Scientific Research Publishing

Int. J. Communications, Network and System Sciences, 2016, 9, 563-581
http://www.scirp.org/journal/ijcns
ISSN Online: 1913-3723
ISSN Print: 1913-3715

Exploring the Main Factors Affecting Consumer Choice of Mobile Phone Service Provider Contracts

Muhammad Turki Alshurideh

Marketing Department, School of Business, The University of Jordan, Amman, Jordan
Email: m.alshurideh@ju.edu.jo

How to cite this paper: Alshurideh, M.T. (2016) Exploring the Main Factors Affecting Consumer Choice of Mobile Phone Service Provider Contracts. *Int. J. Communications, Network and System Sciences,* **9**, 563-581.
http://dx.doi.org/10.4236/ijcns.2016.912044

Received: October 15, 2016
Accepted: December 20, 2016
Published: December 23, 2016

Copyright © 2016 by author and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/

Open Access

Abstract

This study aims to investigate the main factors affecting a consumer's choice of mobile phone service provider contracts, and to determine which of these factors are important in a consumer's decision-making process. As this decision is particularly pertinent within the contractual behavior setting, there is a need to explore the main factors that shape mobile phone subscriber choices when entering into a mobile phone telecommunication service contract. To do so, a set of mobile interrelated contract dimensions and a set of mobile service provider interrelated dimensions were identified and tested. The convenience sampling technique was employed and 400 questionnaires were distributed to mobile phone subscribers in Jordan with a response rate of 78.5%. By using the regression analysis, result analysis revealed that the main factor affecting consumer choices was "contract features", with a relative importance of 41%. After a set of mobile phone contract hypotheses were identified and tested, it was found that contract price, with about 15% relative importance, was the main contract feature that affected consumer choices, followed by the size of data that were related to the number of minutes and/or number of messages offered within the mobile service contract package. In addition, "company factors", with about 18% relative importance, were found to affect consumer choice of service provider contracts. The principal issue affecting consumer choice decisions was "switching cost", which was the highest relative importance element of company interrelated factors and found to influence mobile subscriber contracts choice significantly. However, other company factors like signal strength and sales outlet availability had no significant impact on consumer choices and ranked less for consumer-choice priority. More attention is needed from scholars to study the effect of other possible mobile phone contract dimensions from customers' perspective.

Keywords

Customer Choice, Mobile Phone, Mobile Contract, Contract Choice, Contractual Behaviour Setting

1. Introduction

The mobile phone industry has witnessed a wave of important structural changes in its competition, strategies, techniques, and even technological environment [1]. It has been identified that the mobile phone market is one of the fastest-growing service segments in telecommunications [2]. At the end of 2007, the total number of mobile phone subscriptions in the world had reached 2.844 billion [3]; [4] predicted that half the world would use cell phones by 2009, and there would be about two billion smart phone users by 2015 [5]. However, a large number of mobile service providers are currently facing great pressure regarding existing customer loss [6]. It has become clear that mobile phone operators face two main difficulties. Firstly, the issue of how mobile phone firms acquires new subscribers and then how to retain them [7] [8]. For example, [9] noted that the major mobile network operators in UK lost over a third of their youth subscribers to rival providers. Secondly, operators must evaluate what types of mobile services should be provided, and then determine how to provide the suitable level of technology. As a result, to minimise subscriber's switching behaviour, mobile suppliers must understand factors which are important to customers.

The mobile phone sector is rich of research. However, there have been few studies with published results that targeted the effect of mobile phone contract bundle of benefits on consumer choice. Investigating why and how mobile phone service providers design their offerings or understanding how customers choose the best set of benefits in one mobile contract purchase in details is an added value for this paper. To add more, it is important to study how mobile phones service providers design the mobile phone offerings and choose a set of benefits to target different market segments with full respect to the relative importance for each contract benefits offered from customers' perspectives [10].

Studying the main mobile phone contract dimensions is essential, due to the fact that the majority of previous studies have been done to investigate just one or few of the mobile contract elements as the following: contract price [11], text messaging [12], mobile phone brand [8], switching costs [13], customer satisfaction [14], customer retention determinants [6] [7] [15] [16], mobile application quality [17], ethical practices effect on maintaining relationship with customers [18], promotion mix effects on choosing a mobile phone supplier [19]. However, this study is targeting the main mobile phone contract elements that mobile phone suppliers can offer to customers. This may in turn help in providing the right mobile packages for customers and minimizing consumers' confusion [20]. Also, this study is important while it discusses the mobile service provider itself in addition to what they offer from mobile services. That is because it is not enough to study the service purchase object(s) and all its interrelated items while the mobile phone suppliers themselves are essential to be evaluated and studied.

2. Literature Review

Mobile phone operators have reached the hyper-competition stage, this is where the

speed of the competition cycle moves very fast. Hyper-competition occurs where "the frequency, boldness and aggressiveness of dynamic movements by competitors accelerate to create a condition of constant disequilibrium and change" ([10], p. 89). These conditions of constant change create settings of "high competition" so that "firms focus and spend a majority of their time, energy and resources chasing new business" ([21], p. 259). However, UK organisations spend only 23% of their marketing budgets on customer retention [22]. Accordingly, the purpose of this research is to identify the main factors which attract new customers and retain existing customers, especially young subscribers [23]. In order to attract, satisfy and retain customers, mobile phone operators must find the proper answer to the research question, what are the main factors determining consumer choice of mobile phone operator contracts in relation to contractual benefits and/or mobile phone provider features?

