

Clients' Loyalty towards Bank Websites at E-Commerce Markets

An Empirical Investigation and Proposed Model

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Abstract

Client's loyalty towards website has been relatively neglected in banking research studies, and there has been almost no academic research examining this issue in business-to-business (B2B) or corporate banking services in particular. Therefore, there is some merit in examining this phenomenon empirically by developing a research model that can measure and predict bank clients' loyalty to websites.

Thus the purposes of the present paper are: to provide deeper insights into client's loyalty towards banks websites in both B2C and B2B e-commerce markets, to identify those factors that are likely build up or improve bank website loyalty (building factors), for assisting Egyptian banks in the development of better business customer retention strategies, and to determine to what extent client's loyalty towards bank websites influences bank loyalty in traditional market.

Introduction

The growing importance given to services available via the Internet suggests the advisability to build or improve client loyalty levels to websites of business organizations, thus the developing and maintaining e-loyalty is now widely accepted in the literature to represent an important contributory factor to a firm's profitability. The findings of some recent relevant works emphasized that client loyalty towards organization websites positively influences profitability [e.g. 1, 2, 3].

Turning our attention to banking services industry, it is worth mentioning that the intensive competition between banks and potential cannibalization between the digital channels (bank websites) and traditional channels (bank branches) have made it necessary to gain greater loyalty among Internet banking services clients in e-commerce markets, given the positive impact of bank websites as delivery channels on banks' profitability and expenditures [4].

Expressing the same concepts in a banking services perspective Malhotra and Singh [5] suggested that banks with lower market share should see their websites as means to increase the market share by attracting more customers through this new channel of delivery. Thus, it is advisable to have a critical mass of customers loyal to this type of services [e.g. 6, 7, 8, 9].

Research Problem, Objectives and Plan

Despite the Internet has created a new e-commerce markets, and having the potential to become the most powerful non-stone retailing channel in this century, few studies to date were known to have investigated client loyalty in the internet market [10,2], and more specifically, client's loyalty towards website has been relatively neglected in banking research studies, and there has been almost no academic research examining this issue in business-to-business (B2B) or corporate banking services in particular, given that managing and maintaining business-to-business clients can offer greater revenue for services providers [e.g. 1,11,12]

This observation consistent with other empirical works, for example a previous investigation carried out by Flavian et al. [8] recognized that a relative lack of literature regarding e-loyalty or client's loyalty towards websites, and there have been few studies concerning online customer loyalty building in e-commerce context [12], and most of these studies, however, have not been tested empirically [13].

In the line with the above results, Casalo et al. [2] found that most of the empirical works on customer loyalty have been carried out in the context of traditional distribution channels, particularly regarding the distribution of tangible products. However, those studies that have been undertaken provide some interesting findings; they observed a link between customer loyalty in the traditional market and website loyalty in the e-commerce [10]. Bearing in mind, that our preliminary study, which conducted on a small convenient sample to get insight, revealed that most of the Egyptian bank managers have unclear awareness about customer loyalty towards their bank websites, and this issue has not been measured yet, despite the importance of website loyalty on improving banks profitability as mentioned before [4]. These evidences are sufficient for the author to conclude that therefore, some merit in examining this phenomenon empirically, by analyzing building factors of website loyalty practiced by bank clients, and developing a research model that can measure and predict bank clients' loyalty to websites.

The principal objectives of the study are: (1) to provide deeper insights into the client's loyalty towards banks websites in both B2C and B2B e-commerce markets, (2) to identify those factors that are likely build up or improve bank website loyalty (building factors), for assisting Egyptian banks in the development of better business customer retention strategies, and (3) to determine to what extent client's loyalty towards bank websites influences bank's loyalty in traditional market.

With these objectives in view, the current paper has been organized as follows: the literature and relevant studies, to each construct in this work, were reviewed and analyzed. Then a research model was proposed and hypotheses were formulated to be tested in the study. This was followed by an explanation of the procedures used to obtain data, measurement, and validation processes, as well as the testing of the hypotheses stated. Finally, the results of each structural equations and a series of conclusions with managerial implications were presented; then certain limitations and future lines of research with regard to this issue were highlighted.

Literature review

Literature and past researches were reviewed and integrated sequentially, including a wide range of recently published works, in order to develop more effectively the study's hypotheses and the research model. Thus the next section addressed loyalty in e-commerce, followed by suggesting a definition of bank website. Then the main factors introduced in

literature, which may build or determine website loyalty in e-commerce markets, were analyzed.

Loyalty in e-commerce

Obtaining higher levels of loyalty is seen as a key objective for management, since this not only helps to improve stability in organization turnover, but also to reduce price sensitivity, and create contact networks to facilitate awareness and the promotion of the services being offered. This latter aspect is of prime importance when the services are being provided via the Internet [8].

