

# Business to Consumer Evaluation Practices, Obstacles, and Factors: A Pilot Study from Consumers Perspectives on Jordanian Firm

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**Abstract**— Many websites fail to help companies reach their objectives because they neglect consumers need in their websites developments. The consumer of B2C business plays a significant role in sustaining B2C business organizations. Therefore, companies must identify their consumers' behavioral characteristics. This study aims to investigate the B2C quality factors from the consumers' perspective. Specially, investigate the current practice of quality development for B2C ecommerce websites in term of satisfaction, online buying habits, obstacles surrounded B2C ecommerce websites and the factors that effecting and considered in B2C evaluation from consumers perspectives. Data was gathered through questionnaire and interviews methods. Simple descriptive statistics such as mean, frequency calculation, and percentages were used for analysis. Out of thirty three factors, only seventeen factors have been found to be important. These are web site visibility, safety, serviceability, price savings, high responsiveness, online shops credibility, enjoyment and entertainment, websites information, the value of the web, promotive activities, clarity, relevance, diversity of goods, services and information, web documents current and updated, user-friendly web interface, trust or trustworthiness, and accuracy and authority of web documents.

**Index Terms**— Business to consumer, consumer prespective factors, e-commerce evaluation, likert scale, questionnaire, website evaluation, websites quality.

## 1 INTRODUCTION

The technological advances of the twenty one century have led to significant increase in internet using for commercial purposes [1]. Since, the development of the first commercial website in 1994, E-commerce has grown rapidly. It is predicted that e-commerce usage will increase rapidly during the next years. Laudon and Traver [2] supported this theory and they also predicted in the near future all commerce business will be ecommerce business by the 2050.

In addition, the consumers are no longer bound or loyal to specific times or specific locations if they want to shop; consumers can purchase whatever products or services virtually at anytime and from any place. In other words, online shopping is the process used by the consumer when he/she decides to shop via the internet from anywhere and at anytime, which is known as e-commerce. E-commerce is considered as one of the most important contributions of the information technology revolution [3].

In general, e-commerce can be defined as a business process of selling and buying products, goods, and services through online communications or via the internet medium [4]. In other words, e-commerce means exchanging goods and services on the Internet as on-line shopping [5]. Indeed, e-commerce is considered one of the best methods for buying and selling products, services, and information electronically. Besides this, e-commerce is also considered one of the factors affecting the way payment is made. As in [6], [7], company interactive communication channel classified for four main types of ecommerce which are Business to Business (B2B), Business to Consumer (B2C), Consumer to Business (C2B), and Consumer to Consumer (C2C). B2B refers to online transaction conducted between business organizations. B2C refers to the transactions that conduct between business and consumers via electronic way. C2B refers to consumers selling their goods or services to business on online ways. C2C involves the online interaction conducted between consumers.

There are limited studies in Jordan regarding ecommerce. These studies focused on challenges and limitation of adopting ecommerce in Jordan, reviews on how Jordan has adapted to some ecommerce challenges, and infrastructural problems that affect ecommerce. Many studies agreed that organizations in Jordan are facing a number of obstacles and barriers which affect the distribution of ecommerce in Jordan. They claimed that the reasons for limited buying and selling through the Internet were the lack of cooperation between the public and private sectors, lack of

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trust, infrastructure problem, lack of knowledge, weakness of ecommerce organizations in promoting ecommerce in a good way, high cost of personal computes, high cost of connecting to the Internet, lack of training, and cultural resistance [8],[9]. These studies suggested ecommerce organizations to improve their existing websites so as to improve their business.

In order to improve quality of ecommerce websites and thus increase online purchasing, important factors affecting success of ecommerce websites need to be investigated and addressed specifically on consumers' perspectives. Many researchers reported that more than seventy five percent of dot.com companies do not last longer than two years [10],[11],[12]. Many researchers related this failure to the neglecting of consumers' needs [13],[14], or ignoring the consumers' element in their website development [15].

Ecommerce website is considered as the 'front door' of an online shop that interacts between the organizations and consumers and many websites fail to help organizations reach their objectives because consumers' needs are not catered for in the development which, results consumers' dissatisfaction in using the websites.

Existing literature has pointed out that the consumers' perspective in website evaluation has not been given due consideration [16], [14], [17]. [15], [14], [18] related this failure to designers who did not take the consumer aspect or human element into consideration in their website development. [19] related this failure to the lack of comprehensive set of criteria for B2C website development, which means there is a need to develop a framework that includes a comprehensive set of characteristics from the user and technical aspects.

