The Relationship between Demographic Characteristics, Personality Traits and Users' Seek Values in Multiple Service Industries in Saudi Arabia

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Abstract

This study is an attempt to examine the relationship between demographic characteristics, personality traits and users' seek values in multiple service industries in Saudi Arabia. The sample is comprised of 400 sampling where data is obtained through a distributed questionnaire. This study used multiple regressions to test the relationship between independent variables and dependent variables. The results found that there is a positive relationship between demographic characteristics and users' seek values. In addition, there is a positive significant association between personality traits and users' seek values. Finally, this research provided some limitations and suggestions for future researchers at the end of the study.

Keywords: Demographic Characteristics, Users' Seek Values and Service Industries in Saudi Arabia.

1. Introduction

In the global economy of the present time, the service sector is deemed to be the most important contributors for development. In North America, the commercial services exports in 2008 increased by 9% only to reach USD$603 billion whereas the imports increased by 6% to reach USD$473 billion. In the context of Europe, commercial services exports also showed an increase of 11% to reach USD$1.9 trillion with exports increasing to 10% to reach USD$1.6 trillion. Meanwhile, in the Middle Eastern countries commercial services exports reached USD$94 billion in 2008, underlying an increase of 17% from the previous year while imports increased by 13% to reach USD$158 billion (WTO, 2008). In the same year, Europe and North America reported an increase of 1% in their economic growth while the rest of the world comprising of the South and Central America, the Commonwealth of Independent States, Africa, and the Middle East reported a 5% increase in their exports, a growth of 6.3% per annum.

This buoyant economic growth would obviously affect the growth of the services sector within this region. In addition, the world commercial services exports showed an increase of 11% in 2008 to reach USD$3.7 trillion with the three fastest primary categories of service exports as transport (15% growth), travel (10%), and other commercial services (10%). The final category includes financial services (51%) whereas travel and transport constituted a quarter each (25% and 23%, respectively) (WTO, 2008).

As illustrated by the 2008 World Trade Organisation figures, the services sector is an important contributor to a nation’s economy. Within the Saudi Arabia context, the aggregate income gained from domestic tourism is expected to reach SR73.3 bn in 2010 and SR101.3bn in 2020 as the total expenditure on domestic tourism in 2005 was reported at SR57.8 billion with SR35.5bn attributed to local tourism and SR22.2bn attributed to foreign tourism (Saudi Arabian Monetary Agency/SAMA, 2005).

In the context of the service sector, the present intersection of information and ICT is producing new opportunities such as re-deployment of workers, reconfigurations of organizations, information sharing and technologies investment. Such investments are expected to generate technical solutions accommodating the ever-changing business surroundings and effectively utilize the knowledge value in service interactions in order to produce first-class business value (Arsanjani et al., 2004). Activities relating to this produce services at several organizational levels and it employs technology to satisfy the ever increasing need for greater integration, versatility and flexibility of businesses.
In this line of contention, SST is one of the most extensively utilized firm technologies in response to the service-oriented thinking activities. SSTs refer to the technology interfaces that enable consumers to utilized service independently from direct involvement of employee (Bitner, Brown & Meuter, 2000) in an interface referred to as person-to-technology delivery of service (Dabholkar, 1994).

At the onset of self-service technology, automated teller machines (ATM) are provided by banks and financial intermediaries to provide money and other services like balance checking and transference of accounts. The delivery of financial services and their consumption has witnessed monumental advancements in a way that technological developments have brought about the restructuring of the businesses environment.

Currently, the leading sectors that have adopted and used the Internet and self-service technology on consumer markets include the banking and finance sector and this has led to unprecedented changes in service delivery. For example, the e-banking services development through various e-channels has enabled the provision of new added value for customers. Consequently, as the technology becomes more advance, self-service technology are being deploy in other areas such as retailing, hospitality - which includes transportation, accommodation and travel arrangements and other industries that are critical to the information processing and customer service.

More importantly, in literature, there is a notable lack of studies that examined this relationship in developing countries in general and in gulf cooperation council in particular. Therefore, this study is investigates this relationship in the context of Saudi Arabia.