Similar findings were found in other researches, such as Koo [9], he stated that the generation of committed repeat purchasers has been a primary objective of marketers for decades, because retaining customers requires less marketing resources than recruiting new ones. In this context, other researchers [2, 14, 10] went one step further, and made strong statements that loyal clients are considered essential to business survival, both in the traditional and in the electronic commerce context. This in turns raises the issue how organizations (banks in our case) need to build up customer loyalty towards their websites as a long-term investment in the e-commerce environment [12].

Several researchers agreed with this contention, for instance Bennett et al. [16] emphasized that loyal customers spend more than non-loyal customers, act as advocates for a brand by engaging in positive word of mouth, and are therefore at the heart of a company's valuable customer group. Hence, following the suggestions of other relevant previous studies, specifically the works of Wang et al. [10, 15], Lam and Burton [1] and Casalo et al. [2] the current paper defined client loyalty to banks websites as the repeat usage of a bank's website.

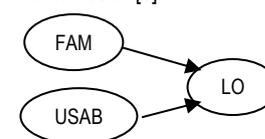
Building client's loyalty to websites

Despite the fact the loyalty in consumer contexts is well researched [16], the extensive review of relevant marketing literature revealed limited prior research on the determinants of website bank loyalty in e-commerce, although understanding these determinants is critical for banks to retain customers [1]. Thus, there is evidence however to suggest that the following factors have a significant impact on bank website loyalty or considered critical in building up this loyalty [e.g. 2].

(1) The relevance of website usability was dealt within certain works and has been shown to be a key factor when the services offered via the Internet [8, 14]. The results of these work found a positive association between website loyalty and perceived usability by customers. The above mentioned results were also supported by Casalo et al. [2] and Nguyen [17] they reported that the foremost factors to explain the building of website loyalty are usability and reputation.

Based on above mentioned works, it can be said that the concept of usability, in general terms, considers the following factors: (a) the ease of understanding the structure of a system, its functions, interface and the contents that can be observed by the user; (b) simplicity of use of the website; (c) the speed with which the users can find what they are looking for; (d) the perceived ease of site navigation; and (e) the ability of the user to control what they are doing, and where they are, at any given moment. To summarize, Casalo et al. [2] briefly defined website usability as a quality of attribute that assess how easy user interface are to use. As it can be observed, these definitions show the coincidence between the concept of "ease of use" and usability. However, e-commerce literature uses the term usability more frequently, so "ease of use" is no longer used

Figure 1. The Framework of website loyalty introduced by Flavian et al. [8]



Where:

LOY= Website loyalty

USAB= Website usability

FAM= Website familiarity

in this paper.

(2) The current paper considered particularly relevant those studies conducted around the impact of perceived familiarity on the level of website loyalty, taking into account the specialized literature analyzing bank website familiarity with customer perception [e.g. 18]. According to the framework of website loyalty, introduced by Flavian et al. [8], in figure 1, perceived familiarity and usability affects website loyalty among customers who using the Internet. Given that clients surveyed in the present study are Internet users. Thus, familiarity can be defined as the number of experiences related to a product or service that have been accumulated by the customer [18]. Consequently, it seems logical to suppose that there may be a link between the level of website familiarity and loyalty to a bank website.

(3) Another factor which may have an impact on website loyalty is trust, which may be defined as: a set of beliefs held by a customer as to certain characteristics of the supplier, as well as the possible behavior of the supplier in the future. Therefore, when a customer conducts an electronic transaction that is characterized to be operating in an uncertain environment such as the internet, the customer is less likely to trust that everything about his transaction is assured and normal as compared to his offline transactions, as the customer has no physical interaction with the service provider [8]. In the line with reasoning, Flavian and Guinaliu [19] reported that despite the constant development of relationships over the Internet is significantly affecting most commercial sectors; this influence has not translated into high sales figures via the Internet, since there is a lack of trust. Therefore, it would seem reasonable to infer from Chiou and Shen [20] that the trustworthiness of a web site has become an important issue for managing e-loyalty in e-commerce. Therefore, trust is central to exchange relationships in the internet world. In terms of banking, Herington and Weaven [21] suggested that banks can achieve website loyalty through attending to customer personal needs in online situations as well as providing a well organized website and also developing e-trust in the website.

(4) New technologies growing capacity for information processing, plus its complexity, have made privacy an increasingly important issue [22]. The quantitative importance of this issue is shown by Flavian and Guinaliu [19], they pointed out that the protection of privacy, which refer to customer's ability to control the terms by which his personal information is acquired, is the greatest concern of internet transaction. There findings resulted a positive relationship between perceived privacy and website loyalty.