This research presents the findings of a study that was conducted on Jordanian firms. The purpose of the study was to understand the preliminary issues underlying websites quality evaluation, find out the current practices of website quality evaluation, determine consumer factors related to B2C transactions, investigate users' opinions on the need of websites quality evaluation for B2C websites, investigate the importance of consumer perspectives on B2C websites evaluation and development and, investigate the mechanisms and procedure that organizations currently follow in their websites development.

## 2 RESEARCH APPROACH

Survey method was used for conducting an empirical study on Jordanian organizations. The following sections describe the methodology for the study.

### 2.1 Questionnaires development and interviews

A five point Likert scale questionnaire was first developed. The questionnaire consist of thirty two questions divided to four main sections:- respondent background, current practices for quality models for business to consumer's ecommerce websites, websites quality and the obstacles surrounded business to consumers' websites, and quality factors. Section respondent background consists of nine questions. It presents general information about the respondent / demographic data and some trigger question to increase the reliability of the study such as the gender, educational level, online buying habits, the websites you always frequently visit, internet connection type, and online purchasing experiences. See Table 1.

Section two is titled as the current practices for quality models for business to consumer's ecommerce websites. This section consists from twenty six questions and divided into two groups. First group reflects the organization perspectives the second group reflect the users perspectives. The decomposition has done through inserting condition to the top of this part. The condition was "If you are an employee in organization or you have knowledge or experience about software quality and website quality, please proceed to the next questions. Otherwise, please skip to next question".

However, this section aim to investigate the models that have been held by the organization for websites development and evaluation, the mechanisms and procedures that have been used to meet the consumers need, techniques that have been used to validate and verify the organization websites, consumers participation, and satisfaction of the users.

TABLE 1  
SECTION OF RESPONDENT BACKGROUND

|   | Section one questions                                | Question description                            | Question aim                            |
|---|--|---|---|
| 1 | The gender?  | Male , female                                   | Demographic determine respondent gender |
| 2 | The age?   | Determine respondent age                        | Demographic                             |
| 3 | Educational level?                                   | Determine respondent education level            | Demographic                             |
| 4 | What type of connection do you have to the internet? | Access the internet by which type of connection | Reliability check                       |
| 5 | Have you heard about e-commerce?                     | Yes , No question                               | Reliability check                       |
| 6 | Have you made an online pur-                         | Yes , No question                               | Reliability check                       |

|   |   |  |                                       |
|---|---|--|---------------------------------------|
| 7 | chase?<br>Have you ever operated an e-commerce business?                          | Yes, No question   | Ecommerce experiences                 |
| 8 | If you shop online, what type of shopper does apply to your online buying habits? | Recreational, Experimental, Convenience, Economic, Others                    | Determine the respondent buying habit |
| 9 | Which of the following best describes your sites that you always visit?           | Government sites, Semi-Government sites, Private Sector sites, Others sites. | Determine the most useful sites       |

Likert scale 1-5 used in some places such as when the consumers asked about the degree of satisfaction and participations. Which 1 presents *very dissatisfied*, 2 *somewhat dissatisfied*, 3 *neutral*, 4 *somewhat satisfied*, and 5 *very satisfied*. Also, the scale used is Likert scale 1-5 which 1 represents *strongly disagree*, 2 refers to *disagree*, 3 refers to *neutral*, 4 refers to *agree* and 5 to *strongly agree*.

Section three is titled as websites quality and the obstacles surrounded business to consumers' websites. This section consists from one question divided to eight partial questions. This part reflects the organization perspectives. Therefore, only the respondents reflect the organization perspective were taken for the analysis. This part aim to investigate and rank the given obstacles surrounded the ecommerce websites. The question was "In your opinion, what are the main constraints or obstacles surrounded Business to consumer ecommerce websites developments you have experienced? Indicate your strength of agreement for each statement below.

Section four is titled as quality factors. It consists from one question divided to thirty two partial questions. This part reflects the user's perspectives. the aim of this section is to rank the level of consideration of the quality for the website application from the consumers perspectives. the question was how do you rank the level of consideration of the quality for the website application? Please tick at the appropriate box according to the ranking given below. The scale used is Likert scale 1-5 which 1 represents *very low consideration*, 2 refers to *low consideration*, 3 refers to *average*, 4 refers to *high* and 5 to *very high consideration*. Other questions were inserted to generate better understanding for websites evaluation requirements and to explore the weaknesses of the B2C ecommerce websites evaluation and developments.

