total assets.

Mathematically, these ratios are as follows:

$$\frac{\text{Government bonds}}{\text{Total deposits}}$$

and

$$\frac{\text{Government Bonds}}{\text{Total assets}}$$

To test these hypotheses the study uses detailed data over the period 1996–2013. The period after 1996 in Sudan represents an era where the economy and the banking sector, according to the international monetary fund reports, witnessed organisation, regulation and developing of the economy. The economy started to follow articulated and objective-oriented policies. It is stated by Kireyev (2001), in an IMF staff paper that Sudan has embarked, since 1997, upon a program of liberalisation of its financial system, which culminated in 2000 in the adoption of comprehensive program of bank restructuring. The paper describes vividly the difficulty of financial reform in Sudan; it states “financial reform in Sudan is more than a mere sum of its parts. It is a complex fusion of historical legacy, difficult political compromises, dominating Islamic rules, traditional mentality, macro-stabilization efforts, pure bank restructuring, external liberalization, and thorny social dilemma” (p.4).

#### 4 Results and analysis

Table 1 shows the ratios of the total financing provided by the Islamic banking sector to chosen sectors of the economy that are of direct concern to the study at hand. The Appendix to this study contains a detailed statistics on proportions of financing allocated to the main sectors of the Sudan economy for illustrative purposes since 2004.

It is clear from the table that the portion of total finance allotted to agriculture, industry and exports (the real sector) was on a sharp decline over the 1996-2013 periods. The ratio declined from a high of 69% in 1998 to a merely 19% in 2006. Although the sector received sizable financing in some years, it was sporadic and did not reflect a policy or commitment on the part of these banks to contribute to this important sector especially for Sudan. These sectors employ more than 60% of the population, but due to the lack of adequate financing they lag behind with respect to their needed inputs, skilled trained workers and low productivity level. Thus, the first hypothesis of the commitment to long range development cannot be supported from the data and the trends.

**Table 1** Allocation of funds (%) in the portfolio of Islamic banks 1996–2013

<i>YEAR</i>	<i>REAL</i>	<i>SD</i>	<i>BONDS1</i>	<i>BONDS2</i>	<i>MUS + MUD</i>
1996	64.88	0.00	1.81	1.62	33.98
1997	67.84	0.00	0.03	0.03	28.08
1998	69.19	0.00	0.11	0.11	27.16
1999	61.48	7.55	0.11	0.11	34.92
2000	60.07	7.17	2.21	2.14	46.39
2001	45.28	6.60	2.74	2.67	37.22
2002	45.96	4.42	5.83	5.75	32.51
2003	38.65	4.36	7.51	7.41	28.93
2004	32.52	4.58	7.34	7.21	37.72
2005	25.04	3.56	9.48	9.24	35.02
2006	19.10	3.22	13.85	13.66	25.48
2007	19.20	3.03	11.13	11.00	16.91
2008	26.37	3.04	14.56	13.89	18.02
2009	23.07	3.00	17.81	17.24	16.59
2010	26.71	2.79	19.67	18.96	15.66
2011	33.78	2.50	22.15	22.08	12.74
2012	35.33	0.00	18.48	18.40	16.32
2013	42.77	0.00	17.25	17.20	16.30

Notes: REAL = real sector (agriculture, industry and export).

SD = social development financing.

BOND1 = ratio of holdings of government bonds to total deposits.

BONDS2 = ratio of holdings of government bonds to total assets.

MUS + MUD = musharakah + mudrabah financing.

Table 2 shows the amounts allotted to all financing modes by the whole banking sector over the period 1996–2013. The table clearly reflects the high percentage of murabahah financing relative to other modes and the increasing nature of the differential between murabahah financing on one side and the other modes on the other side.

The numbers in Table 2 are self-evident. Most of the available pools of funds, exceeding 60% in some years, are absorbed by murabahah while all other modes (mostly equity-based) receive the rest of the available funds.

According to Table 3, musharakah was relatively high in the 1990s but started a steady decline in the 2000s till it reached below 10% in 2010. Mudarabah, on the other hand never showed any significant commitment, with a maximum of less than 7% and a low of less than 2%. However, to formally test the hypothesis further, we used the paired samples and correlation tests to compare the four main modes of Islamic financing. Table 3 provides the descriptive statistics for the four main Islamic financing methods. The results show that musharakah and mudarabah are not used as much as murabahah. The mean differences of mudarabah and musharakah vis-à-vis murabahah are geared in

favour of murabahah. All the test statistics show there are very significant differences in the percentage of financing allocated through murabahah than all other modes combined. This clearly rejects Hypothesis 2 which stated that Islamic banks in Sudan have commitment to economic development and community. This speculation about the behaviour of Islamic banks in Sudan is not supported by the data analysis.

**Table 2** Financing by mode of financing (%) 1996–2013

Year	MUR	MUS	MUD	MUS + MUD	SALAM	MUG	IJAR	ISTIS	QARD	Other
1996	53.01	31.99	1.99	33.98	4.01	0.00	0.00	0.00	0.00	9.01
1997	51.94	22.67	5.41	28.08	8.38	0.00	0.00	0.00	0.00	11.61
1998	54.29	21.11	6.06	27.16	6.52	0.00	0.00	0.00	0.00	12.03
1999	49.11	30.81	4.10	34.92	5.06	0.00	0.00	0.00	0.00	10.92
2000	33.74	42.88	3.51	46.39	3.35	0.00	0.00	0.00	0.00	16.52
2001	39.53	30.97	6.25	37.22	4.99	0.00	0.00	0.00	0.00	18.27
2002	35.91	27.88	4.63	32.51	3.32	0.00	0.00	0.00	0.00	28.26
2003	44.64	23.22	5.71	28.93	4.80	0.00	0.00	0.00	0.00	21.64
2004	38.52	31.99	5.74	37.72	2.95	0.00	0.00	0.00	0.00	20.80
2005	43.29	30.82	4.20	35.02	2.09	0.00	0.00	0.00	0.00	19.60
2006	53.48	20.36	5.12	25.48	1.28	0.00	0.00	0.00	0.00	19.76
2007	58.12	12.96	3.95	16.91	0.65	0.00	0.00	0.00	0.00	24.32
2008	47.00	12.05	5.97	18.02	1.98	0.00	0.00	0.00	0.00	33.00
2009	52.28	10.48	6.11	16.59	2.23	6.42	0.16	0.00	0.00	22.32
2010	51.90	8.96	6.69	15.66	1.17	10.38	0.24	0.00	0.00	20.65
2011	61.35	6.64	6.11	12.74	0.75	8.37	0.15	0.00	0.00	16.63
2012	49.88	10.94	5.38	16.32	1.91	8.96	0.37	0.08	0.52	21.96
2013	53.26	11.06	5.24	16.30	1.97	11.62	0.98	0.10	0.29	15.49

Notes: MUR = Murabahah (cost plus).  
 MUS = Musharakah (partnership).  
 MUD = Mudarabah (trust).  
 SALAM = SALAM.  
 MUG = Mugawala (contracting).  
 IJAR = Ijara (leasing).  
 ISTIS = Istisnaa (manufacturing).  
 QARD = Qard Hassan (benevolent loan).

Source: Original data from bank of Sudan annual reports

The same results for the four main modes, murabahah, musharakah, mudarabah, and salam can be visualised in Figure 1, where the trends clearly point to the sharp rise in murabahah financing and the steep decline in musharakah financing, while Salam and mudarabah remained within a low, narrow, but steady range over the same time period.

**Table 3** Descriptive Statistics (all variables)

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. deviation</i>
MUR	18	.34	.61	.4840	.07666
MUS	18	.07	.43	.2154	.10485
MUD	18	.02	.07	.0512	.01190
SALAM	18	.01	.08	.0319	.02100
MUG	18	.00	.12	.0254	.04326
IJARA	18	.00	.01	.0011	.00243
ISTISNA	18	.00	.00	.0001	.00029
QARD	18	.00	.01	.0005	.00137
OTHER	18	.09	.33	.1904	.06121
REAL	18	.19	.69	.4096	.17193
SD	18	.00	.08	.0310	.02459
BONDS	18	.00	.22	.0956	.07539
BONDS2	18	.00	.22	.0937	.07425
MUSMUD	18	.13	.46	.2666	.09875

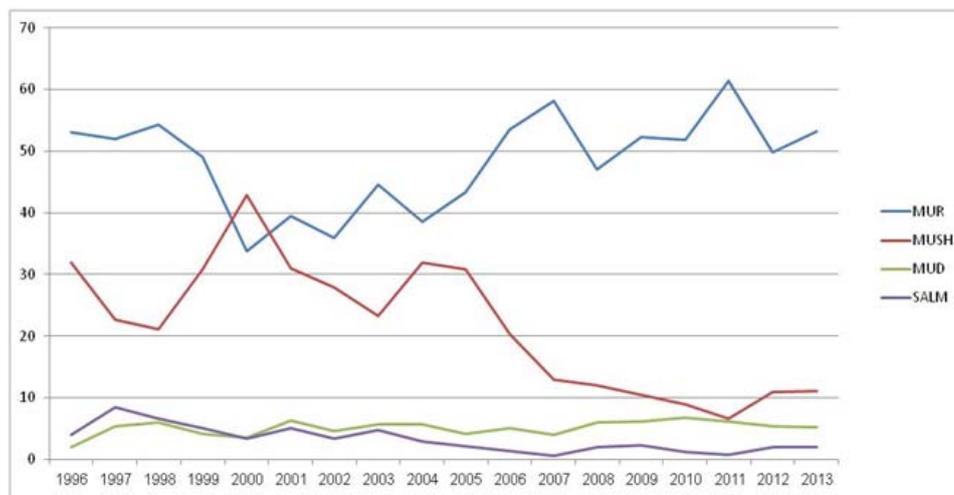
**Figure 1** Trends of main modes of financing, 1996–2013 (see online version for colours)

Table 4 shows the paired samples tests of the various modes of financing examined in this study. Each mode is mean differenced against the other modes of financing, and tested for significance. The signed correlation coefficients in the table reflect whether the modes are positively or negatively related. The sign test in the last two columns shows the number of times (years) the specific mode is positively or negatively different from the other modes, which indicates which one has the higher percentage in the specific year examined.

**Table 4** Paired samples tests of the modes of financing

<i>1</i>	<i>2</i>	<i>Mean difference (1-2)</i>	<i>T stat</i>	<i>Correlation coefficient</i>	<i>Sign test</i>	
					<i>+ve signs differences</i>	<i>-ve sign differences</i>
MUR	MUS	.268	6.73*	-.731*	17	1
	MUD	.4333	24.10*	0.116	18	0
	SALAM	.452	22.93*	-.211	18	0
MUS	MUR	-.268	6.73*		1	17
	MUD	.164	6.23*	-.554**	18	0
	SALAM	.184	8.05*	.470**	18	0
MUD	MUR	-.433	24.10*		0	18
	MUS	-.164	6.23*		0	18
	SALAM	.019	3.35*		14	4
SALAM	MUR	-.452	22.93*		0	18
	MUS	-.184	8.05*		0	18
	MUD	-.019	3.35*	.033	4	14

The results in the table show that all the mean differences are significant, with very high *t* values. Also the signed correlation coefficients indicate a negative and significant correlation between murabahah and musharakah, between mudarabah and musharakah, and between musharakah and salam.

The sign test shows that when the equity-based financing methods proportions are deducted from murabahah proportions, the signs are almost all positive indicating that the murabahah ratio is always higher than the equity-based ratios and vice versa. Among the equity-based financing methods, musharakah takes the lead in terms of the positive signs, followed by mudarabah, while salam comes last.

Table 5 shows that the proportion of funds directed towards social developments by banks was relatively small. The funds, although small, witnessed a steady decline from highs of 7.55% in 1999 to only 2.49% in 2011. The percentage became so small in late years such that it was included within 'the other' category. The decline averaged more than 15% and it was very sporadic, evidenced by the high standard deviations.