(5) Perceived security has a significant influence on website loyalty, as it may be defined as the subjective probability with which customers believe that their personal information will not be viewed, stored, and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations [19]. In this respect, Flavian and Guinaliu [19] conclude that the lack of security as perceived by online customers is one of the main obstacles to the development of e-commerce, and although there is a close Internet relationship between security and privacy concepts in the mind of online customers, they have particular characteristics that enable to establish a clear distinction between them. Specifically, privacy is linked to a set of legal requirements with regard to the handling of personal data, while security refers to the technical guarantees that ensure that those legal requirements will be met. Thus, it is worth pointing out that what we are talking about here are the technical aspects that ensure the integrity of secure banking transaction via the Internet. Given that there is a fundamental difference in the banks' approaches to dealing with security problems in e-banking commerce [23].

(6) As mentioned before, possibly some of the foremost factor to explain the building of website loyalty is reputation. The results of a recent empirical work by Casalo et al. [2] indicated that favorable website reputation leads to a greater degree of loyalty. From a

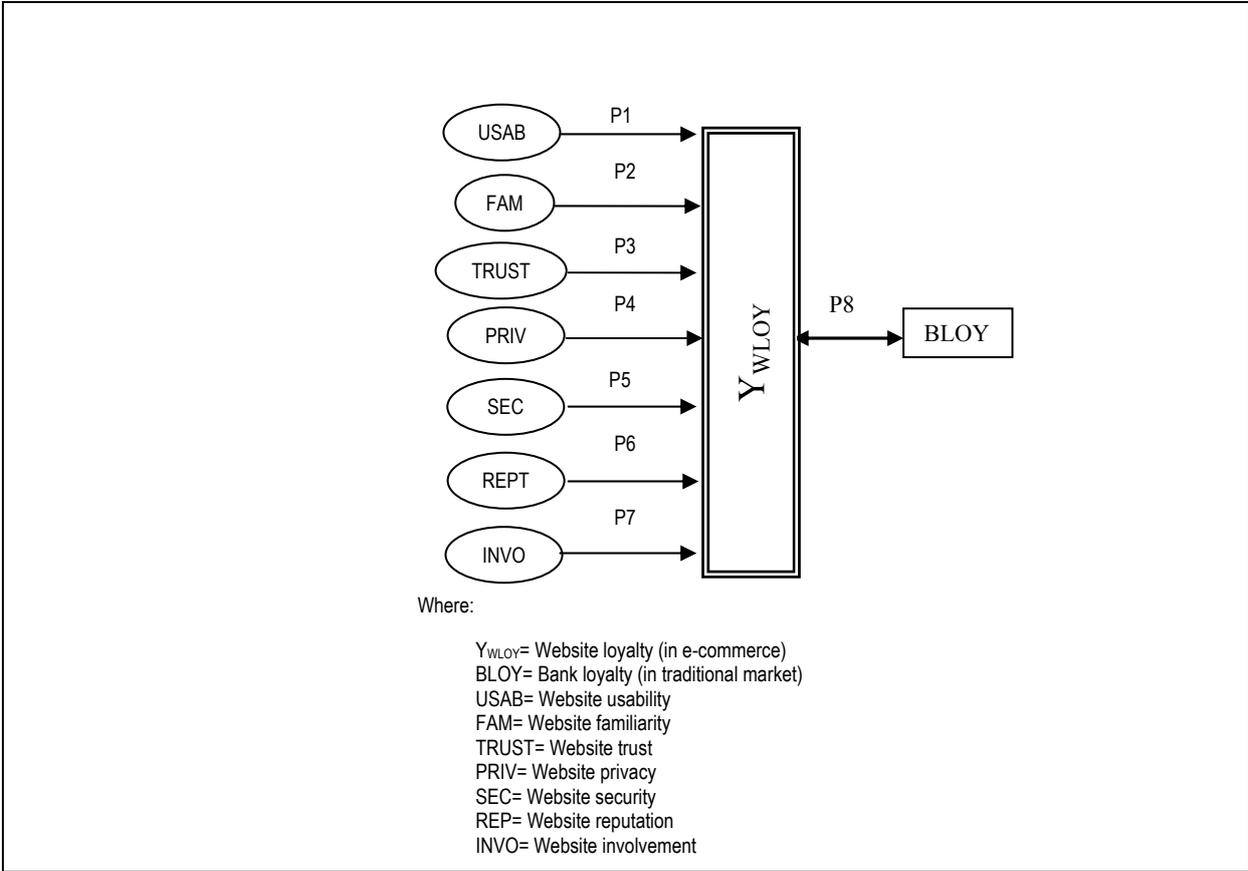
marketing perspective, perceived reputation may be seen as a consequence of the interactions between the organization and its customers which enable customers to appreciate more deeply the quality of the offer. Therefore, it is easier to lose a good reputation than to build it, since negative actions have a more intense impact on consumer perceptions than positive ones [2].

(7) Nevertheless, Some other factors received little attention in business research such as involvement which represents the level of interest about website, the more involved clients, the more likely he would be loyal to bank website [e.g. 16]. Finally, it is reasonable to mention, that some research has looked at factors that affect satisfaction among websites, while other few studies [2, 22], have dealt with satisfaction as an independent factor influences website loyalty, and follows the similar process to that of trust variable.

