Segmentation of the Smart Phone Market among College Students: The Case of Saudi Arabia

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Cell phones are one of the most widespread devices for accessing information, with approximately 4.88 billion users around the globe. The purpose of this study is to examine the existence of inter-market segments among college students in Saudi Arabia. Also, drawing upon the cell phone feature preference criteria, the existence of inter-market segments using these feature preferences as a cluster variate was scrutinised. The statistics for this study were taken from college student smart mobile phone users in Saudi Arabia. In total, 378 questionnaires were regarded as exploitable for data analysis. Ordered logistic cluster analysis was used for interpretation. The outcome of this study demonstrates that inter-market segments do exist in Saudi Arabia. These inter-market segments comprise gender, brand, practice and features.

Keywords: Cell Phone, College Student Users, Saudi Arabia, Brand, Communication, Inter-Market Segments

1. Introduction

Cell phones create an inherent societal influence by the means of the technology's easy portability and reliable communication. The portability of this communication medium means that they are habitually used in public spaces. Some cell phone users may experience a consequential redefining of their individual space, whilst other users may deem cell phone communication a privileged individual space, and so share their cell phone numbers only with their close associates and family members. Cooper (2002) stated that the use of cell phones in definite public spaces has rendered the relationship between what is private and public somewhat different.

Globalisation has unlocked the gates for teenagers from New York, Tokyo and Hong Kong, to those from Paris, London and Seoul to share remarkable experiences (through television, global education and frequent travel) which are reflected in their regular consumption activities. As stated by Lukose (2005), 'a short hand way to market the advent and impact of globalization is to point to the evidence of global youth consuming practices'. For marketers and regulators alike, such precursors to a global youth ethnicity are willingly treated as an apparent substantiation of a regimented group of customers.

The civilising locale can influence the approach whereby technology is professed, embraced and utilised. Regardless of the universal nature of the acceptance of mobile technologies, very

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few studies have examined the cross-cultural aspect. One probable regulated group of consumers is young adults' preference forcell (mobile) phones. Mobile phones were initially used for business. Conversely, after their popularity increased, young adults in particular use them frequently for societal and individual reasons such as talking to associates, SMS, e-mail, Internet surfing and games. Being acquainted with the inherent impulse for embracing a technology may assist in achieving a better comprehension of why that technology is used in a certain manner by a specific group of people. Behavioural distinctions consist of usage data, for instance length of mobile phone usage, typical times of mobile phone use, average number of calls received/sent, typical locations of mobile phone use and the number of text messages received/sent.

Recently some research on inter-market segments related to mobile phones was published (Haverila 2013, Awan 2014). Nevertheless, an organised synopsis of this subject matter is not available. This research presents a summary of the preceding practical studies on this subject. Earlier studies raised issues related to creating inter-market segments within the cell phone market for young adults. These theoretical and practical issues justify more consideration if these inter-market segments reach their potential. Lastly, a comparison was made with earlier studies to make recommendations for the mobile phone industry and marketers.

The present research is unique in that it is one of the first to not only look into the Saudi Arabia young adult mobile phone market, but also to contrast up-to-date research in this this area for different countries. To bridge the research gap, following objectives were laid down for the present study.

The objectives of the study are:

1. To study insights from young people about the use of cell phones.
2. To study the existence of inter-market segments within the young adult cell phone market.
3. To study inclinations towards the product-associated features of cell phones.
4. To gauge the understanding of the inter-segmentation of the smart phone market.
5. To help college students and young people gain insights into mobile phone features when buying smart phones.
6. To help the local market and production houses best cater for specific segments.
7. To analyse the demographic factors, if any, that arise while choosing features for smart phones.

The problem of this research is addressing Irrespective of the mounting significance of the globalisation forces which are forcing their conjugal-based marketing strategies, market segmentation studies within the global framework are rather limited. A small number of market studies on the segmentation of mobile phones are available, but they are typically country specific. For instance, Petruzzellis (2010) studied the Italian market, and Totten etal, (2005) the Austrian and US markets.