**Table 5** Funds for social development and liquid investments

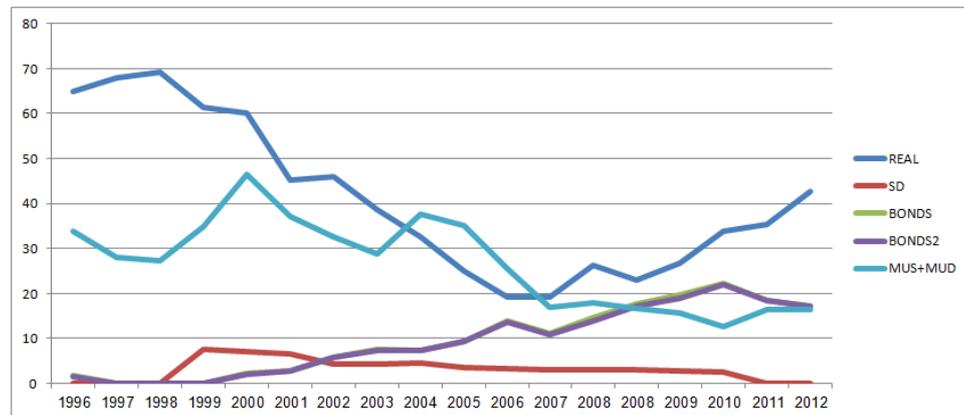
<i>Year</i>	<i>SD</i>	<i>Annual % change</i>	<i>BONDS1</i>	<i>Annual % change</i>	<i>BONDS2</i>	<i>Annual % change</i>
1996	0		0.02		0.02	
1997	0		0.00	-98.19	0.00	-97.99
1998	0		0.00	237.86	0.00	238.06
1999	7.55		0.00	1.38	0.00	-0.73
2000	7.17	-4.97	0.02	1,872.54	0.02	1,856.43
2001	6.59	-8.02	0.03	24.27	0.03	25.09
2002	4.42	-32.96	0.06	112.46	0.06	115.03
2003	4.36	-1.38	0.08	28.81	0.07	28.86
2004	4.57	4.99	0.07	-2.29	0.07	-2.67

**Table 5** Funds for social development and liquid investments (continued)

<i>Year</i>	<i>SD</i>	<i>Annual % change</i>	<i>BONDS1</i>	<i>Annual % change</i>	<i>BONDS2</i>	<i>Annual % change</i>
2005	3.55	-22.29	0.09	29.13	0.09	28.06
2006	3.21	-9.60	0.14	46.08	0.14	47.86
2007	3.03	-5.63	0.11	-19.63	0.11	-19.48
2008	3.03	0.12	0.15	30.88	0.14	26.31
2009	2.99	-1.33	0.18	22.31	0.17	24.13
2010	2.78	-7.03	0.20	10.41	0.19	10.00
2011	2.49	-10.46	0.22	12.60	0.22	16.41
2012	0	-100.00	0.18	-16.57	0.18	-16.64
2013	0		0.17	-6.65	0.17	-6.55
AVG		-15.28		134.43		133.66
STD DEV		27.31		453.10		449.24

Table 5 shows that there was a sharp increase in investments in government safer bonds. The commitment of that large proportion of funds to government bonds is indicative of two things on the part of Islamic banks in Sudan. First, this risk-averting behaviour was not prevalent in the early years included in this sample. The percentage of bonds (whether as a percentage of total deposits, BONDS1, or total assets, BONDS2) was low indicating more risk-taking behaviour by banks. However, almost since 2005 there has been a continuous increase in investments directed towards government bonds.

Figure 2 vividly shows this upward trend of committing more funds to government bonds.

**Figure 2** Islamic banks portfolio components trend, 1996–2013 (see online version for colours)

## **5 Concluding remarks**

The results in this study points out several conclusions. First, Islamic banks in Sudan use the murabahah mode of financing excessively, and do not resort to equity-based contracts, such as musharakah and mudarabah. By so doing the banks have done little to contribute to economic development especially in real economy sectors, such as agriculture, manufacturing and export-oriented industries. These banks rather concentrate on financing domestic trade and retailing operations.

Islamic banks are mostly risk-averse, where after the initial years; Islamic banks increased their investing in government bonds for liquidity and risk avoidance.

In relation to social development, social credit extension is a negligible level in the Islamic banking sector in Sudan. Qard Hassan and other social development financing are not used to an extent that disqualifies Islamic banks to claim that they have fulfilled, partly or wholly, the social role they have to play in Islamic communities.

The results of this paper should be taken with additional concern as Sudan, not like many other countries, has a total Islamic economic and financial system. So the excuses sought for Islamic banks working in dual banking systems, that fail to meet the social and economic aspirations of Muslims, may not be applicable. The Islamic banks in Sudan do not suffer from regulatory disadvantages or unfair competition from conventional counterparts.

This outcome pinpoints the new directions of research and efforts to put Islamic banks back on their social and comic roles track. Areas such as Islamic microfinance deserve more attention by Islamic banks. Although on a small scale, Islamic microfinance experiments by many Sudanese banks since early 1990s showed that these microfinance businesses have played a major role in alleviating unemployment problems. The associated risks may be mitigated or greatly reduced through groups insurance or networking without a need to resort to physical collateral. Also, departments within the bank or a subsidiary should be dedicated to Islamic microfinance.

Reorientation towards social banking seems to be a potential way out where Islamic financing is related to its social and economic ends. In such a model of social banking, ethical and social investments, society development oriented projects and microfinance initiatives financing have to be stated as clear primary objectives rather than distant non-binding alternative objectives.

Along these lines some authors suggest an establishment of Islamic community development financial institutions to complement Islamic banks, by providing financial services to the underprivileged, the excluded and poor. These views amount to Islamisation of western community development financial institutions (Sairally, 2007).

Also, among the proposed solutions that deserve special consideration is the use of Shariah-compliant private equity, since it may provide an attractive venue for musharakah-based investments. Additionally, it is thought that Islamic banks should resort to such structures as special purpose vehicles where they can isolate their main operations from the high risky activities and opportunities. However, all these alternatives may require reorientation and training and restructuring of Islamic banks operations. Nevertheless, the Islamic industry's survival and achievement of its true objectives, rest on its ability to restructure and strike a balance between those goals and the actual environment and regulations in which it operates.

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**Appendix**

<i>Sector</i> <i>Year</i>	<i>Agric</i>	<i>Manuf</i>	<i>Export</i>	<i>Import</i>	<i>Trans and storage</i>	<i>Social dev</i>	<i>Domestic trade</i>	<i>Others</i>	<i>Total %</i>
2004	10.7	11.1	10.7	5.7	6.1	4.6	24.3	26.8	100%
2005	8.2	11.9	4.9	10.1	8.7	3.7	21.4	31.1	100%
2006	7.5	8.2	3.4	5.1	20.5	3.2	17.5	34.6	100%
2007	6.7	10.4	2.1	19.5	8.9	3	16.6	32.8	100%
2008	10.1	13	3.3	10.7	5.9	3	16.1	37.9	100%
2009	10.8	9.9	2.4	14	6.4	3	14.8	38.7	100%
2010	7.6	18.2	2.3	11	4.8	2.9	13.7	39.5	100%
2011	6.4	23.7	3.7	2.5	6.1	2.5	16.1	30.5	100%
2012	11.9	19	4.4	5.2	6.8	-	17.3	35.4	100%
2013	19.9	16.2	6.7	5.6	10.2	-	12.9	28.5	100%

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## How do Bahraini residents perceive tourism in Bahrain? A cluster analysis

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**Abstract:** Tourism plays a major role in the economic development of many countries but many Muslims perceive some activities traditionally related to tourism as against Islamic beliefs. These perceptions affect residents' behaviour toward tourists and this will eventually affect tourists' satisfaction and intentions to revisit. Understanding these perceptions and finding effective ways to overcome residents' fears is a prerequisite for implementation of tourism development policies. This paper examines the residents' perceptions of tourism in Bahrain and factors that might be related to it such as demographics and involvement with tourism. Samples of Bahraini residents were collected and data was analysed using cluster analysis. Three clusters appeared from the cluster analysis: ambivalents, enthusiasts and realists. Both ANOVA and Scheffé's test revealed the existence of significant differences among the three clusters with respect to occupation, age, following tourism events, spending holidays outside Bahrain and interest in tourism. Academic and practical implications are discussed and suggestions for future research are presented.

**Keywords:** residents' perceptions; Muslim; Bahrain; sociodemographics.

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## 1 Introduction

The role of tourism in economic development is well-documented in the economics and tourism literature. Involving various stakeholders in tourism strategic planning provides the necessary support for tourism projects and initiatives (Harril, 2004) and contributes to the ultimate sustainability of tourism development (Simpson, 2010).

Tourism research has largely focused on tourists' experience of hospitality while the perspectives of the host communities were left in periphery (Kirillova et al., 2014). Understanding residents' perception is useful in setting up programs to minimise friction between tourists and residents, and in formulating plans to gain resident support of tourist ventures (Belisle and Hoy, 1980). A positive relationship between residents' attitudes and support for development is empirically supported (Andereck and Vogt, 2000). Perceived impact was positively related to residents' community satisfaction (Ko and Stewart, 2002), support for additional development (Perdue, 1990), perception of improved living standard (Iraqi, 2007) and pro-tourism behaviour (Lepp, 2007; Nunkoo and Ramkissoon, 2010; Pham and Kayat, 2011).

Madrigal (1995) argues that it is possible to segment a city's residents on the basis of their perceptions of tourism development and that each of these segments has a different attitude about government's role in this process.

Understanding host community perspective is especially critical in the interreligious context as people from different religious backgrounds may understand and interpret hospitality differently, which can hinder or facilitate cross-religious interaction and thus

influence the host-guest relationship (Kirillova et al., 2014). Islamic religion has profound consequences for destination conditions for both inbound and outbound tourists (Zamani-Farahani and Henderson, 2010). Many Muslims perceive some activities traditionally related to tourism as against Islamic beliefs. Thus, the arrival of non-Muslim inbound tourists is perhaps more disruptive for local Muslim communities than the situation reversed due to the religious codes which residents believe may be violated by tourists (Henderson, 2003). Aziz (2001) notes that no Islamic country has managed to accommodate the needs of the Western tourist without compromising the religious and cultural expectations of its own people.

Only a small number of studies examined residents' perceptions of tourism in Muslim countries and most of them were in specific countries: Iran (e.g., Mohammadi et al., 2010; Zamani-Farahani and Musa, 2012; Abdollahzadeh and Sharifzadeh, 2014), Malaysia (e.g., Din, 1989; Henderson, 2003), Saudi Arabia (Zamani-Farahani and Henderson, 2010), Qatar (Akkawi, 2010), Tunisia (Poirier, 1995) and Egypt (Eraqi, 2007). The impact on tourism of Islam being the state religion does, however, vary across diverse Muslim societies (Zamani-Farahani and Henderson, 2010). In this respect, Zamani-Farahani and Musa (2012) note that although they have similar religious beliefs, residents' interpretation of Islam, their culture and the roles of the local community as well as the levels of governmental intervention vary from one Muslim country to another.

The involvement of local residents is the key to sustainable development as residents are expected to be part of the tourism product and to share the benefits and the costs (Taylor, 1995). Some researchers examined the relationship between perceived personal benefits and tourism perceived impact (e.g., Wang and Pfister, 2008), community involvement (Chiang and Huang, 2012) or involvement with the destination (Nicholas et al., 2009). Lepp (2007) notes that involvement with tourism may be an antecedent to local residents' attitudes toward tourism. Involvement with tourism has received scant attention, however.

Based on the social exchange theory, this research aims to identify different segments of residents according to their perceptions of tourism in a Muslim country. Different segments will be identified and their demographics and degree of involvement with tourism will be examined. Based on these profiles, various strategies will be suggested for decision makers to help them design future tourism strategies. The findings of this research should assist government authorities responsible for tourism in Bahrain and in other culturally similar countries in planning, designing, and implementing tourism development strategies. It should also help international firms considering opening tourism-related businesses in Bahrain or any other Muslim country understand local residents' attitudes and hence plan effective programs to enhance positive perceptions and to overcome negative ones.

The first section of this paper will include a review of the literature related to residents' perceptions of tourism. The second section is an overview of tourism in Bahrain. The third section covers research design, including population and data, measurement of research variables and the use of cluster analysis to identify residents' segments. The fourth section will include research findings. The fifth section includes discussion of research findings, academic and practical implications and suggestions for future research.

## **2 Literature review**

Residents' perceptions and attitudes toward tourism have been studied extensively in the tourism literature. The main research streams in this respect are the various theoretical perspectives that can help in understanding residents' perception of tourism, the dimensions of the impact of tourism and the role of sociodemographic variables and other variables in forming these perceptions.