Developing the research model and Hypotheses

The theoretical concepts discussed in the preceding section of literature review formed the foundation of the research model illustrated in figure II, which attempted to expand other previous empirical works, more specifically the framework of website loyalty introduced by Flavian et al. [8]. As seen from the figure, the proposed model, therefore, incorporated many of the relevant features of e-loyalty identified in the literature and applied these to the e-commerce of local banking services context. It contains 8 structural paths, the paths from P1 to P7 construct as determinants of website loyalty, and the remaining path (P8) represents the hypothesized relationship between website loyalty in e-commerce market and bank loyalty in traditional market.

Figure II. The research model as a predictor of client’s loyalty towards banks websites



The hypothesis formulation process in this study is based not only on a thorough review of the specialized literature, but also on the data collected from a series of qualitative studies in the preliminary stages of this research by way of an exploratory inquiry. Based on the structural paths of the research model shown in the previous figure the following hypotheses were formulated to be tested, given as stated previously that growing competition have made it necessary to gain greater loyalty among customers of Internet banking services:

H₁: Clients' loyalty towards bank websites at Egyptian e-commerce markets is significantly affected by certain key factors such as:

- ▶ *Perceived website usability (P₁)*
- ▶ *Perceived website familiarity (P₂)*
- ▶ *Perceived website trust (P₃)*
- ▶ *Perceived website privacy (P₄)*
- ▶ *Perceived website security (P₅)*
- ▶ *Perceived website reputation (P₆)*
- ▶ *Involvement with bank's website (P₇)*

H₂: Clients' loyalty to bank websites in e-commerce markets has a strong positive relationship with bank brand loyalty in traditional market (P₈).

H₃: B2C e-commerce clients are more likely loyal towards their bank websites than B2B e-commerce clients.

Accordingly, the following multiple regression equations (EG1) can be used, which attempt to predict the probability of clients loyalty to banks websites (criterion or dependent variable Y_{WLOY}) occurring given known values from set of predictor variables (factors affecting this loyalty):

EQ1:

$$Y_{WLOY} = a + b_{USAB} USAB + b_{FAM} FAM + b_{TRUST} TRUST + b_{PRIV} PRIV + b_{SEC} SEC + b_{REPT} REPT + b_{INVO} INVO + e$$

Where:

- a: Constant value (intercept)
- USAB: Perceived Website usability
- FAM: Perceived Website familiarity
- TRUST: Perceived Website Trust
- PRIV: Perceived Website Privacy
- SEC: Perceived Website Security
- REP: Perceived Website reputation
- INVO: Involvement with Bank website
- e: Error term

Research Methodology

The research process for this study involved the following steps, after a literature review had been undertaken to identify what building factors to consider in the research and outlined relevant previous works.

Population and Sample design

The population consisted of both B2C (retail banking) and B2B (Corporate banking) e-commerce clients of banks operating in the two major cities of Egypt (Cairo and Alexandria). This included public sector banks, private and joint venture banks and branches of foreign banks. It seemed appropriate to investigate banking services industry, as banks are more likely work in competitive environment [24], and hence tend to see their websites as effective means

to increase their market share by attracting more customers through these new channels of delivery, and consequently they have a critical mass of clients loyal to this type of banking services.

The sampling method used in this study was a simple random sample augmented by additional surveys. The augmentation process was employed to ensure minimum numbers of respondent in each group. The list of registered banks with the Central Bank of Egypt, utilized as a sampling frame. The list is maintained and published by CBE website (www.cbe.org.eg). Of the 380 survey questions sent out, a total of 96 usable responses for data analysis were received, after discarding few erroneous responses (missing responses or giving more than answer to question that expected only one answer), achieving response rate of 25.26 percent. Despite the relatively low response rate, which thought to be expected for e-mail survey, the fact that the respondents were as representative of the population as possible, led to their contribution being regarded as providing information applicable to the larger population.

Unlike some previous work [e.g. 10] that investigated only consumer loyalty in B2C e-commerce, experience from the literature, research and practices revealed that it would seem reasonably to infer from both types of e-commerce clients (B2C and B2B). Thus the sample of the present study, that served to test hypotheses, comprised of 61.45 percent of B2C e-commerce market clients and 38.55 percent B2B e-commerce market clients, as respondents were asked to indicate whether they are retail banking clients or corporate banking clients. Looking to Table1 provides us with a complete profile of the surveyed respondents.

Table I: The profile of surveyed respondents

| Type | Number | Percent |
|---|--------|---------|
| B2C e-commerce clients (Retail banking clients) | 52 | 54.17% |
| B2B e-commerce clients (Corporate banking clients) | 44 | 45.83% |
| Total | 96 | 100.00% |

Research Design and Data Collection

The research design, involved a cross sectional survey that was conducted in mid 2007. However, the data collection process was divided into two stages. First, a series of in-depth interviews was held with a convenient sample to establish the evaluation criteria and relationship constructs relevant to Egyptian e-commerce banking industry. Prior works, notably Maenpaa et al [18] and Flavian et al. [8] did form a rough guide for these interviews.