Consequently, there is an apparently robust need for further segmentation research into the mobile phone market, and particularly among the young adults in view of the fact that this age group is leading the market in innovative guidelines and practices. Haverila (2012) studied the Finnish, United Arab Emirates, Canadian, Chinese and New Zealand markets, proposing the

existence of inter-market market segments, but that their existence fluctuated to some extent according to the country. No such major studies have been carried out in the developing market of Saudi Arabia, despite it being one of the main contenders in the market of young smart phone users.

The remainder of the present paper organised as follows. Following the introduction, the second section provides a relative review of the literature on both inter-market segments in the international context for smart phones and possible segments among college students and young adults. The third section provides an outline of the research methodology and analyses. The fourth section discusses the results and findings of this study. Finally, the paper concludes with a discussion of the limitations of the study, and of future research.

2. Literature Review

Cell phones are classified as a general communication medium for approximately 4.88 billion people around the globe (The Statistics Portal, 2015). Townsend (2002) cites that the dissemination of the cell phone was amongst the fastest of any technology in the past. Such a fast-growing and extensive communication technology and medium has a clear societal framework and inferences.

Intercontinental segmentation assists a company in organising the diversity that exists among consumers and nations, and facilitates in recognising segments that can be targeted in an effectual manner. Research into inter-market segments related to mobile phones has recently been published. Haverila (2013)examined the existence of inter-market segments in the teen and young adult mobile phone product market in Finland, the United Arab Emirates, Canada, China and New Zealand. The outcome of this study claims that inter-segments do exist in these countries, but their existence differs to some extent according to the country. Jha (2008) identified college-going mobile phone users as one of the fastest emerging telecommunications markets in India. The conclusion indicates that there is a notable distinction in the cell phone usage patterns because of three variables which are in agreement with studies in other countries.

Hofvenschiold (2003) predicted the influence of cultural background and professional standing on the way people relate to and perceive technology. She investigated New Delhi consumers and young professionals from Germany and the United Kingdom to study the approach towards and use of mobile phones. Differences in attitudes were quantifiable when the emotional and motivational features of cell phone use were explored.

Castells et al. (2004) put together a comprehensive anthology of existing research verifications of the societal features of wireless communication technologies, including cell phones. They specified that cultural differences in communication approach preferences had an influence on the implementation rates of wireless technologies. The researchers attempted to identify common patterns for the societal demarcation of wireless dissemination in many societies in Europe, America and the Asia Pacific. They quote many studies that claim text messaging is more common for young people across nations. Additional conclusions identify the high prevalence of phone-borrowing in parts of Europe; the influence on trip scheduling for travelers. The popularity of handheld Internet devices in Japan; the cell phone as an extension

of personal individuality, also in Japan; and the usage of cell phones for communication and as status symbols by migrant employees in China.

Haverila (2011) also examined mobile phone use and broader cell phone characteristic preferences among high school pupils and under-graduates in Finland. Reportedly, there were major gender variations in the use of mobile phone features. McLeod (2009) attempted to find out whether baby boomers have embraced mobile phone technology. The outcome specified that even though baby boomers' general uptake of cell phone technology was high, they have a restricted understanding of its use any further than voice calls and SMS.

Castells et al. (2004) looked extensively into the increase in young people's mobile phone use from a cross-cultural standpoint. Their affirmed proposition was that, 'there is a youth culture that finds in mobile communication an adequate form of expression and reinforcement'. They specify that much of the research into this youth culture has converged on Europe. The researchers quote confirmation for the appearance of combined identity ensuing from peer-grouping based on networked conviviality. They scrutinise evidence in the United States, where possessing a cell phone for a young adult has become a sacrament of sorts. All this leads to a wide diversity of unique ethnicity aspects for each of the nations or regions studied.

Nowadays, cell phones with touch screens, video cameras and broadcasting capabilities are within the ambit of most individuals (McFarland and Mongrain2003,Nickerson et al. 2008, Robbins and Turner 2002), and the not-so-futuristic features include data projection, the collection of biometric data, replacement of the phone, cloud computing, desktop computing and advanced imaging (ITPRO, 2012).

