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Among many scientific journals, we introduce "Zarqa Journal for Research and Studies in Humanities" as an indexed refereed scientific journal, specialized in humanities. The coverage of the journal includes all new findings in the research works which are original and contribute to human knowledge. The journal was established in 1999, and specialized in humanities in 2009. Volume 9 is the first volume published in humanities closely. The journal publishes papers submitted by researchers from all countries in the world in Arabic or English languages. It covers all aspects of research in humanities. Submitted articles are peer reviewed by distinguished specialists in their respected fields. Two issues of the journal are yearly published: The first in June, and the second in December.

Editor -in- Chief

Prof. Mahmoud AL-Wadi
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Using Mobile Educational Technologies in Vocabularies Acquisition

Dr. Mohammad Akram Al-Zu’bi

Department of English, Ajloun University College, Albalqa Applied University, Jordan

Abstract: This study aimed at investigating the effect of using mobile in improving English students' achievement in Al-Balqa Applied University in Jordan. It attempts to answer the following question:

- What is the effect of mobile on vocabulary acquisition?

To answer the above question, the researcher carried out a study based on using mobile devices for the experimental groups. The sample of the study consisted of forty students who were distributed randomly on experimental group and control group. The instruments of the study were an instructional software program for teaching vocabulary and an achievement test that was prepared by the researcher. T-test was used to find out the effect of the instructional program on the students’ achievement in vocabulary. The findings of the study revealed that there were statistically significant differences between the students' achievement mean scores in vocabulary attributed to the instructional method of teaching. This difference is in favor of the students in the experimental group. On the basis of the results of this study, the researcher proposed a number of recommendations and made suggestions for future researches.

Keywords: Computer assisted language learning, Achievement, Instructional program.

Received April 11, 2013; Accepted October 29, 2013

Introduction:

Mobile Technologies have been playing an important role in foreign language learning and teaching in recent years (Ally, 2009; Kukulska-Hulme & Traxler, 2005). They are getting more and more popular tools such as Personal Digital Assistants (PDAs), tablet computers, and mobile phones. One of the primary reasons for the popularity of the mobile phone is the fact that mobile phones are relatively inexpensive if compared with, for example, wireless laptop computers, and internet browsers that are available in current mobile phones. Thus, the range of possibilities of mobile phones as tools for learning increases even furthermore than any aspects of language learning.

Learning vocabulary is one of the fundamental steps to learn a foreign language. So many studies are carried out in order to increase efficiency of vocabulary learning (Akin & Seferoğlu, 2004; Bruton, 2007; Erten & Tekin, 2008; McCarten, 2007; Newton, 2001; Tang & Nesi, 2003). Vocabulary has been one of the most commonly taught language areas through technology in recent years (Dodigovic, 2005 and Yoshii, 2003), and the range of technologies used is broad, including courseware (both commercial and self-developed), online activities (such as Hot Potatoes), dictionaries, corpora and concordancing, and Computer-mediated communication (CMC) technologies.

Several studies have investigated using mobile phones for learning vocabulary, and the results were in favor of experimental groups who learned vocabulary by mobile. Mobile plays significant role in teaching and learning English particularly in learning vocabulary. In Saran, Çağلتay and Seferoğlu’s (2008) study, results showed that students specified positive feedback to the use of mobile phones in language learning. Students stated that they were delighted to use the instructional materials in their mobile phones. In another study about mobile learning, Thornton and Houser (2005) used emails to send English vocabulary lessons to the mobile phones at specific times. The researchers wanted to find out whether mobile learning promoted learning for Japanese university students. They found that students using mobile phones in learning became more successful when compared to the students who used identical materials on paper or web and they concluded that using mobile phones was a valuable teaching method. In a similar study, Cavus and Ibrahim (2009) used a mobile learning tool to investigate the use of wireless technologies in learning English vocabulary using Short Message Service (SMS) text messaging. The results showed that students expressed positive attitudes while learning new words via mobile phones. Also, Stockwell’s (2007) study investigates mobile-based intelligent vocabulary learning system. Learners completed vocabulary activities through either their mobile phones or personal computers. Results of the study revealed that mobile phones were less preferred than computers in vocabulary learning and students achieved better scores on computers. Similarly, in a year-long pilot study conducted by...
Okunbor and Retta (2008) to investigate the use of mobile phones to enhance student learning, students were able to manage their academic and social lives using customized packages of applications developed by the wireless company for university students made available to students on the national mobile phone network. The results of the study revealed that most of the students using the mobile-based applications found them insignificant.

Although the results of some studies revealed that mobile phones were insignificant from students' point of view, it is understood that using mobile phones as a learning tool has many potential benefits to the language learning and takes learning out of the classroom walls, often beyond the reach of the teacher (Kukulska-Hulme, 2009). Studies that have looked at actual mobile phone use outside the classroom include research into sending messages to learners’ mobile phones by Thornton and Houser (2005) and Kennedy and Levy (2008). Both studies were based on the “push” mode of operation (teachers control the frequency and the timing of messages sent to learners). Thornton and Houser sent short mini-lessons for learning vocabulary via e-mail to learners’ mobile phones three times a day, using new words in multiple contexts to allow learners to infer the meanings.

Although many studies related to mobile phone use in language learning have been carried out in the world, yet no studies have been done on the effectiveness of using mobile approach to language learning and its impact on vocabulary in Jordan. Therefore, more studies should be carried out to investigate the effectiveness of using mobile phones in language learning. In this respect, this study was designed to determine the effectiveness of mobile phone use in vocabulary learning in Albalqa Applied University.

Statement of the Problem:

Learners in the private and public universities in Jordan still have problems in acquiring vocabulary. Many students still experience difficulties in learning to read for lack of vocabulary. The researcher believed that this might be due to the strategies used in teaching vocabulary. At this stage, perhaps the most widespread technology is the mobile phone, which most of the students in Jordan universities carry a mobile phone with them most of the time. Thus, language teachers and researchers have started to capitalize on this technology. Learners show very little effort to deal with their problems about newly learned words (Meara, 1980). During the lesson, teachers often tend to have an attitude to make the students deal with this problem outside the class on their own (Baykal and Daventry, 2000). However, learners do not have enough knowledge about the vocabulary learning techniques and they have difficulty in dealing with this problem themselves (Akn and Seferoğlu, 2004).

Aims of the Study:

The general aims of this study are the following:
- Developing an instructional program for teaching vocabulary.
- Investigating its effect on developing students' English vocabulary.

All in all, the study attempts to answer the following question:
- Are there any statistically significant differences between the students' achievement mean scores in vocabulary attributed to the instructional method of teaching (traditional& mobile)?

The Importance of Study:

To the researchers' best knowledge, studies about mobile instruction in Jordan do not exist. This study also attempts to bridge the gap between the theoretical and practical sides of using mobile in teaching vocabulary. Moreover, it may help English as Foreign language (EFL) curricula designers and EFL methodologists develop teaching materials which suit various ways of teaching and match students’ level of achievement in vocabulary.

Limitations of the Study:

This study has the following primary limitations:
- This study is confined to the students in the academic year 2011/2012 in Ajloun University College.
- The study is restricted to the vocabularies mentioned in Interaction2.
- The sample size is also very small.

Procedures of the Study:

The researcher implemented the following procedures in conducting his study during the first semester of the academic year 2011-2012:
1. Reviewing the related literature was conducted about the roles of using mobile in teaching and learning vocabulary.
2. Designing the instruments of the study.
3. Establishing the validity and reliability of the instruments.
4. The pre-test was administrated to both groups before implementing the strategy.
5. Holding a meeting with the participating students to clarify the purpose of the study.
6. Before the experimental process was started, a vocabulary acquisition program to be operated on students’ mobile phones was selected.
7. All the details and objectives of the experiment were explained.
8. Starting the experiment under investigation in the first semester of the year 2011-2012.
9. Keeping in touch with the students, so as to guarantee that they are applying the treatment correctly.
10. The test was administrated as a post-test to both groups after implementing the strategy.
11. Analyzing statistically the obtained data to reach conclusions and suggest pedagogical implications and possible recommendations.

**Review of Related Literature:**

Knowing a foreign language has become crucial to access information and learning vocabulary. It is one of the fundamental steps to learn a foreign language. New devices are invented everyday to fulfill the needs of citizens of the twenty first century. Increased use of mobile phones has made them popular for not only communication, but also entertainment and learning purposes. Mobile phones have provided remarkable advantages in learning process. They provide opportunity for learning outside the classrooms at any time and in any place.

Some of the related studies investigated the effect of using mobile on acquiring vocabularies; the first study was carried out by Baki (2010), who investigated the effects of using vocabulary learning programs in mobile phones on students’ English vocabulary learning. The mixed-method research design with sixty students studying in the Undergraduate Compulsory Preparatory Program of a public university located in the Black Sea region of Turkey was used. Results indicated that using mobile phones as a vocabulary learning tool is more effective than the traditional vocabulary learning tools. The second study by Lu (2008) was conducted to examine the effectiveness of SMS vocabulary lessons of limited lexical information on the small screens of mobile phones. Thirty high school students were randomly distributed into two groups and given two sets of English words either on paper or through SMS messages during two weeks. Students recognized more vocabulary during the post-test after reading the regular and brief SMS lessons than they did after reading the relatively more detailed print material. The third study also conducted by Brown (2008) that aimed at re-evaluating the mobile phone as a portable computer tool and investigated how ninth-grade reading students could improve vocabulary building. This mobile learning study determined whether appropriately designed frontloading techniques improved comprehension and produced a significant difference between students who used mobile phones versus students in a traditional non-digitized delivery. This study used a descriptive quantitative method to determine how much the use of mobile phones improved reading vocabulary for the test group. Findings revealed an increase in vocabulary comprehension when ninth-grade average students used appropriately designed vocabulary frontloading techniques delivered via mobile phone.

There are few studies about the effect of mobile phone on reading and writing. The researcher found only one study by Chen and Hsu (2008) who investigated the advantages of mobile learning to present a Personalized Intelligent Mobile Learning System (PIMS) which can appropriately recommend English news articles to learners based on the learners’ reading abilities evaluated by the proposed Fuzzy Item Response Theory (FIRT). Currently, the PIMS system has been successfully implemented on the Personal Digital Assistant (PDA) to provide personalized mobile learning for promoting the reading ability of English news. Experimental results indicated that the proposed system provides an efficient and effective mobile learning mechanism by adaptively recommending English news articles as well as enhancing unknown or unfamiliar vocabularies’ learning for individual learners.

Stockwell (2007) investigated the use of a prototype mobile-based intelligent vocabulary tutor system by learners in an advanced EFL class. Learners used the tutor to complete vocabulary activities in a variety of task formats through either their mobile phone or through a computer, and the system kept logs of all access to the system. A profile of each learner was created in terms of the vocabulary that they had difficulty with, and presented these items to the learners more frequently than items that were less likely to cause learners problems. Learner access logs to the vocabulary activities and the learner profiles were analyzed, and a survey was administered to learners at the completion of the project. The study suggests that the intelligent mobile-based system had the potential to provide learners with sophisticated vocabulary learning activities through mobile devices that they already possess, as well as to store information about the learners that may be used to assist them with their vocabulary learning. The study provided preliminary evidence that learners generally require more time to complete vocabulary activities and achieved slightly lower scores on mobile phones when compared to completing the same activities on desktop computers.

**Elements of Originality and Modernity:**

To the researchers’ best knowledge; no studies were conducted on teaching vocabulary through mobile in Jordan. For this reason, the researcher has
developed an instructional program for teaching vocabulary via mobile phones.

**Method and Procedures:**

**Subjects of the Study:**

The target population of the study was the university students of English as a foreign language in Al-Balqa Applied University-Jordan. It is assumed that such students have had similar opportunities for learning English. The respondents are of English major who learned English for four years. The study sample included 40 female university students enrolled in Al-Balqa Applied Public University. The subjects of the study consisted of two groups and were divided into an experimental group and a control group, each consisting of twenty students. The experiment started on the third of October and ended on 24 of November during the first semester of the academic year 2011-2012.

**Research Instruments:**

To implement this study successfully, the researcher have developed two types of instruments: an achievement test, and a software program.

- **The Achievement Test:**

  The test was designed by the researcher. It was used as both a pre-test and a post-test to find out the impact of the software program on students’ vocabulary achievement. The test comprises thirty multiple-choice items of four alternatives. The students’ previous knowledge was assessed by the pre-test administered to both groups (control and experimental) before the study started. The objective of the pre-test was to assess the students’ background knowledge of the words. The same pre-test was used at the end of the study as a post-test to assess the students’ achievement on the topic, the vocabularies. The objective of the post-test was to assess the effect of both instructional methods (mobile and traditional) on students’ achievement.

- **The Software Program:**

  For the purpose of this study, the researcher designed an instructional program to teach the vocabularies by using the students' phone mobiles. The designer also added a lesson plan to direct the instructor. The program was based on the content of Interaction2 course for reading. The program is organized in the following way:
  - Introduction
  - Construction
  - Use
  - Vocabulary preview
  - Guessing the meaning from context
  - Understanding parts of speech
  - Expanding vocabulary
  - Finding related words
  - Compound words
  - Suffixes and prefixes
  - Expressions and idioms
  - Drills and practice
  - Test yourself

  The program also provides model answers for the items presented in the exercises. Moreover, the student receives feedback for his achievement simply because the program contains a system for correction. The student can easily get his/her scores when he/she finishes any exercise. When developing the software instructional program, the researcher took into consideration the colors, font type, and the ease of using the program.