Second stage was to carry out the survey itself, questionnaires were developed in the light of feedback from the preceding step, as well as from literature review. In order to examine the clarity and effectiveness of the questions, questionnaires were introduced to a group of academic and business experts for their remarks on both formal and conceptual issues. One the basis of the input of these respondents the questionnaire were revised. The pretest questionnaires, with covering letters emphasized the objectives of the current study, were internally e-mailed to bank clients through banking services officers. In this context, an e-questionnaire was considered the most straightforward method of collecting substantial data, as well as being cost effective. Banks were promised to have a concluded report on the results of the research as an incentive for cooperation. Although the questionnaires consisted mostly of close-questions and 7-point scales, some open-ended questions, more typical of qualitative research, were introduced to provide a greater depth of data.

Measurement and Validity

The measuring process construct of the research model variables employed 7-point multi-item scales, with anchors ranging from 1= strongly disagree to 7= strongly agree, adopted from the several mentioned previous works, particularly Flavian et al. [14] to suit the banking services context. The scales were presented in Arabic language due to the respondent's nationality. In order to guarantee the content validity of the questionnaire, the available relevant literature was extensively reviewed, to ensure that the major aspects of the topic were adequately covered by the items included in the survey. Then the initial scales were adapted to the context and the proposed model. Furthermore, all the scales used in the questionnaire have been tested for reliability, and all of them were above the recommended 0.8 Cronbach alpha value test, which showed an acceptable degree of reliability.

Data analysis and model testing

Resolving the issues that were stated in the preceding methodology section, the data were processed using statistical software packages (SPSS). Multiple regression analysis (Total Model) was conducted and the associated statistical inference tests with regression techniques were performed for testing the overall regression equations (F test) as well as specific partial regression coefficients (t test on b). Since high multicollinearity creates the effects of an individual predictor and results in incorrect estimations of regression weights, the total correlation matrix of the research model was reviewed in-depth. No significant multicollinearity was detected. The results of testing each of the three hypotheses are given below:

The results of testing hypothesis H₁ and its structural paths

Hypothesis H₁ was accepted based on the data analysis. The structural paths (P1 to P7) of the research model presented earlier were collectively tested. The multiple regression analysis yielded the results shown in Table I, and the significant testing findings presented in Table II support this acceptance.

Table II. Summary output of the multiple regression analysis (Total Model)

| Coefficients ^Δ | Symbols | Values | |
|---------------------------------------|-----------------------------------|-----------|----------|
| | | B2C | B2B |
| <i>Regression Statistics</i> | | | |
| Multiple correlation coefficient | Multiple R | 0.859755 | 0.944237 |
| Coefficient of multiple determination | R ² | 0.7391801 | 0.891583 |
| Adjusted R Square | Adjusted R ² | 0.6976860 | 0.870502 |
| Standard Error | SEE | 0.6588564 | 0.392515 |
| Observations | N | 52 | 44 |
| <i>ANOVA</i> | | | |
| Regression | SS _{reg} | 54.13073 | 45.61262 |
| Residual | SS _{res} | 19.10003 | 5.546474 |
| Total | SS _{total} | 73.23076 | 51.15909 |
| F-test overall model | F | 17.8141* | 42.2933* |
| Degrees of freedom | df ₁ , df ₂ | 7, 44 | 7, 36 |

^Δ Criterion variable: Y_{WLOY}

*Significant at $\alpha=0.01$

As seen in Table I, there was a strong, highly significant association between clients' loyalty to banks websites (The criterion variable Y_{WLOY}) and certain factors considered critical in building up these loyalty or effectively improve it (the predictor variables: USAB, FAM, TRUST, PRIV, SEC, REP and INVO) (Multiple R=0.859755, F= 17.8141 for B2C

Commerce, and Multiple R= 0.944237, F= 42.2933 for B2B commerce). These building factors, included in the research model, explain the major proportion (73.91% for B2C and 89.15% for B2B) of the variability observed in this loyalty among banks in Egypt Y_{WLOY} ($R^2= 0.7391801$ for B2C and $R^2= 0.891583$ for B2B). Thus, the explanatory power of the research model considered highly satisfactory (Adjusted $R^2= 0.6976860$ for B2C and Adjusted $R^2= 0.870502$ for B2B). However, the results of Table III revealed that only four building factors (USAB, SEC, REP and INVO) seem to be critical in predicting the client's loyalty to banks websites in B2C e-commerce, and the predictive equation (EG2) can be estimated as below to evaluate the impact of each factor on the criterion variable (Y_{WLOY}):