The young adult segment is striking in terms of its dimensions and its multibillion-dollar procuring power (Keegan and Green 2008). In the marketing literature, youth culture has been considered as the archetypal example of an international segment. Global teens from New York, Tokyo and Hong Kong, to those from Paris, London and Seoul share remarkable experiences (through television, international education, social media and frequent travel), which has reflected in their consumption behaviour.

Technology Acceptance Model (TAM) theory specifies that perceived simplicity of use and perceived expediency envisages the acceptance of technology (Kim et al. 2007). McLeod's (2009) study established that with regard to mobile phone communication, age can undeniably predict the usage of cell phone technology. Based on the study of Isıklar and Buyuközkan (2007), it assumed that mobile phone producers manufacture handsets for broad-spectrum market segments called 'macro segments'. In spite of this, the distinctiveness of smaller 'micro segments' accessible to teen and young adult mobile phone users expanding the boundaries, has thus far to be recognised. Kamarulzaman(2006) revealed that in the TAM framework, the user features of cell phone technology such as age are considered as perpetual variables and user acceptance operators through central beliefs.

Oksaman (2010) identified that social communication for college-going cell phone usage turns out to be paramount since they perceive cell phone communication as more 'cathartic' and as providing 'independence'. The mobile phone's characteristics have been utilised for segmentation function. Adding too many features can lead to small buttons, which in turn can

cause mobile phone launch success rates to decrease (Biljon and Kotze 2007). Therefore, Isıklar and Buyuközkan (2007) developed a characteristic set for the appraisal of mobile phones. They divided it into two types of criteria, product related and user related. For instance, they may comprise memory, games, ringtones, brand, technical support etc.

Young consumers in every corner of the globe are becoming more miscellaneous and rapidly diversifying than several other demographic groups. Every marketer around the world has keep up with these variations in young consumers in order to quickly implement changes and to set up an exceedingly creative marketing mix which was absent from their previous studies. Consequently, understanding young consumers' social, cultural, psychological and behavior al traits is imperative for marketers when targeting them, as well as for influencing their parents' decisions, which was ignored in past research. The market segment consisting of young customers has changed marketing rules due to constantly varying preferences when deciding on products and services. Therefore, the present research will try to address these important issues ignored by previous research in order to fill in this research gap. On the basis of the present facts and needs, the following hypothesis was put forward to carry out this research.

Ho: There are no inter-market segments present in the college student smart phone market.

Research design is a detailed blueprint used to direct and guide a research study towards its objectives. In the present study, a descriptive design was used. The focus of the present research is to find out 'Segmentation of the Phone Market: A Case study of Cell Phone Users in Saudi Arabia' among college students. A survey was conducted among college students (male and female), and a thorough analysis was made. Out of a sample of 400 respondents chosen for the present study, only '378' students were found to be valid for analysis, including 256 males and 122 females taken from the total population of 669,271 (Males = 248,343; Females = 420,928) in the Kingdom of Saudi Arabia, for the purpose of the present research and analysis (source- MOHE;2014). The sample size consisted of the age group between 18 and 26 years old. They were all smart cell phone users. A convenience sampling technique (non-probability sampling) was used for the present study. A structured questionnaire was filled in by the college students. To achieve the objectives of the present study, the data were collected from primary and secondary sources. The secondary data were obtained from various research studies, published reports, government publications, bulletins, web sources etc.

3. Research Methodology

Individuals in these countries are the leading information seekers among smartphone users with 73 percent in Saudi Arabia, 72 percent in Argentina and 68 percent in China searching on their mobile device daily. The adoption of smartphones and their influence on the lives of people continues to increase at an exponential rate. In Saudi Arabia, surprisingly 67 percent of the population over the age of 16 use a smartphone according to a recent research study by Nielsen, a leading global provider of information and insights into what consumers buy and watch. This percentage is even higher among young people (73 percent), with a large population under the age group of 15. Keeping in mind the above facts, Saudi Arabia will remain a key growth market for smartphone makers (Nielsen Holdings N.V. (NYSE: NLSN),

2014). The number of universities and colleges is greater in Riyadh; therefore, the present study has chosen Riyadh as a study group, and also as it is the capital of Saudi Arabia.