### *2.1 Theoretical perspectives*

Many theoretical perspectives have been developed in the study of residents' attitudes toward tourism. Such perspectives include social exchange (Madrigal, 1995; McGehee and Andereck, 2004; Wang and Pfister, 2008; Moyle et al., 2010; Nunkoo and Ramkissoon, 2011; Pham and Kayat, 2011), stakeholder theory (Sautter and Leisen, 1999; Yuksel et al., 1999; Hardy, 2005; Byrd and Gustke, 2007; Bornhorst et al., 2010) and the identity theory (Nunkoo and Gursoy, 2012; Palmer et al., 2013).

Among these perspectives, social exchange remains one of the most important (Madrigal, 1995; McGehee and Andereck, 2004; Wang and Pfister, 2008; Moyle et al., 2010; Nunkoo and Ramkissoon, 2011; Pham and Kayat, 2011). The theory of exchange addresses the benefits received by host residents from tourism development (e.g., employment opportunities, improved infrastructure and amenities) and the price they are willing to pay to receive those benefits (e.g., increased congestion, extending hospitality to tourists) (Madrigal, 1995). McGehee and Andereck (2004) note that the social exchange theory postulates that residents who perceive themselves as benefiting from tourism are likely to view it positively, while residents who perceive themselves as incurring costs are likely to view tourism negatively. They report a relationship between personal gain from tourism and support for tourism development. Jurowski et al. (1997) report that the potential for economic gain, use of the tourism resource, egocentric attitude, and attachment to the community affect resident perceptions of the impacts and modify resident support for tourism.

Finally, Wang and Pfister (2008) note that the social exchange theory does not mean that the object of exchange is only economic. Non-economic benefits and costs are also objects of exchange. As such, a thorough investigation of the impact of tourism should take into consideration economic, social, environmental and cultural impacts.

### *2.2 Impact of tourism*

A number of studies examined the residents' perceptions of the impact of tourism. Generally, studies examining the impact of tourism can be classified into two groups; studies which examined the various dimensions of impact and studies which examined the antecedents to these perceptions.

The first group of studies examined the dimensions of impact. Three basic dimensions of impact have been identified. The first dimension is the economic dimension (e.g., Yoon et al., 2001; Teye et al., 2002; Eraqi, 2007; Brida et al., 2010; Mohammadi et al., 2010). Economic impacts include increment of investments, increment of life standards, increment of prices, benefit to small and medium enterprises, benefit to externals and economic profitability (Brida et al., 2010). Other authors

supported this impact (Sheldon and Var, 1984; Yoon et al., 2001; Mohammadi et al., 2010). Eraqi (2007) reported a perception of increased inflation.

The environmental impacts include benefit to natural environment, better public services (Assante et al., 2010; Brida et al., 2010), providing an incentive for restoration of heritage (Mohammadi et al., 2010), environmental profitability, congestion, traffic and noise contamination (Brida et al., 2010) and perception of crowding (Teye et al., 2002; Eraqi, 2007; Brida et al., 2010; Mohammadi et al., 2010). Assante et al. (2010) report that residents also feel that tourism competes for natural resources (i.e., drinking water) and adds a disproportionate burden to public services (i.e., wastewater disposal).

Environmental impacts have been supported by a number of researchers (Sheldon and Var, 1984; Yoon et al., 2001; Mohammadi et al., 2010). Yoon et al. (2001) note that the social and environmental impacts are negatively related to the total tourism impacts.

Social and cultural impacts of tourism have also been examined. Cultural impacts of tourism are those that influence a longer term and gradual change in the values, beliefs and traditions of a society (Akkawi, 2010). They include meeting tourists as a valuable experience, positive effect of tourism in increasing the availability of recreational facilities, undesirable effects of tourism on the lifestyle of the region (Brida et al., 2010), social interaction with tourists, cultural and welfare impacts, negative interference in daily life, sexual permissiveness (Teye et al., 2002; Mohammadi et al., 2010) and negative impact on cultural identity (Eraqi, 2007). Yoon et al. (2001) note that the economic and cultural impacts are positively associated with the total tourism impacts. In Wales, Sheldon and Var (1984) report that the most important concerns for residents include negative social impact; = cultural exchange has also been reported as one of the impacts of tourism.

Ross (1992) reports that the impact of tourism works on two levels: the individual level and the community level. Residents of the Australian tourist city of Cairns perceived major positive impacts within the economic sphere, major negative impacts on housing and crime levels, and overall perceptions of negative personal impact being associated with a change in the friendliness of local residents. Judgements about personal impacts were much more likely to be associated with perceptions of community enjoyment than judgements about community impacts.

The second group of studies examined antecedents to residents' perception of the impact of tourism. Harril (2004) identifies a different set of factors that affect community attitudes toward tourism. These factors include the level of economic development, socioeconomic factors, spatial factors (e.g., crowding), economic dependency, resident, and community typology.

A number of researchers note that the level of economic development plays a significant role in forming residents' perceptions toward tourism. Host communities that differ in development experiences, developmental level, carrying capacity and sociocultural, political and economic problems should have different perceptions of tourism (Tosun, 2002). Liu et al. (1987) report that residents living in areas with a more mature tourist industry are more aware of both positive and negative environmental impacts than those living in less mature tourist areas. Allen et al. (1993) report that residents' attitudes toward tourism development in communities with both high economic (measured by retail sales) and tourism development (measured by tourism retail sales) and low economic and tourism development were more positive than residents of low/high or high/low economic and tourism development communities. Similarly, Sheldon and Var (1984) report that residents in high-density tourist areas tend to

appreciate the benefits and importance of tourism more than those who have less contact with tourists.

Factors other than the level of economic development have also been suggested as antecedents to residents' perceived impact of tourism. Johnson et al. (1994) suggested a temporal dimension affecting perceived impact whereby residents initially held high expectations for tourism development, but support has diminished over time. Tosun (2002) attributes the support or lack thereof to biased government incentives given to big over small investors. Finally, Wang and Pfister (2008) found that residents' perceptions of personal benefits from tourism were positively related to their attitudes toward tourism.

Sociodemographic indicators have provided a common framework for tourism researchers to investigate factors influencing resident attitudes toward tourism (Hao et al., 2011). Generally, these studies can be classified into two groups based on the methodology they use to address this issue. One group of studies examined the relationship between one or more sociodemographic variable and residents' attitudes. The other group used cluster analysis to classify residents into distinct segments based on their attitudes toward tourism.

The first group of studies examined antecedents such as attitudes toward tourism (Jackson and Inbakaran, 2006; Hao et al., 2011), age (McGehee and Andereck, 2004; Wang and Pfister, 2008; Akkawi, 2010; Abdollahzadeh and Sharifzadeh, 2014) where older residents reported fewer benefits (Wang and Pfister, 2008; Abdollahzadeh and Sharifzadeh, 2014), education (Jackson and Inbakaran, 2006), gender (Wang and Pfister, 2008; Abdollahzadeh and Sharifzadeh, 2014), where women report more positive attitudes (Abdollahzadeh and Sharifzadeh, 2014) and male respondents perceived less benefits associated with downtown revitalisation and activities related to arts and cultural features (Wang and Pfister, 2008), life cycle (Jackson and Inbakaran, 2006), tourism business connection (Jackson and Inbakaran, 2006), length of residence (Sheldon and Var, 1984, McGehee and Andereck, 2004; Jackson and Inbakaran, 2006; Akkawi, 2010; Hao et al., 2011) and ethnicity (Akkawi, 2010).

Other researchers also reported insignificant relationships between demographic variables and residents' perceptions of tourism. Perdue (1990) found that, when controlling for personal benefits from tourism development, perceptions of its impact were unrelated to sociodemographic characteristics. Ryan and Montgomery (1994) report that age was not a significant predictor of residents' attitudes toward tourism in Blackwell, UK. Hao et al. (2011) provide empirical evidence that attitudes toward tourism were insignificantly related to socioeconomic factors. Teye et al. (2002) found partial support for including sociodemographic variables in the study of resident attitudes toward tourism in two Ghanaian cities. McGehee and Andereck (2004) note that no consistent relationships have emerged when testing the connection between demographic variables and tourism attitudes. They added that the only demographic characteristic that appears consistently across any studies indicates that business owners are more positive toward tourism than other groups. Only age and having lived in the community as a child affected perception of the impacts of tourism when controlling for perceived benefit from tourism.

The above review of the literature clarifies a major problem in bilateral studies examining the relationship between one (or more) sociodemographic variables on one hand and the perceived impact of tourism on the other. Haley et al. (2005) explain this by

the limited attempts by research groups to define the type of destination, utilise the same methodology and develop models that are broad enough to contain all of the potentially contributory variables. This might also be attributed to the fact that such a relationship should be examined using more complex multivariate techniques. Studies using cluster analysis provided different perspectives as they examine the sociodemographic profiles of various segments of residents. The three common clusters were pro-tourism, anti-tourism and those who are in the middle. Yet, the real contribution of these studies lies in providing a profile for each group in terms of social and demographic variables that is helpful in understanding these profiles and in providing targeted marketing communications based on these profiles.

Ap and Crompton (1993) used a mixed research methodology to identify groups of residents based on their reaction to tourism. They found that these responses could be placed on a continuum comprised of four strategies: embracement, tolerance, adjustment and withdrawal. Embracement was adopted by those who feel that they get direct economic benefits from tourism. Tolerance was adopted by those who recognise the benefits and costs of tourism. Those who follow the adjustment strategy perceive tourism as a reality that they have to live with. Finally, withdrawal describes residents who resent tourism.

Akkawi (2010) developed an attitude typology derived from resident attitudes expressed through forum entries on local social networks. Attitudes ranged from 'denying tourism's existence' to 'encouraging tourism'. Field observation of behaviours also revealed mixed attitudes toward the presence and behaviour of tourists, where residents either 'accepted tourism' or 'disapproved of tourism'.

Brida et al. (2010) classified residents into four groups. *Environmental supporters* partially agree with the sociocultural benefits of tourism and the local and regional profitability of tourism but disagree with the negative environmental impact. They are mainly females, mature and have no family members employed in the tourism sector. *Development supporters* are mainly males who agree with the positive economic, environmental and sociocultural impacts, and believe that tourism increases regional profitability. *The protectionist group* expresses disappointment with local, cultural and environmental impacts of tourism in the region; it is composed of young males with a lower education, with the highest income level and no family members employed in the tourism sector. *The ambivalent group* includes a higher percentage of men near to retirement age, with no family members employed in the tourism sector. An increase in the years of residence of the host community promotes an increment of ambivalent opinions.

Schofield (2011) identified three clusters: pro-tourism, anti-tourism and uncertain. He reports that only gender was associated with residents' attitudes toward tourism. The researchers argue that older citizens may have the experience necessary for management positions within the tourism industry or the capital established to become self-employed in one's own tourism-related business.

Ryan and Montgomery (1994) report the existence of three groups of residents: the enthusiasts, the middle of the roaders and the somewhat irritated. The differences in sociodemographic variables among the three groups, however, were insignificant.

Jackson and Inbakaran (2006) criticise the use of attitudes toward tourism in cluster analysis. They advocate the use of recognisable traits (demographics, resident behaviours and tourism-related variables) which allows tourism developers and local government

planners to identify residents that hold strong positive and negative attitudes toward tourism.

Residents' perceptions of the impact of tourism are influenced by factors other than demographics. Factors such as the percentage of local people employed in the tourism sector (Brida et al., 2010), economic dependency (Haralambopoulos and Pizam, 1996; McGehee and Andereck, 2004; Draper et al., 2011), personal benefit from tourism (McGehee and Andereck, 2004) and length of residence (Draper et al., 2011) have been reported.

Tosun (2002) notes that residents' perceptions of impacts appear to be affected by a welfare gap between hosts and guests; the distribution of the benefits of tourism among locals and between locals and non-locals; sociocultural similarities or differences between residents and tourists; type, phase, scale of development; level of local community participation in the process of development; and leisure policies of local and central governments.

The above review of the literature reveals differences in research findings related to attributing differences among various groups of residents to sociodemographic variables. It seems that these variables partially explain such differences. Other personal variables may be more prevalent in explaining such variables. Personal interest in tourism is one variable which might explain such differences. Residents highly interested in tourism in general and in their national tourism activities in particular may have different views than other groups of residents who do not share such interest. Furthermore, with few exceptions (Abdollahzadeh and Sharifzadeh, 2014; Akkawi, 2010; Din, 1989; Eraqi, 2007; Henderson, 2003; Mohammadi et al., 2010; Poirier, 1995; Zamani-Farahani and Henderson, 2010; Zamani-Farahani and Musa, 2012), most of the studies were conducted in non-Muslim countries where tourism practices do not violate religious beliefs. This is not the case in Muslim countries where many residents believe that many tourism activities do violate the Islamic codes of conduct.