- **Validity and Reliability of the Test:**

  The test content was validated by a team of English language specialists who are instructors and specialized in teaching, learning, Computer Assisted Language Learning (CALL), and language acquisition. The team was asked to validate the content of the test with regard to test instructions, the relevance of questions to content, its suitability to the research goals and objectives, the number and arrangement of questions, and the suitability of the time allocated to the test. Criticism and comments on the original draft of the questionnaire were solicited from a number of experts from public and private universities in Jordan (departments of the English language, and departments of curriculum and instruction). The remarks of the validating team, their notes and suggestions were taken into consideration, and the researcher made the necessary modifications before applying the test.

  The test reliability was obtained through a test-retest method, which was applied on a pilot group of (20) students who were randomly chosen from the population of the study and excluded from the sample. The reliability was computed using Pearson correlation formula, the obtained value was (0.80) which is considered to be suitable, and accepted from a statistical point of view for the purpose of the study.

- **Validity of the Software Program:**

  The content of the program was validated by Teaching English as a Foreign Language (TEFL) and curricula designing specialists. The validating committee consisted of four PhD holders in curricula and instruction; two of them are specialized in educational technology, four highly qualified instructors of English, and two supervisors in the Ministry of Education in Jordan.
- **The Traditional Method:**
  
  The traditional method is used in the lecture. In this method, the instructor presents new words and uses the general procedures for teaching vocabulary as follows:
  - Before reading the text to the class, the teacher tries to get students to tell him what they know about the topic of the text.
  - The teacher uses the title of the text and illustrations. For example, the teacher asks students to describe a scene in a picture by using familiar words.
  - The teacher uses the pre-reading, while-reading, and post-reading questions: that is, questions occur before the start of the text, in the middle of the text, and after the text to examine the students' vocabulary knowledge.
  - The teacher sets each student to read the whole text silently on his own to examine the meaning of the words and aloud reading to check the pronunciation.
  - The instructor asks the students to memorize vocabulary from pre-determined lists.
  - Students should complete vocabulary workbook exercises, which were discussed only one day each week.
  - The instructors use flash cards, writing the definitions, fill in the blank sentences, and students writing sentences for the vocabulary words.
  - Students also had to do several exercises, for example, choose the correct words to put into pre-made sentences or write their own sentences using the weekly vocabulary words.

**Design of the Study:**

In order to conduct the study, the effects of using vocabulary learning program in mobile phones on students' vocabulary learning, the study employed the True-experimental design which is Pretest-Posttest Control Group Design. The researcher used an experimental and a control group with 20 subjects in each. The experimental group was taught through the mobile (software program), while the control group was taught through the traditional way (lecture method). The two groups were pre and post tested by an achievement test. The study consists of two variables: the independent variable (Mobile) and the dependent variable (Vocabulary).

**Statistical Treatment:**

The researcher used SPSS 15.0 for quantitative analyses. T-test was computed to detect any significant differences between the two groups on the vocabulary.

**Results of the Study:**

To make sure that there were no statistically significant differences between vocabulary achievement of the experimental group and that of the control group due to the instructional strategies (mobile and traditional), they were given a pre-test. Table (1) shows the t-test for the pre-test at baseline.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>T</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contr.</td>
<td>20</td>
<td>17.650</td>
<td>.134</td>
<td>0.894</td>
</tr>
<tr>
<td>Exp.</td>
<td>20</td>
<td>17.450</td>
<td>.134</td>
<td>0.894</td>
</tr>
</tbody>
</table>

Table (1) indicates that at level ($\alpha \leq 0.05$), there are no significant statistical differences between the two means of the groups. It is clear from Table (1) that the significant value was more than 0.05 and the t value of .134 is not significant at ($\alpha \leq 0.05$). In other words, the two groups were equivalent in achievement at baseline so this test controlled the effects of any kind in achievement before the experiment.

In Fig. 1 below, the pre-test evaluates whether the difference between the means of the two groups is significant. The overall average scores between the two methods are very close (see column no.21) so the average scores of the two groups did not show much difference. These averages are seen in the following chart:

**Figure No. 1. The means of the students scores for the pre-test**

![Graph showing the means of the students' pre-test scores for the control and experimental groups.](image-url)

The question of the study is "are there any statistically significant differences ($\alpha \leq 0.05$) between the students' achievement mean scores in vocabulary attributed to the instructional method of teaching (traditional& mobile)?"
To answer this question, a two sample t-test was conducted for the post-test of both groups. Table (2) shows the means of students scores t-test values for the post-test for both groups.

Table No. 2. T-test for the post-test of both groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>T</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contr.</td>
<td>20</td>
<td>18.1500</td>
<td>2.707</td>
<td>0.010</td>
</tr>
<tr>
<td>Exp.</td>
<td>20</td>
<td>22.000</td>
<td>2.707</td>
<td>0.011</td>
</tr>
</tbody>
</table>

Since the significance value of the test in Table (2) is less than 0.05, then, there are statistically significant differences between the two groups. So, it can be argued that there is a significant difference between the achievement of the students after being exposed to the mobile method. In other words, the mobile method was better in achievement after applying the treatment. Also, the results of Table (2) indicate that the t value of (2.707) is significant at (α≤0.05). Thus, the null hypothesis which stated that there is no statistically significant difference at (α≤0.05) in the mean scores of vocabulary between the two groups that can be ascribed to the strategy of teaching was rejected. This means that students' vocabulary on the post-test was improved due to the treatment in favor of the experimental group which was taught by the mobile.

Fig 2 indicates that there are significant statistical differences between the two means of the groups:

Figure No.2. The means of the students scores for the post-test

Conclusions:

The results related to the question of the study indicated that there was a statistically significant difference at (α≤0.05) between the mean scores of the experimental group and that of the control group on the post-test. This difference was in favor of the experimental group since the mean scores of mobile strategy (22.000) was higher than the mean scores of the control group (18.1500).

The findings of this study are consistent with Brown (2008) and Baki (2010) who studied the effectiveness of using Mobile on vocabulary and showed that there are significant differences in increasing vocabulary ability in favor of the experimental group. These findings corroborate those of Lu (2008) and Stockwell (2007). These results in favor of the experimental group are expected because the researcher believes that features of the mobile phone arouse learners’ motivation. The lessons delivered via mobile phone are more appealing to students. Carrying a mobile phone and checking the software anytime and anywhere is trendy among students. Hence, the mobile phone can be a more effective medium for self-learning English vocabulary than the paper material. The students also made improvement in vocabulary because they learned some knowledge of local life and leisure activities which they were unfamiliar with. Finally, mobile plays a significant role in teaching and learning English vocabularies because of the characteristics of mobile such as the physical characteristics (e.g., size and weight), input capabilities (e.g., keypad or touchpad), output capabilities (e.g., screen size and audio functions), file storage and retrieval, and processor speed.

The findings of the current study is in line with the theoretical and practical studies surveyed in the previous chapters in which most of the studies provided evidence for the positive effectiveness of using mobile in developing students' vocabulary achievement.

Recommendations:

On the basis of the findings mentioned in the previous section, the researcher offers the following recommendations:

- The researcher recommends instructors in universities to adopt mobile strategy in teaching English skills and components for the effectiveness of it in improving students' academic achievement.
- The researcher suggests conducting similar studies on other levels and other language skills so that the generalization could become more valid and widely applicable.
References:


استخدام تقنيات الموبايل التربوية في اكتساب المفردات

الدكتور محمد أكرم الزعيبي

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الملخص: تهدف هذه الدراسة معرفة أثر استخدام تقنيات الموبايل في تحسين تحصيل طلاب اللغة الإنجليزية في جامعة البلقاء التطبيقية في الأردن. وقد حاولت الدراسة الإجابة عن السؤال التالي:

ما أثر استخدام الموبايل في اكتساب المفردات؟

وإلاجابة عن سؤال الدراسة، استخدم الباحث برنامجاً تعليمياً يقوم على استراتيجية تعلم اللغة بواسطة الموبايل من المجموعة التجريبية، حيث اختبر أربعون طالباً، ووزعوا على المجموعتين التجريبية والتقليدية بشكل عشوائي. أعد الباحث اختباراً تحصيلياً على المفردات، أداة للدراسة، وبرنامجاً تدريسيًا مبرمجةً، وقد استخدم اختبار (ت) لإيجاد أثر البرنامج التعليمي في تحصيل الطلبة في المفردات. أشارت نتيجة الدراسة إلى وجود فرق لصالح طلاب المجموعة التجريبية.

وقدمت الدراسة عددًا من التوصيات والاقتراحات للدراسات المستقبلية.

الكلمات المفتاحية: تعلم اللغة بواسطة الحاسوب، التحصيل، البرنامج التعليمي.

تاريخ استلام البحث 11/4/2013، وتاريخ قبول البحث 29/10/2013
The Treatment of Compound Nouns in Bilingual and Monolingual Dictionaries and EFL Learners' Interaction with them

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Abstract: This study reports on the findings of the different treatments of a number of selected spaced compound nouns such as (box office, calf love, case study, closed book, cupboard love, etc) in two bilingual (English-Arabic) dictionaries (Al-Mawrid and Al-Mughni Al-Kabir, and two monolingual (English-English) dictionaries; the Oxford Advanced Learner's Dictionary, and the Longman Dictionary of Contemporary English. The study deals with the problems facing users of bilingual dictionaries (EFL learners) in translating the selected compound nouns into Arabic. The purpose of this is to show whether bilingual dictionaries provide the user with the necessary information in the process of translating these compound nouns. For this goal, 25 students majoring in English Language and Literature at the University of Jordan were asked to take part in a translation test where they were asked to translate into Arabic, sentences that include compound nouns and indicate the name of the dictionary they used; in order to see how they interact with the compounds. The study concludes that monolingual dictionaries provide more information about how compounds are listed in the selected dictionaries. As for the translation test, the results show that there is a lack of knowledge on the subjects’ part in how to recognize a compound in context and how to check it up in dictionaries.

Keywords: Lexicography, compound nouns, dictionary entry, bilingual dictionaries, monolingual dictionaries.

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1. Introduction:

The domain of this paper is lexicography. In particular, it tries to describe the different treatments of a number of selected spaced compound nouns such as (box office, calf love, case study, closed book, cupboard love, etc) in two bilingual (English-Arabic) dictionaries (Al-Mawrid Al-Hadith (2012) and Al-Mughni Al-Kabir (2008), henceforth the former will be referred to as Al-Mawrid and the latter Al-Mughni, and two monolingual (English-English) dictionaries; the Oxford Advanced Learner's Dictionary, henceforth OALD, and the Longman Dictionary of Contemporary English, henceforth LDCE. The study is important because it develops the linguistic knowledge of EFL learners about compound words in general and compound nouns in particular in terms of their spelling, phonological shape and grammatical shape; so that the learner will be able to judge which word is a compound and which word is not when he/she wants to look up a compound word in a dictionary.

The description of these different compound nouns in different dictionaries provides a preview as to what information should be included in each compound entry. The purpose of this is to show whether the information provided in the monolingual and bilingual dictionaries for the selected compound nouns are enough as to account for the need of the EFL learners when referring to dictionaries to check them up.

The study is also concerned with the problems facing users of bilingual dictionaries (EFL learners) in translating the selected compound nouns into Arabic. It aims at investigating whether bilingual dictionaries provide the user with the necessary information in the process of translating these compound nouns. In terms of organization, the study proceeds in the following order: section 2 specifies the objectives of the study, section 3 reviews the related literature, section 4 deals with data analysis, and section 5 states the conclusion of the paper.

2. Research Problem:

The study is meant to provide a clear description of the information provided for a number of compound nouns and attempts to provide an answer to the following questions:

a. Are the selected compound nouns treated in the same way in the bilingual dictionaries (Al-Mawrid and Al-Mughni), and monolingual dictionaries (OALD and LDCE)?

b. What kind of information does each dictionary provide for the selected compound nouns?

c. How do EFL learners interact with the monolingual and the bilingual dictionaries in rendering the translation of the selected compound nouns?
3. Literature Review:

Adams, (1973) shows that compound nouns can be composed of most types of the grammatical units such as:

I. Subject + verb
- A verb + a noun (e.g. Killjoy)
- An adjective + a noun (e.g. greenhouse)
- A noun + a verb (e.g. windbreak)
- A noun + a noun (e.g. cover girl)

II. Verb + object
- Verb(-ing) + noun (e.g. folding door)
- Verb(natural) + noun (e.g. flashlight)
- Noun + verb (-ing) (e.g. book-binding)
- Noun + verb (e.g. bloodshed)

Quirk, Leech and Svartvik, (1985) defined a compound as "a lexical unit consisting of more than one base and functioning both grammatically and semantically as a single unit." They also argue that the process involved in forming compound words is called compounding which can take place within any of the word classes; for instance, nouns, verbs, adjectives and adverbs.

In considering the compounding relations Ibid, (1985), state that compounding relations are frequent. They are either of resemblance function, or defining feature function. A good example of this is that we cannot consider all dark rooms as darkrooms. The word darkroom refers to rooms used for the purpose of photographic processing, while dark room refers to the room which happens to be dark. This indicates that compounds have various forms of spelling. They are either solid compounds, that is the two bases of the compound word are written as one word, such as darkroom. Other compound words might be written with a hyphen separating the bases of the compound and thus called hyphenated, such as flower-pot. They also can be spelled as spaced compounds where the bases of the compounds are written as two words such as cover girl. However, one compound may occur in the three different forms; such as the compound flower pot, flower-pot, or flowerpot.