To achieve the objectives of the present study, a cross-sectional survey was conducted (N=400) in Saudi Arabia. A cluster sampling method was used (Hoang, 2007) consisting of college students in Riyadh. The primary data was collected from respondents with the help of well-structured questionnaires. The respondents were between 18 and 26 years of age.

4. Research Design

The present study is based on a quantitative descriptive approach, so it requires statistical treatment of the data. Different tools and techniques were used to analyse the data, which were collected through a well-structured questionnaire. Certain important dimensions were included in the questionnaire to gain more in-depth insights regarding the inter-market segmentation and smart phone features, and which were not included in previous studies. The qualitative data was collected using scaling techniques on a 5-point Likert scale. The values on the scale signify a continuum from '1 to 5' ranging from not important to very important. The frequency of usage of these functions was ascertained with a separate question with an ordinal scale (1 = frequently during the day, 2 = daily, 3 = two to three times per week, 4 = weekly and 5 = not used at all).Weighted mean, z-test, p-value, standard deviation and cluster analysis were used. The statistical analysis of this survey was conducted using SPSS.

To estimate the average length of an interview and to detect any biases arising from the questionnaire, special attention was devoted to the pre-testing phase, which was essential for evaluating the suitability of the questionnaire, whether in its formal structure or in the semantic nature of the questions/variables used. If the aim was just to assess the weaknesses of the questionnaire, the pre-test could have been conducted on a few dozen cases. In the case of the present study, to check the validity and reliability of the questionnaire, an internal consistency test was measured through Cronbach's α (alpha), as mentioned below. The result of the test was α = 0.87, which falls within the acceptance zone(>0.70) for the inter-consistency of the questionnaire, and so it was used in the current research.

5. Data Analysis and Discussion

5.1 Outcome of Cluster Analysis

As the two-stage preliminary progression was directed with a hierarchical cluster analysis, three or five clusters emerged as the potential cluster elucidation. The standard deviations in the three-cluster elucidation were reasonably high, and more significantly the threshold level of 1.00 (the Kaiser criterion) for the Eigenvalues signified a five-cluster elucidation. Consequently, on these grounds the five-cluster elucidation was preferred. Therefore, we reject the null hypothesis and accept the alternate hypothesis suggesting, 'Inter-market segments exist in the young adult smartphone market'.

Glancing at Table (1), it is crucial to note that the mean column on the right illustrates the magnitude of the diverse facets for all the respondents. Consequently, the variables such as brand, battery, language, ease of use, price and Internet speed can be deemed as highly critical (> 4.00), and variables such as recommendation, salesman advice, ringtones and

spare part availability as not essential(< 2.00). Furthermore, it can be seen from the table that almost all the clusters indicate the brand as an essential attribute when purchasing a cell phone.

The mean row at the foot of the table denotes the mean values of all the characteristics in each cluster. For instance, the average of the mean values for cluster 1 is by far the maximum of all the clusters, and hence the cluster was called 'All important'. For cluster4 most of the characteristics scored the least of all (11 out of 30). Conversely, this was not the case for the price attribute, which was close to the maximum for all the clusters. As a result, this cluster was called 'Price conscious'. When computing the discrepancies from the mean values in each attribute and calculating the differentiation one can get an indication as to how dissimilar this cluster is from the average. In cluster 2, the total of these variations was very low, and consequently this cluster was called 'Middle of the road'. The answers in cluster 5 were all together the least (2.59), and therefore this cluster was called 'Minimalists'. Ultimately, the respondents in cluster 3 appreciated the following attributes: external storage space, appearance of the phone, accessory availability, internal storage, Arabic language adaptability, quality of the camera and video, after-sales service and the battery lasting longer than average, but also recognised the value of the following characteristics appreciably less than the average: colour, ring tones, recommendation, safety, sales representative advice, calendar and spare part availability. As a result, cluster 3 was called 'Traditionalists'.