The primary objective of this study is to examine contract features and company factors that affect consumer choice of mobile service providers and their marketed contracts. The secondary objective is to determine the relative importance of the factors that affect consumer choices. This study is important for a number of reasons. Firstly, it attempts to provide a clear definition of the main factors that affect consumer choice of mobile phone operators from customer perspectives. Secondly, it attempts to explore and identify the main mobile phone benefits offered such as mobile-contract features and bundled benefits that are offered to mobile subscribers through different mobile packages. For example, the study evaluates the importance of decision-making when incentives are offered, for example, a free mobile handset, other free gift(s), mobile contract length and mobile handset insurance. Thirdly, it determines which factors most strongly-influence consumer choices, which may be considered key determinants in their buying and choosing among a set of mobile phone contract options offered by mobile service provider competitors. Therefore, as the level of competition increases, so the number of benefits offered via a single mobile contract often increases. The fourth outcome is a measure of the effect of different contracts and service factors so that further studies can determine how different customer groups can be targeted by providing different bundles of contract benefits. Finally, as this study is one of the first to investigate mobile phone contracts in the mobile phone sector in Jordan, it provides unique insights for service providers and customers alike.

For the study, it was necessary to classify independent factors which impact on consumer choice of mobile service providers into contract features and company factors. Therefore, literature dealing with the various factors impacting on these independent factors was reviewed. For example, two studies conducted by [24] who investigated factors affecting consumer choice of mobile phones by conducting focus group interviews of graduate students. Seven factors were identified that characterised mobile phone choice, namely, price, multimedia, design, brand and basic properties, innovative services, outside influence and reliability. Also, [2] investigated whether the factors of call quality, brand image, handset, income level and subscription duration had an effect on subscriber choices in Korea. They built a binomial model based on discrete

choice theory to explain the behaviour in situations where decision makers must select from a finite set of alternatives. Based on a phone survey of subscribers to various telephone carriers, [2] concluded that call quality and price were the most important and could directly affect consumer choice. They also noted that the handset type was significant in attracting customers and that brand image was also important, but it could be affected by other factors such as call quality and handsets.

A number of previous studies have also investigated the study's constructs, namely, contract features and consumer choice.

2.1. Contract Features and Consumer Choice

Various options for mobile contracts are offered by operators to satisfy diverse customer segments. As a result, a customer usually selects the package that best suits his or her needs and maximises his or her benefits. The following contract features were considered as independent factors:

a) Contract price per month (cost),
b) Contract length or prepaid cards,
c) Free mobile handset offer,
d) Handset type and brand,
e) Size of free minutes per month,
f) Size of free messages per month,
g) Internet package size offer,
h) Free gifts offer,
i) Handset insurance offer.

Although many studies have investigated which mobile contract features affect consumer choices, this study attempts to measure the effect of contract features as a whole. [11] discussed the effect of price on the diffusion of cellular subscriptions in Finland, and the results indicated that cellular call tariffs and cellular phone prices were not significant predictors of the diffusion of cellular subscriptions. This suggested that the logistic diffusion model might implicitly capture the price decline of cellular communications.

Most mobile operators provide free handsets with various packages, although the exact handset may vary between packages. Other institutions, like mobile suppliers, also offer free handsets and other services to attract new customers. For example, Ohio University offers free mobile phones to attract students [25], while Nokia distributed free handsets at the 2001 Emmy Awards [26]. In addition, mobile operators and other companies now offer free calls and messages to their clients. [26] described the launch of the Blyk network, which provides free calls and texts to customers in exchange for advertisements. Also, [27] examined different pricing strategies in the broadband market by analysing a price database across 145 countries and concluded that pricing strategies overcome the factors on which telecommunication services have historically been priced (distance, time and location).

The importance of mobile phone insurance is thought to vary greatly between cus-

tomers. [28] found from a survey of 16 to 24-year-olds that they considered mobile phone insurance to be three times more important than income protection, suggesting that mobile operators are introducing mobile phone insurance specifically for youths, for whom it is the most important. Many organisations have started to target specific segments of the market by providing specific mobile features and services. For example, Lloyds TSB Bank in Great Britain has launched an account aimed at migrant European workers, which offers a Visa debit card, European travel insurance and mobile phone insurance among other services [29]. To attract customers purchases, a set of factors that were found also to be important in the literature for customers to take into consideration were those related to the mobile service provider itself not to their sales packages offered to customers such as the availability of convenience and a number of close sales and maintenance outlets

2.2. Company Factors and Consumer Choice

Choosing a mobile phone contract is not just related to the mobile phone contract bulk of benefits itself, it has been found that some of the mobile service provider features are also essential for consumer decision-making process. According to many scholars such as [6] [7] [17] [30], the following factors relating to the mobile service providers comprise the remaining independent variables:

1) Switching cost,
2) Signal strength,
3) Sales outlet availability.

Owing to the difficulty to retain customers, many authors [31]-[36] have studied the effect of switching cost on consumer purchase behaviour, and have confirmed its strong effect on consumer choice. [37] defines switching costs as "one-time costs facing the buyer when switching from one supplier's product to another's" (p. 10). Switching cost is not only monetary, [14] describes the switching cost as the sum of economic, psychological and physical costs. Usually, high switching costs help organisations keep their customers by decreasing the likelihood of changing their provider. [38] studied the antecedents of customer loyalty in the Turkish mobile telecommunications market, investigating the effect of perceived service quality, corporate image, trust and customer switching costs on customer loyalty. They found that switching costs significantly affected customer decisions to remain with the same provider, and generally affected consumer loyalty. [39] studied the impact of switching costs on customer satisfaction-loyalty in the French market. Their findings supported the important role of switching costs, and confirmed its effect on the link between satisfaction and loyalty.

There has been limited research on the importance of operator signal strength on consumer behaviour. [40] reported that it believed that enhancing signal strength was essential for gaining a competitive advantage, and, therefore, launched a plan to cut subscriber costs by improvements to the global network to enhance the global system of mobile communications (GSM) (p. 99). The plan involves development of new hardware and software to enhance signal strength and voice quality.

3. The Main Study Hypotheses

From an overview of the literature, the following hypotheses were generated:

H1: Contract features influence consumer choice of mobile phone service provider contracts

H2: Company factors influence consumer choice of mobile phone service provider contracts

Based on the above main hypotheses, a set of sub-hypotheses can be drawn as seen in Table 1 and Table 2.

4. Research Variables Framework

Based on studies conducted, there is a need to provide a clear understanding of the research constructs' relationships and directions. Figure 1 demonstrates these links and variables clearly.