Hatch and Brown (1995) indicated that some linguists differentiated between compounds and the other phrases which have similar structural patterns. They have done this in two ways: The first makes use of phonology which assigns the first part of the compound with primary stress and the second part with minor stress. In this case for instance, the word [‘armchair] is a compound noun, while the word [arm’chair] is a phrase. However, sometimes we can find some exceptions to this where the first syllable is not stressed; yet it is counted as a compound. For instance, the word [cherry ‘pie] the second part receives the primary stress and is treated as a compound. The second way to account for compounds is to see whether they can be preceded by premodifiers such as very or rather. According to this test it was found that these modifiers can only modify phrases but not compounds. A good example of this is the expression very tall man, which is acceptable, while very flying spacecraft is not. This shows that tall man is not a compound while flying spacecraft is.

Hatch and Brown (1995) showed that there are many lexical relationships that can be manifested in the formation of compounds. They present them in agreement with the way Miller (1991) listed them which is as follows:
- Cause: tear gas, sleeping pill.
- Have: bull's eye, picture book
- Make: rainwater.
- Use: waterwheel.
- Be: whitecap
- For: seabreeze
- From: Finer print

Hatch and Brown (1995) also stated that "compounds are useful ways of condensing information and they add variation to the way we refer to concepts in discourse." Thus, we may refer to girls whose pictures appear on the covers of fashion magazines as cover girls.

Moreover, Farghal (1998) shows that compound nouns form the largest class of compound words in English. Compound nouns often have three basic types. First, the endocentric compound nouns which are the most common in the English language. They form compounds that are hyponyms of their grammatical heads. A good example of this is the word armchair that refers to a type of chair with arms. The second type of compound nouns is the exocentric which are opposite to the endocentric ones in the sense that they are not hyponyms of their grammatical heads, but are hyponyms of some unexpressed semantic heads. For example, the word highbrow, meaning a person of superior intellectual interests. The third type is the appositional compounds which are hyponyms of both members of the compound, such as the word maidservant which is a subordinate of maid and servant.
Furthermore, the meaning of the compound cannot always be derived from its components. Thus, we may have transparent compounds and opaque compounds. Transparent compounds are those whose meaning can be elicited from their constituents. For example, when saying the word *window cleaner* the listener can infer its meaning from the components. On the other hand, idiomatic compounds are opaque because their meaning cannot be deduced from their constituents. Instead, they must be learned as if they were individual words by memorizing them. A good example of opaque compound nouns is *flatfoot* which means detective or police officer.

### 4. Research Material and Methods:

#### 4.1. Subjects:

The subjects of the study are 25 students majoring in English Language and Literature at the University of Jordan. They are all EFL learners of English. At the time of data collection the subjects were enrolled in a translation course (Translation 2). Some of the students were also enrolled in the following courses (Linguistics, Syntax, and Semantics). These courses are essential for providing the students with information about compound words and compounding as a word formation process. Twelve of the subjects were second year students and 13 were from the third and the fourth year. The test was done after taking permission from the course instructor. The test time is 50 minutes.

#### 4.2. Data collection and data analysis:

The data of the study was elicited in two ways. First, ten spaced compound nouns were selected from a computerized dictionary available on CD, - the ninth edition of *The Concise Oxford Dictionary*. These compound nouns are (*box office, calf love, case study, closed book, cover girl, cupboard love, donkey work, junk shop, number plate, and taxi dancer*). The selection was done in the following way; a headword which is included in a certain compound noun was entered so that all entries under this headword will be listed in alphabetical order. Then, the researcher chose a spaced compound noun. For example, to have the compound *calf love* in the result list, the word *calf* must be inserted under which we will see the following entries: [calf1, calf2, calf-length (adj), calflike (adj), calf love (n), calfskin]. Then the suitable compound will be chosen, that is *calf love*.

Second, in the process of data analysis with the selected compound nouns the researcher included a comparison of the information provided for each of the selected compound nouns as is stated in the two bilingual dictionaries Al-Mawrid and Al-Mughni, and the two monolingual dictionaries, OALD and LDCE. The transliteration for giving the Arabic meaning is used when discussing the information provided for the compounds in the bilingual dictionaries. The list of transliteration symbols is provided in the appendix 2.

A translation test was prepared. The test included ten sentences that involved the selected ten compound nouns. The subjects were asked to translate the sentences into Arabic and indicate the name of the dictionary they referred to.

### 5. Findings and Discussion:

#### 5.1. The treatment of the compound nouns in dictionaries:

Before proceeding with the discussion of the data it is useful to remind ourselves of the study questions - Are the selected compound nouns treated in the same way in different dictionaries? What type of information does each dictionary of those mentioned above provide for the selected compound nouns?

The findings are presented for each bilingual dictionary first, then for each of the monolingual dictionaries.

##### 5.1.1. Al-Mawrid Dictionary (English-Arabic).

Al-Mawrid Dictionary states that compound nouns are cited in separate entries in the dictionary. However, the dictionary provides the following information for the selected compound nouns.

- **Box office**
  - The dictionary treats this compound noun in terms of its spelling as a spaced compound. Furthermore, it defines (box office) as *[shubaak altathkir fii masrah]*. The dictionary however does not provide pronunciation or an example for the compound.

- **Calf Love**
  - The compound noun calf love is written as a separate compound and is defined as *[ghraam ?almuraaqaah] or [hub sari9 alzawaal]*. No pronunciation or example is provided for the entry of this compound.

- **Cupboard love**
  - Al-Mawrid cites the compound cupboard love in a separate entry and is defined as *[hub kaathib yuraadu bihi jar maghnam]*. Its spelling is cited in the dictionary as two separate words. The dictionary provides no pronunciation or example for the entry of this compound.

- **Donkey work**
  - The dictionary cites this compound differently from the previous one. It is written in the dictionary as one word (donkeywork) and is defined as *[kadh] or *[9amal shaaq]*. Furthermore, the dictionary
provides pronunciation for the word as [dongˈk -] showing that the stress is on the second syllable.

- **Taxi dancer**
  
  Al-Mawrid provides taxi dancers in terms of spelling as a spaced compound noun. The dictionary defines it as [ʔal raaqisah ?almaʔalu?urah]. Again, no pronunciation or examples of usage are given for the compound.

  The dictionary does not provide any information about the rest of the selected compounds, namely cover girl, closed book, case study, junk shops and number plate.

### 5.1.2. Al-Mughni (English-Arabic).

This dictionary cites all the compound words in separate entries. But the dictionary does not stick to one form in writing the compound words in terms of their spelling. Thus, the selected compound nouns may occur in the three forms - hyphenated, spaced and solid compounds. It treats the selected compounds in the following way:

- **Box office**
  
  Al-Mughni defines this word as [sunduuq bay9 altaθhaakir fi masraθ]. The compound is cited in a separate entry as a hyphenated compound. Furthermore, no example or pronunciation is given for the compound.

- **Calf Love**
  
  The dictionary defines calf love as [hub șibyaanii], [hub waldaneh] [hub șighaar]. The compound is cited as a separate entry. In terms of its spelling the dictionary considers this compound as a spaced compound.

- **Case Study**

  This compound noun is defined as [tahliil țawrii] or as [haθal ʔalfard bilnaθar ʔilaalbiʔah]. In terms of its spelling it is written as a spaced compound. However, no example or pronunciation is given.

- **Closed book**

  Al-Mughni cites the compound noun as a separate entry as a spaced compound. The compound is provided with the definition [kitaab mughlaq]. But the dictionary again does not provide pronunciation or examples of its usage.

- **Cover girl**

  This compound noun has been defined as [bint tahθhar suθuratuθa 9alaa waθjθ alghilaθ]. The dictionary cites the compound in a separate entry as a spaced compound. No illustrative examples are given.

- **Cupboard love**

  Al-Mughni cites this compound as a spaced compound, and is defined as [maθhabah biqaθ alhusuul 9alaa maʔrubah]. The dictionary gives no pronunciation or examples of how this compound is used.

- **Donkey work**

  Al-Mughni defines the compound as [shughul hamiθiʔ] [9amal murhiθ] 9amal yashuθuθ fiθθiθʔal?insaθ]. The dictionary indicates this compound is colloquial in its usages but there is no pronunciation given, or what part of speech the compound is.

- **Taxi dancer**

  This compound is cited as a separate compound and defines it as [bint turaaqis alrijaal muqaabil mablaθ min almaθ]. The dictionary does not provide its grammatical class or its pronunciation and no examples can be found.

  The dictionary does not provide any information about the compounds junk shop and number plate which are among the selected pronouns.

  Now let us consider the information provided for each of the selected compound nouns in the two monolingual dictionaries.

### 5.1.3. Longman Dictionary of Contemporary English (LDCE).

First let us start with the Longman Dictionary of Contemporary English (LDCE) which states in its front matter that there is no neat system that can handle the spelling of compound words in English. A compound word has three ways of spelling - it is either written as a solid compound, hyphenated compound or spaced compound. The dictionary provides systematic guide lines to enable the user to choose the most appropriate form depending on the following factors:

1. the part of speech of the compound
2. the stress pattern of the compound
3. the number of the syllables of the compound

- **Box office**

  The dictionary defines this word as “a place in a theatre, cinema, concert where tickets are sold.” Furthermore, it cites the compound in a separate entry as a hyphenated compound, mentioning its part of speech but without providing its pronunciation.

- **Calf love**

  This compound is defined in the dictionary but the user is asked to refer to the entry “Puppy love” for its meaning. This means that the compound is cited in a separate entry and written as a spaced compound. The stress pattern is provided showing that the first syllable is stressed and some grammatical information is provided showing that the compound cannot happen in the plural form.
• Case study

LDCE cites this compound in a separate entry with a stress pattern that shows that the first syllable is stressed. It defines the compound as "the study of a person or group of people in order to learn about their social development and relationship with other people in the society." However, the compound is written as a spaced compound.

• Closed book

This compound noun is cited in LDCE as a separate entry and written as a spaced compound. The dictionary indicates that it is formal. The stress pattern for this compound is shown with primary stress on the second syllable. The dictionary defines it as "something of which one knows nothing." The compound is cited in a separate entry and written as a spaced compound. The dictionary provides no definition for the compound but asks the user to refer to the compound puppy love.

• Cover girl

LDCE defines this compound as "a pretty girl whose picture appears on the cover of a magazine. The compound is cited in a separate entry as a spaced compound.

• Cupboard love

The dictionary provides grammatical information about this compound which is uncountable. The compound is cited in a separate entry and defined as "love shown with intention of gaining something by it."

• Donkey work

LDCE indicates that the compound noun (donkey work) is informal in British English and defines it as "the hard uninteresting part of a piece of work." The word is cited in a separate entry with grammatical information that shows it is uncountable. The stress pattern shows that the first syllable is stressed.

• Number plate

The separate entry of this compound noun provides us with some information about its usage in American English which is synonymous to license plate and is defined as "either of the signs usually at the front and back ends on a vehicle showing its official number." Again, the compound is written as a spaced entry.

The dictionary does not provide any information about the compound nouns junk shop, and taxi dancer.


In the front matter of OALD some information about compounds can be found, and how they can be looked up. The dictionary suggests that the user should look up the compound in a separate entry. If the user does not find it as a separate entry then they should look it up under one unit of its components. It adds that if the compound has a separate entry then its meaning is different from the parts that the compound is composed of. But if it is found as a run-on marked with a square then the meaning is derived from its parts.

The dictionary treats the selected compound nouns in the following way:

• Calf love

This compound is cited as a run-on under the head word (calf). The dictionary provides no definition for the compound but asks the user to refer to the compound puppy love.

• Case study

The dictionary cites the compound noun case study as a run on under the headword case, and it is defined as "they study of the development of a person or group of people over a period of time." The compound is hyphenated and no pronunciation is given and it does not include examples.

• Closed book

OALD cites closed book as a run on under the headword closed. It is defined as "a subject about which one knows nothing." Examples are provided, one of which is," nuclear physics is a closed book to most of us."

• Cover girl

OALD defines this compound as "a girl whose photograph appears on the cover of a magazine." The compound is cited as a run on under the entry of cover and written as a spaced compound.

• Cupboard love

The compound is cited as a run on under the entry "cupboard" and is written as a spaced compound. Furthermore, the dictionary provides that it is an idiomatic expression and it is defined as "an affection that is shown, especially by a child to gain something by it." The dictionary provides with an example to show how it is used. "It’s only cupboard love; He wants some sweets!"

• Donkey work

OALD cites the compound as a separate entry, but it is hyphenated. The dictionary provides syntactic information for the word such as that it is uncountable. The dictionary defines it as “the hard dull part of a job” and an example is provided on the usage, “we do the donkey-work and he takes the credit.”

• Number plate

OALD provides this compound noun as a run on under the entry of the word "number." It indicates its American usage as "license plate." It defines it as
“plate on a motor or vehicle bearing its registration number.”

The dictionary does not provide information for the compounds junk shop, and taxi dancer.

5.2. The analysis of the test data:

In the analysis of the test data (see appendix 1) the following observations can be made:

For the first compound noun "cover girl" the subjects' responses were classified as the following: 80% of the subjects correctly translated the compound noun while 20% of them translated it incorrectly.