### **3 Tourism in Bahrain: a socioeconomic context**

Tourism in Bahrain has started its journey to becoming a vehicle for socioeconomic development with a pre-established image and tourism portfolio. It has naturally turned into a tourism destination long before any other state in the GCC. In 1974, Bahrain established the GCC's first tourism company; in 1977, Bahrain joined the World Tourism Organization, and in 1978, a dedicated directorate for tourism was established within the Ministry of Information. On the regulatory as well as on the operational level, Bahrain was ahead of many others states in the region. However, at this stage, tourism was not perceived as an important economic sector nor was it actually seen as part of an overall development project.

The national action charter and vision 2030 mainly aim to divert the economy away from being a 'rent-based' economy solely dependent on its oil revenues. In its economic vision, diversification of the economy was emphasised and tourism, in addition to some other economic sectors, was specifically highlighted as a sector capable of achieving economic growth. According to the WTTC Travel and Tourism Economic Impact Report (2014), the total contribution of travel and tourism to GDP was BHD1, 228.5 mn (10.2%

of GDP) in 2013. The total contribution of travel and tourism to employment, including jobs indirectly supported by the industry, was 10.0% of total employment.

- The number of tourists visiting Bahrain in 2010 was 11,952,000 (World Bank, 2014).

This number fell by more than 50% due to the political unrest forming part of the Arab Spring. In terms of accommodation capacity, the number of rooms in Bahrain at the moment stands at 10,500 rooms with an average occupancy rate of 48% throughout the year including the summer season. In 2013, the only drop occurred during July, dipping to 28%, as it was Ramadan, the Muslim month of fasting. This is an unusual occupancy rate when compared to other GCC countries – except for Dubai – where the influx of tourism almost stops during the summer season due to the scorching high summer temperatures reaching an average of 40 degrees Celsius.

Bahrain has faced some challenging times similar to other Arab states during the Arab Spring starting 2011 and culminating in months to follow. More important than political unrest is the perception of local residents of tourism in Bahrain. Many Muslims perceive some aspects of tourism negatively and believe that some practices relating to tourism are anti-religious such as drinking alcohol. Such perception is expected to affect residents' behaviour toward tourists and this will eventually affect tourists' satisfaction and intentions to revisit.

## **4 Methodology**

### *4.1 Population and sampling*

The research population consists of Bahraini residents. A convenience sample was used for data collection. Four hundred questionnaires were distributed, 306 questionnaires were returned and 74 questionnaires were eliminated due to incompleteness and inaccuracy. The final number of usable questionnaires was 232.

Convenience samples are not reliable and can never be generalised to the population (Sekaran and Bougie, 2013). Gravetter and Forzano (2009) recommended the use of three strategies to correct most of the problems associated with convenience sampling. The first strategy is to ensure that the sample is reasonably representative. The second strategy is to use the same technique used in stratified samples. The third strategy is to provide a clear description of how the sample was obtained and who the participants were. The researchers used the three strategies to reduce the inherent bias of convenience samples.

To ensure representativeness of the sample, data was collected from different governorates in Bahrain. Similar to the technique used in a stratified sample, the demographics of citizens were obtained and were compared to the demographics obtained in the sample. As shown in Table 1, the percentage of males in the population was 51.6% (<http://msia.gov.bh/en/Kingdom-of-Bahrain/Pages/Population-and-Demographic-Growth.aspx>) and it was 52% in the sample. With respect to age, the percentage of people below the age of 25 was 35.6% in the population ([http://www.indexmundi.com/bahrain/age\\_structure.html](http://www.indexmundi.com/bahrain/age_structure.html)) and that of the sample was 31.5%. Although the other categories used in the research did not correspond well with the published age categories, yet the percentages were also very close. For example, the percentage of people between the age of 25 to 54 was 56.2% in the population

([http://www.indexmundi.com/bahrain/age\\_structure.html](http://www.indexmundi.com/bahrain/age_structure.html)) and the percentage of people between the age of 25 to 50 was 57.5% in the sample.

**Table 1** Population and sample demographics

<i>Variable</i>	<i>Population</i>	<i>Sample</i>
Gender	51.6% males	52%
	49.4% females	48%
Age	Under 25: 35.6%	31.5%
	25–54: 56.2%	57.5% till 50
	55–64: 5.5%	
	65 and above: 2.7%	

The sample included 73 respondents (31.5%) under the age of 25, 76 respondents (33%) between 25 and 35, 57 respondents (24.5%) between 35 and 50, 25 respondents (11%) between 50 and 60 and one respondent above 60. With respect to education, 60 (26%) had non-university education, 152 (65.5%) were university graduates and 18 (8.5%) had postgraduate education. Two respondents did not report their educational level. In terms of gender, 111 respondents (48%) were males and 121 (52%) were females. With regard to occupation, 19 respondents (8%) were first-line employees, 25 (11%) were specialists (sales specialist, secretary, etc.), 40 (17%) were professionals, 24 (10.5%) were employees in governmental bodies, 25 (11%) were students, 14 (6%) had their own business, 11(5%) were managers, 17 (7.5%) were not working and 52 (22.5%) respondents did not report their occupation.

#### 4.2 Measurement of research variables

Research variables include two sets of variables: residents' perceptions of tourism and other variables, which are expected to vary among different clusters. The researchers used measures previously used in other research to measure research variables but modifications were made to many of them. Harril (2004) notes that there is an inherent difficulty in developing a measurement tool for residents' perceptions of the impact of tourism, one broad enough to supply information on resident attitudes applicable to many destinations, and at the same time provide destination-specific information required for effective and long-term tourism planning. Thus, measures specifically tailored for tourist destinations are highly recommended.

Residents' perception mainly focused on three aspects: economic, sociocultural and spatial effects. Economic impacts include factors such as raising individual income, local development, dependence on foreign labour and reducing unemployment. Social and cultural impact includes the role of tourism in creating mutual understanding between societies, conflict between tourism and religion, impact on behaviour, etc. Spatial impact includes two items related to crowding and the need to reduce the number of tourist arrivals. These items were obtained from Ryan and Montgomery (1994), Madrigal (1995), Brunt and Courtney (1999), Yoon et al. (2001), Tosun (2002), McGehee and Andereck (2004) and Eraqi (2007).

Other variables include interest in knowing more about tourism attractions in Bahrain (one item), following tourism events in Bahrain (one item) and spending holidays outside Bahrain (one item). Zaichkowsky (1985) notes that searches for information about a

product are highly related to product involvement therefore these variables were used as surrogates for individual involvement with tourism. For all these items, a 5-point Likert scale was used. Demographics included age, education, gender and occupation.

#### 4.3 Validity and reliability of research variables

Face validity was examined using a pilot sample. Missing values for all 5-point Likert scale items were replaced by series means. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted on all research variables. Both tests showed the adequacy of performing factor analysis on the impact of the tourism variable.

A factor analysis test was performed on the research constructs. Principal component analysis with varimax rotation was conducted. Items with factor loadings less than .4 were excluded as per the recommendations of Hair et al. (1998) for a sample size of 200. The total variance explained was 57%, which is acceptable.

**Table 2** Rotated component matrix for tourism impact

	<i>Component</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Individual income	.113	-.014	.735	.033
Cultural exchange	-.060	.567	.461	.047
Local development	.132	.407	.648	-.113
Second importance after financial services	.018	.743	.026	.003
Maintaining culture	.176	.770	.072	.032
New job creation	.157	.078	.583	.155
Foreign employment (R)	-.082	-.048	.084	.852
Contradicts with religion (R)	.571	.072	.094	.301
Crowding (R)	.523	-.061	.251	.401
Increases alcohol (R)	.545	.152	-.342	.027
Tourism reduction (R)	.394	.377	-.082	.534
Cultural deterioration (R)	.701	.152	.222	-.088
Prostitution (R)	.779	-.044	.234	-.105

Notes: Extraction method: principal component analysis.

Rotation method: varimax with Kaiser normalisation.

The exploratory factor analysis revealed the existence of four factors as shown in Table 2. The first factor included items related to negative cultural, social and spatial aspects. This factor included items such as the perception that tourism contradicts with religion, crowding, the increase in alcohol use, cultural deterioration and the increase of prostitution (Cronbach alpha =.67 after deletion of the alcohol item). The second factor included positive cultural aspects: tourism-enhancing cultural exchange and maintaining culture (Cronbach alpha =.56). The third factor included positive economic aspects: tourism increasing individual income, local development and creating new jobs (Cronbach alpha =.57). The fourth factor included negative economic aspects: tourism increases foreign employment and the perception that tourist numbers should be reduced (Cronbach alpha =.4). The fourth factor was thus eliminated from the analysis. The

second and third factors were not eliminated, however. Schmitt (1996) notes that satisfactory levels of alpha depend on test use and interpretation. Even relatively low (e.g., .50) levels of criterion reliability do not seriously attenuate validity coefficients since these validity coefficients represent the square root of alpha. Thus, for an alpha of .623, the validity coefficient will be .79.

## 5 Cluster analysis

The purpose of this research is to identify distinct residents' segments based on their perceptions of tourism. A number of authors advocated the use of cluster analysis as a useful mean to classify respondents (e.g., Brida et al., 2010; Madrigal, 1995).

**Table 3** ANOVA results for the three clusters

	<i>Negative social aspects</i>	<i>Positive social aspects</i>	<i>Positive economic aspects</i>	<i>Interest in tourism</i>	<i>Events</i>	<i>Holidays abroad</i>
F	85.2	20.1	232.4	3.00	6.8	.9
Sig. F	.000	.000	.000	.047	.001	.4
Cluster 1						
Mean	2.5	3.8	2.6	2.5	2.5	3.2
N	97	97	97	97	97	97
Std. deviation	.7	.8	.5	1.2	1.1	1.2
Cluster 2						
Mean	2.3	3.9	4	3.0	3	3.2
N	81	81	81	81	81	81
Std. deviation	.5	.6	.5	1.1	1.1	1.2
Cluster 3						
Mean	3.7	4.5	4.2	3.1	3	3.5
N	49	49	49	49	49	49
Std. deviation	.6	.5	.5	1.0	1	1.2
Total						
Mean	2.7	4	3.4	2.8	2.8	3.3
N	227	227	227	227	227	227
Std. deviation	.8	.7	.9	1.1	1.1	1.2

Based on Hair et al.'s (1998) approach, the cluster variate was determined. This is the set of variables representing the characteristics used to compare objects in the cluster analysis. The cluster variate in this research will include the three dimensions of residents' tourism perceptions: negative cultural aspects, positive cultural aspects and positive economic aspects. Then univariate and multivariate outliers were detected. Four observations representing univariate outliers were eliminated from further analysis. Mahalanobis test of distance was used to detect multivariate outliers. One observation was deleted because its significance level was less than .001. Thus, the number of

observations after deleting all outliers is 227. The distance measure of similarity selected was the squared Euclidean distance.

Variance inflation factors (VIF) were used to measure the degree of linear association between a particular independent variable and the remaining independent variables in the analysis (Myers et al., 2006). VIFs of the variables included in the cluster variate were less than ten, indicating absence of multicollinearity (Norusis, 1990).

The clustering algorithm selected was Ward's method. This method measures the distance between two clusters as the sum of squares between the two clusters summed over all variables (Hair et al., 1998).

A three-cluster solution was recommended by a number of researchers (e.g., Madrigal, 1995; Ryan and Montgomery, 1994; Schofield, 2011). ANOVA and Scheffé's post hoc tests were performed (Tables 3 and 4).