2. Literature Review and Hypotheses Development

2.1 Demographic Characteristics and Users’ Seek Values

In the literature of innovation adoption, demographic characteristics have long been considered to be predictors of adoption that influence the attitude and behaviour intention of consumers' SST adoption (Rogers, 1995; Burke, 2002). A review of literature reveals that consumer use of SST studies primarily focused on the differences found among individuals (Parasuraman & Colby, 2001) and the distinction between proposed attitude models in predicting intended behaviours (Curran, Meuter & Suprenant, 2003; Dabholkar & Bagozzi, 2002). The SST usage drivers' impact is not constant across different demographic profiles (Chiu, Lin & Tang, 2005). The significance of the demographics groups in the adoption of technology has been acknowledged in various studies in literature (Morris & Venkatesh, 2000; Venkatesh & Morris, 2000; Venkatesh et al., 2003).

The top four main relevant variables that are known to impact technology adoption are age, gender, education and income (Burke, 2002). New technologies adopters are primarily young, male, highly educated and possess greater income compared to non-adopting counterparts (Labay & Kinneer, 1981; Danko & MacLachlan, 1983; Dickerson & Gentry, 1983; Darian, 1987; Zeithaml & Gilly, 1987; Gatignon & Robertson, 1991; Greco & Fields, 1991; Rogers, 1995; Sim & Koi, 2002; Venkatraman, 1991).

According to Morris & Venkatesh (2000), the attitude-intention relationship differs for every individual. Intention towards technology use is higher among younger people compared to their older counterparts. In the current times, several studies also revealed that gender influences the use of technology where each gender user different methods of information-processing (Meyers-Levy & Maheswaran, 1991). Specifically, females were reported to display higher involvement and high information process when shopping than males (Laroche et al., 2000; Laroche et al., 2003) and this difference can be justified by their different priorities in that the former want to limit distraction from the shopping experience while the latter aims to minimize the time and effort invested while shopping.

Self-service technology use signifies the males' consideration of making efficient shopping through SST and females' avoidance of complicating their shopping performance by using SST. Venkatesh and Morris (2000) males' technology use is significantly affected by their usefulness perceptions of it while females' use is impacted by their ease of use of the technology (p.115).

In this regard, individuals who have are in high job positions have a greater tendency to display a more quantitative time orientation as aligned by the statement, 'time is money' (Durrande-Moreau & Usunier, 1999). As such, SST use is greater among educated individuals as compared to low-educated ones. Added to this, Rogers (2003) concluded that early technology adopters have more formal education years in comparison to later adopters. It is evident that the characterizing feature of innovations is their newness and this affects customers (Blythe, 1999) and is specifically noted in highly educated groups' inclination towards new technologies adoption (Im, Bayus & Mason, 2003).

Literature is full of studies that are focused on discussing the impact of education on user attitude towards workplace technologies (e.g. Morris & Venkatesh, 2000; Venkatesh & Morris, 2000; Evanschitzky & Wunderlich, 2006).
Higher educated individuals are more inclined towards gathering and processing extensive information and employing greater information when reaching a decision. Contrastingly, less educated individuals depend on less information (Morris & Venkatesh, 200; Venkatesh & Morris, 2000; Evanschitzky & Wunderlich, 2006; Capon & Burke, 1980).

Additionally, higher education tends to give higher confidence and perception that SST is invaluable and comprehensible (Breakwell et al., 1986; Gist, 1987; Igbaria & Parasuraman, 1989). SST adoption is also impacted by household income in that individuals with higher household incomes have a higher tendency towards technology use compared to their low-household income counterparts. This can be justified by the fact that high household income is positively related with the present technology like computers, internet access and higher education of consumers and hence they consider SST as a commonality among them (Lohse et al., 2000).

Considering the above discussion and information from prior literature, higher income may result in greater access opportunities to the required tools and the motivation for using SST (Breakwell et al., 1986; Gist, 1987; Igbaria & Parasuraman, 1989). Accordingly, this study considers demographic factors significant in the consumers’ seek values when using SST and therefore, the following hypothesis is proposed to be tested:

**H1: There is a relationship between a Demographic Characteristics and Users’ Seek Values.**

### 2.2 Personality Traits and Users’ Seek Values

In the literature dedicated to consumer behaviour, personality traits have been considered to be a factor that influences the self-service technology use (Dabholkar & Bagozzi, 2002; O’Cass & Fenech, 2002; Childers et al., 2001). Specifically, they are deemed to impact consumer’s intention and hence are invaluable in obtaining values for consumers. In this regard, three crucial personality traits are generally assessed against consumer intention and adoption which are self-efficacy (Eastin & LaRose, 2000; Marakas et al., 1998; Bandura, 1994), inertia (Dabholkar & Bagozzi, 2002) and finally, interaction need (Dabholkar & Bagozzi, 2002; Dabholkar, 1996).