With the compound noun "closed book" the subjects' responses were classified as the following: 8% of the subjects correctly translated the compound noun while 92% of them translated it as two separate words.

For the compound noun, "calf love" the subjects' responses were classified as the following: 24% of the subjects correctly translated the idiom while 76% of them translated the idiom incorrectly.

With the fourth compound noun, "box office" the subjects' responses were classified as the following: 36% of the subjects correctly translated the idiom while 64% of them translated it as separate words.

For the compound noun, "Donkey work" the subjects' responses were classified as the following: 60% of the subjects correctly translated the compound noun while 40% of them translated it incorrectly.

As for the compound noun, "case study" 20% of subjects correctly translated the compound while 80% of them translated it incorrectly.

Meanwhile, "cupboard love" was translated correctly by 44% of the subjects while 66% of them translated it as two separate words.

For the eighth compound noun, "taxi dancers" the subjects' responses were classified as the following: 12% of the subjects correctly translated the compound noun while 88% of them translated it incorrectly.

The ninth compound noun, "junk shops" was translated correctly by only 24% of the subjects while 76% of them translated the expression incorrectly.

Finally the tenth compound noun, "number plate" the subjects' responses were classified as the following: 48% of the subjects correctly translated the compound noun while 52% of them translated it incorrectly.
Figure.1: The frequency of the correct & incorrect translations of the compounds by the subjects

<table>
<thead>
<tr>
<th>Dictionary used by each subject in the test</th>
<th>Subject No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<td></td>
<td>X</td>
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<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>x</td>
<td></td>
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<td>x</td>
<td>X</td>
<td>✓</td>
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<td>x</td>
<td>X</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<td></td>
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<td></td>
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<td>x</td>
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<td>x</td>
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<tr>
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<td>✓</td>
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<td>✓</td>
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<td>✓</td>
<td>x</td>
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<td>x</td>
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<tr>
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<td>18</td>
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<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
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<td>X</td>
</tr>
<tr>
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<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>x</td>
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<td>x</td>
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<td>x</td>
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<td>Oxford</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Al-Mawrid</td>
<td>23</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Al-Mawrid</td>
<td>24</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Oxford</td>
<td>25</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Total of correct translations</td>
<td>20</td>
<td>2</td>
<td>6</td>
<td>9</td>
<td>15</td>
<td>5</td>
<td>11</td>
<td>3</td>
<td>6</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
6. Conclusion:

The analysis of the EFL learners' translations of the ten compound nouns they were given revealed that the most correctly translated compound noun was "cover girl" with 80% of subjects translating it correctly, and the least correctly translated one was "closed book" where only 8% of students managed to translate it as a compound noun, rather than as two separate nouns. "Taxi dancer" was another of the compound nouns that was only translated correctly by a small percentage (12%) of subjects. This could be attributed to the fact that most of the students were using the Oxford dictionary which did not provide a definition of the compound noun. This pattern can also be seen with the compound noun "junk shops" where only 24% of the students rendered it correct. None of the dictionaries under study provided a translation of this compound noun. The students generally did not do well in recognizing the items they were given were compound nouns, and treated them as separate words, giving a literal translation of each noun, which reflects a lack of knowledge of how the dictionaries they were using are organized. However, if dictionary users gain knowledge of how to deal with compounds, The bilingual dictionaries (AL-Mawrid and AL-Mughni) and the monolingual ones (OALD and LDCE) provide the user with good information regarding the translation of compound words in general and the compound nouns in particular.

After conducting this study a number of recommendations have been reached. For one, the bilingual dictionaries – al-Mawrid and al-Mughni – would benefit from more information in their front matter about the nature of compound words in terms of their phonological and grammatical shapes, as well as their spelling. It would also be useful if information was provided on how to look up compound words in the dictionary. In addition, the manner in which both types of dictionaries deal with compound nouns would be more useful if pronunciation of the compound nouns was given. It would also be highly beneficial to EFL learners if examples of usage are provided. If these changes are taken into consideration when compiling dictionaries, then EFL learners would be more aware that they are dealing with compounds and would be able to interact linguistically with them in a better manner.
Appendices:
Appendix1: Test

- Translate the following sentences into Arabic. Please indicate the name of the dictionary you referred to and for which sentence.
- Student level: (1st year, 2nd year, 3rd year or 4th year).
- Circle the course which you have taken:
  a. Syntax  b. Semantics  c. Linguistics  d. all
- Dictionaries chosen in the process of translating the statements below:

1. Laila was the cover girl in our magazine for many volumes.

2. Globalization is a closed book for all the students in our school.

3. John and Mary exemplified a calf love in their relationship.

4. Ali is responsible for the box office in that hotel.

5. What I did for my boss last week was a donkey work, but he did not appreciate it.

6. Ali conducted a case study on the acquisition of negation in English among children from the age of 1-3 years old.

7. The relationship between Irv and Sarah was nothing but a cupboard love.

8. Taxi dancers always go to the nightclubs searching for a job. But they often fail to do so.

9. The government fined the junk shops in the market.

10. Rami was jailed because his vehicle carried an illegal number plate.

Thanks for your cooperation.
Appendix 2: Transliteration System for Arabic Language Symbols of Consonants

<table>
<thead>
<tr>
<th>Arabic Symbols</th>
<th>Specifications</th>
<th>Roman Symbols</th>
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</thead>
<tbody>
<tr>
<td>ا</td>
<td>Voiceless glottal stop</td>
<td>?</td>
</tr>
<tr>
<td>ب</td>
<td>Voiced bilabial stop</td>
<td>b</td>
</tr>
<tr>
<td>ت</td>
<td>Voiceless alveolar stop</td>
<td>t</td>
</tr>
<tr>
<td>ث</td>
<td>Voiceless interdental fricative</td>
<td>th</td>
</tr>
<tr>
<td>ج</td>
<td>Voiced alveopalatal affricate</td>
<td>j</td>
</tr>
<tr>
<td>ح</td>
<td>Voiceless pharyngeal fricative</td>
<td>h</td>
</tr>
<tr>
<td>خ</td>
<td>Voiceless uvular fricative</td>
<td>kh</td>
</tr>
<tr>
<td>د</td>
<td>Voiced alveolar stop</td>
<td>d</td>
</tr>
<tr>
<td>ذ</td>
<td>Voiced interdental fricative</td>
<td>th</td>
</tr>
<tr>
<td>ر</td>
<td>Voiced alveolar flap</td>
<td>r</td>
</tr>
<tr>
<td>ز</td>
<td>Voiced alveolar fricative</td>
<td>z</td>
</tr>
<tr>
<td>س</td>
<td>Voiceless alveolar fricative</td>
<td>s</td>
</tr>
<tr>
<td>ش</td>
<td>Voiceless alveopalatal fricative</td>
<td>sh</td>
</tr>
<tr>
<td>ص</td>
<td>Voiceless alveolar emphatic fricative</td>
<td>s</td>
</tr>
<tr>
<td>ض</td>
<td>Voiced alveolar emphatic stop</td>
<td>d</td>
</tr>
<tr>
<td>ط</td>
<td>Voiceless alveolar emphatic stop</td>
<td>t</td>
</tr>
<tr>
<td>ظ</td>
<td>Voiced interdental emphatic fricative</td>
<td>z</td>
</tr>
<tr>
<td>ع</td>
<td>Voiced pharyngeal fricative</td>
<td>9</td>
</tr>
<tr>
<td>غ</td>
<td>Voiced uvular fricative</td>
<td>gh</td>
</tr>
<tr>
<td>ف</td>
<td>Voiceless labio-dental fricative</td>
<td>f</td>
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<tr>
<td>ق</td>
<td>Voiceless uvular stop</td>
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</tr>
<tr>
<td>ك</td>
<td>Voiceless velar stop</td>
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</tr>
<tr>
<td>ل</td>
<td>Voiced alveolar lateral</td>
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<td>Voiced bilabial nasal</td>
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</tr>
<tr>
<td>ن</td>
<td>Voiced alveolar nasal</td>
<td>n</td>
</tr>
<tr>
<td>ه</td>
<td>Voiceless glottal fricative</td>
<td>h</td>
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Symbols of Vowels:

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<th>Roman Symbols</th>
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<tr>
<td><strong>Short Vowels</strong></td>
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<td></td>
</tr>
<tr>
<td>Fatha</td>
<td>Front half-opened unrounded</td>
<td>a</td>
</tr>
<tr>
<td>dama</td>
<td>Back close rounded</td>
<td>u</td>
</tr>
<tr>
<td>kasra</td>
<td>Front open spread</td>
<td>I</td>
</tr>
<tr>
<td>أ or أ</td>
<td>as in doktoor (دكتور) in Arabic and &quot;orphan&quot; in English</td>
<td>o</td>
</tr>
<tr>
<td><strong>Long Vowels</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>آ</td>
<td>Front open unrounded</td>
<td>aa</td>
</tr>
<tr>
<td>أ or أ</td>
<td>Back close rounded</td>
<td>uu</td>
</tr>
<tr>
<td>إ or إ</td>
<td>Front close unrounded</td>
<td>ii</td>
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<td><strong>Semi-Vowels</strong></td>
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<tr>
<td>ي</td>
<td>Non-syllabic Palatal Approximant</td>
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<tr>
<td>و</td>
<td>Non-Syllabic Labio-Velar approximant</td>
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<td><strong>Diphthong</strong></td>
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<td>إ or إ</td>
<td>as in leih (ليف) in Arabic and &quot;tail&quot; in English</td>
<td>ei</td>
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References:

تعاطي المعامج أحادية اللغة وثنائيتها مع الأسماء المركبة وكيفية تعامل متعلم

اللغة الإنجليزية لغة أجنبية معها

الدكتور محمد البدوي

قسم اللغة الإنجليزية وآدابها، كلية الآداب، جامعة الزرقاء، الأردن

المتخصص: تقدم هذه الدراسة نتائج لكيفية تعامل بعض القواميس ثنائية اللغة كالمورد، والمغني الكبير، وقواميس أحادية اللغة كقاموس أكسفورد للمتعلمين المتقدمين، وقاموس لونغمان للغة الإنجليزية المعاصرة، مع الأسماء المركبة المنفصلة بمسافة مثل (case study, closed book, cupboard love, .... etc). كما تتناول الدراسة مشكلة قدرة المتعلمين على معرفة هذه الأسماء المركبة في السياق اللغوي. وللذى الغاية أعد الباحث اختيار ترجمة لعينة من طلبة البكالوريوس المتخصصين باللغة الإنجليزية وآدابها، حيث طلب منهم أن يترجموا جملًا تحتوي على الأسماء المركبة، ليتمكن الباحث من معرفة مدى قدرة المتعلمين على معرفة الأسماء المركبة، وكيفية البحث عنها في القواميس. وتوصلت الدراسة إلى أن القواميس الأحادية اللغة تعطي معلومات أكثر للمتعلمين عن كيفية البحث عن الأسماء المركبة والوصول إليها، بينما القواميس الثنائية اللغة لا توفر المعلومات الكافية عن ذلك. وأظهرت نتائج الاختبار نقصًا في قدرة المتعلمين على معرفة تلك الأسماء المركبة، والتعامل معها عند استخدام القواميس.

الكلمات المفتاحية: علم المعامج، الأسماء المركبة، مدخل مجمعي، معجم أحادي اللغة، معجم ثنائي اللغة.

تاريخ استلام البحث 10/7/2013، وتاريخ قبول البحث 10/22/2013

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Evaluating the Impact of Service Quality, Brand Image, Trust and Promotion on Customer Loyalty in Mobile Phone in Jordan

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Dr. Zakaria Azzam

Department of Marketing, Faculty of Economics and Administrative Sciences, Zarqa University, Jordan

Abstract: The objective of this study is to examine the relationship between service quality, brand image, trust, promotion and customer loyalty in mobile phone service. This industry is highly competitive as new players coming in, with aggressive value offering, high promotion, better network quality and great customer service. The data was collected from Zarqa University in Jordan. Of the 500 student participating in the 30-questions, face-to-face intercept survey, 400 or about 85% responded. After dropping incomplete questionnaires, 350 usable responses were analyzed using SPSS. Multiple regression analysis was performed to investigate the relationship between service quality, brand image, trust, promotion and customer loyalty. The findings demonstrate that service quality positively influences customer loyalty. Results showed significant, positive relationships between service quality, brand image, trust, promotion and customer loyalty. For customers with high perceived service quality, brand image, and promotion they have a strong loyalty. Finally, Implications of this work and directions for future research are discussed.

Keywords: Service quality, Brand image, Trust, Promotion, Customer loyalty, Mobile phone and Jordan.

Received July 15, 2013; Accepted November 17, 2013

1. Introduction:

The mobile phone network has been rapidly and widely growing and becoming one of the major communication channels for the day-to-day life in Jordan. Not only the rapidly development and improvement but also high competition in the mobile phone industry has resulted in the three major players in the Jordan market, including Orange, Zain, and Umniyah service provider. These three market leaders have long been competing in various aspects with broad range of competitive strategies. As a result of the high competition in this market, mobile phone users in Jordan have been influenced by the marketing strategies of these three major competitors. Thus, it becomes interesting to understand how business strategies affect the customers’ attitude toward mobile phones and also have impacts on their decision to use mobile phone services. More specifically, this study is to examine the relationship between service quality, brand image, trust, and promotion on customer loyalty in mobile telecommunication providers in Jordan from the teenager’s perspective. This segment of customer is important to telecommunication companies to focus as they are the main user of 3G technologies provided by them. The rapid and efficient deployment of new wireless data and internet services has emerged as a critical priority for communication. Network components that enable wireless data services are fundamental to the next-generation network infrastructure. Standard tools such as Bluetooth that enable connection between a mobile terminal and other electronic devices such as phone, and other peripherals, providing added convenience to the customer and allowing for the synchronization and uploading of information at all times via broad brand. Finally, this research aims to demonstrate that value-based customer management and the understanding of customers play a very important role in the mobile phone service market. The research also suggests that, as with previous research, the concept of service quality should be applied to the mobile phone service market to gain a deeper understanding of customer promotion and customer loyalty.