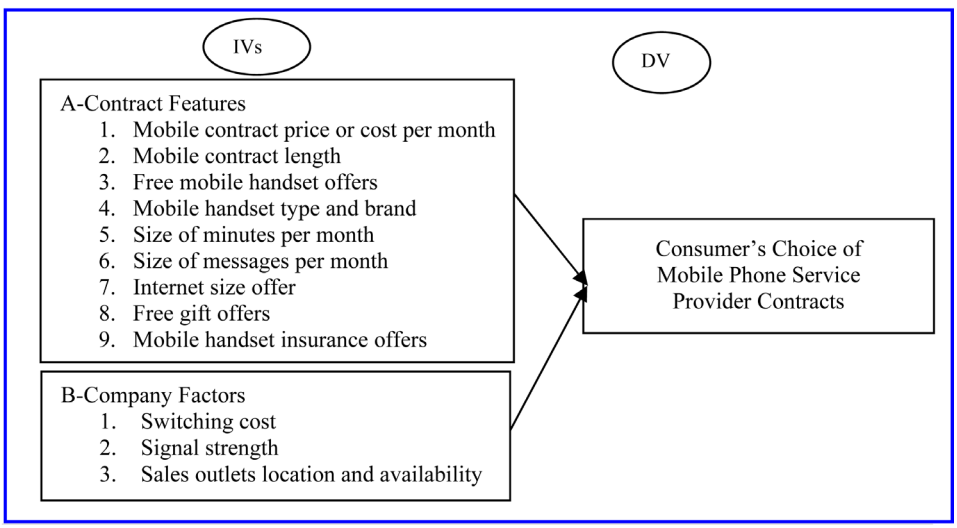

Figure 1. Research variables framework.

Table 1. Contract features sub-hypotheses H1-A - H1-J.

H1-A	Mobile contract price has an influence on mobile service provider contracts
H1-B	Mobile contract length has an influence on mobile service provider contracts
H1-C	Free handset has an influence on mobile service provider contracts
H1-D	Handset type has an influence on mobile service provider contracts
H1-E	Size of free minutes per month has an influence mobile service provider contracts
H1-F	Size of free messages per month has an influence on mobile service provider contracts
H1-G	Internet size offer has an influence on mobile service provider contracts
H1-H	Free gift has an influence on mobile service provider contracts
H1-J	Handset insurance has an influence on mobile service provider contracts

Table 2. Company factors sub-hypothesis H2-A - H2-C.

H2-A	Switching cost has an influence on consumer choice of mobile service provider contracts
H2-B	Signal strength has an influence on mobile service provider contracts
H2-C	Sales outlet availability has an influence on mobile service provider contracts

5. Methodology

The research involves the study of both primary and secondary data. Primary data was collected from mobile phone subscriber subjects in Jordan by using a self-completion questionnaire developed for this purpose. Secondary data was collected from mobile service provider websites and annual reports provided by firm representatives. Finally, data related to subscriber's numbers, investment size and penetration rates were collected from the Telecommunication Regulatory Commission (TRC) which organises telecommunication in Jordan. This study population encompasses all subscribers using mobile phone services in Jordan. According to report ([41], p. 1), the population of active mobile phone subscribers was (13,798,000) in 2015. Subscribers are primarily situated in the capital, Amman, and the questionnaire was, therefore, distributed there. Owing to the difficulties in obtaining lists of subscribers and their details from mobile service providers, the study employed the convenience sampling technique. This form of "convenience sampling is normally the cheapest and easiest method to conduct" ([42], p. 222).

A questionnaire was developed for this study with some questions, such as demographic identifiers, taken from previous studies without modification. The validity for this questionnaire was pre-tested with five expert practitioners to assess the appropriate questions which represent both independent and dependent variables. Within the pilot study stage, the questionnaire was also pre-tested on a group of 35 mobile subscribers to remove any sources of misunderstanding or remove any unrelated items that received low reliability values.

Four hundred self-completion questionnaires were distributed to Jordanian mobile phone subscribers, and collected within two weeks of distribution. The sample size in this study was limited by geographical, time and resource constraints. Data was collected from subscribers in the capital of Jordan (Amman) by using convenience sampling techniques as the suitable method of data collection for a set of reasons mainly from mobile subscribers who had signed a formal contract with one of the mobile phone service providers or previously had had one and moved to prepaid mobile phone services. Of the 314 questionnaires collected, 301 were accepted for analysis. The response rate was 78.5%, which was acceptable to marketing research standards, to ensure a low sample bias [43]. The subjects studied were any subscribers who used mobile telecommunication services and subscribed to one of the three mobile service operators in Jordan with a formal and valid contract.

The structural questionnaire contained questions concerning consumer preference and experience. The commonly used 5-point Likert scale was employed [42], in which

each question consisted of statements that expressed either a favourable or unfavourable attitude towards the object of interest (the subscriber). The use of the same scale for every question allowed for differentiation and comparison of the relative importance of factors. Many statistical methods were have used in analysing the descriptive factors, customer profile and, finally, in hypothesis testing. The mean, frequency, standard deviation, and Cronbach's Alpha (a measure of internal consistency and reliability) percentage, relative importance and rank were determined. The reliability was measured by Cronbach's Alpha, and found to be 0.805 for all studied factors. This reflects internal consistency, as it is greater than 0.80. Also, the Cronbach's Alpha values were 78.6% for the contract predetermined set of features and 81.3% for the mobile supplier interrelated factors.

6. Results and Discussion

6.1. Profile of Respondents

The descriptive analysis of demographics is explained in the Appendix (see Table A1). About 44% of the research sample was female, 41.7% of respondents were between 20 and 27 years old, 70.0% had a bachelor degree and 39.3% of respondents had incomes of between 200 and 299 Jordanian Dinars (1JD = 1.4 US Dollar). In addition, the most common monthly cost was JD10-19, with 39.3% of mobile subscribers as seen in the Appendix (see Table A2). Also, more than a third or 36% of respondents had retained their same mobile operators between two and three years and 23% of them from three to four years, indicating long-term relationships between customers and operators.