Self-efficacy refers to the beliefs of the individual that he is capable and has the required resources to successfully carry out a specific task (Bandura, 1994). It is the degree to which the consumer is convinced that making use of self-service technology is either characterized by ease or difficulty.

According to Marakas et al. (1998), general self-efficacy in using computer is the judgment of the individual concerning his efficacy in using several domains of computer applications whereas self-efficacy in using the internet is his judgement in his ability to use internet skills in an expansive method (i.e. searching for information or resolving search issues) (Eastin & LaRose, 2000). In other words low-efficacious individuals are sure or comfortable in using technology and they need simple instructions or guidance in technology use. They are unlikely to look for technology adoption values due to their lack of ease when it comes to using technology. On the other hand, highly self-efficacious consumers would likely look for technology adoption values as they are at ease with technology use. To this end, Oliver and Shapiro (1993) contended that self-efficacy judgements are positively related to expectations of outcome in that the highly self-efficacious the individual is, the more he will attempt to meet the expected outcome as he will tend to attempt in behaviours that he perceives he is capable of conducting (Eastin & LaRose, 2000).

Additionally, inertia is described as the degree to which individuals persist in upholding their customs or habits and hence may confine the efforts to learn what SST is all about. Employing new SST requires investment in time and energy and thus, this lessens motivation (Gremler, 1995; Spreng, Olshavsky & MacKenzie 1996). Also, inertia prevents changes in behaviour and leads to steering clear of attempting to use new service delivery alternatives (Aaker, 1991; Gremler, 1995; Hart, Heskett & Sasser, 1990).

Lastly, intention towards technology adoption refers to the need for interaction with the service provider employee (Dabholkar & Bagozzi, 2002). This interaction need is described as the human interaction significance to the consumer during the service provision (Dabholkar, 1996). Human interaction with a service provider employee in self-service technology is alternative provided in the form of help-buttons and technological search features.

In this context, consumers that are highly seeking interaction will not use technology while those who are lowly seeking or not seeking interaction will have tendency to use the alternative (Dabholkar & Bagozzi, 2002). This considerably high interaction need may lead to lowered interest in the way SST functions and the motivation it needs to use it (Dabholkar, 1996; Langeard et al., 1981). Stated differently, a high need of personal interaction lowers the motivation towards SST use (Bateson, 1985; Langeard et al., 1981; Meuter et al., 2000).

Based on the above, the consumers’ need for interaction significantly affects the relationship between consumer behaviour intention and the adoption of self-service technology. Owing to the lack of face-to-face contact with employees and sales persons in self-service technology environment, the relationships are expected to be more significant for those consumers having a high level of interaction to perceive positive value in the adoption of such technology. Hence, this
study proposes the following hypothesis;

**Hypothesis 2: there is a positive relationship between Personality and users seek values.**

3. **Research Method and the Study Model**

A research design refers to a research structure that displays the main research such as measures, samples, technique of data collection and analysis work together in addressing the central research questions. In achieving the research objective, this study adopts a descriptive correlational study where it attempts to examine the impact of a number of variables on SST adoption in multiple industries in Saudi Arabia. This study investigates the degree of consumer’s adoption on self-service technology from various services offered by the companies or service provider. In studying the factors that influence SST adoption in multiple industries in Saudi Arabia, this study employs a quantitative approach with the aim of formulating the methodological ground.

Quantitative approach is described as the systematic empirical examination of quantitative properties and phenomenon and the association between them. It handles numerical measurements and is opted for in an empirical study that attempts to test hypotheses. A quantitative research is conducted for the development and employment of mathematical models, theories and hypotheses relating to a phenomenon. The measurement process is the main element of a quantitative research as it offers the basic link between empirical observation and mathematical expression of quantitative associations.

Sampling refers to the selection process of units (e.g. people or organizations) from a population, where the examination of such a sample will allow the researchers to apply a general result to the rest of the population. In this regard, a sample refers to a selected group of people that is deemed to be a part of the study – hence, sampling is the use of a subset of population in reflecting the population as a whole. Several sampling methods have been proposed in literature, with the two major ones being non-probability and probability sampling. The most suitable sampling method is required to make sure that the accurate representation of the sample of the whole population so it can be generalized to other situations and times.

Non-probability sampling refers to a sampling method where only some individuals have a probability of selection, while probability sampling is one in which every person has an equal opportunity to be randomly selected. The latter method is utilized in this study owing to the unfeasible and impractical situation of the environment for the former.