2. Problem Statement:

The use of mobile phones has become a vital need in human life. Furthermore, at the moment, the widespread use of smart phones in Jordan is due to consumers that are cleverer and more intelligent and the need of gadget that can simplify their daily businesses. As well as students, the use of mobile phones is now a necessity and is no longer for luxury. This situation has caused them to select the best mobile service provider that can benefit and be affordable to them as students. Based on preliminary survey conducted earlier by random brief interview on certain students, there are some students who are
not stick and loyal to one provider of mobile services due to various factors. Among the factors are, service quality, brand image, trust, and promotion. As students, they will often be influenced by these factors because they are known as those who like to make hasty decisions, easily influenced by their peers, and others. Thus, this research will evaluate the factors that contribute to brand loyalty in mobile service providers among students of economic and business administration, Universiti Zarqa Jordan.

3. Significance of the Study:
This research will provide numerous indications of customers’ satisfaction level in the telecommunication sector. Result of this research would also demonstrate the expectation of customers toward their respective provider in which the mobile telecommunication provider should look into. In general, this research will contribute to the academic and industry by providing some indications of the level of the service that should be provided by the service provider. From the academic contribution, this research is hoped to provide a factor that will enhance customer’s brand loyalty. In this relation to the knowledge of the factor behind customers’ behavior in choosing and maintaining their mobile telecommunication provider would provide the insight of marketing activities that should be practiced by the service provider.

4. Research Objective:
The objectives of this study are to evaluate the brand loyalty amongst students towards their mobile telecommunication service providers. Particularly, the research objectives are as follows.
1. To determine whether service quality influence customers’ brand loyalty towards their mobile telecommunication provider.
2. To determine whether brand image influence customers’ brand loyalty towards their mobile telecommunication provider.
3. To determine whether trust influence customers’ brand loyalty towards their mobile telecommunication provider.
4. To determine whether promotion influence customers’ brand loyalty towards their mobile telecommunication provider.

5. Literature Review:
The literature points out inconsistent results on the influence of service quality, brand image, trust, promotion, and customer loyalty. While some found significant findings (Bin Ayob, 2010; Nasir, 2012; Ismail, 2009; Hague et al., 2010; Lee, 2010) others did not any find any significant results ( Santouridis, & Trivellas, 2010; Rouibah et al., 2011). Bin Ayob (2010) conducted a study in Malaysia to investigate the relationship between service quality, trust and customer loyalty. The result of this study showed that the relationship between the service quality, trust and customer loyalty is significant and positive. Similar findings are also reported by Nasir, (2012), who examined the relationship between brand image and customer loyalty among 300 respondents, they demonstrated that brand image is significant. Ismail, (2009) explored the factors that affect customer loyalty among 200 customers. One of these factors is promotion. Results of this study showed a significant impact between promotion and brand loyalty. On a contrary, in a study conducted by Santouridis, & Trivellas, (2010) to examine the relationship between trust and customer loyalty among 345 respondents, they found that trust is insignificant. Rouibah et al., (2011), in his study to investigate the relationship between service quality and customer loyalty among 300 students, also found insignificant impact between service quality and customer loyalty. Similar results were also reported by Boohene, and Agyapong (2011), who explored the factors that affect customer loyalty among 700 respondents. However, Review of the literature revealed a lack of research regarding service quality, brand image, trust, promotion and customer loyalty.

5.1 Telecommunication sector in Jordan:
The telecommunication sector in Jordan plays a vital role in driving demand for the internet through investments in expanding reach of 3G coverage and healthy competition that centers on customers, resulting in smart bundling of smart phones and plans. Furthermore, Data services are still considered as a new business in the telecommunication sector. One of the challenges is to be able to provide internet for all. Consequently, in order to do that, the mobile service providers can not just build a wide network, but at the same time they need to be able to provide the capacity for the traffic to flow smoothly. The smart phones will play a vital role in the growth of data revenue. Therefore, Telecommunication systems have become electronic infrastructure to transmit information, voice, messaging, data, graphics, video, music, and the latest 3G network (Haque et al., 2007). It is a fast-growing technology worldwide communications. It provides an opportunity for users to choose among mobile service providers. At present, because of the competition, the mobile service provider offering innovative services and competitive prices as well. In the background of the Jordanian telecommunications, competition can be seen as a main factor among providers of mobile services. Nowadays, there are three major companies in the telecommunication sector namely Zain, Orange, and
Umniyah. The three companies known as the mobile service providers’ market segments include traditional Jordanian telecommunications, technology and mobile wireless, broadband and technology markets. Zain, is the oldest mobile telecommunications company in Jordan. Zain is one of a member of the Axiata group of companies. Zain claims to have the widest and most extensive coverage nationwide, compared to other mobile services in Jordan. (www.Zain.com.Jordan). Orange Communications companies are a Jordan mobile network operator headquartered at Amman, Jordan. It was started in the year 1999. Orange provides a variety of mobile communication products and services. Orange most popular service is its prepaid brand mobile, which currently serves over one million customers in Jordan. Orange mobile was the second mobile communications company in Jordan. (www.Orange.com.jordan).

Umniyah Communications companies are one of the major mobile service providers in Jordan. Umniyah is the third mobile service provider in Jordan to introduce Mobile Number Selection service which was implemented in 2005(www.Umniyah.com.Jordan).

5.2 Customer loyalty:

Recently, competitive and changeable market place and customer loyalty are seen to be critical factors to the success of business firms because attracting new customers is more expensive than retaining exiting ones (Lee, 2010). Numerous studies have suggested that loyal customers are a competitive asset and that a way to retain customers is through secure and collaborative relationship between customers and service providers (Ismail, 2009). In the telecommunication sector, it is significant to ensure the good relationship among customers and mobile service providers. Moreover, a customer’s tendency to select one mobile telecommunication provider over a competitor’s is absolutely crucial for any company survival because profitability relies on customer loyalty and repeat purchasing. In cultivating customer loyalty, the only perspective that matters is the customer’s perspective of good service. Which are high level of customer trust lead to higher and more revenues? Even when from the company perspective they may had been providing great service, but if their customers disagree, then they are not actually providing great service and thus customer loyalty is not being cultivated. Moreover, in a violent domestic telecommunication market it is crucial to develop vast loyal customer base in order to anticipate growth. Customer loyalty has defined in numerous different but similar ways by different researchers. Kheng et al. (2010) treat customer loyalty in behavioral term like repeat purchasing frequency or relative volume of same-brand purchasing. Oliver (1997) defines customer loyalty as “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future”. In contrast, Chaudhurs and Holdbrook (2001) defined customer loyalty as in Behavioural or attitudinal terms. Behavioural or purchase loyalty consists of repeated purchases of the brand. Attitudinal loyalty refers to the degree of dispositional commitment in terms of some unique value associated with the brand. Therefore, most marketing literature defines customer loyalty as repeat purchases or recommendations to other people (Li & Robert, 2011). To measure the success of a marketing strategy, loyalty is one of the often used critical indicators (Flavian, Martines, & Poloy, 2001).

5.3 Factors influencing customer Loyalty:

There are a number of previous researchers who also feel that among the factors that influence customer loyalty on the mobile service providers are service quality, brand image, trust, and promotion.

5.3.1 Service Quality:

The main factor affecting customer loyalty is service quality, which is considered in marketing literature as a vital factor for creating, building and maintaining relationships (Nasir, 2012). In addition, there have been a considerable number of empirical researches emphasizing on the dimensions of service quality (Cronin and Taylor, 1992; Dabholkar, Thorpe and Rentz, 1996; Parasuraman, Zeithaml and Berry, 1988; Parasuraman, Berry and Zeithaml, 1991; Lee, 2010). According to Grönroos (1984) suggested two dimensions of service quality: technical quality and functional quality. Technical quality is “what a customer receives,” and functional quality is “how a service is provided or delivered.” Parasuraman et al. (1988) defined perceived service quality as “the consumer’s judgment about the superiority or excellence of a product.” They suggested the service quality model conceptualized as a difference between perceptions and expectations. The model consists of five specific dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Moreover, service quality is a significant element to evaluate a performance of products. Offering a high quality service is the best way to create customers trust and satisfaction, as well as obtaining competitive advantages and building a long-term relationship with customers. Finally, service quality is considered to be a main factor in companies’ financial performance, that is, profitability. Service quality not only attracts new customers away from competitive companies but
also encourage customers’ repurchase intentions (Venetis & Ghauri, 2000). Lee (2010) and Nasir (2012) noted that service quality is positively related to customer loyalty. That is, behavioral intentions such as repurchase intentions, recommending a provider, and resistance to switching are dependent on service quality (Cronin et al., 1997, Cronin, Brady & Hult, 2000; Levesque & McDougall, 1996; Zeithaml et al., 1996). Furthermore, Aydin and Özer (2005) and Kuo et al. (2009) indicated that there is a positive relationship among service quality and customer loyalty.

While some of the past studies have demonstrated an insignificant relationship (Hague, Rahman, & Rahmam, 2010; Uddin, & Akhter, 202).

5.3.2 Brand Image:

Brand is defined as "a name, term, sign, symbol, or design or combination of these that identifies the maker or seller of a product or services. Consumers view a brand as a significant part of the product, and branding can add value to a product (Kotler, & Armstrong, 2005; Ismail, 2009).

Similarly, Kuusik (2007) indicated that brand image is among the most complex factors that impact the brand loyalty. Brand loyalty may be influenced through the brand image in two ways. If the consumers express their identity according to the preferences of brand in consciously or subconsciously, otherwise, the consumers will classify themselves into different social group, which may contribute to the assessment of values in the various groups. Kim et al. (2001), they found that the attractiveness of brand personality impact the brand loyalty indirectly after review the link between the brand personality and loyalty. Other than that, consumers are prefer to become a partner with someone who have same preference in image and values and even consumer-brand relationships can be seen as subjects of perceived compatibility (Fournier, 1998). Furthermore, Oliver (1999) found that brand need to be a part of customers self identity and social identity in order to make the customers be fully loyal. A firm should view its brand to be not just a product or service, but as a brand image that represent a company's philosophies. As a result, the brand image is very significant as it will positively reflect the marketing activities either reasoned or emotional. Moreover, a consumer is likely to form brand image in mind from inexperience ways, such as word of mouth from other customers, a company’s reputation in public, marketing communication, and so on. A positive brand image will help the company to convey its brand value to the consumers easier. In addition, it also will generate favorable word of mouth among the consumers. In contrast, the negative brand image will reflect on the opposite part, where a neutral or unfamiliar brand image may not bring to any badness, but it will not increase the effectiveness of communication, such as word of mouth (Zhang and Feng, 2009). Despite the inconsistent findings, the present study hypothesizes that brand image influences significantly brand loyalty. This is because some previous studies found significant results in their research.

5.3.3 Trust:

In previous researches, trust has been conceptualized in several ways; researchers have long acknowledged this confusion. Kuusik (2007) indicated that the feelings of trust worthiness factors definitely affect the brand loyalty. In business, trust is known as one of the most significant elements in stable and collaborative relationship (Akbar & Parvez, 2009). Thus, customers should perceive quality as their preferences in order to trust the brand (Nawaz & Usman, 2010). Furthermore, Roostika and Astuti (2011) also indicated that the trusting intentions will make the truster feels secure and is willing to depend on the trustee. As a result, in order to trust a service, consumers should positively in perceive the quality. This demonstrates that perceived service quality will bring the positive impact on trust. In practical business activities, in order to establish a long term successful relationship among all the parties involved, the critical aspect will be the development of trust. Finally, most studies agree that trusting believe directly affect trusting intentions (e.g. repurchase intentions) (Mayer et al., 1995). In addition, Mukherjee and Nath (2003) suggested that trust as a driver of customer relationship commitment. They discovered that trust has a significant positive effect on relationship commitment. These results suggest that where customers maintain long-term contractual relationship (similar to the context of current study) with their online service providers, trust would be likely to be a strong driver of customer relationship commitment or loyalty.

5.3.4 Promotion

Promotion is one of the key elements of 4Ps in the marketing mix, means to communicate the company’s product to the consumers. Importantly, promotion aims to establish idea and perception in to customers mind and differentiate these products from other brands. It greatly effects consumer images, beliefs, and in turn, influences their purchase behavior (Evans et al., 1996). There are numerous definitions and measures of promotion, but there is no consensus on a single definition. Alvarez and Casielles (2005), suggested that promotion is a set of
stimuli that are offered sporadically, and it reinforces publicity actions to promote the purchasing of a certain product. In a similar vein, Haque et al. (2007) found that the promotional offer consists of several different aims to create a better sale impact, such as coupons, samples, premiums, contests, point-of-purchase displays and frequent buyer programs. They also said that each of the promotion techniques are intended to have a direct impact on buying behavior and perception about the company or service provide. In this study, the objective of promotion are to create awareness, get people to try products, provide information, keep loyal customers, increase use of a product, and identify potential customers (Kaapanda, 2012). Moreover, according to Ayob (2010), through advertising, sales promotion, personal selling, and publicity, product were introduced to customer and persuade new and old customer to purchase. Finally, promotion is used to communicate with customers with respect to product offering, and it is also away to encourage purchase or sales of a product or service. In addition, promotion tools are used by most organizations in support of advertising and public relations activities, and they are target toward customers as final users.