6.2. Model and Hypotheses Testing and Discussions

The Multiple Regression (MR) analysis was used to test the study model and hypotheses. Initially, by looking at the model summary results, the R^2 value was 0.582 which means the independent variables explained about 58% of the variance in the dependent variable, which is the mobile phone service provider choice. The MR value for the model showed that the Anova value for the model was 0.00 which indicated that the model was valid to be used in this situation. Accordingly, there were statistical significant values denoting the effect of study factors which are the mobile phone contract predetermined interrelated factors and the company predetermined interrelated factors on subscribers' choice of mobile phone service provider. Also, the MR analysis was used to test if the study constructs (contract factures and mobile service-provider features) affected mobile phone service provider choice. It was found that both constructs affected mobile service provider choice while their significant values were 0.021 and 0.038 (which were both less than 5%). This indicated that both constructs affected mobile phone provider contracts choices.

To test the relative importance and ranking for the study's constructs and sub-constructs from customer perspectives, the study employed Regression Analysis in using two different methods based on various studies [44] [45] [46]. The first method relied on using the standardised coefficient Beta and compared each construct's Beta value

with others and then by finding the differences in R^2 for the study's constructs and sub-constructs. Also, by looking at the standardised coefficient value, it was found that the Beta value was 0.432 for the contract features and 0.163 for the mobile service-provider features. This indicated that the Beta value for the contract features were bigger than the company features by 0.269. Thus, the contract features construct was more important (predicted more the dependent variable) than the mobile service-provider features. The second way for testing the relative importance was by running the Linear Regression (LR) test for each independent variable separately and then comparing the change in R^2 for such constructs with the study's main model, R^2. As seen in Table 3, the R^2 value for the contract features was 0.405, and R^2 for the company features was 0.177. The R^2 for the full model minus the R^2 for each independent variable separately would indicate which was more important for the full model variance explanation. When making the subtraction (R^2 for the full model—the R^2 for each independent variable), as much as the R^2 value dropped for the full model as much it was highly important for the predictor. The change in R^2 for the first factor was (0.582 - 0.405) 0.177 and the change in R^2 for the second factor was (0.582 - 0.177) 0.405. The higher the R^2 value dropped, the higher its importance. Thus, the contract features construct was found to be more important and valued more for the dependent variable prediction. This was because the R^2 for the full model dropped significantly when removing the effect of the contract features construct.

The results indicated that the contract feature was the most reliable predictor of mobile phone service provider contracts choice than the service provider features (company factors). This indicated that consumers really appreciated the packaged benefits that were offered by mobile operators to mobile phone subscribers more. By another mean, the more benefits that were given to consumers, the better the consumers considered who would provide and deliver such benefits for them. It might be the case that the mobile phone service providers were seen similarly in providing such mobile service benefits because they usually provided similar mobile telecommunication services, but the main issue was how to compare between mobile service providers based on the accumulated set of benefits that consumers expected to receive within a specific period of time or within the purchase package.

Regarding testing each construct element's relative importance and ranks, MR test were employed using different approaches to achieve this purpose. The MR analysis were used through employing the Partial correlations [44] [47] [48]. For both correlations

Table 3. Statistical results of the effect of study factors on consumer choice, relative importance and ranks.

	Factors Affecting Consumer Choice	Mean	Std. Deviation	Relative Importance based on the Explanation Power(s) %	Rank	Sig
1-	Contract Features	3.3667	0.72068	40.5	1	0.021
2-	Company Factors	3.7233	0.46439	17.7	2	0.038

value(s), if squared, this indicated the changing in R^2 value(s) for the dependent variable. As much as the squared value(s) increased as much as the explanation power increased (explaining more variance in the dependent variable). Contract features, with a mean of 3.3667 and relative importance of 40.5%, were more important in affecting consumer choices. Table 1 and Table 2 in section 3 summarises all minor hypotheses of contract features which were designed to assess the effect of these selected features on the subscribers' choice of mobile phone service provider.

Results in Table 4 show that mobile contract price was the main contract feature, with a mean of 4.85 and standard deviation of 0.50. The squared partial correlation for such item was 14.7% which explained about 15% of the variance of the mobile phone provider choice in relation to the contract features construct. The contract price's significant value was 0.00, which was less than 0.05 which indicated that the contract price influenced mobile subscriber contract choices. In the second rank, which was found important for the contract set of benefits was the size of free minutes that was offered within the mobile package. These elements explain about 11.5% of the variance that related to the contract features constructs. Following the same procedures for the rest of contract features, Table 4 shows the relative importance and ranking for the mobile phone contract elements in a way to enable matching them with customer preferences and interests. Mobile phone service providers can derive benefits from this type of analysis by exploring how to prepare a bundle of benefits correctly or which benefit(s) to highlight more when customising the mobile package offering(s) according to customer types and interests using this type of evaluation technique for each single benefit element in the mobile package. Some customers might prefer more benefits from the Internet usage element while others might prefer more benefits of calling minute size. It is important to keep in mind that some mobile contract elements were found not significantly important for customer decisions such as the handset insurance element, which was found to be the least important factor affecting consumer choices, with just about 2% relative importance.

Table 4. Relative importance of contract features, ranks and sub-hypotheses testing.