![Figure 1. Research Framework](image)

3.1 **Measurements of Instruments**

The characteristics of consumers can be measured through their demographic profiles as such profiles demonstrate the user and his/her personal traits. Demographic profiles cover age, gender, income and education (Burke, 2002), while personal traits cover expertise (Ratchford et al., 2001; Alba & Hutchinson, 1987).

Finally, Users Seek Values like convenience and accessibility (Wolfinbarger & Gilly, 2001), save time, saves effort, are flexible, save costs, greater control, reduce waiting time, increase customization, increase convenience of location, enjoyment, efficiency, flexibility, are easy to use, provide service 24 hours a day, seven days a week, offer no pressure and protect privacy.

4. **Data Analysis and Results**

Data gathered is analyzed through IBM SPSS to describe the data and examine the hypothesized relationships.
4.1 Descriptive Statistic

The continuous variables descriptive statistics results are presented in Table 1 including mean, standard deviation, minimum and maximum – these values are obtained using SPSS version 21.

Table 1. Descriptive Statistics of Continuous Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>2.5150</td>
<td>.63480</td>
<td>1.00</td>
<td>5.00</td>
</tr>
<tr>
<td>PT</td>
<td>3.3062</td>
<td>.67044</td>
<td>1.00</td>
<td>5.00</td>
</tr>
<tr>
<td>USV</td>
<td>3.8193</td>
<td>.52515</td>
<td>1.62</td>
<td>5.00</td>
</tr>
</tbody>
</table>

4.1 Testing the Normality of the Error Terms

Linearity refers to the residuals reflecting a straight line relationship with the dependent variables' predicted scores. In this study, scatterplots were used to determine linearity. Normality was confirmed through the use of histogram and probability plots (p-p plots) of the regression standard residual, specifically with the help of kamagorovsmiron, skewness and kurtosis. Distribution of data showed no significant deviation from the normal curve (See Figure 2) and hence data can be said to have a normal distribution.

Figure 2. Histogram of the Regression Residuals

Normality reveals the symmetrical curve that has the highest frequency of scores towards extremes in terms of small and middle frequencies (Pallant, 2011). To this end, Kline (1998) and Pallant (2011) stated that the assessment of normal distribution of scores for the both the independent and dependent variables by investigating their values of skewness and kurtosis. In the field of social sciences, the constructs' nature possesses several scales and measures that may be positively and negatively skewed (Pallant, 2011). Additionally, kurtosis refers to a measurement score of the distribution that displays the level to which observations are gathered around the central mean.

Skewness values that fall outside the range of +1 to -1 show substantially skewed distribution (Hair et al., 2006). Another take on the skewness values that fall between +3 and -3 are considered acceptable (Kline, 1998). On the basis of the above criteria as stated by several researchers, majority of values of skewness fall within the acceptable range proposed by Kline (1998) (i.e. +3 to -3) although not the acceptable range proposed by Hair et al. (2006) (i.e. +1 to -1). Along the same line of acceptable range, the kurtosis values proposed by Coakes and Steed (2003) – ranging from +3 to -3, were met (See Table 5.5). However, some skewness values deviated from normal distribution. Hence, in order to address skewed data and normal deviation for the purpose of relationship testing, the present study utilized SPSS (Chin, 1998).

Table 2. Results of Skweness and Kurtusis for Normality Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Std. Error</td>
</tr>
<tr>
<td>DC</td>
<td>0.415</td>
<td>0.122</td>
</tr>
<tr>
<td>PT</td>
<td>-0.415</td>
<td>0.122</td>
</tr>
<tr>
<td>USV</td>
<td>-0.981</td>
<td>0.122</td>
</tr>
</tbody>
</table>
4.2 Correlation Analysis

The correlation analysis results are summarized in Table 2, wherein it is evident that the correlations are lower than 0.80. This result satisfies the recommendation provided by Gujarati and Porter (2009) that the correlation matrix should remain lower than 0.80 to guarantee the absence of the issue of multicollinearity. The present study's variables and their tolerance values are displayed in Table 3, and in this regard, they range is 0.933, and the VIF values fall during 1.071 evidencing that all the tolerance values are greater than 0.1 and VIF values are lower than 10 as recommended by Hair et al. (2010). In other words, the tolerance values and VIF values of the entire variables fall within the recommended range, and thus, it can be stated that multicollinearity issue does not exist.