The second instrument is the interview. It is a conversation between two sides the first called interviewer and he is the one who ask the questions. The second is the interviewee and he is the side were asked to obtain the information. Here, the respondents were selected randomly from B2C organizations list. Also, the probabilities to choose each company were calculated and identified. Random face to face interview with users and developers were chosen due to several reasons which are the interview with independent developers and users and other staffs may also included related to specific issue and module of the websites help to generate conceptual structure for the websites characteristics and formulate initial evaluation framework for websites evaluation. Moreover, provide clear understanding about the obstacles and constrains surrounded B2C ecommerce websites.

## 2.2 Data Collection

The questionnaires were distributed to three hundred and eighty four respondents. Many research method books such as research method to UMA SAKARAN agree this numbers of respondent is enough to present the overall population. Since, the internet users amount to about three per cent of Jordan's total population and they considered potential consumers for B2C ecommerce websites organizations.

The sampling frame for the survey was a listing ADSL users because of the latest official figures shows that there are about 294 thousands participation of Internet broadband in the Kingdom of which about 185 thousand subscriptions ADSL service and there are about 80 thousand participation of WiMAX (wireless internet). In addition, Arab advisors group (2010) which consider one of the big and well known research organizations and Telecommunications Regulatory Commission [TRC] (2010) confirm that most of internet users used ADSL type of connections. Therefore, ADSL users were chosen in this survey because the majority of users and organizations used ADSL connections .The sampling technique used was a simple random sampling. Simple random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (a population) [23]. Each individual is chosen entirely by chance and each member of the population has an equal chance of being included in the sample. Every possible sample of a given size has the same chance of selection. A simple random sample is meant to be an unbiased representation of a group. Respondents were randomly targeted by receiving an email shot in their inbox. Two hundred and ninety five respondents have responded to the survey. Each respondent represents his or her perspectives. Respondents were selected randomly from various categories.

### 2.3 Measurements

Data collected was entered into Excel for analysis. **Reliability test** was first conducted to ensure that the questionnaire is reliable. **Validity test** was then performed. Validity refers to the degree in which a test or other measuring device is truly measuring what is intended to measure [24]. **Factor analysis** was used to ensure of the factor reliability and how much are the factors related and harmonized [24].

### 2.4 Procedures

The data collected was keyed in into EXCEL and preprocessed for missing values, outliers and other noises. The dataset is then divided into two groups, Group A and Group B. Group A presented the consumers which includes all users. Group B is a subset of Group A whereby it represents only users who are companies' employees. This group was identified through questions in section B and C. Sections B and C presented questions on companies' perspectives while section A and D presented on consumers' perspective. Group A consists of two hundred and ninety five (295) respondents and group B consists of sixty seven (67). After dividing the data set to two groups the analysis takes it place.

Using SPSS package and taking on consideration the differentiation between the two groups of respondent the analysis has been conducted. The questions related to the organization were analyzed using group B. Also, the questions related to the customers were analyzed using group A. In this study, group A used to analyze part A and D where group B used to analyze part B and C of the survey. Here, Normal descriptive statistics analysis such mean, frequencies, and percentage are used in this study. The percentage and the frequency used to represent the demographic data of the respondents, Distribution of Online Buying Habits for the Consumers, Distribution of the most visits sites, Current Practice on Websites Quality Developments, and the degree of satisfaction toward the quality of the organizations websites. Whilst, the mean used to rank the obstacles and constrains that surrounded B2C ecommerce websites development and evaluation. In addition, it used to classify and rank the importance of quality factors from the consumers' perspectives.

## 3 FINDINGS

This section discusses the result that obtained from the pilot survey analysis. Results from analysis are presented in subsections which are based on the group of items in the questionnaire.

### 3.1 Demographic Data

The respondents sample consisted of 73.7% male and 26.3% females. The disproportionate of male and female could be due to more males tending to buy over the net. In terms of

age, sixty percent (60%) of the respondents were from 23 to 30 years old. Group age between 31 to 40 years consisted of percent (27%). Respondents that were 17 to 21 were the third largest group and represented 9% of the sample. The least and the last percentage was respondents that were above forty (5%). This differentiation could be due to the nature of human behavior, that it, respondents above forty years old and younger than seventeen tend to be less interested in conducting electronic purchasing.

In terms of educational level, majority of respondents (70%) have university degrees, 21% have advance degrees and 9% have seminary certificates. Educated people were mainly the ones who conduct transactions electronically because they have the experiences and knowledge to conduct online purchasing.

### 3.2 Distribution of Online Buying Habits for the Consumers

The analysis showed that majority respondents used the internet to search for the best deal (62%), and 20% of respondent used the internet to enquire about products they wanted to purchase. The rest used the internet for pleasure (18%). This indicates that greatest number of users seek for the best deal and useful information from the internet.