	Contract Features	Mean	Std. Deviation	Squared Partial Correlations	Rank	Sig
1-	Mobile contract price	4.8500	0.504992	0.147	1	0.000
2-	Mobile contract length	2.9933	1.15950	0.048	7	0.107
3-	Free mobile handset offers	3.1467	1.33833	0.064	5	0.003
4-	Mobile handset type and brand	3.4500	1.28829	0.081	4	0.000
5-	Size of minutes	3.7933	1.28431	0.114	2	0.000
6-	Size of messages	3.5467	1.27537	0.092	3	0.000
7-	Internet package size offer	2.6767	0.94963	0.043	8	0.188
8-	Free gift offers	3.4867	1.08647	0.054	6	0.350
9-	Mobile handset insurance offers	2.3567	1.04231	0.017	9	0.654

Regarding testing the first hypothesis, results showed that contract features do affect mobile phone service provider contract choice. Within the same theme, there is a need to test if the contract features influence consumer choices of mobile phone service provider contracts. Thus, Table 4 summarises all sub-hypotheses test results of contract features which aimed to assess their specific effects on the choice of mobile providers. The analyses of the "contract features" showed that five features, namely, contract price, size of minutes within the package, size of messages included in the package, handset type and brand as well as offering free mobile handsets all affect consumer choice of mobile phone service provider contract while their significance values were less than 0.05, suggesting that these factors impact on consumer choice of mobile provider contracts. However, other features do not effect customer decisions, for example, offering additional free gifts, offering free mobile handset insurance, mobile contract length and Internet package size. To add more, regarding the testing of the second main hypothesis, the statistically-significant value for all "company factors" was 0.038, which was less than 0.05, confirming the hypothesis which denoted that company factors also influence mobile provider contract choice. Within the same theme, there was a need to test the mobile service operators' interrelated sub-hypotheses. Table 2 in Section 3 summarises all minor hypotheses of company factors which were designed to assess such factors on the subscriber's choice of mobile phone service provider.

The analyses of the "company factors" hypothesis as seen in Table 5 show that the switching cost construct's significant values was 0.031 which was less than 0.05, indicating that the switching cost had a significant impact on consumer choice. However, no effect was found for mobile provider contracts choices that related to both signal strength and mobile phone sales as well as service outlet availability. In addition, to find the relative importance for the service provider elements and ranks, the partial correlation was employed when running the MR analysis for these issues. By considering the results in Table 5, the findings showed that the switching cost construct ranked first and it was of high relative importance while it explained more than 35% of variance in the mobile service provider choice that related to company factors. However, relative importance was low and could not be an issue relevant to the rest of the service providers predetermined sub-constructs.

7. Discussion

Studying consumer choice regarding mobile phone service provider contracts is an relevant topic to be investigated for both scholars and practitioners. This study was important because it provided a simple and clear way of designing and launching mobile

Table 5. Relative importance of company factors, ranks and sub-hypothesis testing.

	Company Factors	Mean	Std. Deviation	Squared Partial Correlations	Rank	Sig
1-	Switching cost	2.81	0.79751	0.356	1	0.031
2-	Signal strength	4.87	0.4325	0.031	3	0.535
3-	Sales outlet availability	3.49	1.03931	0.051	2	0.319

communication benefit package(s) to different groups of subscribers from their perspectives. On a continuous basis, mobile service providers initiate and deliver a variety of benefit packages to consumers. These packages differ according to many considerations such as offering variety and the latest updated mobile phone handsets and offering different sizes of mobile calling minutes that can be redeemed during a specific period of time (mainly during each month of contract). This study targeted the main mobile phone benefit dimensions that were offered from mobile phone service providers to consumers and these offering(s) might differ from one operator to another.

The study's results denoted that contract features were more important than company features and their relative importance was high. Again, the effect of the different contract features included contract price per month (cost), size of minutes per month, size of messages per month, mobile handsets type and brand, offering free mobile handsets were significant in affecting consumer choice of mobile service provider contracts with the exception of offering additional free gift(s), mobile contract length, Intent package size and offering mobile handset insurance which was even ranked as the least important for consumers to consider. Moreover, contract monthly costs (ranked first), both minutes and message sizes during the contractual period (ranked second and third), handset types and brands (ranked forth) and offering free mobile handset with the selling mobile package (ranked fifth) were all found to be very important for consumer evaluation and also affected their purchase decisions. In addition, company factors, with its three dimensions of switching cost, signal strength, and sales outlet availability affected operator contract choice. The main factors that were found to affect consumer choice were switching cost with high relative importance. Thus, it can be concluded that five dimensions shape mobile subscriber choices of mobile phone service providers and there mobile contract offering, namely, contract price, size of free minutes, size of free messages, handset type and brand as well as switching cost.

[49] studied the factors affecting the choice of operators and mobile phones, concluded that price had an effect on consumer choice, and audibility was the second most important factor. Other influences of particular importance were properties, contract types and free calls. The results of [49] are not in contradiction with the results of this study, as this analysis also found that price was the most important contract feature. [50] examined the extent of consumer self-knowledge, according to the attributes of connection fees, telephone features, access cost, mobile-to-mobile phone rates, call rates and free calls. Both [50] and [51] demonstrated that consumers with previous experience can define their choice relatively well, and that respondents usually overestimated the mobile attributes. In addition, [24] reported that seven factors characterised choice of mobile phone, namely, price, multimedia, design, brand and basic properties, innovative services, outside influence and reliability. This is also consistent with the findings of this study.

[25] and [52] highlighted the importance of providing free cellular telephones to attract new students. This confirms the results of this study, which indicated that free mobile handsets affected consumer choices of mobile providers with relative impor-

tance of more than 6%. This was especially so when mobile service providers launched new mobile packages to the market that included smart mobile handsets which had the latest mobile technology and new services to attract new customers or to extend the relationships with existing subscribers. Also, according to [26], the provision of free calls and texts is essential and these results are validated by this study which revealed that the size of free minutes and free messages (within the monthly package) affected consumer choices of mobile phone service provider with the relative importance of 11.4% and 9.2% respectively. Not all mobile package elements were found to be important from customer perspectives and this could be used to attract them to purchase the mobile service provider offerings. For example, the findings denoted that that the availability of handset insurance did not affect consumer choice with a relatively low importance of 1.7%. This result is consistent with previous study findings (for example, [28]).