Table 3. Results of Pearson Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) DC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) PT</td>
<td>-0.258 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) USV</td>
<td>.041</td>
<td>.166 ***</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
*** Correlation is significant at the 0.01 level (2-tailed).
** Correlation is significant at the 0.05 level (2-tailed).
* Correlation is significant at the 0.1 level (2-tailed).

Table 4. Multicollinearity Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tolerance Value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>.933</td>
<td>1.071</td>
</tr>
<tr>
<td>PT</td>
<td>.933</td>
<td>1.071</td>
</tr>
</tbody>
</table>

4.3 Regression Results of Model (Based on Users’ Seek Values)

Table 4. Regression Results of Model (Dependent = Users’ Seek Values)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Coefficients</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>.090</td>
<td>1.763</td>
<td>.079</td>
</tr>
<tr>
<td>PT</td>
<td>.189</td>
<td>3.712</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results of the regression analysis conducted on users’ seek values are displayed in Table 4. Based on the table, the R2 value is 0.035 indicating that the model explains 4% of the variance gauged by the users’ seek values (a respectable result). Specifically, the R2 or the adjusted coefficient determination value shows that 0.035% of the variation in the dependent variable is accounted for by the variation in the independent variables. In this regard, the result of the F value is significant (F=7.235, p<0.01), which supports the model’s validity.

5. Discussion of Results

5.1 Demographic Characteristics and Users’ Seek Values

Based on the discussion in the literature section, this study hypothesised that there is a positive association between demographic characteristics and users’ seek values. Thus, the results supported H1. Meaning that, the finding found that demographic characteristics have positive significant effect on users’ seek values. The findings in this study support the argument and findings of previous studies that found innovative people have a tendency to be young (Im et al., 2003). Generally, younger people are relatively early adopters of new ideas, service, and products. This was illustrated by Im et
al.’s (2003) study where they found that younger consumers own more electronic products that were considered as new and innovative products as compared to the older consumers.

A possible explanation for this phenomenon could be the learning ability. Older people have the tendency to perceive a minimization of their cognitive capabilities while learning and they are characterized by lower perceptions of self-efficacy in terms of cognitive functioning (Hertzog & Hultsch, 2000). As a result, many older people believe that they are “too old” to learn how to use technologies (e.g. SST). Consistently, it is found that age has the most significant and negative influence on technology anxiety among various demographics (Simon & Usunier, 2007).

5.2 Personality Traits and Users’ Seek Values

Based on our exhaustive literature review, we proposed that consumers self-efficacy (Eastin and LaRose, 2000; Marakas et al., 1998; Bandura, 1994), inertia (Dabholkar & Bagozzi, 2002; Meuter et al., 2005) and need for interaction (Dabholkar and Bagozzi, 2002; Dabholkar, 1996) influence the consumers seek values and ultimately, the intention to use SST.

However, following the rigorous procedures of measurement purification, the construct was redefined to comprise of self-efficacy, efficacy dependency and need for interaction. All the three factors were found to be significantly influencing users seek values and ultimately their intention to use SST. Our study shows that self-efficacy has the strongest relationship with user seek values. Self-efficacy has already been considered and even adopted as an antecedent factor in some extended models of TAM and TPB and improved the model performance (Hsu & Chiu, 2004; Pavlou, 2006; Wang et al., 2006).

Our study further enhanced the generalizability of the previous findings through the incorporation of users seek values in the TAM framework. An individual who believes that he/she has the efficacy to successfully use the SST facilities without the assistance or guidance from the service providers may actually expect that the SST is easy to use. Consequently, with his ability to use the facilities independently, the consumer may expect the SST to provide the user an advantage such as time convenience and useful for his/her purpose.

6. Conclusion

This study focused on examining the relationship between demographic characteristics, personality traits and users’ seek values in multiple service industries in Saudi Arabia. The sample was comprised of 400 samples, where data from them was obtained through questionnaire. This study was used multiple regression to test the relationship between independent variables and dependent variable. The results found that there is a positive relationship between demographic characteristics and users’ seek values and a positive significant association between personality traits and users’ seek values.

7. Limitations and Suggestions for Future Research

This study has some limitations and suggestions for future researchers. Firstly, this study focused on investigating the direct relationship between demographic characteristics, personality traits and users’ seek values. Hence, future studies can study this relationship through other variables. Secondly, this study was conducted in the context of Saudi Arabia so future authors can examine this relationship in other countries like Oman, Qatar, Bahrain and other developing countries.

References


Interactive Marketing, 14(1), 15-29.