Table III. Variables included in the research model equation (Total Model for B2C)

| Factors | Regression Coefficient | | t-tests | |
|--|------------------------|---------|-----------------|------------|
| | Symbol | Value | Symbol | Value |
| USAB: Website usability | b_{USAB} | 0.41844 | t on b_{USAB} | 2.4265755* |
| FAM: Website familiarity | b_{FAM} | 0.10842 | t on b_{FAM} | 1.9166297 |
| TRUST: Website trust | b_{TRUST} | 0.01143 | t on b_{TRUS} | 1.1249189 |
| PRIV: Website Privacy | b_{PRIV} | 0.29653 | t on b_{PRIV} | 1.7623348 |
| SEC: Website Security | b_{SEC} | 0.44726 | t on b_{SEC} | 2.4617045* |
| REP: Website reputation | b_{REP} | 0.29746 | t on b_{REP} | 2.5807235* |
| INVO: Involvement with Website | b_{INVO} | 0.23577 | t on b_{INVO} | 2.5094728* |
| Intercept | a | 0.46114 | | |
| df | n-k-1 | 44 | | |
| Notes: n=sample size k= No. of independent v | | | | |

* Significant at $\alpha= 0.05$

EQ2: The predictive equation for B2C e-commerce:

$$Y_{WLOY} = 0.46 + 0.41 USAB + 0.11 FAM + 0.01 TRUST + 0.29 PRIV + 0.44 SEC + 0.29 REPT + 0.23 INVO$$

On contrary, the results of testing the significance of partial regression coefficients for B2B e-commerce in Table IV showed that all factors included in the model are very important in predicting the clients' loyalty. Based on the regression coefficient value of each predictor variable, presented in Table IV, it is possible to assess the impact of each factor on the criterion variable (Y_{WLOY}), using the predictive equation (EG3).

Table IV. Variables included in the research model equation (Total Model for B2B)

| Factors | Regression Coefficient | | t-tests | |
|--|------------------------|---------|-----------------|------------|
| | Symbol | Value | Symbol | Value |
| USAB: Website usability | b_{USAB} | 0.27981 | t on b_{USAB} | 2.768044* |
| FAM: Website familiarity | b_{FAM} | 0.33845 | t on b_{FAM} | 2.523098** |
| TRUST: Website trust | b_{TRUST} | 0.30942 | t on b_{TRUS} | 3.419068* |
| PRIV: Website Privacy | b_{PRIV} | 0.21237 | t on b_{PRIV} | 2.499238** |
| SEC: Website Security | b_{SEC} | 0.44312 | t on b_{SEC} | 5.309242* |
| REP: Website reputation | b_{REP} | 0.35809 | t on b_{REP} | 2.746602 * |
| INVO: Involvement with Website | b_{INVO} | 0.34949 | t on b_{INVO} | 2.733735* |
| Intercept | a | 1.22184 | | |
| df | n-k-1 | 36 | | |
| Notes: n=sample size k= No. of independent v | | | | |

* Significant at $\alpha= 0.01$

** Significant at $\alpha= 0.05$

EQ3: The predictive equation for B2B e-commerce:

$$Y_{WLOY} = 1.22 + 0.28 USAB + 0.33 FAM + 0.31 TRUST + 0.21 PRIV + 0.44 SEC + 0.36 REPT + 0.35 INVO$$

The results of testing hypothesis H₂

Hypothesis H₂ was partially supported based upon the outcomes of correlation matrix analysis and its associated statistical significance tests presented in *Table V*. The values of the product-moment correlation coefficients refer to a moderate positive association between bank loyalty in traditional market and clients' loyalty towards bank websites for B2C e-commerce market ($r_{B2C} = 0.530393$), and a relatively strong association for B2B e-commerce ($r_{B2B} = 0.65576$). However, the two correlation coefficients were statistically with 50 degrees of freedom for B2C e-commerce (t on $r_{B2C} = 6.06578$), and 42 degrees of freedom for B2B e-commerce (t on $r_{B2B} = 8.42148$).