Regarding the company factors, results showed that the switching cost was the dominant factor influencing changing mobile phone supplier (ranked first). A customer, in most cases, needs to pay all cost(s) that resulted from buying a mobile contract if he or she plans to cancel or terminate his/her mobile contract any time before the contract ends. Thus, purchase punishment might be an issue that needs to be investigated intensively. For example, [10], [15] and [16] identified how punishments can be used to choose mobile phone service providers and even as a critical tool to block customers from switching to other providers. Another example that provided by [53] who identified how punishments can be used to make families adapt healthy food purchase. Accordingly, the results in this study demonstrated that "switching cost" affects operator contract choice with high relative importance of 35.6%, as confirmed by other studies such as [31] as well as [33]. However, there were no significant effects for both mobile signal strength as well as sales and maintenance outlets availability on consumer decisions and this was even ranked low for mobile service provider contract choices. However, it is important to keep in mind that [40] highlighted the issue of improving mobile signal strength. This issue is also highlighted by this study's results especially for rural areas that are far from cities.

8. Conclusions

This study aims to investigate the factors affecting a consumer's choice of mobile phone service provider contracts, and to determine which of these factors are important from customers' perspectives. The study found that the contract feature was the most reliable predictor of mobile phone service provider contracts choice in addition to the mobile service provider features (company factors).

It can be concluded that determining factors affecting consumer choices is not an easy task for mobile service suppliers, as these features often appear to overlap, and are usually combined in packages. Thus, mobile phone providers must identify all possible contract features and/or applications that are seen as important from customer perspectives and then find the relative importance of these factors for each targeted group of customers to enhance their marketing activities especially mobile packages offered to

the market in a practical way to attract new subscribers and satisfy their existing customers. However, this research provides only an overview of the factors that impact on consumer choice of mobile phone service provider contracts and their relative importance. Further work could examine each factor in more detail.

As with other studies, this research has a set of limitations which can be taken into consideration in any future research. This study is limited to mobile phone users and mobile phone operators in the Jordanian market. The questionnaire was distributed in one city, and might, therefore, not be representative of the whole population. The study was also limited to one time point, and did not allow for analysis of changing customer perception over time. These changing perceptions and even satisfaction might differ before and after the use of the mobile phone contract's set of benefits. Moreover, a Likert scale was used to collect the respondent views regarding the level to which they agreed or disagreed with the study's statements. The assumption that the deviation of each point in the Likert scale is equal may not be true [54]. In addition, this study has, however, investigated many independent factors that affect subscriber choices for the first time such as sales outlet availability, contract length, handset insurance and offering free gifts when entering into a mobile contract. These construct statements were developed and validated and have not been used in previous studies. As a result, these dimensions need more intensive investigation especially regarding mobile outlet availability.

This research highlights many aspects for future research avenues. Firstly, it appears that scholars and mobile service managers have underestimated the effect of different factors that impact on consumer contract choices and even the relative importance of these factors. Therefore, future studies that target the effect of other contract dimensions are essential such as communication group deals (for example, family offers) or other social effects such as reference group, for example, the impact of peers and friends on consumer choices [55]. These studies would provide an insightful understanding of mobile phone package offerings that are important from not only a consumer's view point when deciding what to choose and but also from a large number of mobile phone offers. Secondly, mobile operators provide different mobile packages to consumers which concentrate only on price discriminations. With respect to the fact that the contract price element has been shown to be the most important, with 14.7% relative importance, it is possible that mobile operators underestimate the effect of other contract elements such as contract length, handset type and brand, size of free minutes and/or size of free messages during the contractual period, and the offering free mobile handsets. Future research should address these factors and their influence more deeply.

References

[1] Sanou, F.H., Le Roy, F. and Gnyawali, D.R. (2016) How Does Centrality in Coopetition Networks Matter? An Empirical Investigation in the Mobile Telephone Industry. *British Journal of Management*, **27**, 143-160. https://doi.org/10.1111/1467-8551.12132

[2] Kim, H.-S. and Yoon, C.-H. (2004) Determinants of Subscriber Churn and Customer

Loyalty in the Korean Mobile Telephony Market. *Telecommunications Policy*, **28**, 751-765. https://doi.org/10.1016/j.telpol.2004.05.013

[3] Total Telecom Magazine (2008) Prime Numbers. *Total Telecom Magazine*, 42.

[4] Mobilemedia (2006) Half the World Will Use a Cell Phone by 2009. https://rabiamalik.wordpress.com/2008/12/12/half-the-world-will-use-a-mobile-phone-by-2009/

[5] Srivastava, A. (2014) 2 Billion Smartphone Users by 2015: 83% of Internet Usage from Mobiles. http://dazeinfo.com/2014/01/23/smartphone-users-growth-mobile-internet-2014-2017/

[6] Alshurideh, M. (2014) A Qualitative Analysis of Customer Repeat Purchase Behaviour in the UK Mobile Phone Market. *Journal of Management Research*, **6**, 109-125. https://doi.org/10.5296/jmr.v6i1.4659

[7] Alshurideh, M. (2010) Customer Service Retention—A Behavioural Perspective of the UK Mobile Market. Published Doctoral Dissertation, Durham University, Durham.

[8] Alshurideh, M., Bataineh, A., Alkurdi, B. and Alasmr, N. (2015) Factors Affect Mobile Phone Brand Choices—Studying the Case of Jordan Universities Students. *International Business Research*, **8**, 141-155. https://doi.org/10.5539/ibr.v8n3p141

[9] Andic, S. (2006) Mobile Operators Must Tune into Youth Market. *New Media Age*, September, 7.

[10] Johnson, J., Scholes, K. and Whittington, R. (2006) Exploring Corporate Strategy. Seventh Edition, Prentice Hall, England.

[11] Karine, E.M., Frank. L. and Lame, K. (2006) Effect of Price on the Diffusion of Cellular Subscriptions in Finland. *Journal of Product & Brand Management*, **13**, 192-199. https://doi.org/10.1108/10610420410538087

[12] Lenhart, A., Ling, R., Campbell, S. and Purcell, K. (2010) Teens and Mobile Phones: Text Messaging Explodes as Teens Embrace It as the Centerpiece of Their Communication Strategies with Friends. Pew Internet & American Life Project.