6. Theoretical Framework and Hypotheses:
6.1 Theoretical Framework:
Theoretical framework is a conceptual model of how one theorizes the relationship among several factors that have been identified as important to the research problem. It also discussed the relationships among variables that are deemed to be integral to the dynamics of the situation being investigated. It consists of two variables which are the dependent variables and independent variables. Finally, based on our literature review and research problems, we develop an integrative framework that is presented in figure:

Figure: (1) Theoretical Framework

6.2 Research Hypotheses:
H1: There is a significant positive relationship between service quality and customer loyalty in mobile phone industry.
H2: There is a significant positive relationship between brand image and customer loyalty in mobile phone industry.
H3: There is a significant positive relationship between trust and customer loyalty in mobile phone industry.
H4: There is a significant positive relationship between promotion and customer loyalty in mobile phone industry.

7. Methodology:
The main objective of this study is to explore the factor contributing to customer loyalty in the mobile telecommunication service provider in Jordan. The study would attempt to establish the relationship between four independent factors namely service quality, brand image, trust, and promotion towards customer loyalty among mobile users. In addition, this study will discuss the research instrument and methodology used for this study. Specifically, it will address the population and sample, data collection, and method for data analyses.

7.1. Research Instrument:
In order to achieve the purpose of this research, the instrument for data collection was designed to suit the method used and to reflect the construct to be measured. The questionnaire was designed to measure the brand loyalty toward their mobile telecommunication provider in Jordan. A 5-point Likert- scale ranging from 1(strongly disagree) to 5 (strongly agree) were used. The questionnaire consists of two parts. In part one, respondents were asked about their demographic information such as gender, age, education level, and how they select their GSM line. Part two of the questionnaire, questions were asked related to the four dimensions of the independent variables. Respondents were asked to choose and indicate the degree of agreement in Likert-scale. Scale rating from 1 to 5 was used, anchored by 1=strongly disagree, 2=disagree, 3=uncertain, 4=agree, 5= strongly agree. These part 30 questions. The summary of each dimension is as follows.
A. Service quality: consist of 5 questions adopted from Ismail (2009).
B. Brand image: consist of 5 questions adopted from Nasir (2012).

7.2. Population and Sample:
The main sampling technique applied in this study was Random Sampling, where it is a sampling method that assures each element in the population of an equal opportunity of being included in the sample (Zikmund et al., 2010). This method is simple compare to other methods because it requires only one stage of sample choice. The survey is conducted in Zarqa University in Jordan. Therefore, the target population for this research is students of Zarqa University. The sample size is 500. However, after distributing 500 sets of questionnaires to the respondents, only 400 sets are returned.

7.3. Data Collection Procedures:
Self-administered questionnaires were used for data collection from students of Zarqa University in Jordan. After identifying all the respondents, this study involved to distribute the questionnaires. The researcher intercepted personally the respondents in the selected Zarqa University and it took one month to complete the collection process. The structure of the questionnaire is clear, easy to understand, and straightforward to ensure that the students could answer the questions with ease.

4.4. Data Analysis
Selected personal characteristic (gender, age, education, income, and How the select their GSM line) were controlled in the statistical analysis following several researchers (Nasir, 2012; Nawaz, 2010; Bin Ayub, 2010). Thus, coding the responses, cleaning and screening the data using the suitable data analysis strategy are combined analysis of data (Churchill & Lacobucci, 2004; Sekaran, 2000). The several tools and methods of SPSS software version 15 were used for analyzing the data and testing the hypotheses. Factor analysis, descriptive statistics, missing data, treatment of outlier, normality, homoscedasticity, and multicollinearity were done in this study. In the third stage, analyzing of data through validating instruments (instrument validity, instrument reliability) was conducted. To describe the relation between the factors correlation analysis was used and to test the service quality, brand image, trust, promotion on customer loyalty regression analysis was utilized.

8. Result and Implication:
8.1. Profile of Respondents:
In this section, the evaluated profile includes, gender, age, academic qualification, and any other relevant information such as, how you choose your current GSM provider. Among 350 respondents, there were slightly more females (57.5%) than males (42.5%). In terms of age, the majority of respondents were between the age of 20 and 25, which represented 41.6% of the total respondents. The age of these respondents were almost evenly distributed among the age groups of 26-30 (24.2%), 30 years old (18.9%), and less than 20 years (15.3%). With respect to academic qualification, 90% were holders of bachelor degree, and 10.0% a master degree. Furthermore, with respect to choosing their current GSM provider, 49% of the respondents choose their global system for mobile communication (GSM) provider due to the promotion made while 14% of the respondents chose their GSM provider through the recommendation their family member. On the other hand, 25% respondents chose their GSM provider through their friends’ recommendation and 12.0% choose their GSM provider through other means of marketing activities.

8.2. Factor Analysis Results:
Exploratory factor analyses were conducted separately for each variable, using principal component factoring and the Oblimin rotation method. In interpreting the factors, we used the guideline provided by Hair et al (2006) where the loading of 0.50 or greater on one factor are considered. The appropriateness of exploratory factor analysis was determined by examining the correlation matrix of the variables. The Kaiser-Meyer- Olkin measure of sampling adequacy was over .760 in all investigations. The Bartlett test of sphericity (over 959.468 in all variable) showed that the correlation matrix has significant correlations (p = 0.000 for all variables), which indicated very good overall sampling adequacy (Hair et al 1998).

5.3. Descriptive Statistics:

<table>
<thead>
<tr>
<th>Component</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer loyalty</td>
<td>3.8345</td>
<td>.77831</td>
</tr>
<tr>
<td>Service quality</td>
<td>3.7291</td>
<td>.75704</td>
</tr>
<tr>
<td>Brand image</td>
<td>3.9718</td>
<td>.65252</td>
</tr>
<tr>
<td>Trust</td>
<td>3.3639</td>
<td>1.00350</td>
</tr>
<tr>
<td>Promotion</td>
<td>3.6342</td>
<td>.85678</td>
</tr>
</tbody>
</table>

Based on Table 1 above, 350 valid data were analyzed. Mean value for each variable was calculated. According to Hair et al.(2006), the mean scores of less than 2.5 are considered low; mean scores of 2.5 to 3.5 are considered moderate, and mean scores more than 3.5 are considered high. As mentioned previously, brand image is represented by five items. As shown in Table 1, the mean score of
this variable is considered very high (3.97), whereas the other variables had a high mean score (3.5 and above). For instance, the mean score of customer loyalty is 3.83, service quality 3.72, promotion 3.63 and trust 3.36. Finally, this result confirms respondents’ viewpoint to repurchase in the future.

8.4. Scale Reliabilities:

The reliabilities for the variables were calculated and all concur with Nunnally's (1978) minimum threshold of 0.70. Table 2, lists the Cranach’s Alpha (coefficient alpha) of each variable. All the variables show a high degree of reliability. Table 2: show that there were four independent variable factors of customer loyalty that was tested by the researcher.

Table: 2. Reliability Analysis of Factor of Customer Loyalty

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service quality</td>
<td>5</td>
<td>.710</td>
</tr>
<tr>
<td>Brand image</td>
<td>5</td>
<td>.730</td>
</tr>
<tr>
<td>Trust</td>
<td>5</td>
<td>.774</td>
</tr>
<tr>
<td>Promotion</td>
<td>5</td>
<td>.80</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>6</td>
<td>.839</td>
</tr>
</tbody>
</table>

9. Regression Analysis:

Multiple regression analysis was performed for getting answers of research questions of this study. In order to conduct multiple regression analysis, some assumptions of the relationship between the dependent variable and the independent variables need to be met such as normality, linearity, constant variance of the error terms and independence of the error terms (Hair et al., 1998).

Table: 3. Result of Multiple Regressions between Service quality, Brand image, Trust, Promotion, and Customer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent variable</th>
<th>B</th>
<th>Beta</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service quality</td>
<td></td>
<td>.309</td>
<td>.401</td>
<td>.000</td>
</tr>
<tr>
<td>Brand image</td>
<td></td>
<td>.358</td>
<td>.302</td>
<td>.000</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td>.328</td>
<td>.31</td>
<td>.000</td>
</tr>
<tr>
<td>Promotion</td>
<td></td>
<td>.270</td>
<td>.251</td>
<td>.000</td>
</tr>
<tr>
<td>F statistics=962.109</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square=.878</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square =.877</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Hypothesis Test:

The results of Hypothesis 1 demonstrates that service quality is significantly and positively related to customer loyalty for the total sample ($\beta=.309$, $p=.000$). Therefore, the results support Hypothesis 1. Regarding Hypotheses 2, the data indicate that brand image is significantly related to customer loyalty for the total sample ($\beta=.358$, $p=.000$). Therefore, the results support Hypothesis 2. The findings of Hypotheses 3 indicate that trust is significantly and positively related to customer loyalty for the total sample ($\beta=.328$, $p=.000$). Therefore, the results support Hypothesis 3. Finally, the findings of Hypotheses 4, the data indicate that promotion is significantly related to customer loyalty for the total sample ($\beta=.270$, $p=.000$). Therefore, Hypothesis 4 is supported.

11. Correlation of Analysis:

Correlation analysis describes the strength and direction of the linear relationship between two variables (Pallant, 2001) and the degree of correlation indicates the strength and importance of a relationship between them. The correlation between these four variables is shown in Table 4. The correlation is considered a high correlation based on Cohen (1988), and Pallant (2007) more than .50 score is considered largely correlated between variables.

Table: 4. Pearson Correlation for Independent Variables and Dependent variable

<table>
<thead>
<tr>
<th></th>
<th>CL</th>
<th>SQ</th>
<th>BI</th>
<th>TR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ</td>
<td>.821(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>.651(**)</td>
<td>.559 (**)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TR</td>
<td>.772(**)</td>
<td>.614(**)</td>
<td>.593(**)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>.799(**)</td>
<td>.657(***)</td>
<td>.671(***)</td>
<td>.654(**)</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)

From the four factors identified, the results showed that service quality and customer loyalty were positively related. Service quality was considered as one of the most important factors in determining a customer loyalty. In addition, the finding showed that brand image and customer loyalty had a positive relationship. Furthermore, promotion and service quality was an important factor in influencing and encouraging customers to repurchase mobile. The results of this study confirm the importance of the entire variable. Therefore, the results support previous research findings from numerous studies, which consider service quality, brand image, trust and promotion as a vital factor in a customer choice (Bin Ayub, 2010; Nasir, 2012; Nawaz, 2010). In addition, the proposed model suggests that promotion plays a significant role in a customer assessment but is not the only factor. For a more complete perceptual understanding of brands, the dimensions of quality and loyalty should be examined.
12. Conclusion:
This research evaluated the factors affecting customer loyalty in the context of Jordan mobile phone service sector. The results of this research showed that the four construct of independent factors was a dominant to association with customer loyalty. The result implies that telecommunication service providers must recognize and emphasize the significance of these factors to increase customer loyalty among their existing customers or to be more appealing to new customers. The low and moderate opinion of service quality, brand image, trust, and promotion means that there are still rooms for improvement for these four factors. The most important factor in the decision making process for customers to choose a service provider is brand image and service quality projected by telecommunication service providers as compared promotion and trust. These findings are consistent with the work of Nasir (2012), and Bin Ayob (2010), which may have been influenced by the respondents’ background. Furthermore, the findings also provide supporting evidence for the views of significant contribution by influencing the through, feeling, interaction and performance toward customer loyalty. Focusing on delivering customer value in brand loyalty, encourage telecommunication service provider to make the best use of their people and resources in order to create services that customer’s value (Chapman & Al-khawaldeh, 2002). Consequently, mobile telecommunication service providers must improve their customers’ loyalty level, in their effort to increase retention rates and attract new customers and brand loyalty. One particular interest is to be finding that service quality appears to play a vital role as suggested by many authors. Furthermore, it is going to be enough for managers to just make the system easy to interact with, attractive and interesting enough to encourage customer but to develop telecommunication system which are trustworthy, secured and private for their customers. Companies can therefore increase customers’ loyalty directly by improving user friendly design system and assurance dimensions of their service that they provide (Bin Ayob, 2010). In addition, the results indicate the importance for mobile telecommunication service providers to promote brand. Also, trust was found to have a positive contribution towards customer loyalty. This suggests that customers require promotion and trust from mobile telecommunication service providers. Finally, the findings are consistent with previous studies which indicate that service quality, brand image, trust, and promotion are interacted in effecting customer loyalty. Finally, this study will contribute to the academic and industry by providing some indication of the level of the service that should be provided by the service provider.

13. Recommendations:
There is one recommendation drawn from the finding of this study. This recommendations may be a bit much to help the providers to further expand their reputation while maintaining the loyalty of their customers. The providers can attract more customers by offering a lower price for contract of Smartphone or tablet PC (personal computer). This is due to the students today that tend to prefer the use of tablet PC or smart phone, which is more flexible to carry to anywhere. With the lower price for the contract of data plan services together with the gadget, students will be able to have the gadget to facilitate their learning process.