Table 1: Mean Values of the Cluster Solution

Variable	Cluster					Mean
	1	2	3	4	5	
Brand of the phone	4.66	4.45	4.57	3.39	4.05	4.22
Price of the phone	4.50	3.97	4.34	4.82	2.69	4.06
Warranty	4.57	3.56	2.52	1.88	1.93	2.89
Durability and resistance towards physical impacts	4.48	3.94	4.30	2.81	3.11	3.72
Colour	4.02	3.20	1.66	1.75	2.45	2.61
Weight of the phone	4.57	3.99	2.90	3.40	2.01	3.37
Shape of the phone	4.69	3.92	4.44	2.45	3.45	3.79
External storage capacity	4.65	3.38	3.85	1.97	3.39	3.50
Accessory availability	4.05	3.27	3.60	3.02	1.28	3.04
Ease of use of the phone (functionality)	4.79	3.99	4.42	3.86	2.97	4.06
Calendar	3.31	2.12	2.11	1.86	1.02	2.08
Internal storage	4.30	3.24	3.74	3.04	1.50	3.16
Themes	3.69	2.35	2.46	1.70	1.92	2.42
Polyphonic ring tonediversity	4.39	2.14	1.12	1.01	1.17	1.95
Battery life of the phone	4.87	4.21	4.68	4.10	3.70	4.31
Internet Speed	4.11	4.34	4.31	3.88	3.41	4.01
Size screen	4.59	3.58	4.22	2.39	3.61	3.67
The safety standards of the phone in terms of radiation	4.30	3.58	2.12	1.22	2.44	2.73
Arabic language adaptability	4.97	3.51	3.95	3.91	3.82	4.07
Quality of Camera (Front/ Back)	4.54	3.60	3.55	2.83	3.20	3.54
Quality of Video	4.50	3.59	3.60	3.21	2.80	3.5
IR	3.37	3.00	2.04	3.01	2.54	2.79
Recommendations from friends & Colleagues	3.71	3.01	1.17	1.00	1.11	1.97
Country of Origin	4.14	3.22	3.10	2.98	3.03	3.29
GPS	4.33	3.35	3.04	1.98	3.11	3.16
Re-Sale Value	4.64	3.90	3.57	2.98	3.21	3.66
After sale service	4.61	4.17	3.90	3.01	2.99	3.73
Salesman Advice	3.21	2.05	1.22	1.06	1.55	1.81
Personal Budget	4.08	4.00	3.89	3.66	3.10	3.74
Spare part availability	3.11	2.24	1.23	1.01	2.17	1.94
Mean	4.29	3.42	3.17	2.66	2.59	
Cluster Name	All Important	Middle of the Road	Traditionalists	Price Conscious	Minimalists	
_n_ (%)	88 (23.3)	109(28.9)	67(17.8)	69 (18.2)	45(11.8)	378 (100)

5.2 Gender as a Cluster Solution Variable

As an outcome, table (2) shows; clusters 1 'All important' and 3 'Traditionalists' scored the highest, followed by cluster 2 'Middle of the Road', whereas clusters 4 'Price conscious' and 5 'Minimalists' correspondingly scored the lowest in the case of females. In the case of males, clusters 4 'Price conscious' and 5 'Minimalists' scored the highest, followed by clusters 1 'All important' and 3 'Traditionalists', while cluster 2 'Middle of the Road' correspondingly scored the lowest.

Table 2: Gender Participation in the Five-Cluster Solution

	Cluster					
	All Important	Middle of the Road	Traditionalists	Price Conscious	Minimalists	Total (378)
Male	48	35	45	72	56	256
%	18.7	13.7	17.5	28.1	21.7	67.7
Female	39	24	30	17	12	122
%	31.9	19.6	24.6	13.9	9.8	32.2

5.3 Usage of Cell Phone Function as a Cluster Solution Variable

One way to explain the character of the five clusters is via the usage of many cell phone utilities (Table 3). As can be seen, all the values in the table are appreciably dissimilar from each other with a significance level of 0.01, except with regard to the calculator and electronic newspaper utility, where the significance levels were 0.11 and 0.19, respectively. The incidence of usage of the various cell phone utilities was evaluated with the scale 1 – 'frequently during the day', two – 'daily', 3 – '2-3 times per week', 4 – 'weekly' and 5 – 'not used at all'. In other words, the lower the value, the more often the attribute was used. The phone, SMS, Internet and chat features are used on a daily basis and all the other attributes one to three times per week.