**Table 4** Scheffé's post hoc multiple comparisons

<i>Dependent variable</i>	<i>(I) Ward method</i>	<i>(J) Ward method</i>	<i>Mean difference (I - J)</i>	<i>Std. error</i>	<i>Sig.</i>
Events	1	2	-.52781*	.16708	.008
		3	-.57669*	.19456	.013
	2	1	.52781*	.16708	.008
		3	-.04888	.20090	.971
	3	1	.57669*	.19456	.013
		2	.04888	.20090	.971
Spending holidays outside Bahrain	1	2	-.00573	.18453	1.000
		3	-.27330	.21488	.447
	2	1	.00573	.18453	1.000
		3	-.26757	.22188	.484
	3	1	.27330	.21488	.447
		2	.26757	.22188	.484
Interest	1	2	-.22324	.17252	.434
		3	-.49485	.20088	.050
	2	1	.22324	.17252	.434
		3	-.27160	.20743	.426
	3	1	.49485	.20088	.050
		2	.27160	.20743	.426
Negative social	1	2	.23835*	.09420	.043
		3	-1.18407*	.10968	.000
	2	1	-.23835*	.09420	.043
		3	-1.42242*	.11326	.000
	3	1	1.18407*	.10968	.000
		2	1.42242*	.11326	.000

**Table 4** Scheffees' post hoc multiple comparisons (continued)

<i>Dependent variable</i>	<i>(I) Ward method</i>	<i>(J) Ward method</i>	<i>Mean difference (I - J)</i>	<i>Std. error</i>	<i>Sig.</i>
Positive social	1	2	-.08518	.09982	.695
		3	-.71052*	.11624	.000
	2	1	.08518	.09982	.695
		3	-.62535*	.12003	.000
	3	1	.71052*	.11624	.000
		2	.62535*	.12003	.000
Positive economic	1	2	-1.39348*	.07739	.000
		3	-1.61803*	.09012	.000
	2	1	1.39348*	.07739	.000
		3	-.22455	.09306	.056
	3	1	1.61803*	.09012	.000
		2	.22455	.09306	.056

The ANOVA table shows that the three clusters had significant differences with respect to negative social aspects, positive social aspects, positive economic aspects, interest in tourism and following tourism events ( $p < .000$ ,  $p < .000$ ,  $p < .000$ ,  $p < .047$ ,  $p < .001$ ) respectively. Differences among the three clusters with respect to spending holidays outside Bahrain, however, were not significant.

Scheffee's post hoc test was performed to examine differences among the three groups. Cluster one ( $n = 97$ ) is significantly lower than cluster three with respect to interest in tourism ( $p < .05$ ), perception of negative social aspects ( $p < .000$ ) and perception of positive social aspects ( $p < .000$ ). Cluster 1 was significantly lower than the other two clusters for perception of positive economic aspects ( $p < .000$ ) and following tourism events ( $p < .008$  for cluster 2 and  $p < .013$  for cluster 3). Cluster 1 was mainly comprised of professionals, government employees and students. It included the highest percentage of older respondents (between the age of 50 and 60). This cluster was named the *ambivalent*.

Cluster 2 ( $n = 81$ ) had lower ratings than the other two clusters with respect to negative social aspects ( $p < .043$  for cluster 1 and  $p < .000$  for cluster 3). Cluster 2 was significantly higher than cluster 1 ( $p < .000$ ) and significantly lower than cluster 3 for positive economic aspects ( $p < .056$ ). Cluster 2 was higher than cluster 1 for following tourism events ( $p < .08$ ). Cluster 2 was mainly comprised of specialists and professionals. This cluster was named the *enthusiasts*.

Cluster 3 ( $n = 49$ ) was significantly higher than cluster 1 with respect to interest in tourism ( $p < .05$ ) and positive economic aspects. Cluster 3 was also higher than the other two clusters in ratings of negative social aspects ( $p < .000$ ) and positive social aspects ( $p < .000$ ). Cluster 3 was higher than cluster 1 for interest in tourism. The most prevalent profession in cluster 3 was professionals. This cluster was named the *realists*.

The number of males and females in the three groups was almost equal. No differences in education level were observed among the three groups.

## 6 Discussion

This research aims at identifying segments of Bahraini residents based on their perception of tourism in Bahrain. Although tourism in Bahrain has started long before many other countries in the GCC, the increasing competition from other destinations in the region requires a clear tourism development strategy that takes into consideration one of the main stakeholders of tourism, the Bahraini residents.

Three clusters appeared from the cluster analysis: ambivalents, enthusiasts and realists. Both ANOVA and Scheffé's test revealed the existence of significant differences among the three clusters with respect to occupation, age, following tourism events, spending holidays outside Bahrain and interest in tourism. Ambivalents were mostly older people between the age of 50 and 60. They were mainly professionals, government employees and students. They had lower ratings of positive economic aspects and following tourism events than the other two clusters. They were less interested in tourism than enthusiasts were.

Enthusiasts had lower ratings than the other two clusters with respect to negative social aspects but were significantly higher than ambivalents for positive economic aspects. Enthusiasts were significantly higher than ambivalents in following tourism events. This group was mainly comprised of specialists and professionals.

Realists had significantly higher ratings than the ambivalents with respect to following tourism events, interest in tourism and positive economic aspects. They also had higher ratings than the other two clusters in ratings of negative and positive social aspects. The most prevalent profession in cluster 3 was professionals.

The finding that age may be significantly different among groups supports the findings of Brida et al. (2010) but contradicts with the findings of Ryan and Montgomery (1994) who report no age differences among different groups. The finding that older residents perceive less benefits from tourism supports the findings of Wang and Pfister (2008) and Abdollahzadeh and Sharifzadeh (2014) but, contradicts with McGehee and Andereck (2004) who report that older citizens may perceive more benefits from tourism.

The two variables interest in tourism and following tourism events were significantly different among the three groups. Ambivalents had lower ratings for following tourism events and interest in tourism than the other two clusters. Realists had higher ratings than the other two groups with respect to interest in tourism and following tourism events. Given their high interest in tourism, they are more capable of assessing the negative and positive social impacts of tourism. Spending holidays outside Bahrain was not significantly different among the three groups.

## 7 Academic and practical implications

Most of the academic research related to examining residents' perceptions of tourism focused on sociodemographic variables. Age and occupation are important sociodemographic variables that are linked to tourism perceptions. Older residents may not perceive the impact of tourism as younger residents do. Certain occupations were also related to ambivalence to tourism. This research examined three other variables that may be related to residents' perceptions of tourism: residents' interest in tourism, following tourism events and spending holidays outside the home country. Findings reveal that these variables may differ significantly among various residents' groups. These findings

point out to the importance of including psychographic variables such as involvement with tourism to provide a full understanding of residents' perceptions of tourism.

The findings also imply that in Muslim countries, social and religious considerations may play a vital role in shaping residents' perceptions towards tourism, unlike the case in non-Muslim countries. Thus, understanding the particulars of the local culture may be required in understanding how residents perceive tourism impacts in their country. It also implies that academic models addressing the issue of residents' perceptions should not be perceived as universal models that apply consistently in different countries. These models should incorporate cultural variables, and most importantly religion and religiosity as possible predictors of residents' perceptions of tourism.

From a practical viewpoint, this research offers Bahraini tourism authorities and tourism authorities in culturally similar countries some guidelines in designing effective tourism strategies that guarantee the effective participation of residents. Different marketing mixes should be used for various segments. Two groups warrant particular attention, ambivalents and realists. Ambivalents should be more involved in tourism by offering them a communication mix that stresses the personal benefits they can gain from tourism development.

Conversely, for realists, government authorities should work on eliminating their fears about tourism to turn negative perceptions into positive ones and to enhance the positive associations with tourism. Given their high interest in tourism, such efforts may be very effective.

## **8 Limitations and suggestions for future research**

This research suffers from a number of limitations. One limitation relates to the sample size and type. Although the sample was drawn from Bahraini residents from different areas in Bahrain, yet a random, larger sample is highly recommended. The research was limited to Bahraini residents. Residents of other Muslim countries can also be questioned to understand whether these findings apply to other Muslim countries or not. Variables such as religiosity or ethical ideologies can be used as antecedents to perceived tourism impact.

The research used a positivistic paradigm; Nunkoo and Ramkissoon (2009) advocated the use of the means-end theory and its associated laddering technique, which can be used to investigate host attitudes to tourism. Laddering values are considered as antecedents of attitudes and opinions.

## **9 Conclusions**

This research aimed at identifying various residents' groups based on their perceptions of tourism impact in Bahrain. Three groups were identified: the ambivalents, the enthusiasts and the realists. Significant differences were identified among groups with respect to age, occupation, interest in tourism and following tourism events. The research highlights the importance of variables other than demographics in understanding differences among residents' groups. Variables such as general interest in tourism and following tourism events may play a role in explaining differences among different clusters. Local tourism

authorities in Bahrain should start any tourism development strategy with a clear understanding of the differences among various residents' clusters and with a differentiated marketing mix, which offers a different marketing offer for each group. This way their high involvement and effective participation will be guaranteed.

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## **Assessing consumers' willingness to use tagging technology in tracing halal status**

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**Abstract:** This study investigates factors that determine Muslim consumers' willingness to use halal tagging technology. Halal tagging technology refers to the use of mobile phones by consumers to trace whether the halal logo on product packaging is from an authentic source. Five perception factors – complexity, reliability, social influence, facilitating conditions and benefits – were examined as antecedents of willingness to use the halal tagging. Based on data collected from 120 consumers in Malaysia, results indicate that all of the factors except for social influence were significant in affecting the willingness to use the halal tagging technology. Perceived usefulness was found to be the most important factor.

**Keywords:** halal; traceability; tagging technology; authenticity; consumer behaviour.

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## 1 Introduction

Nowadays, Muslim consumers have begun to pay greater attention to the halalness of their food (Muhammad et al., 2009). Due to the complexity of today's food products, the availability of extended suppliers' network due to information technology, and the advancement of food processing technology, many consumers are now aware that their foods can be contaminated with the non-halal ingredients. As Muslims, they must ensure that all of the products they consume, including processed foods and pharmaceuticals as well as non-food items such as cosmetics, tools, and handbags, are authentically halal. Attitudes and religiosity have been found to affect consumers' intentions to buy halal

food as well as halal cosmetics (Abd Rahman et al., 2015). However, issues caused by the misuse of fake halal logos by irresponsible traders continue to challenge the integrity of the halal industry. Muslim consumers in the past have had no choice but to trust the halal logo displayed on the packaging in order to indicate the halal status of a product (Nasir et al., 2011). This paper focuses on Muslim consumers' perception and acceptance of halal tagging technology usage on halal product packaging.

Studies have been conducted in an effort to overcome the issue of validating the halal status of products. Some measures that have been implemented are radio frequency identification (RFID) technology, 2-D barcodes and SMS-based verifications (Yahaya et al., 2011). Today, smartphone usage is widespread. Thus, mobile devices have been suggested for use to overcome the halal status issue, as they are faster and more reliable than other methods (Yahaya et al., 2011). The technology for verifying the halal logo using a smartphone is quite effective, as smartphones are equipped with camera to read the barcode or tag on the product packaging (Yahaya et al., 2011) and can use technology such as quick response (QR) codes printed on the product packaging to verify the halal status of the product. Mobile tagging is one of the technologies of electronic identification that has been widely used for many purposes in the market (Trevarthen and Michael, 2008). For instance, mobile tagging had been widely used in managing the farming industry, where it can help the authorities in identifying animals, especially during outbreaks of disease across regions (Trevarthen and Michael, 2008).

This study defines halal tagging technology as the use of mobile phones by consumers to verify the authenticity of a halal product through the use of a software application that can read the tag on the product packaging. It is part of the traceability process by the downstream members of the supply chain, which are the consumers. The halal tagging technology traces whether the halal logo on the product packaging is from the genuine source. The objective of this study is to examine consumers' willingness to use halal tagging technology.

## **2 Literature review**

In this study, five perception factors were examined as antecedent towards willingness to use the halal tagging. These factors can be used to explain or measure the performance of the mobile applications. They are the complexity, reliability, social influence, facilitating conditions and benefits.

### *2.1 Complexity*

Complexity of a technology is defined as the degree to which an innovation is perceived by consumers to be relatively difficult to understand and use (Trujillo et al., 2010). In other words, consumers have the tendency to characterise something with many parts in an intricate arrangement as highly complex. It is very important to be aware of the level of complexity in using this application for this paper. This is because complexity can affect the ease of use for the user of the application and can reflect the consumer's perception of and attitude toward this technology (Rose and Fogarty, 2006). Ease of use in this context is defined as the degree to which the technology is regarded as easy to understand and operate (Rose and Fogarty, 2006). It is significant to know this

information, as it is likely to affect the consumer's acceptance of the halal mobile tagging application.

The complexity of the halal mobile tagging application can be considered from different points of view. For instance, before starting to use the application, the consumers have to spend the time and effort to download it from the website provided, which may be difficult for them, especially if they are beginners in the use of such technology (Böhmer et al., 2009). This is a complex process that requires additional costs, as it is necessary for them to have a wireless internet or data connection, which can be obtained from various providers in the market (Saad, 2012).