Reference:
foundations (9th ed.). Ohio: Thomson south-Western.


Evaluating the Impact of Service Quality, Brand Image, Trust and Promotion on Customer Loyalty in Mobile Phone in Jordan


تقييم أثر جودة الخدمة وصورة العلامة التجارية والثقة والترويج في ولاء العملاء للهاتف المحمول في الأردن

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الدكتور زكريا عزام

قسم التسويق، كلية الاقتصاد والعلوم الإدارية، جامعة الزرقاء، الأردن

المؤلف: هذه الدراسة هي دراسة العلاقة بين جودة الخدمة، وصورة العلامة التجارية، والثقة والترويج وبين ولاء العملاء لخدمة الهاتف المحمول. وتعتبر هذه الصناعة ذات قدرة تنافسية عالية بين المنافسين للخدمة. في ظل وجود سوق جيد، وترويج عالي إضافة إلى وجود جودة عالية في شبكة الاتصالات المتوفرة. ونبني هذه الدراسة على مجموعة من الفرضيات المرتبطة بجودة الخدمة، وصورة العلامة التجارية، والترويج مرتبطة بولاء العملاء لخدمة الهاتف المحمول. واتخاذ فرضيات الدراسة تم استخدام المناهج الوصفي التحليلي من خلال توزيع إسهامات على عينة الدراسة المكونة من 500 طالب في جامعة الزرقاء. الأردن، حيث تم استعداد 400 إسهام من 50 إسهام غير صالح، ويقب 350 إسهام للتحليل الإحصائي. تم استخدام التحليل المتعدد للانحدار للكشف عن العلاقة بين متغيرات الدراسة المستقلة والع弹性. وأظهرت نتيجة التحليل أن هناك علاقة بين جودة الخدمة وصورة العلامة التجارية والثقة والترويج وبين ولاء العملاء. أما من وجهة نظر العملاء فاظهر التحليل أن الجودة وصورة العلامة التجارية والترويج أكثر ولاء للهاتف المحمول في الأردن. وقدمتها الدراسة مجموعة من التوصيات التي لها انتكاسات إيجابية على صناعة الهاتف المحمول.

الكلمات المفتاحية: جودة الخدمة، صورة العلامة التجارية، الثقة بالعلامة التجارية، الترويج، ولاء العملاء، الهاتف المحمول، الأردن.

تاريخ استلام البحث 15/7/2013، وتاريخ قبول البحث 17/11/2013
Customers’ Perspective towards Factors Associated with Technological Product Adoption Failure: Case of Jordanian Hotels

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Abstract: A self administered questionnaire was the data collection tool for the descriptive part of this study. It targeted a number of hotels with an intention to capture specific parameters. In this study the researcher uses a 5-point Likert Scale-type response format to test the effect of income, status, education, and gender on the factors associated with technological product failure. The result shows that respondents of Jordanian hotels perceive technological product failure which is not an innovative advantage perceived and the information about product is scarce, unclear, or difficult. The married respondents feel more than the single regarding the factors associated with technological product failure due to poor selection of target market, distribution channel selection and price skimming strategy that conflicts with mass-market approach.

Keywords: Technological Product, Customers’ Perspective, Hotel Services, Jordan.

Introduction:
Adoption of the internet is influenced and has an influence on other firms and customers within the market. If the technology is widely accepted as a channel of communication and/or transaction by customers and competitors within the market, other firms may have to adopt the technology to maintain their competitive position. Use of the Internet by a dominant competitor may encourage its use by others, as it suggests that the technology has revenue-generating potential.

The Internet today is by no means is considered as a new medium to marketing academics and practitioners. Indeed, since the mid-1990s the growth of the medium has been astounding and has far outstripped.

One important consideration for online marketing intelligence and strategic planning is the appropriate data used in different marketing research analysis. A marketer may wish to analyze a Web site's popularity, or measure the success of an online direct marketing initiative, but currently little direction exists as to a standard for conducting such analysis.

An electronic market is an inter-organizational information system through which multiple buyers and sellers interact to accomplish one or more of the following market-making activities: identifying potential trading partners; selecting a specific partner; and executing the transaction (Shannon, 2004).

Implementing E-Marketing by hotel firm can change both the shape and nature of its business all over the world because of the increase usage of the internet and other electronic marketing tools such as e-mail, internets, extranets, and mobile phones (Zakaria, 2013).

Information and computer technology specially e-marketing, has affected many trends in today’s business, particularly, the socioeconomic trends of hotel industry. Most of Jordan hotels increasingly emphasize direct e-payment, e-advertising e-reservation and other e-marketing tools used by hotels which benefits more than hospitality firms and also customers by reducing costs and providing real-time information to both the parties. This gives hotels the chance to use all e-marketing technologies in order to take full advantage of the practical and creative business uses (Zakaria, 2013).

Research Aims and Objectives:
The aim of this research is to conduct a critical analysis of the factors associated with technological product failure. The specific objectives of the study were:
- To identify the key characteristics of the service operation in terms of offering the technological service to the market;
- To test the effect of income, status, education, and gender on the factors associated with technological product failure.
Importance of the Study:

The importance of the study derives from its attempt to highlight the factors associated with technological product adoption failure in Jordan. In short, the importance of this study stems from that its being the first study of its kind in Jordan. The present study is playing an important role for both academic and practical levels. From practical point of view, the hotel represents one of the most important sectors in any economy in general, and for Jordan economy, in particular, where the economy depends greatly on the hotel sector as a source of its competitive advantage in this region. (Zakaria, 2013).

Literature Review:

Zakaria (2013) studies the factors affecting the adoption of e-marketing technology in hotel sector in Jordan. The research found eight significant relationship between hotel size, hotel willingness to change, IT knowledge, customer pressure, competitors pressure, ease of e-marketing use, top management support and adoption of e-marketing technology.

Anna al et (2013) examine the impact of cyber ostracism on online complaint handling. This research aims to examine how consumers react to being ignored by a company once they have complained about an online service failure. The researchers seek to propose that automatic reply e-mails to customer complaints are considered a form of cyber ostracism, thus having equally harmful effects on customer perceptions as a mere no reply.

The results indicated that consumers did not perceive any significant difference between an automatic reply e-mail and no reply at all and perceived both to be a form of cyber ostracism. It was also found that cyber ostracism led to higher levels of negative emotions, lower levels of satisfaction, and higher levels of negative behavioral outcomes. The prediction that these impacts would be moderated by failure severity was partially supported.

These findings should alert retailers to the fact that when an online failure occurs, proactive and personalized recovery efforts are necessary to maintain customer loyalty and mitigate negative behavioral outcomes.

Mingzhi and Kai (2012) study the government driven model of institutional change through adoption of new technology: A case study of the failed pharmaceutical bidding and procurement platforms in China. This paper reflects on the evolution of China's drug distribution industry from the planned economy era to the most recent dramatic shift, with a major focus on the analysis of the government's efforts of centralizing the drug distribution channel through adoption of e-bidding platforms. The purpose of this paper is to analyze the limitations and problems of this model of implementing institutional change.

The failure of implementing third party electronic platforms based drug procurement practices shows the importance of aligning the mode of governing transactions with the macro level institutional environment and the micro level individual behavioral traits, and the government's decision of taking over the ownership of transaction platforms has further corroborated this logic.

Hsin-Hui al et. (2011) examine the consumer responses to online retailer's service recovery after a service failure: A perspective of justice theory. The purpose of this paper is to investigate consumer responses to online retailer service recovery remedies following a service failure and explores whether the phenomenon of the service recovery paradox exists within the context of online retailing.

The results show that distributive justice, procedural justice, and interactional justice have a significant positive influence on customer satisfaction. Among the three dimensions of service recovery justice, only distributive justice has a significant positive influence on repurchase intention, and only interactional justice has a significant negative influence on negative WOM. Additionally, both the interaction between distributive justice and procedural justice and the interaction between distributive justice and interactional justice are found to significantly influence customer satisfaction, negative WOM, and repurchase intention. The results also indicate that the service recovery paradox does not appear to exist in the online retailing context.

The findings will allow online retailers to develop more effective strategies for preventing service failure and improving customer satisfaction, negative WOM, and repurchase intention.

Pauline Ratnasingam, (2005) examines behavioral dimensions of trading partner trust in EDI adoption via a qualitative interpretative case study conducted between an automotive manufacturer and their first tier supplier. While trading partner trust was observed to be an implicit factor embedded in pre-arranged contractual agreements, the findings of this study suggest that trading partner trust is important for cooperative long term trading relationships.

Claudia Loebbecke, and Stefan Schafer (2005) illustrate how essential it is to create transparency by integrating the entire system architecture with internal and external communication and business processes. Having started with a general corporate information system and a comprehensive electronic
product catalogue, transtec's Web presence evolved to become one of the best performing online order-systems in Germany.

Tony and Graham (2005) propose an electronic market in design and supply capability that spans the supply chain and discusses some of the research issues raised by such a prospect. Many elements of a technical solution are available. The research must address significant changes in working practices and soft systems methods addressing human issues, which are more important than technological design. Exploration of business process re-engineering options using simulation models is another important aspect of the work. Although the target area is the construction industry, many of the issues, which will need to be explored, are relevant for other.

Pauline Ratansingam (2004) analyzes inter-Organizational Trust in EDI Adoption: The Case of Ford Motor Company and PBR Limited in Australia. The findings of a case study within an automotive manufacturer indicate that negative (coercive) power left smaller suppliers in a situation of uncertainty, and even conflict, whereas positive (persuasive) power resulted in open communications between smaller suppliers and their buyers, thus building trading partner trust and long-term trading relationships.

Kostas Kafentzis, et al (2004) develop a framework to evaluate the strategic issues, business models, roles, processes, and revenue models of knowledge trading platforms, and provides a detailed analysis of five existing knowledge marketplaces based on this framework. Finally, a set of conclusions is drawn on what issues should be addressed in a knowledge marketplace in order to eliminate the risks and gain the trust of its targeted customers.

Rosemary and Craig (2002) evaluate the issues that prospective participants, seeking to purchase goods and services online, need to address in their selection process. A framework to support electronic marketplace related decision making is proposed, which is based within the contexts of business drivers, internal company issues and e-marketplace facilitators.

C. Richard Baker (1999) examines an analysis of fraud on the internet, issue of fraud on the internet and discusses three areas with significant potential for misleading and fraudulent practices, namely: securities sales and trading; electronic commerce; and the rapid growth of internet companies. The first section of the paper discusses securities fraud on the internet. Activities that violate US securities laws are being conducted through the internet, and the US securities and exchange commission has been taking steps to suppress these activities. The second section of the paper discusses fraud in electronic commerce. The rapid growth of electronic commerce, and the corresponding desire on the part of consumers to feel secure when engaging in electronic commerce, has prompted various organizations to develop mechanisms to reduce concerns about fraudulent misuse of information. It is questionable, however, whether these mechanisms can actually reduce fraud in electronic commerce.

Validity:
Academic staff from the Jordanian universities as well as specialists has evaluated the questionnaire. For further validity test, the responses of (19) individuals of the sample were tested and evaluated.

Reliability:
Reliability with composite measures is evaluated for the internal consistency through the “Cronbach’s Alpha” measure. The higher the Cronbach’s Alpha value, the greater is the internal consistency of the items, making up a composite measure. The Alpha’s for the items are not below (0.77). Therefore, it can be concluded that the reliability of the questionnaire is high.

Research Model:
This study investigates the customers’ perspective towards factors associated with technological product adoption failure. Researcher developed a model after reviewing literature as follows:

\[ \text{Figure (1) Research Model} \]

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Income</td>
<td>- Technological Product Adoption</td>
</tr>
<tr>
<td>- Education</td>
<td></td>
</tr>
<tr>
<td>- Status</td>
<td></td>
</tr>
<tr>
<td>- Gender</td>
<td></td>
</tr>
</tbody>
</table>

Sample:
96 female were selected as viable for the study. 44.6% of the participants their income is 500-Less than 700 JD and 39.1% have diploma and 42.9% are married and 47.8% male. Table (1).
Table (1) Sample Distribution of the customers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 500 JD/M</td>
<td>60</td>
<td>32.6</td>
</tr>
<tr>
<td>500-700</td>
<td>82</td>
<td>44.6</td>
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<tr>
<td>700-1000</td>
<td>42</td>
<td>22.8</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>184</td>
</tr>
<tr>
<td>Diploma</td>
<td>72</td>
<td>39.1</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>61</td>
<td>33.2</td>
</tr>
<tr>
<td>Graduate Studies</td>
<td>51</td>
<td>27.7</td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td>184</td>
</tr>
<tr>
<td>Married</td>
<td>79</td>
<td>42.9</td>
</tr>
<tr>
<td>Single</td>
<td>79</td>
<td>42.9</td>
</tr>
<tr>
<td>Others</td>
<td>26</td>
<td>14.1</td>
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<tr>
<td>Gender</td>
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<td>184</td>
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<tr>
<td>Male</td>
<td>88</td>
<td>47.8</td>
</tr>
<tr>
<td>Female</td>
<td>96</td>
<td>52.2</td>
</tr>
<tr>
<td>Total</td>
<td>184</td>
<td></td>
</tr>
</tbody>
</table>

Research Methodology:

A survey questionnaire was the data collection tool for the descriptive part of this study. It was targeted at a number of hotels with an intention to capture specific parameters. Questionnaires were sent to 200 customers. Out of this number the 184 responds return the questionnaires.