Cluster 1 was called 'All important', and the respondents in this cluster turned out to be more frequent users of almost all mobile phone utilities than the respondents in any other cluster. Consequently, the name of this cluster is entirely accurate in terms of the usage of the various mobile phone utilities. Cluster 4, on the other hand, was called 'Price conscious', demonstrating that value was the only rationally significant concern for the respondents in this cluster. This is also confirmed by the lowest use of the utilities out of all the clusters. Cluster 2 was called 'Middle of the road', and its name replicates well the cluster since the usage of the various utilities happens to be near to the average of all the clusters. The respondents in cluster 3 ('Traditionalists') appreciated the following attributes: external storage space, shape of the phone, accessory availability, internal storage, Arabic language adaptability, quality of the camera and video, after-sales service and a battery life longer than average, but they appreciated the following attributes significantly less than average: colour, ring tones, recommendation, safety, salesman advice, calendar and spare part availability. The identification of this cluster is consistent with the usage of the various utilities since they used SMS, and the calendar and calculator considerably more than average, but all the other utilities much less, including e-mail and social networking. Finally, cluster 5 was called 'Minimalists' due to their lowest (2.59) responses to the cluster variate characteristic questions

(Table 1). Their responses to the questions concerning the usage of the diverse functions differ from their responses to the cluster variate responses. In fact, the cluster 5 respondents were average users of the various functions, and thus had a close resemblance to the cluster 2 'Middle of the road' respondents. This signifies that there is an incongruity among the users in this cluster concerning their behavioural intentions and actual use.

Table 3: Frequency of Cell Phone Usage in the Five Clusters

	Cluster						
Functions	1	2	3	4	5	Average	Sign.
Text messaging (SMS)	1.69	1.88	2.17	2.28	1.89	1.98	<0.01
MMS	3.57	3.90	4.13	4.67	3.29	3.91	<0.01
Phone calls	1.47	1.70	1.44	1.81	1.79	1.64	<0.01
Games	3.47	3.81	4.11	4.52	3.77	3.93	<0.01
Camera	3.22	3.61	3.81	4.30	3.61	3.71	<0.01
Video	3.16	3.58	3.90	4.22	3.34	3.64	<0.01
Email	3.55	3.93	4.31	4.61	3.42	3.91	<0.01
Internet	1.36	1.98	1.81	1.73	2.88	1.95	<0.01
Calendar	3.02	2.98	2.99	3.22	2.81	3.00	<0.01
Calculator	3.11	3.39	3.21	3.97	3.77	3.49	0.11
Chatting	1.87	1.66	1.32	1.79	1.81	1.69	<0.01
Social networking	3.66	3.98	4.36	4.43	3.45	3.97	<0.01
Electronic newspaper	2.67	3.21	4.12	4.17	3.22	3.47	0.19
Downloading /watching videos	3.01	3.40	3.66	4.51	3.19	3.55	<0.01
Average	2.77	3.07	3.23	3.60	3.01		

(Significance level at 0.01%)

6. Findings

The findings specify that there are definitely five inter-market segments with discrete profiles in terms of the cluster variate used. The cluster variate of the research used the feature preferences set as determined by Isıklar and Buyukozkan (2007). The elucidation of the clusters was done according to feature inclination, gender and the usage of mobile phone functions. The profile distinctiveness of the clusters was reinforced by these background variables.

Almost all the clusters indicate brand as an essential attribute for purchasing a cell phone. The threshold level of 1.00 (the Kaiser criterion) for the Eigen-values signified a five-cluster elucidation, on basis of this, the five-cluster elucidation was preferred. Moreover, Variables such as brand, battery, language, ease of use, price and Internet speed can be deemed highly critical (> 4.00) as revealed by the analysis. Furthermore, Variables such as recommendation, salesman advice, ring tones and spare part availability are deemed as reasonably not essential (< 2.00) as students consider these features least preferable while buying smartphones.