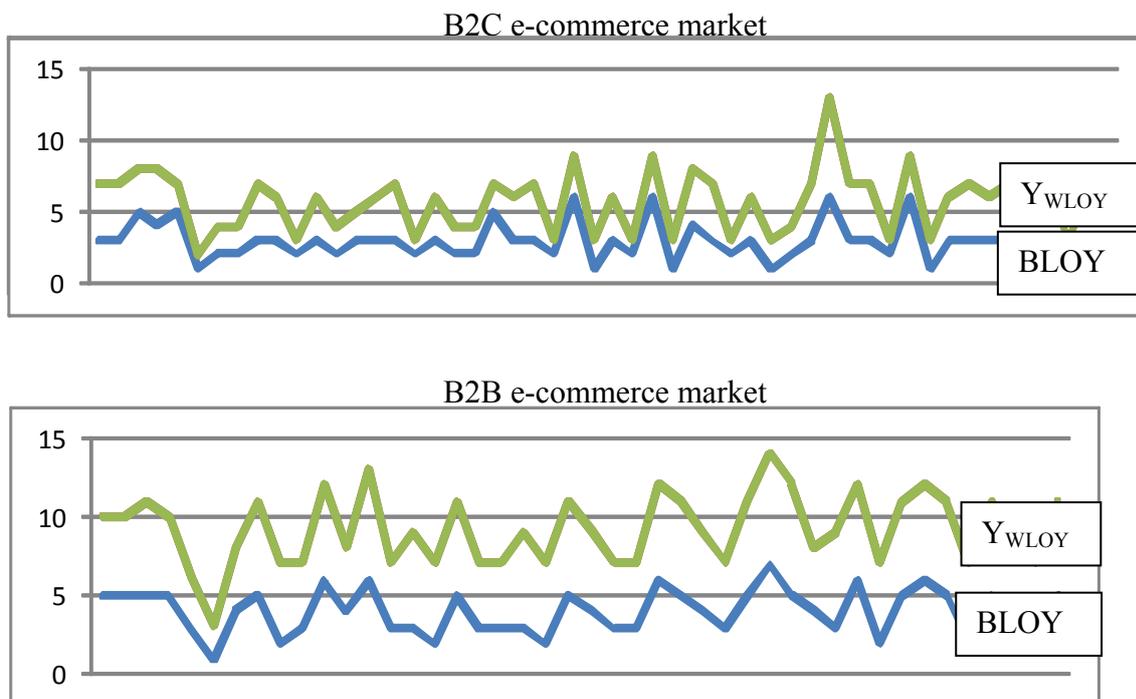
Table V. Outcomes summary of correlation analysis and its associated significance tests

| Correlation between Y_{WLOY} and $BLOY$ | B2C e-commerce market | | B2B e-commerce market | |
|--|--------------------------|----------|--------------------------|----------|
| | Symbol | Value | Symbol | Value |
| Correlation Coefficient | r_{B2C} | 0.53039 | r_{B2B} | 0.65576 |
| t test on r | t on r_{B2C} | 6.06587* | t on r_{B2B} | 8.42148* |
| df=Degrees of freedom | n-2 | | | |
| Notes: | | | | |
| n=sample size | | | | |
| Y_{WLOY} = Website loyalty | | | | |
| $BLOY$ = Bank loyalty | | | | |

* Significant at $\alpha = 0.01$

The discussion above provides evidence to conclude that clients' loyalty towards bank websites in B2B e-commerce market more likely has strong influences on bank loyalty than in B2C market. The Graphic presentation shown in *Figure III* illustrates these influences clearly.

Figure III. The positive relationship between clients' loyalty towards bank websites in B2C and B2B



The results of testing hypothesis H₃

Hypothesis H₃ was rejected according to the findings arising up from the parametric test related to differences *t* test for difference of means using pooled estimate of standard error given below in Table VI, which as conducted to determine whether the observed difference between clients' loyalty towards bank websites in B2C and B2B e-commerce is statistically significant. As can be observed from Table VI, the level of clients' loyalty towards Egyptian bank websites for B2C e-commerce or retail banking clients considered low ($\bar{\chi}_{B2C}$ = 2.76923,) and consequently they are likely less loyal than B2B e-commerce or corporate clients ($\bar{\chi}_{B2B}$ = 5.20454). and this difference is highly statistically significant. The parametric test related to differences backed up our conclusion, the t test value far exceeded the critical value at α = 0.01 with 93 degrees of freedom (t_{test} = 10.41712).

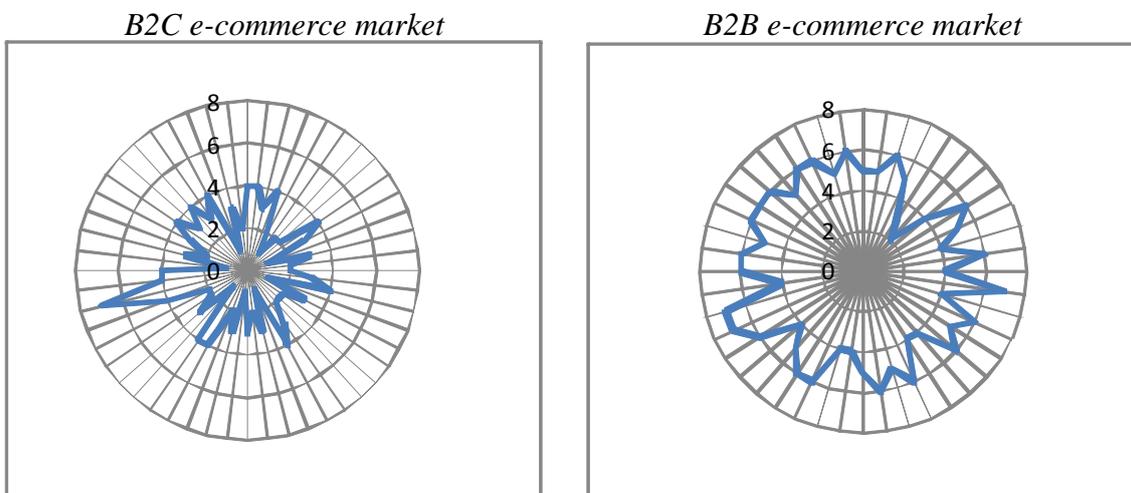
Table VI. T-test for difference of means results