In this study the researcher use questionnaire using a 5- point liker t-Scal type response format. (1= strongly disagree) and (5= strongly agree).

No product technology that meets consumers' needs has the highest value and this means that the customer feels it more than the other variables.

Low item scores indicated that the participants adopted somewhat non-traditional roles. Table (2).

Table (2) Descriptive Statistics

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer’s Expectations Not Met</td>
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<td>1.00</td>
<td>5.00</td>
<td>4.5380</td>
<td>1.00744</td>
</tr>
<tr>
<td>No Innovative Advantage is Perceived</td>
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<td>1.00</td>
<td>5.00</td>
<td>4.4402</td>
<td>1.02254</td>
</tr>
<tr>
<td>Information About Product is Scarce, Unclear, or Difficult</td>
<td>184</td>
<td>1.00</td>
<td>5.00</td>
<td>4.5054</td>
<td>1.06097</td>
</tr>
<tr>
<td>Unique Attributes Not Seen</td>
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<td>1.00</td>
<td>5.00</td>
<td>4.5652</td>
<td>.96161</td>
</tr>
<tr>
<td>Poor Selection of Target Market</td>
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<td>5.00</td>
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<td>Distribution Channel Selection</td>
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</tr>
<tr>
<td>Poor Communication of Product Benefits</td>
<td>184</td>
<td>1.00</td>
<td>5.00</td>
<td>4.4946</td>
<td>1.04016</td>
</tr>
<tr>
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<td>1.00</td>
<td>5.00</td>
<td>4.7337</td>
<td>.81633</td>
</tr>
</tbody>
</table>

Limitations of the Study:

The limitations of the study include the following:
- The restriction of the sample to large size organizations.
- The honesty and seriousness of the respondents who filled the questionnaires in determining the quality of data collection and analysis.

Hypotheses:

Based on the literature review, the researcher generates the following hypotheses with respect to sample characteristics:
H1. = There are statistical differences \((\alpha \leq 0.05)\) between hotels customers due to the income variable towards factors associated with technological product failure.
H2. = There are statistical differences \((\alpha \leq 0.05)\) between hotels customers due to the education variable towards factors associated with technological product failure.
H3. = There are statistical differences \((\alpha \leq 0.05)\) between hotels customers due to the status variable towards factors associated with technological product failure.
H4. = There are statistical differences \((\alpha \leq 0.05)\) between hotels customers due to the gender variable towards factors associated with technological product failure.

Results and Discussion:

Hypotheses Testing

H1. = There are statistical differences \((\alpha \leq 0.05)\) between hotels customers due to the income towards factors associated with technological product failure.

To test this hypothesis we use SPSS and one-way ANOVA, we found that there are statistical differences towards factors associated with technological product in variables 1, 2, 6 and 8. Table (3).
Table (3) Variable One-way ANOVA for Income

<table>
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<tr>
<th>Sig.</th>
<th>F</th>
<th>Mean Square</th>
<th>df</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Sum of Squares</th>
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<tbody>
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<td>Between Groups</td>
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</tr>
<tr>
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<td>2</td>
<td>5.538</td>
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<td>116.413</td>
<td>Within Groups</td>
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</tr>
</tbody>
</table>

To know which group is significant we run Scheffe test as shown in Table (4).

Table (4) Scheffe for Income variable

<table>
<thead>
<tr>
<th>Sig.</th>
<th>Std. Error</th>
<th>Mean Difference (I-J)</th>
<th>(J) incom</th>
<th>(I) incom</th>
<th>Dependent Variable</th>
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<td>1.00</td>
<td>2.00</td>
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</tr>
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<td></td>
</tr>
<tr>
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<td>.19752</td>
<td>-.41429</td>
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<tr>
<td>.003</td>
<td>.18629</td>
<td>-.63705(*)</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.007</td>
<td>.16523</td>
<td>-.52602(*)</td>
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<td>1.00</td>
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</tr>
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<td></td>
</tr>
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<td>.16523</td>
<td>.52602(*)</td>
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<td>2.00</td>
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</tr>
<tr>
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<td>3.00</td>
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<td></td>
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<td>2.00</td>
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<td>2.00</td>
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<td>.16135</td>
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<td>.15217</td>
<td>-.33159</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The mean difference is significant at the .05 level.

The researcher found the individuals with higher incomes 700-1000 JD feel that some of the factors associated with technological product failure are no innovative advantage perceived, and information about product is scarce, unclear, or difficult more than the with respondent whose income is 500-700JD.
The individuals with less than 500 JD /Month feel more than the one whose income 500- 700JD that some of the factors associated with technological product failure are poor communication of product benefits and price skimming strategy Conflicts With mass-market approach So the researcher accept the alternative hypothesis. 

H2. =There are statistical differences (α≤0.05) between hotels customers due to the education towards factors associated with technological product failure.

To test this hypothesis the researcher uses SPSS and one-way ANOVA, the researcher found that there are statistical differences towards factors associated with technological product in variables 1, 2 and 7. Table (5).

<table>
<thead>
<tr>
<th>Sig.</th>
<th>F</th>
<th>Mean Square</th>
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</thead>
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</tr>
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</table>

To know which group is significant the researcher run Scheffe test as shown in Table (6).

<table>
<thead>
<tr>
<th>Sig.</th>
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<th>Mean Difference (I-J)</th>
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<th>Dependent Variable</th>
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<td>.19445</td>
<td>.17133</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The mean difference is significant at the .05 level.

The researcher found the individuals with graduate studies feel that one of the factors associated with technological product failure are innovative advantage perceived more than the one with Diploma and Bachelor Degree. Also the result shows that the individuals with diploma feel more than the one who have graduate studies that some of the factors associated with technological product failure are the information about product is scarce, unclear, or difficult and no
product technology meets consumers’ needs. So the researcher accept the alternative hypothesis.

H3. There are statistical differences ($\alpha \leq 0.05$) between hotels customers due to the status toward factors associated with technological product failure. To test this hypothesis the researcher uses SPSS and one-way ANOVA, the researcher found that there are statistical differences towards factors associated with technological product in variables 3, 4, 5 and 8. Table (7).

To know which group is significant the researcher run Scheffe test Table (8).

*The mean difference is significant at the .05 level.

---

**Table (7) Variable One-way ANOVA for status**

<table>
<thead>
<tr>
<th>Sig.</th>
<th>F</th>
<th>Mean Square</th>
<th>df</th>
<th>Sum of Squares</th>
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</thead>
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<td>4.554</td>
<td>4.934</td>
<td>2</td>
<td>9.868</td>
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<td>1.084</td>
<td>181</td>
<td>196.126</td>
<td>Between Groups</td>
</tr>
<tr>
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<td>183</td>
<td>Total</td>
<td>205.995</td>
<td>Within Groups</td>
</tr>
<tr>
<td>.002</td>
<td>6.195</td>
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<td>2</td>
<td>10.842</td>
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<tr>
<td></td>
<td>.875</td>
<td>181</td>
<td>158.375</td>
<td>Between Groups</td>
</tr>
<tr>
<td></td>
<td>183</td>
<td>Total</td>
<td>169.217</td>
<td>Within Groups</td>
</tr>
<tr>
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<td>4.530</td>
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<td>2</td>
<td>8.193</td>
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<td>.904</td>
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<td>163.671</td>
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<td></td>
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<td>Total</td>
<td>171.864</td>
<td>Within Groups</td>
</tr>
<tr>
<td>.000</td>
<td>7.933</td>
<td>4.914</td>
<td>2</td>
<td>9.829</td>
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<td></td>
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<td>112.122</td>
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<td></td>
<td>183</td>
<td>Total</td>
<td>121.951</td>
<td>Within Groups</td>
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</table>

**Table (8) Scheffe for status variable**

<table>
<thead>
<tr>
<th>Sig.</th>
<th>Std. Error</th>
<th>Mean Difference (I-J) (J) status (I) status</th>
<th>Dependent Variable</th>
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<tbody>
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<td>.16563</td>
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<td>q3</td>
</tr>
<tr>
<td>.063</td>
<td>.23535</td>
<td>.55745 (3) - 3.00 (1)</td>
<td></td>
</tr>
<tr>
<td>.657</td>
<td>.16563</td>
<td>.15190 (2) - 2.00 (1)</td>
<td></td>
</tr>
<tr>
<td>.12</td>
<td>.23535</td>
<td>.70935 (*)(3) - 3.00 (1)</td>
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<tr>
<td>.063</td>
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<td>.12</td>
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<td>.14884</td>
<td>-.44304 (*)(2) - 2.00 (1)</td>
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<td>-.15044 (3) - 3.00 (1)</td>
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<td>.21500</td>
<td>-.45570 (3) - 3.00 (1)</td>
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<tr>
<td>.112</td>
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<td>.21500</td>
<td>.45570 (3) - 2.00 (1)</td>
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<tr>
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<td>.12523</td>
<td>-.48101(*) (2) - 2.00 (1)</td>
<td>q8</td>
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<tr>
<td>.068</td>
<td>.17795</td>
<td>-.41626 (3) - 3.00 (1)</td>
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<td>.936</td>
<td>.17795</td>
<td>-.06475 (2) - 2.00 (1)</td>
<td></td>
</tr>
</tbody>
</table>

*The mean difference is significant at the .05 level.*
The researcher found the individuals with status others feel that one of the factors associated with technological product failure is unique attributes not seen more than the single one.

The married individuals feel more than single and others that some of the factors associated with technological product failure are poor selection of target market and distribution channel selection and price skimming strategy conflicts with mass-market approach.

So the researcher accept the alternative hypothesis.

H4. =There are statistical differences (α≤0.05) between hotels customers due to the gender towards factors associated with technological product failure.

To test this hypothesis the researcher used SPSS and T-Test show that there are statistical differences towards factors associated with technological product between male and female in variables 5, 6, and 8. And the female feel more than the male in these variables. Table (9).

<table>
<thead>
<tr>
<th>q8</th>
<th>q6</th>
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<th>gender</th>
</tr>
</thead>
<tbody>
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<td>1.02196</td>
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<td>Mean</td>
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<td>184</td>
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<tr>
<td>.81633</td>
<td>.94440</td>
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</table>

So the researcher accepts the alternative hypothesis.

**Conclusions:**

The importance of the study derives from its being an attempt to highlight the structure of the factors associated with technological product failure from customers perspective. 1. The study shows that there are statistical differences towards factors associated with technological product, while Anna al et (2013) found that cyber ostracism led to higher levels of negative emotions, lower levels of satisfaction and higher levels of negative behavioral outcomes. 2. Expectations of individuals with higher incomes are met, no innovative advantage perceived and information about product is scarce, unclear, or difficult, while Hui (2011) mention that negative word of mouth influence customer satisfaction for product technology failure. 3. There are statistical differences towards factors associated with technological product between individuals who got bachelor degree and others. 4. The married individuals feel more than single and others that one of the factors associated with technological product is poor selection of target market and distribution channel selection and price skimming strategy conflicts with mass-market approach, while C. Richard Barker (1999) found the rapid growth electronic commerce is the success of product technology through the internet.

**Recommendations:**

In order to lighten the factors associated with technological product failure on hotels customers, the researcher recommends the following:

1. Developing personnel policies to evaluate business models and provides a analysis of knowledge marketplaces eliminate the risks and gain the trust of its targeted customers. 2. Applying democratic appropriate supervision patterns to keep control for all kinds of business transactions. 3. Opening communication channels with customers to purchase goods and services online for long term trading relationships. 4. Managers of all levels have to adopt the “Human Touch” in management to achieve the needs, wands, and the desire of the different level of the customers and the employees for more satisfaction.

**References:**

the Case of Transtec AG” Logistics Information Management Vol. 14, Number 1/2, pp. 54-67.


وجهة نظر المستهلكين تجاه العوامل المصاحبة لعملية فشل تبني المنتجات التكنولوجية "حالة دراسية للفناندز الأردنية"

الدكتور مصطفى الشيخ
كلية الاقتصاد والعلوم الإدارية، جامعة الزرقاء، الأردن

المخلص: استخدمت الدراسة استبانة أداة لجمع المعلومات للجزء الوصفي منها، واستهدفت عدداً من الفنادق للتوصيل إلى مقاييس محددة. استخدم الباحث في هذه الدراسة خمسة معايير على مقياس دراكي، من أجل اھتمار أثر الدخل، والحالة الاجتماعية، والمستوى التعليمي، والجنس في العوامل المرتبطة بفشل المنتج التكنولوجي. وقد وجدت الدراسة أن الفئة المستهدفة من حملة شهادة الدراسي العليا يشعرون بعدم وجود أية ميزة إبداعية، بالمقارنة مع حملة شهادة الدبلوم والبكالوريوس للعوامل المرتبطة بفشل المنتج التكنولوجي. كما توصل الباحث إلى أن المستهدفون ذوي الدخل المرتفع يشعرون أكثر تجاه ذوي الدخل المتدني، كما أن المتزوجين من الفئة المستهدفة يشعرون بالرضا من المنتج أكثر من الفئة غير المتزوجة، من حيث العوامل المرتبطة بفشل المنتج التكنولوجي؛ بسبب ضعف اختيار السوق المستهدف، وقواعد التوزيع، واستراتيجية معرفة الأسعار التي تتعارض مع اسعار السوق واستقصائها.

تاريخ استلام البحث 21/7/2013، وتاريخ قبول البحث 24/11/2013