Further, the consumers should have an internet connection to install the applications. According to Porter and Donthu (2006), older, less educated, minority and lower income consumers have lower internet usage rates than other groups of consumers. The complexity involved in using the internet affected their beliefs and perceptions regarding technology such as halal mobile tagging applications.

## *2.2 Reliability*

Reliability is defined as usage of the same measures over and over again to produce the same consistent results (Peter, 1977). Reliability in this context is measured by the degree to which something is dependable, stable, consistent, predictable and accurate (Peter, 1977). The product needs to fulfil certain requirement or specifications in order to be reliable enough and usable for consumers. Moreover, if a product such as a mobile halal tagging application is not reliable or dependable enough, it may negatively affect the consumer's perception of the trustworthiness of the other products of the organisation (Thaw et al., 2009).

Trust in this context includes reliability, familiarity, safety guarantee and information service availability for consumers (Pousttchi et al., 2006). Some examples of unreliable mobile applications would include software that is incompatible with the mobile phone type, mistakes by support services, software malfunctions, slow internet access and out-of-date software (Butler and Sellbom, 2002).

## *2.3 Social influence*

Social influence is significant in motivating consumers to use technologies (Kleijnen et al., 2004). Beldad and Citra Kusumadewi (2015) defined social influence as the degree to which an individual recognises how important others believe it is that he or she should use the new system. Social influences consist of three elements: compliance, identification and internalisation. Compliance refers to individuals' adherence to others' opinions to avoid loss or gain rewards. This is called normative influence. Identification reflects how users see themselves in relation to a group. Lastly, internalisation refers to incorporating others' opinions into one's own beliefs (Zhou and Li, 2014).

Individuals tend to be uncomfortable with ambiguity; hence, they tend to connect with a social network to consult their adoption decisions through informational and normative social influences (Lu et al., 2005). This is because social influence can represent a subjective norm or image that can be reflected in an individual's behaviour. People are influenced by how they believe others will view them when they use a given

technology (Jeng and Tzeng, 2012). Thus, social influences can help an individual to gain ability and confidence in using a system well (Lu et al., 2005).

#### *2.4 Facilitating conditions*

Facilitating conditions are factors in an environment that hinder an act or make it easier to commit, whether legally or illegally. Thus, facilitating conditions include all conditions that lead an individual to trust the environment or informational and technological ecosystem enough to use the technology; examples include having enough resources (device memory and network bandwidth) and having help to utilise the technology (Workman, 2014). However, there are a few barriers that constrain people's technology use. These include personal, social and technological aspects (Workman, 2014). Personal barriers, among other obstacles, include anxiety over personal information exposure; social barriers include the lack of a social landscape; and technological barriers refer to complexity in the use of technology (Workman, 2014).

Hence, technological acceptance suggests that the acceptance of technology can be estimated via its usefulness and ease of use (Beldad and Citra Kusumadewi, 2015). Perceived usefulness can be defined as the level to which customers trust that a technology will simplify the transaction process, and perceived ease of use can be defined as the level to which a customer believes that using a distinct technology will be effortless (Pavlou, 2003). In addition, previous studies have confirmed that usefulness and ease of use have significant effects on attitude and user preferences towards using the technology (Hsu and Lin, 2008).

#### *2.5 Perceived benefits*

Consumers prefer to purchase products with more potential benefits than risks (Onyango et al., 2004). The definition of consumer benefits would also include lower price (Judge, 2010). For instance, in New Zealand, genetically modified (GM) food has been critically criticised and politicised (Knight et al., 2005). However, an experiment was conducted in which a sample of cherries was labelled as spray free-GM. The price levels were manipulated in order to test the price sensitivity of the consumer (Knight et al., 2005). As a result, the customer started to buy the cherries and the percentage increased as the price dropped (Knight et al., 2005). Hence, it can be verified that perceived benefits have a greater impact compared to perceived risks on consumer attitudes and acceptance (House et al., 2001).

There are two types of consumers, those who totally opposed the new technology of mobile tagging and those labelled as 'undecided' (Costa-Font et al., 2008). The 'undecided' group of consumer would likely accept the technology if there were benefits demonstrated to them (Costa-Font et al., 2008). When consumers purchase a certain product, the perceived benefits of the product tend to enhance the perception and likelihood to buy (Judge, 2010).

### **3 Research hypotheses**

Complexity can affect the ease of use for the user of the application and reflect the consumer's perception and attitude toward this technology (Rose and Fogarty, 2006).

Perceived ease of use and convenience in using these applications are very important (Bennett et al., 2011). Moreover, the technology of the application itself would not be deemed useful if the overhead of learning to use or to operate this kind of technology are too high for its perceived usefulness (Bennett et al., 2011). As such, it is hypothesised that:

H1 Less complex technology positively influences the willingness to use the halal tagging technology.

Generally, a product or technology from a certain organisation should be reliable enough for consumers to get the required information. If the halal tagging technology is not reliable or dependable enough, it may affect the trustworthiness of the consumer toward the other products of the organisation (Thaw et al., 2009). Trust in this context should include reliability, familiarity, safety guarantees and the information service availability to the consumers (Pousttchi et al., 2006). As such, it is hypothesised that:

H2 Reliability of the technology positively influence the willingness to use the halal tagging technology.

Social influence is significant in motivating consumers to use technologies (Kleijnen et al., 2004). Social factors such as norms, roles and values can influence an individual consumer at the societal level (Limayem et al., 2004). In this case, the technology involved would be halal mobile tagging applications. Social influence can originate from many sources and can have either direct or moderating effects on the consumers (Kleijnen et al., 2004). Most direct effects come from the media. These days, there are many types of different marketing strategies and competitive advantages that have been used by companies in order to defeat their competitors, especially in China (Yang et al., 2007). For instance, some companies hire celebrities, movie stars, and models to promote their products (Yang et al., 2007). As such, it is hypothesised that:

H3 Social influence positively affects the willingness to use the halal tagging technology.

According to Triandis (1980), facilitating conditions are factors in an environment that hinder an act or make it easier to commit. They also refer to the lack of interoperability and switching barriers refer to high switching costs and attractiveness of alternatives (Jeong and Yeon, 2013). In this case, facilitating factors can be said to include the conditions that will assist the consumer in downloading and installing the application on their mobile phone (Phau et al., 2009). For instance, one form of assistance mentioned earlier would be a fast internet connection (Cheng et al., 1997). As such, it is hypothesised that:

H4 Facilitating conditions positively influence the willingness to use the halal tagging technology.

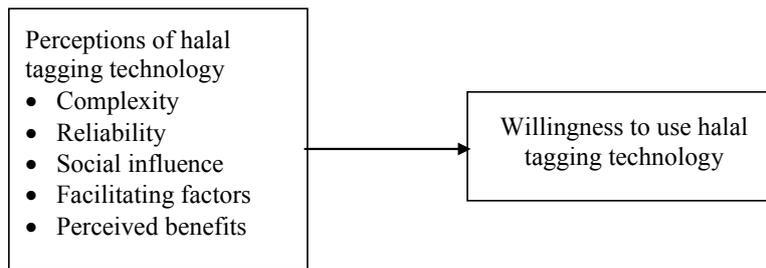
Benefits of the product can be one of the factors or variables that influence consumers when buying a product. When purchasing a certain product, the perceived benefits of the product tend to enhance the consumer's positive perception and likelihood to buy (Judge, 2010). Thus, it can be said that the acceptability of the technology of the product increase not only with the perceived consumer benefits but also with product usage, price

consciousness, increased product quality, and the product's perceived purity and wholesomeness (House et al., 2001). As such, it is hypothesised that:

H5 The perceived benefits of the technology positively influence the willingness to use the halal tagging technology.

The framework is conceptualised as follows:

**Figure 1** Theoretical framework



The framework conceptualises five perception factors – complexity, reliability, social influence, facilitating conditions, and benefits – as antecedents of the willingness to use the halal tagging technology, which traces whether the halal logo on the product packaging is from a genuine source.

#### 4 Methodology

This study used a self-administrated questionnaire with closed-ended questions. The questionnaire was distributed using non-probability convenience sampling. At the end of the data collection period, a total of 120 usable questionnaires from Muslim respondents over the age of 18 years old were used for further analysis. Table 1 shows the descriptive statistics of the respondents.

**Table 1** Respondent profiles

<i>Variables</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
Gender		
Male	19	15.8
Female	101	84.2
Age		
Below 21 years old	98	81.7
22 to 26 years old	14	11.7
Above 27 years old	8	6.7
Marital status		
Single	108	90.0
Married	12	10.0
Divorced	0	0

**Table 1** Respondent profiles (continued)

<i>Variables</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<b>Occupation</b>		
Government servant	6	5.0
Private sector	14	11.7
Self-employed	0	0
Not working	0	0
Student	100	83.3
<b>Monthly income</b>		
Less than RM 1,000	100	83.3
RM 1,000–RM 3,000	0	0
RM 3,001–RM 6,000	8	6.7
RM 6,001–RM 9,000	0	0
RM 9,001–RM 12,000	6	5.0
More than RM 12,001	6	5.0

Measures of complexity and reliability, which were adapted from Ayyagari et al. (2011), each consisted of four five-point Likert-scaled items with Cronbach's alphas of 0.82 and 0.84, respectively. Measures of social influence and facilitating conditions were adapted from Venkatesh and Xu (2012); each comprised four five-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree) with Cronbach's alphas of 0.81 and 0.79, respectively. Measures of benefits were adapted from Cazier et al. (2008), and the measure of willingness to use halal tagging technology was adopted from Verbeke and Bonne (2008). These constructs were also measured on five-point Likert scales (1 = strongly disagree to 5 = strongly agree). The Cronbach's alphas were 0.88 and 0.70 for the benefits and willingness to use halal tagging technology, respectively. All the measures were reliable, as the Cronbach's alphas exceed 0.70 (Nunnally, 1978). Table 2 below provides detailed information on independent and dependent variables used for the study.

**Table 2** Profile of perceptions towards and willingness to use tagging technology

<i>Dimensions</i>	<i>Mean</i>
<i>Complexity</i>	4.23
1 Learning to use a halal mobile tagging application is easy for me	
2 Halal mobile tagging applications are easy to use	
3 It is easy to get results that I desire from halal mobile tagging applications	
<i>Reliability</i>	3.92
1 The features provided by halal mobile tagging applications are dependable	
2 The capabilities provided by halal mobile tagging applications are reliable	
3 Halal mobile tagging applications behave in a highly consistent way	

**Table 2** Profile of perceptions towards and willingness to use tagging technology (continued)

<i>Dimensions</i>	<i>Mean</i>
<i>Social influence</i>	3.84
1 People who influence my behaviour think that I should use the halal mobile tagging application	
2 People who are important to me think that I should use the halal mobile tagging application	
3 People whose opinions that I value would prefer that I use the halal mobile tagging application	
<i>Facilitating factors</i>	3.63
1 I have the resources necessary to use the halal mobile tagging application	
2 I have the knowledge necessary to use the halal mobile tagging application	
3 The halal mobile tagging application is compatible with other technologies I use	
4 Assistance with halal mobile tagging application difficulties is available	
<i>Perceived benefits</i>	4.41
1 Using halal mobile tagging will improve the quality of my shopping experience because it eases access of information	
2 halal mobile tagging will improve the efficiency of my shopping experience because it saves time to verify the information	
3 Halal tagging technology will ultimately lead to lower product prices	
4 Halal mobile tagging improves my confident level regarding the authenticity of the halal logo	
5 Halal mobile tagging is beneficial to me as a consumer	
<i>Willingness to use mobile halal tagging technology</i>	4.57
1 I prefer to use halal mobile tagging every time I go out shopping	
2 If there is a halal mobile tagging label on the halal product, I will use the halal tagging services to retrieve the information on the product	
3 I would like to use more mobile tagging services in the next five years than I do now	
4 I will use the service to retrieve information if there is a mobile tagging service offering free-of-charge service in retrieving information	
5 I will use the service to retrieve information if there is a mobile tagging service that charges a cost to retrieve information	
6 I will use the service to retrieve information if there is a mobile tagging service with a user-friendly application for retrieving information	
7 I will use the halal mobile tagging application whenever I feel suspicious about the halal status of a product	
8 I will use the halal mobile tagging application if the product is placed next to a non-halal product	
9 I will still use the halal mobile tagging application even when the halal logo is already printed on the packaging of the product	

## 5 Results and Discussion

Multiple regression analysis was conducted to determine the relationship between perception of halal mobile tagging and willingness to use the technology. The results of regression tests are reported in Tables 3, 4 and 5.