| | B2C e-commerce | | B2B e-commerce | |
|--------------------|-------------------------|---------|--------------------|---------|
| | Symbol | Value | Symbol | Value |
| Mean ^Δ | $\bar{\chi}_{B2C}$ | 2.76923 | $\bar{\chi}_{B2B}$ | 5.20454 |
| Variance | S^2_{B2C} | 1.43897 | S^2_{B2B} | 1.89746 |
| Observations | n_{B2C} | 52 | n_{B2B} | 44 |
| T test = | 10.4171* | | | |
| Degree of freedom= | $n_{B2C} - n_{B2B} - 2$ | 93 | | |
| Δ Scale of 1 to 7 | | | | |

* Significant at α = 0.01

Radar chart in figure III illustrates graphically this significant difference, most B2C e-commerce values are intensively close to the center of the radar axes reflecting the low level of clients' loyalty towards bank websites. On contrary, the positions of most B2B e-commerce values tend to be relatively far from those axes representing the high level of the client's loyalty in this market. Such difference can be interpreted in the light of some recent works revealed that Internet banking considered salient in determining the bank selection by corporate banking clients, and they actually have higher satisfaction on the internet than with interpersonal banking services encounters [e.g. 25].

Figure III. Radar charts reflect the significant difference between B2C and B2B e-commerce values



Discussions and Conclusion

The current work highlighted the growing importance of clients' loyalty to bank websites in both B2C and B2B e-commerce markets, particularly in banking industry. The results of the empirical analysis revealed a clear notable effect of some factors on building up or improving client's loyalty towards bank websites, such as perceived website usability, familiarity, trust, privacy, security, reputation, and involvement with bank's website factors. It has been found that those factors explain the major proportion of the variability observed in clients' loyalty among Egyptian banks, more specifically 74% of total variance in B2C and 89% in B2B e-commerce markets, with confidence level of =99%. In this context, the results refer to a moderate positive association between bank loyalty in traditional market and clients' loyalty towards bank websites for B2C e-commerce market, and a relatively strong association for B2B e-commerce market.

Also, the findings arising from analysis have enabled to state that the level of clients' loyalty towards Egyptian bank websites for B2C e-commerce or retail banking clients considered low, and consequently they are likely less loyal than B2B e-commerce or corporate clients. This observed difference is highly statistically significant, and can be interpreted in the light of some recent works revealed that Internet banking considered salient in determining the bank selection by corporate banking clients, and they actually have higher satisfaction on the internet than with interpersonal banking services encounters (traditional banking channels).

Finally, the current research has presented a proposed model, which incorporated many of the relevant features of e-loyalty identified in the literature and applied these to the e-commerce of local banking services context. Such a model can predict through its mathematical forms the probability of the clients' loyalty towards banks websites occurring from set of certain factors introduced above.

Managerial Implications and Recommendations

Given the dearth of works dealing with this area of study, the results of the present paper might be seen as useful contribution to the specialized literature concerning this issue. Similarly, some important managerial implications can be drawn from the results for practitioners as bank managers or marketing managers. First, it will contribute, to some extent; to those practitioners in making decisions of how best position their websites at both e-commerce markets (B2C and B2B). Secondly the findings highlight how the influence of website loyalty is considered important to bank profitability and expenditures. Last, the findings of this study suggest that bank management should focus more effort to improve the low levels of B2C e-commerce clients' loyalty towards their bank websites.

Limitations and Further research

Turning to the limitations of the current work, we must point out that although the majority of the proposal relationships were validated, and significant, the levels of R^2 obtained, specifically in B2C e-commerce market, show that there are other variables that may influence our finding. Consequently, it is necessary to develop more complex models which may introduce alternative variables, in the explanation of the level of website loyalty. Such models might open future research lines.

Nevertheless, further researches could further examine the current proposed model in other countries, to see whether it can be applied, or expanding the present study to other business

segments to infer more about the industry-wise differences. Finally, future studies can use different methodologies and samples to test whether it makes sense.

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Acknowledgment

The author gratefully acknowledges the cooperation and efforts of many bank managers at Alexandria and Cairo who assisted in data gathering, and fully appreciates any suggestions or notes regarding this work, at the following correspondence address:

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