### 3.3 Distribution of the most visits sites

The finding showed that the private sites are the most visited sites as compared to government and semi-governments sites. Privates sites were accessed almost 80% of the time because the nature of consumers is to search for the best deal. Second and third most visited sites were semi-governments and government sites with 12.2% and 7.8% respectively. Table 2 shows the statistics obtained.

TABLE 2  
 WEBSITES TYPE DISTRIBUTION

| Degree of satisfaction | Frequency | Percent |
|------------------------|-----------|---------|
| Government sites       | 23        | 7.8     |
| Semi-government        | 36        | 12.2    |
| Private sites          | 236       | 80.0    |

### 3.4 Current Practice on Websites Quality Developments

The analysis of the degree of satisfaction on the quality of Jordanian B2C websites as compared to other countries' websites showed that majority of the respondents were between very dissatisfied (67.2%) and somewhat dissatisfied (32.8%). Some of the respondents were neutral and

this may be due to their lack of experiences in dealing with outside websites. Table 3 shows the results.

TABLE 3  
USER SATISFACTION ON THEIR WEBSITES

| Degree of satisfaction | Frequency | Percent |
|------------------------|-----------|---------|
| Very dissatisfied      | 18        | 26.9    |
| Somewhat dissatisfied  | 27        | 40.3    |
| Neutral                | 22        | 32.8    |

The respondents were also asked to indicate the current models, technique, and mechanisms that the companies follow to evaluate and developed their websites. The analysis showed that 83.6% of the companies do not follow any models and 16.4% stated that they followed certain quality models such as ISO model. They were also asked on the mechanisms that they used to obtain information on their consumers' needs. Results showed that 57.6% of the companies do not have any mechanisms or procedures to identify their consumers' needs and 42.4% of the respondents followed several mechanisms such as polls, SMS, forums, obtain feedbacks from customers directly through their websites, and help desk services. Therefore, from the findings it can be seen that there is an urgent need for some mechanisms and procedures for companies to follow in order to meet consumers' needs.

In terms of techniques to evaluate B2C websites, the analysis showed that 74.6% of the respondents said that there was no technique used to validate and verify their websites. 25.4% of the respondents mentioned that they used techniques such as website auditors and standard quality measures and processes. Therefore, the findings also showed that there is an essential need to provide techniques to evaluate companies' websites.

Next, respondents were asked if there are any methods or processes provided by the country to evaluate their companies' websites. 13.4% of them claimed that there are a few methods and processes such as payment gateways and markup validation services that are provided to companies. 86.6% of the respondents stated that no methods or process were available to validate their websites. Therefore, this shows that the country requires a method that can be used by Jordanian companies to validate their websites. According to above scenario, B2C ecommerce websites quality evaluation framework that includes components such as mechanisms, methods, and technique is urgently needed for B2C ecommerce websites evaluation and developments. Table 4 illustrates the results.

TABLE 4  
CURRENT PRACTICES ON WEBSITES DEVELOPMENT

| Current practice for quality evaluation models                           | Answer | Frequency | Percentage |
|--|--------|-----------|------------|
| Quality models or framework used for websites evaluation and development | no     | 56        | 83.6       |
|  | yes    | 11        | 16.4       |
| Mechanisms or procedures followed to meet the consumers needs            | no     | 38        | 57.6       |
|  | yes    | 28        | 42.4       |
| Methods provided by country to validate organization websites            | no     | 58        | 86.6       |
|  | yes    | 9         | 13.4       |
| Techniques used to validate ecommerce websites                           | no     | 50        | 74.6       |
|  | yes    | 17        | 25.4       |

In addition, the respondents were asked on the index or the metrics that the company used to measure the quality of their website.

Majority (52.0%) considered that they have reached the target of quality if they meet their organizations' objectives. 16.0% of respondents mentioned that if they received positive feedbacks from the websites' owners they are considered as achieving the target of quality. 12.0% considered positive feedbacks from the team of developers showed good achievement and achieved their target. 7.3% mentioned that the quality target is achieved if they meet their consumers' needs and 10.5% mentioned that quality is met when their websites meet users' satisfaction.

Respondent were given a list of reasons for ecommerce companies' failure. They were asked to rank the most important factors that caused the failure. The analysis showed that ignoring consumers' aspects in websites developments was the most important factor with per (65.08%). This is followed by lacking of some quality attributes/factors (15.93%) and qualities of the websites were neglected during the development phase (13.22%). Therefore, ignoring the consumers' perspective in the websites evaluation and developments was considered as the most important constrain that affect the success and failure of the ecommerce companies. Fig 1 shows the results.