[13] Xavier, P. and Ypsilanti, D. (2008) Switching Costs and Consumer Behaviour: Implications for Telecommunications Regulation. *Info*, **10**, 13-29. https://doi.org/10.1108/14636690810887517

[14] Barbara, J. (1985) Winning and Keeping Industrial Customers. Lexington Books, Lexington.

[15] Alshurideh, M. (2016) Scope of Customer Retention Problem in the Mobile Phone Sector: A Theoretical Perspective. *Journal of Marketing and Consumer Research*, **20**, 64-69.

[16] Alshurideh, M. (2016) Is Customer Retention Beneficial for Customers: A Conceptual Background. *Journal of Research in Marketing*, **5**, 382-389. https://doi.org/10.17722/jorm.v5i3.126

[17] Al-Dmour, H., Alshurideh, M. and Shishan, F. (2014) The Influence of Mobile Application Quality and Attributes on the Continuous Intention of Mobile Shopping. *Life Science Journal*, **11**, 172-181.

[18] Alshurideh, M., Al Kurdi, B.H., Vij, A., Obiedat, Z. and Naser, A. (2016) Marketing Ethics and Relationship Marketing—An Empirical Study That Measure the Effect of Ethics Practices Application on Maintaining Relationships with Customers. *International Business Research*, **9**, 78-90. https://doi.org/10.5539/ibr.v9n9p78

[19] Al-Dmour, H.H. and Al-Shraideh, M.T. (2008) The Influence of the Promotional Mix Elements on Jordanian Consumer's Decisions in Cell Phone Service Usage: An Analytical

Study. *Jordan Journal of Business Administration*, **4**, 375-392.

[20] Turnbull, P.W., Leek, S. and Ying, G. (2000) Customer Confusion: The Mobile Phone Market. *Journal of Marketing Management*, **16**, 143-163. https://doi.org/10.1362/026725700785100523

[21] Weinstein, A. (2002) Customer Retention: A Usage Segmentation and Customer Value Approach. *Journal of Targeting, Measurement and Analysis of Marketing*, **10**, 259-286. https://doi.org/10.1057/palgrave.jt.5740051

[22] Payne. A. and Frow, P. (2001) Relationship Value Management: Exploring the Integration of Employee, Customer and Shareholder Value and Enterprise Performance Models. *Journal of Marketing Management*, **17**, 785-817. https://doi.org/10.1362/026725701323366827

[23] Seth, A., Momaya, K. and Gupta, H.M. (2005) An Exploratory Investigation of Customer Loyalty and Retention in Cellular Mobile Communication. *Journal of Services Research*, 173-185.

[24] Karjaluoto, H., Karvonen, J., Kesti, M., Koivumäki, T., Manninen, M., Pakola, J., Ristola, A. and Salo, J. (2005) Factors Affecting Consumer Choice of Mobile Phones: Two Studies from Finland. *Journal of Euromarketing*, **14**, 59-82. https://doi.org/10.1300/J037v14n03_04

[25] Bernstein, E. (2003) Colleges Use Perks From Cable To Cellphones to Lure Students. *Wall Street Journal*, **241**, No. 71. http://www.wsj.com/articles/SB105002066336658100

[26] Haugsted, L. (2002) Through the Wire. *Multichannel News*, **23**, 6.

[27] Biggs. P. and Kelly. T. (2006) Broadband Pricing Strategies. *Info*, **8**, 3-12. https://doi.org/10.1108/14636690610707455

[28] Tryphonides, A. (2004) Poll Finds Mobile Cover a Higher Priority than Income Protection. Money Marketing, 16.

[29] Charles, G. (2007) In Pursuit of the Polish Pound. Marketing, 16.

[30] Koo, D.M. (2016) Impact of Tie Strength and Experience on the Effectiveness of Online Service Recommendations. *Electronic Commerce Research and Applications*, **15**, 38-51. https://doi.org/10.1016/j.elerap.2015.12.002

[31] Aydin, S. and Özer, G. (2006) How Switching Costs Affect Subscriber Loyalty in the Turkish Mobile Phone Market: An Exploratory Study. *Journal of Targeting, Measurement & Analysis for Marketing*, **14**, 141-155. https://doi.org/10.1057/palgrave.jt.5740176

[32] Bell, S., Auh, S. and Smalley, K. (2005) Customer Relationship Dynamics: Service Quality and Customer Loyalty in the Context of Varying Levels of Customer Expertise and Switching Costs'. *Journal of the Academy of Marketing Science*, **33**, 169-183. https://doi.org/10.1177/0092070304269111

[33] Caruana, A. (2004) The Impact of Switching Costs on Customer Loyalty: A Study among Corporate Customers of Mobile Telephony. *Journal of Targeting, Measurement & Analysis for Marketing*, **12**, 256-268. https://doi.org/10.1057/palgrave.jt.5740113

[34] Wang, Y. and Lo. H.-P. (2002) Service Quality, Customer Satisfaction and Behaviour Intentions: Evidence from China's Telecommunication Industry. *Info*, **4**, 50-60. https://doi.org/10.1108/14636690210453406

[35] Von Weizsacker, C. (1984) The Cost of Substitution. *Econometrica*, **52**, 1085-1116. https://doi.org/10.2307/1910989

[36] Alshurideh, M., Masa'deh, R. and Alkurdi, B. (2012) The Effect of Customer Satisfaction upon Customer Retention in the Jordanian Mobile Market: An Empirical Investigation. *The European Journal of Economics, Finance and Administrative Sciences*, **47**, 69-78.

[37] Porter, M. (1998) Competitive Strategy: Techniques for Analyzing Industries and Compet-

itors. Free Press, New York.

[38] Aydin, S. and Özer, G. (2005) The Analysis of Antecedents of Customer Loyalty in the Turkish Mobile Telecommunications Market. *European Journal of Marketing*, **39**, 910-925. https://doi.org/10.1108/03090560510601833

[39] Jonathan, L., Janghyuk, L. and Lawrence, F. (2001) The Impact of Switching Costs on the Customer Satisfaction-Loyalty Link: Mobile Phone Service in France. *Journal of Services Marketing*, **15**, 35-49. https://doi.org/10.1108/08876040110381463

[40] AT&T (2004) AT&T Adds New Rate. Twice: This Week in Consumer Electronics, Vol. 19, No. 10, 99.