**Table 3** Model summary

<i>R</i>	<i>R square</i>	<i>Adjusted R square</i>	<i>F</i>	<i>Sig.</i>
0.846	0.716	0.703	57.352	0.000

Notes: Independent variables: complexity, reliability, social influence, facilitating factors, benefits. Dependent variable: willingness to use halal tagging technology.

Table 3 shows the summary of regression analysis perception towards halal mobile tagging and the willingness to use halal tagging technology. The R square is 0.716, indicating that 71.6% of the factor variance that contributes to the willingness to use halal tagging technology was explained by the regression model.

Based on Table 4, all the independent variables (complexity, reliability, facilitating factors and benefits), except for social influence, are significant in explaining the willingness to use halal tagging technology. According to these results, H1, H2, H4 and H5 are supported while H3 is not supported. The result also indicates that the perceived benefits from the usage of halal tagging technology have the highest influence on the willingness to use the technology (beta = 0.439).

**Table 4** Coefficients average for all variables

<i>Model</i>	<i>Unstandardised coefficients</i>		<i>Standardised coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. error</i>	<i>Beta</i>		
(Constant)	11.634	2.387		4.874	0.000
Complexity	0.835	0.199	0.264	4.207	0.000
Reliability	0.629	0.161	0.249	3.910	0.000
Social influence	0.249	0.149	0.100	1.671	0.098
Facilitating factors	0.431	0.149	0.163	2.897	0.005
Benefits	0.766	0.088	0.439	10.943	0.000

Notes: Independent variables: complexity, reliability, social influence, facilitating factors, benefits. Dependent variable: willingness to use halal tagging technology.

## 6 Conclusions

Based on the findings of this research, it appears that the complexity and the reliability of the technology, the facilitating conditions, and the perceived benefits of the technology have a significant relationship with the willingness to use halal tagging technology. When consumers perceived the technology to be beneficial to them, especially in regard to the authentication of halal products, their acceptance of the halal tagging technology usage will be higher. This can provide guidelines to the halal authorities and the industry players. Any effort to introduce the halal tagging technology in the market should ensure

that components of complexity (ease of use) and reliability are established. It should also take into account the facilitating conditions to allow consumers to use such technology.

For the industry players, halal tagging technology can provide tracing and tracking functions for suppliers and products via mobile applications and web portals. Therefore, the use of halal tagging technology as information and communication technology can increase operational effectiveness as it streamlines the information for easy access of the upstream and downstream members of the supply chain. It provides operational visibility across supply chains and enables efficient product tracking and monitoring. The ability to trace and track in the supply chain is pertinent if sustainable halal assurance is desired. As tracking and tracing the halal products throughout the supply chain is important, a comprehensive and appropriate tracking and tracing technology need to be implemented in the halal product supply chain to maintain the halal integrity. Above all, the technology should give benefits to the consumers in terms of tracing the halal status of the products instantly while at the same time boosting their confidence in purchasing the halal products.

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## **Market power versus efficient-structure in Islamic banking industry: evidence from selected GCC countries**

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**Abstract:** The study aims at testing market power theories and their role in explaining Islamic banks performance in Gulf Cooperation Council GCC. Depending on the data of 22 Islamic banks in the period of (2008–2013). Using measuring models, market power theories could not explain GCC Islamic banks returns, as these results showed that there is no evidence of monopoly in Islamic banks market structure that would affect its performance. There is an effect for traditional efficiency in its performance. This sector is characterised by the presence of high competition and diffused market shares. There should be a future research about the role of economic efficiency theories in explaining GCC Islamic banks returns.

**Keywords:** market power; market structure; Islamic banks performance.

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### **1 Introduction, study problem and objectives**

Islamic finance industry is characterised by being modernised with an accelerating growth from time to time. It has many factors that achieve low risk and security for it. It is expected that Islamic finance will witness a wide improvement in service quality and innovation of new products to reach a wider base of customers. Assets of Islamic banks have increased rapidly lately to reach 2.5 trillion dollars with a growth percentage of 92%. It also achieved higher returns than traditional banks in addition to having a wide

spread in the world. All this led us to ask about the structure of Islamic banks, its relation with profitability and the effect of market power on achieving these returns. In other words, we may ask about the achieved returns by Islamic banks due to their efficiency and ability to provide substitute innovative products to the customers or it is due to monopoly by few banks in this industry?

There are many theories that explain banks returns. Some of them indicate that banks achieve their returns due to monopoly in bank sector. As they put a non-competitive prices by increasing interest rates on loans and lower it on bank deposits which contribute in increasing returns due to this monopoly. Other theories indicate that banks achieve returns due to their efficiency which is known by traditional efficiency theory. It indicates that quality of bank services and early entry to the market give the bank a chance to have higher market share leading to achieving high returns. Other theories go beyond that analysing cost and profit efficiency in explaining bank returns (Hamdan, 2016).

Islamic banking is considered to be the biggest and fastest growing bank sector in the region. Thus, it is crucial to study and analyse its structure and efficiency to better understand it. Which will provide an important information to the regulators of this market causing building on it many decisions to support and improve the market based on a scientific and clear methodology. The study problem may be stated as follows: is there a role for market power variables (concentration and market share) in explaining GCC Islamic banks returns?

The gap that this study tries to cover is explaining the increasing returns of Islamic banks sector. These returns should be studied extensively by knowing the market structure of the Islamic banks which led to it. It is crucial to do this investigation so that, these returns do not become just a bubble that will disappear as soon as the economic and financial boom stops. After all, all this knowledge will contribute to building a real and strong economy that will strengthen and improve Islamic banks sector.

This study is considered to be important because it handles an important topic, as knowing the effect of market power and efficiency structure on Islamic banks performance will lead to knowing performance levels and behaviour of Islamic banks working in GCC. As well as diagnosing its ability to compete globally. The study will reveal the situation in each country and whether market power or efficiency is the explaining variables of increasing returns of Islamic banks. This will give managements of these banks and monitoring authorities a clear vision about these banks. It may be followed by a group of procedures that will enhance Islamic banks stability and existence in the economy.

## **2 Related literature and hypothesis development**

The study aims at testing the relationship between market structure and performance of Islamic banks in selected GCC economies using the most frequently applied measures of concentrations. There are two major approaches that may be used to evaluate level of market power within a particular sector. These approaches differ whether they are structural or non-structural. The structural approach refers to the structure conduct-performance hypothesis (hereafter, SCPH). The two fundamental corollaries of the SCPH are

- 1 the relative market power hypothesis (hereafter, RMPH)
- 2 the efficient structure hypothesis (hereafter, ESH) (Aguirre et al., 2008),

while the non-structural approach refers to contestable market theory (CMT) (Al-Mutairi and Al-Omar, 2009).

The structure-conduct-performance (SCP) paradigm, dating back to Mason (1939) and Bain (1951), has long dominated our public policy toward industrial structure and, more generally, our perception of the effects of industrial structure on firms' behaviour, profit levels, consumer welfare, and total welfare (Shaffer, 1994). The RMPH maintains that firms with large market share and well-differentiated products are able to exercise market power in pricing their products and hence earn supernormal profits (Aguirre et al., 2008). These well-differentiated products are less favourable to consumers since these firms are generating welfare losses. Numerous studies (Demsetz, 1973; Rhoades, 1985; Kurtz and Rhoades, 1991; Frame and Kamerschen, 1997) have investigated the RMPH and empirically confirmed that financial institutions have displayed a noncompetitive behaviour, in concentrated or highly concentrated markets. On the other hand; ESH states that the positive relationship between banking performance and market concentration is not a result of market power rather greater efficiency of banks with larger market share (Bourke, 1989). According to ESH the superior performance of the market leaders whether by adopting better technology or improving managerial skills has enhanced the market structure. In turn, it suggests that higher efficiency produces both higher concentration and greater profitability (Al-Mutairi and Al-Omar, 2009). The positive relationship between profits and concentration is explained by lower costs achieved through either the employment of the superior management's 'know-how' or the increasing returns to scale obtained in the various stages of the production processes (Aguirre et al., 2008). The ESH was proposed by Demsetz (1973) and developed by Brozen, (1982), and implies that higher profits are derived from higher efficiency and lower costs; higher concentration is a result of higher efficiency.

Bain (1951), mentioned that there are many concentrated markets because of low competition for reasons of alliance-type or monopolistic led to the development of inappropriate prices for consumers (for example, in the manufacture of high interest rates banks put on loans and lower interest rates on deposits compared with other competitive environment) this contribute to achieving high profits, which is known as bank concentration. According to this hypothesis, there are few monopolistic banks leads the rest of the banks towards the development of higher prices and lower costs, and then achieve the highest profit levels at the expense of consumers (Al-Zu'bi and Balloul, 2005). The SCP is composed of three parts; the first part is the (structure) which refers to the banking market structure characteristics in terms of the number of banks, the concentration ratio and the size of their contribution to the market. The second part refers to (conduct) the behaviour of banks, which depend on economic characteristics, management of bank costs, and the trade-off between risk and reward, size efficiency and efficiency of the debts and obligations. The third part refers to (performance) the level that is affected by each of the banking market structure and efficiency of the administration; it must be compared to the costs and profits of the bank (Hamdan and Al-Atyat, 2015).

The ECH was presented by (Demsetz, 1973), which assumed that differences in organisations and dispersion within the market result in inequality in market shares, so that higher levels of efficiency associated with the largest market shares for a limited number of banks which leads to high levels of performance and then a positive relationship between market share and profit (Hamdan et al., 2014). This hypothesis suggests that the most efficient banks increase in size and market share and then increase their ability to achieve high profits through market share concentration in a limited number of banks (Hamdan and Al-Atyat, 2015).

The main question that should be answered in this research: Is there a statistically significant effect of the concentration or market share on performance of the Islamic banks? The main hypothesis of the study may be:

H1 There is statistically significant effect of the market share and concentration of market on the performance of Islamic banks.

This hypothesis is divided into two sub-hypotheses, the first sub-hypothesis tested the relationship of market share of deposits and the performance of Islamic banks in GCC, so, according to the hypothesis of traditional efficiency, the administrative efficiency of banks able to increase their size and concentration in market through its ability to reap high profits and these hypotheses testing separately. The first sub-hypothesis may be:

H1.1 There is statistically significant effect of market share on the performance of Islamic banks.

Where the second sub-hypothesis should be testing the relationship of market concentration of assets and the performance of Islamic banks in GCC according to structural-conduct-performance hypothesis, this reflects relationship between performance and efficiency level in banks, as well as points that banks which enjoy large market stocks and service are able to practice market power and gain profit. The banking market structure is known as the distribution of banks in the banking system in terms of number, location and size of the banks. This leads on to say that market structure determines the degree of competition in the market and degree of competition affecting performance of banks in the amount of service provided and efficiency. Traditional explanatory models for the performance of banks indicate that banks have monopoly of market power to reduce the intensity of competition that it is exposed to allowing achievement of high rates of profit. The perception about the positive performance in the banking industry, according to two criteria: first, according to focused limited number of banks led to alliances and dominates in the banking industry and the imposition of non-competitive prices led to high levels of performance.

H1.2 There is statistically significant effect of concentration of the market on the performance of Islamic banks.

The results of previous studies on banking market structure and its relationship to performance, varied widely, and could not prove any hypotheses therein. Also, most of these studies have been applied in different countries on conventional and Islamic banks. Many studies have found a positive relationship between market structure and firm profitability. While there is general acceptance of the empirical relationship that there is

no consensus as to the causation (Al-Muharrami and Matthews, 2009). A recent study by Hamdan et al. (2014) aimed at investigating the relationship between banking market structure and profitability of banks of Bahrain and Kuwait; the results generally have confirmed support to the SCPH that explained the relationship between market structure and profitability of Bahraini banks, while the results did not provide support for the hypothesis SCPH in Kuwaiti banking market. In Jordan; the study of Al-Jarrah (2010a) generally support the traditional SCPH with limited support to the scale efficiency version of the efficient structure (ESS), with another evidence; Al-Jarrah (2010b) provided support to the results of a previous study, He examined the competitiveness in the Jordanian banking sector through his studies, which indicated that Jordanian banks market cannot be described fully competitive or complete monopoly, in other words, Jordanian banks operating in monopolistic competition conditions, and then get profits conditions resembling monopolistic competition conditions, the study also showed that big banks are at the top of conditions that competitive conditions where those of small banks.