It can be seen that eventhough, most respondents considered some measures to evaluate the quality of their websites, they however did not consider input from consumers in their websites evaluation. Therefore, consumers' perspective must be included in the websites evaluation and developments.

TABLE 8

INTERNAL PRESENTATION FOR THE DEGREE OF IMPORTANCE

| Mean interval presentation | Degree of importance  |
|----------------------------|-----------------------|
| From 1 to 1.80             | Not considered        |
| From 1.81 to 2.61          | Low consideration     |
| From 2.62 to 3.42          | Average consideration |
| From 3.43 to 4.23          | High consideration    |
| From 4.24 to 5             | VeryHigh Consideratio |

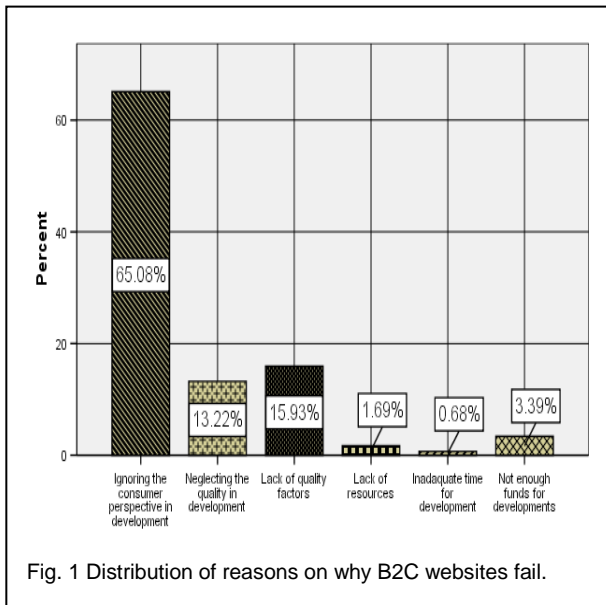


Fig. 1 Distribution of reasons on why B2C websites fail.

### 3.5 Quality Factor from Consumers' Perspectives

Respondents were asked to rank a list of quality factors gathered from the literature review. These factors can be used for evaluating B2C websites and as the criteria for B2C websites development. Results were established by calculating the mean score for each factor and selecting the appropriate interval to represent the means score for all factors. The appropriate interval selected is from 3.43 and above. This appropriate interval was selected for the reason that Likert scale with five internal scales was used to represent the degree of consideration for each quality factor. Therefore, the appropriate interval scale needed to represent all levels. Since Likert scale used five variables and four intervals to represent all levels, appropriate interval 0.8 was chosen.

Formula used:

$$\text{Appropriate interval} = \text{number of interval} / \text{number of variable}$$

$$\text{Appropriate interval for the study} = (4/5) = 0.8.$$

Table 8 shows the different levels of consideration on all factors.

Out of 33 factors that were selected from the literature review, only 17 factors were found to be important. These were web site visibility, safety, serviceability, price savings, high responsiveness, online shops credibility, enjoyment and entertainment, website information, value of web promotion activities, clarity, relevance, diversity of goods, services and information, current information, user-friendly web interface, trustworthiness, and accuracy and authority. Other factors with lower mean score (less than 3.43) were considered as not commonly used in evaluating B2C websites.

## 4 CONCLUSION

B2C websites plays a major role in helping companies reach competitive edge and become sustainable. Evaluation of websites help to create a higher quality product that meets consumers' needs and organizations' objectives.

In order for companies to be competitive, sustainable and have a consistent growth in market share, the use of quality B2C websites is essential. An investigation through the current practice towards quality development of Jordanian B2C websites was made through empirical study. Results showed that majority of the consumers are not satisfied with their companies' websites, and majority of B2C ecommerce websites' developments do not follow certain or standard quality models, mechanisms, methods, and techniques.

Many respondents claimed that the Jordanian government did not provide or support any standard methods that the companies must follow in implementing their websites. Based on the above results, most of the B2C ecommerce websites were developed without considered the quality and consumer perspectives. This is because most companies relate quality with achieving organizations' objectives, or to websites owner. These companies do not regard their quality with meeting consumers' needs and satisfaction. The findings of this study includes identification of websites quality factors, online buying habits of B2C consumers, obstacles and the constraints surrounding B2C ecommerce websites, and factors that consumers' consider when using B2C websites. This information will then be used to construct an evaluation framework. The framework will be presented in another journal paper.

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