All the clusters indicate brand as an essential attribute for purchasing a smart phone. The average of the mean values for cluster 1 is by far the highest of all the clusters, and hence this cluster called 'All important'. Also, for cluster 4, most of the characteristics scored the lowest

(11 out of 30). As a result, this cluster was called 'Price conscious' as respondents falling in this cluster gave due consideration to price while choosing a smartphone. In cluster 2, the total of these variations was very low and consequently this cluster was called 'Middle of the road'. The answers in cluster 5 were all together the lowest (2.59), and therefore this cluster was called 'Minimalists'.

Cluster 3 appreciated the following attributes: external storage space, appearance of the phone, accessory availability, internal storage, Arabic language adaptability, quality of the camera and video, after-sales service and battery with a longer life than average, but recognized the value of the following characteristics appreciably less than average: colour, ring tones, recommendation, safety, sales representative advice, calendar and spare part availability. As a result, cluster 3 was called 'Traditionalists'.

7. Summary and Conclusions

In view of the convergence of customer needs for specific cell phone features revealed in our research, successful market segmentation presents both an opportunity and a challenge for global mobile telecommunications companies. One way to enter the growing global cell phone market is to target inter-market segments of customers who share important common characteristics, which will result in a substantial reduction of costs by allowing firms to employ similar advertising strategies and promotions. The findings of the present study indicate that there are five inter-market segments with distinct profiles in terms of the cluster variate used, which is in line with the findings carried out in studies by Awan (2014) and Haverila, et al. (2013). These five market segments also seem to be distinct and large enough in size, which are the main requirements of successful segmentation, and thus the development of unique full-scale marketing strategies for these inter-market segments is recommended. Also, the appraisal of previous studies in Canada, the USA, Finland, New Zealand and the UAE illustrate that inter-market segments are crucial for the mobile phone industry (Haverila, 2012).The present study empirically verifies the appropriate micro-individual variables and the usefulness of grouping customers into homogeneous segments across national markets. Therefore, on the basis of segmentation and cell phone feature inclination, the local market can procure the products that are most suited to a particular cluster present in the market. Therefore, young people will be able to have more options available when buying their smart cell phones, and this will also help increase the sales and profits of the local players present in the market.

8. Implications

The first and primary implication of this research is the existence of five inter-market segments among young adults in Saudi Arabia. Consequently, these inter-market segments extend over the boundaries, as specified in the most recent studies. These five segments also seem to be exclusive and large enough in size, which are the chief prerequisites in terms of unbeaten segmentation, therefore necessitating the expansion of distinctive products, services and marketing programs for the segments. As previous research has revealed, the existence of inter-market segments will lead to manifold advantages such as cost competence resulting from the accurate replication of attempts in various markets where comparable segments exist, opportunities to transfer products, brands and ideas across different countries or global

regions, significant market expansion opportunities, and more effective brand management decisions, all potentially resulting in better market presentation (Hassan and Craft, 2005). Finally, an examination of the clusters revealed exclusive profiles among the clusters using the feature inclination, gender and the use of the chief functions of the mobile phones. These background data are imperative when explicit marketing programs are planned and put into action.

9. Limitations and Future Research of the Study

The soundness of the outcomes of this research in other scenarios and contexts can be put into question. First of all, the national scenario for this research was that of Saudi Arabia. Whilst the number of countries present was much larger and more flexible in terms of geographical reach than in any previous research, it is imperative to corroborate the outcomes of the research in an even more extensive geographical range.

The validity appraisal of the clustering method used in this research should also be carried out comprehensively on other age groups. While it is apparent that young adults are globally significant as a macro-segment, this is also the case for older age groups.

Finally, the influence of mobile phone espousal rates in other countries could also be evaluated. An additional concern is that expertise in cell phone communications happens to be evolving at great speed. Therefore, one could question whether it will be the case that the findings of this study are not applicable in a few years' time. Consequently, this research should be reproduced in order to verify the longitudinal soundness of its outcomes. It is reasonable to assume that technological advances will cause mobile phone feature preferences to change, and therefore it is probable that the outcomes of this research will not hold longitudinally as they are limited to a specific country.

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