While in Brazil, Resende (2007) investigated the SCP relationships in the context of the Brazilian manufacturing industry in 1996. For that purpose, it considered a system with four equations pertaining concentration, advertising, R&D and profitability that was estimated with simultaneous equation models. In addition to the usual explanatory variables proxying barriers to entry and demand conditions, the article considered organisational practices and incentive schemes variables. The evidence indicated an important role for variables related to barriers to entry in affecting market structure, an important and nonlinear effect of concentration on advertising, a relevant impact of firm-size on the propensity to exert R&D effort and finally a significant positive impact of concentration on profitability, and were similar to the previous evidence for developed countries. Additionally, no important roles were detected for organisational practices and incentive schemes on the SCP relationships. The most important step to improve any banking sector is to understand its structure and the factors contributing to its returns and that was what this study did through applying market power hypothesis in the methodology by comparing Islamic and traditional banks in the GCC banks market. Islamic banks are concentrated whereas the advanced analysis of the relation between concentration and performance showed that traditional banks are the ones who benefit from their concentration in achieving high returns. In general; Islamic banks did not use concentration in the market to impose non-competitive prices. The concentration of Islamic banks may be explained by the newness of them comparing with traditional banks or its early entrance to the market which make them acquire high market share as they attract certain category of investors and creditors (Hamdan and Al-Atyat, 2015).

### **3 Methodology: sample, measuring of variable and model**

Our sample comprises (22) Islamic banks within the GCC economies over the period (2008 to 2013) for the following four countries: Bahrain, Kuwait, Saudi Arabia, and United Arab Emirates. The data for the banks were collected from the respective annual statements and another national disclosure.

The selection of variables is based on an examination of previous empirical studies. Table 1 shows the dependent variable, the independent variables, and the control variables employed for all estimated models of the study.

**Table 1** The measurement of variables and descriptive statistics

<i>Variable</i>	<i>Symbol</i>	<i>Definition</i>	<i>Sample means</i>
Bank performance	ROA	Ratio of after-tax net income to total assets.	0.021
<i>Market power:</i>			
Concentration	HHI	Measured by Hirschman-Herfindahl Index HHI. it is defined as total market share of assets of each bank, according to the following equation: $HHI = \frac{\sqrt{\sum_{i=1}^n \left(\frac{x_i}{X}\right)^2} - \sqrt{1/n}}{1 - \sqrt{1/n}}$	0.02
where: $x_i$ : market share of bank ( $i$ ), ( $X$ ): total market share of banks, $n$ : number of banks. Al-Muharrami and Matthews (2009) mentioned that the most frequently applied measures of concentration k-bank concentration ratio ( $CR_k$ ) and ( $HHI$ ) evaluates the monopoly power of banks using 'H-statistic' by Panzar-Rosse model.			
Market share	MS	Ratio of individual bank's total deposits to the total deposits of all banks in a given country. It reflects market share of each bank deposits (credit facilities) and this indicator is used to measure the traditional efficiency hypothesis (Hamdan et al., 2014). Measured by the credit facilities of bank ( $i$ , $t$ ) to the total credit facilities of banks through this equation: $MS = \frac{credit\ facilities_{i,t}}{\sum_{i=1}^n credit\ facilities_{n,t}}$	0.049
<i>Control variables:</i>			
Bank size	Size	Bank total assets (millions) in dollars as a measure of bank size and economies of scale.	19,334
Economy growth	Growth	Growth in gross domestic product GDP.	0.042
Bank risk	Risk	The ratio of loan to assets as a proxy for risk. The higher the risk the higher is the ROA as a compensating effect.	0.722
Country	Dummy	Dummy variable for the separated system countries.	

Our study follows the methodology of Berger and Hannan (1997) in testing the relationship between market power and bank performance. The basic model can be expressed as:

$$\pi_{i,j,t} = \beta_0 + \beta_1 \text{Conc}_{i,j,t} + \beta_2 \text{MS}_{i,j,t} + \sum_{k=1}^n \beta_k Z_{ijtk} + \varepsilon_{i,j,t}$$

where

$\pi_{i,j,t}$  represents the measure of performance for bank ( $i$ ) in country ( $j$ ) at time ( $t$ )

$\text{Conc}_{i,j,t}$  represents the measure of concentration based on SCP hypothesis for bank ( $i$ ) in country ( $j$ ) at time ( $t$ )

$\text{MS}_{i,j,t}$  represents the measure of market share based on hypothesis of traditional efficiency for bank ( $i$ ) in country ( $j$ ) at time ( $t$ )

$Z_{i,j,t}$  control variables, include: bank size, economy growth, bank risk, and country for bank ( $i$ ) in country ( $j$ ) at time ( $t$ ).

Do performance and market power indicators differ in each country in the study sample?

Table 1 shows descriptive statistics for market power and performance indicators (concentration and market share) for the whole sample. It is noticed that the mean for return on assets for all Islamic banks in all countries reached (2.1%). Concentration indicator reached (2%) and market share indicator reached (4.9%), however; do these indicators differ in each country? To investigate that, parametric and non-parametric tests were performed and results are shown in Table 2.

**Table 2** Performance and market power in GCC

Variable	Mean of GCC countries				Mean difference tests	
	Bahrain	Kuwait	KSA	UAE	F-test (p-value)	Chi <sup>2</sup> (p-value)
Islamic banks performance (ROA)	-0.002	0.017	0.032	0.036	1.835 (0.145)	2.126 (0.547)
Concentration	0.009	0.056	0.011	0.002	19.778*** (0.000)	117.853*** (0.000)
Market share	0.019	0.098	0.048	0.029	4.537*** (0.005)	13.982*** (0.003)

Notes: We are used one way ANOVA as a parametric test and Kruskal-Wallis Chi<sup>2</sup> as a non-parametric test.  
Significance at: \*10%; \*\*5% and \*\*\*1% levels.

**Table 3** Panel data regression

Variable	Symbol	VIF	Firm fixed-effect approach FE			Random-effect approach RE		
			$\beta$	t-statistic	p-value	$\beta$	t-statistic	p-value
Constant			-1.880	-2.926***	0.005	-0.323	-2.673***	0.009
<i>Market power:</i>								
Concentration	HHI	1.533	-0.817	-0.174	0.862	0.176	0.287	0.774
Market share	MS	1.145	-0.137	-0.297	0.767	-0.186	-0.957	0.341
<i>Control variables:</i>								
Bank size	Size	1.136	0.113	2.868***	0.006	0.017	2.882***	0.005
Economy growth	Growth	2.239	0.644	1.387	0.172	0.450	1.333	0.186
Bank risk	Risk	1.116	0.039	2.540**	0.014	0.031	5.379***	0.000
R square			0.352			0.297		
Adjusted R square			0.021			0.241		
F-statistic			1.063			5.309***		
p-value (F)			0.414			0.000		
Hausman test (Chi <sup>2</sup> )		11.866						
p-value (Chi <sup>2</sup> )		0.105						
Durbin-Watson stat			2.054			2.208		

Notes: t-Critical: at df 132, and confidence level of 99% is 2.326 and level of 95% is 1.645 and level of 90% is 1.282.

F-Critical (df for denominator n- $\beta$ -1 = 132-7-1 = 124) and (df for numerator =  $\beta$  = 7 and confidence level of 99% is 2.79 and confidence level of 95% is 2.09 and confidence level of 10% is 1.77).

Significance at: \* 10%, \*\*5% and \*\*\*1% levels. VIF values are less than five for all the independent and control variables, which indicates that the study model does not suffer from Multicollinearity problem.

D-W for the study model is located in the range between 1.5 and 2.5 which means that there is no autocorrelation in the study model.

It is noticed in Table 2 that there is difference in return on assets between the sample countries as an indicator of performance of Islamic banks however; this difference was not statistically significant for each one of the tests used. Concentration indicator for Islamic banks showed that there is difference in concentration percentage of Islamic banks in the sample countries. Islamic banks in Kuwait were the highest in concentration and monopoly followed by KSA and Bahrain. UAE had the lowest percentage. These differences were statistically significant according to (F-test) and ( $\text{Chi}^2$ ). Regarding the other indicator of market power (market share of Islamic banks) in Kuwait Islamic banks had the market share followed by KSA and UAE. The lowest market share percentage was in Bahraini Islamic banks. All these differences were statistically significant using both parametric and non-parametric tests.

#### **4 The empirical results**

Like most empirical studies, the analysis of the relationship between market power and performance faces the challenge of endogeneity, which can arise from unobserved heterogeneity, simultaneity, and reverse causality (Khamis et al., 2015). In the context of the Islamic banking industry structure-performance relationship, the problem of unobserved heterogeneity arises when one or more latent variables drive the observed relationship between market power and Islamic bank performance to check the validity of the study models and data, several tests were performed like, normal distribution test, time series stationarity test, autocorrelation and multicollinearity and models were checked for not having homoscedasticity. Errors were corrected and results are believed to be accurate.

This study was conducted using panel data which may be tested using firm fixed-effect FE approach or random effect approach. Choosing one of these approaches is done by knowing the result of applying Hausman Test. In Table 3, it may be noticed that Hausman Test result was not statistically significant thus random effect approach RE may be applied. The result of this test can also be found in Table 3 as well. Depending on random effect in testing the study hypotheses, results are shown in Table 3, we cannot prove that there is an effect for market power on Islamic banks performance in GCC. As 'market concentration' and 'market share' did not have a statistical significance in the study model. Thus the two hypotheses of the study were rejected and market power theory was not able to explain the returns of Islamic banks in GCC. These returns were not due to monopoly in providing Islamic banking services and were not a result of having a high market share as well. Meanwhile, it may be noticed that many control variables have an effect on Islamic banks performance in GCC such as: bank size, which has a positive and statistical significant effect on Islamic banks performance as well as ratio of loan to assets (bank risk). GDP growth percentage and other control variable did not have an effect on Islamic banks returns in GCC.

#### **5 Conclusions, implications and future studies**

Islamic banking industry has witnessed a rapid growth recently causing an increase in its returns and assets. There has been a large turnout on Islamic banking after the crisis that

was faced by conventional banks and the stability that was shown by it facing this crisis. This was the main drive for studying the structure of Islamic banks to know the real causes for its returns. One of the most important economic theories that defines returns of a specific industry and how it is related to monopoly or traditional efficiency which lead to a high market share knowing the effect of these variables on that industry, was employed in this study. This theory is known as the theory of 'structure-behaviour-performance'.

The study built its model to know the effect of market power on Islamic banks performance and it was applied on (4) GCC countries: Bahrain, Kuwait, Saudi Arabia, and United Arab Emirates. All Islamic banks that are listed in the stock exchange markets of these countries were targeted and they were (23) banks. One bank was excluded for not providing the necessary data. Applying parametric and non-parametric tests, the study found many results such as: existence of difference in concentration or monopoly of Islamic banks in the sample countries, as Kuwaiti Islamic banks were the most ones that monopolised the market of Islamic banks followed by KSA and Bahrain. And the least ones were in UAE. The most important result of the study was market power variables inability of explaining returns of Islamic banks in GCC. These results are considered to be positive as they deny the allegations for Islamic banks of using monopoly to achieve returns. Results also deny that traditional efficiency is the main drive for the returns such as early entry to the market and so on.

The practical implications of this study rise from being an evidence for regulators of banking market in GCC that in general, banking policy in general succeeded in preventing monopoly in banking market and it also enhances the richness of Islamic finance and banking literature by illustrating the nature of structure that Islamic banking working in which will help in suggesting the best ways to develop this industry.

Although the study revealed many important results, however; we should be cautious when generalising them on all Islamic banks, as the sample of the study is considered very small and the time series extends for only six years as well which may be affected by the global financial crisis consequences. Moreover, applying the study on GCC countries which have almost the same social and economic environment, all these factors should leave us cautious when thinking of generalising these results on other environments which may have different social and economic circumstances. These limitations open up the door in front of future studies to confirm or criticise the study results by expanding the sample of the study to include the rest of GCC countries and other Islamic countries. Market power inability to explain the returns of Islamic banks industry in GCC countries invites us to study advanced theories that explain returns. Economic efficiency structure may be one of these theories which includes cost and profit efficiency and their effect on performance.

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