[41] Telecommunication Regulatory Commission (TRC) (2015) Annual Reports-Jordan. Volume of Investment in the Telecom Sector. http://trc.gov.jo/EchoBusV3.0/SystemAssets/PDF/AR/Statistics/stat2016-2015Ar.pdf

[42] Blumberg, B., Cooper. D. and Schhindler, P. (2005) Business Research Methods. McGraw Hill, Berkshire.

[43] Fowler, F.J. (1984) Survey Research Methods. Sage, Thousand Oaks.

[44] Budescu, D.V. (1993) Dominance Analysis: A New Approach to the Problem of Relative Importance of Predictors in Multiple Regression. *Psychological Bulletin*, **114**, 542-551. https://doi.org/10.1037/0033-2909.114.3.542

[45] Heisler, M., Bouknight, R.R., Hayward, R.A., Smith, D.M. and Kerr, E.A. (2002) The Relative Importance of Physician Communication, Participatory Decision Making, and Patient Understanding in Diabetes Self-Management. *Journal of General Internal Medicine*, **17**, 243-252. https://doi.org/10.1046/j.1525-1497.2002.10905.x

[46] Organ, D.W. and Konovsky, M. (1989) Cognitive versus Affective Determinants of Organizational Citizenship Behaviour. *Journal of Applied Psychology*, **74**, 157-164. https://doi.org/10.1037/0021-9010.74.1.157

[47] Wright, J.D. and Wright, S.R. (1976) Social Class and Parental Values for Children: A Partial Replication and Extension of the Kohn Thesis. *American Sociological Review*, **41**, 527-537.

[48] Johnson, J.W. (2000) A Heuristic Method for Estimating the Relative Weight of Predictor Variables in Multiple Regression. *Multivariate Behavioral Research*, **35**, 1-19. https://doi.org/10.1207/S15327906MBR3501_1

[49] Jukka, P., Marjukka, P., Rauli, S. and Heikki, K. (2006) An Investigation of Consumer Behaviour in Mobile Phone Markets in Finland. 32*nd European Marketing Academy Conference*, Glasgow, 20-23 May 2003. http://www.economicswebinstitute.org/essays/mobilefin.pdf

[50] Riquelme, H. (2001) Do Consumers Know What They Want? *Journal of Consumer Marketing*, **18**, 437-448. https://doi.org/10.1108/07363760110398772

[51] Alshurideh, M., Nicholson, M. and Xiao, S. (2012) The Effect of Previous Experience on Mobile Subscribers' Repeat Purchase Behaviour. *European Journal of Social Science*, **30**, 366-376.

[52] Management Services (1996) Free Mobile Handsets. *Management Services*, **40**, 36-36.

[53] Kurdi, B. (2016) Healthy Food Choice and Purchasing Behaviour Analysis: An Exploratory Study of Families in the UK. Doctoral Dissertation, Durham University, Durham.

[54] Liang, C.J. and Wang, W.H. (2006) The Behavioural Sequence of the Financial Services Industry in Taiwan: Service Quality, Relationship Quality and Behavioural Loyalty. *Service Industries Journal*, **26**, 119-145. https://doi.org/10.1080/02642060500369131

[55] Al-Duhaish, A., Alshurideh, M., Masa'deh, R. and Alz'bi, Z. (2014) The Impact of the Basic Reference Group Usage on the Purchasing Decision of Clothes (A Field Study of Saudi Youth in Riyadh City). *Dirasat*: *Administrative Science*, **41**, 205-221.

Appendix

Table A1. Sample demographical characteristics.

1.	Gender	Percentages
	Male	56.3%
	Female	43.7%
	Age	Percentages
	Less than 20 years old	7.0%
	From 20 to less than 30	41.7%
2.	From 30 to less than 40	25.0%
	From 40 to less than 50	11.3%
	From 50 to less than 60	10.7%
	60 and more	4.3%
	Level of Education	Percentages
	Less than Secondary	1.3%
3.	College (Two years)	20.4%
	Bachelor	70.0%
	Graduate studies	8.3%
	Level of Income (JD)	Percentages
	Less than 200	24.7%
	From 200 to less than 300	39.3%
	From 300 to less than 400	14.0%
4.	From 400 to less than 500	9.3%
	From 500 to less than 600	4.7%
	From 600 to less than 700	4.3%
	From 700 to less than 800	2.0%
	800 and more	1.7%

Table A2. Operators and contract characteristics.

1.	Mobile service providers	Percentages
	Zain	47.7%
	Orange	38.0%
	Aumiah	14.3%
	Mobile phone cost per month (JD)	Percentages
	Less than 10	24.7%
	From 10 to less than 20	39.3%
	From 20 to less than 30	14.0%
2.	From 30 to less than 40	9.3%
	From 40 to less than 50	4.7%
	From 50 to less than 60	4.3%
	From 60 to less than 70	2.0%
	70 and more	1.7%
	Subscription period / Months	Percentages
	Less than 12	4.3%
	From 12 to less than 24	12.7%
3.	From 24 to less than 36	36%
	From 36 to less than 48	23%
	From 48 to less than 60	13%
	60 and more	11%

Scientific Research Publishing

Submit or recommend next manuscript to SCIRP and we will provide best service for you:

Accepting pre-submission inquiries through Email, Facebook, LinkedIn, Twitter, etc.
A wide selection of journals (inclusive of 9 subjects, more than 200 journals)
Providing 24-hour high-quality service
User-friendly online submission system
Fair and swift peer-review system
Efficient typesetting and proofreading procedure
Display of the result of downloads and visits, as well as the number of cited articles
Maximum dissemination of your research work

Submit your manuscript at: http://papersubmission.scirp.org/
Or contact ijcns@scirp.org