

Full Length Research Paper

An analytical study of mobile phone espousal and consumption patterns of university students in Bahrain

Shaju George¹ and Makarand Upadhyaya^{2*}

¹Department of Management and Marketing, College of Business Administration, University of Bahrain, Bahrain, Assistant Professor

²Department of Management and Marketing, College of Business Administration, University of Bahrain, Bahrain, Associate Professor

Accepted 25 May, 2015

A theoretical hypothesis that changing prices have effects of regulation is proposed by analyzing relations among changing charges, customer satisfaction and customer loyalty in the field of mobile communication utilization of enrolled college students. Then relevant data are acquired from questionnaires, processed with SPSS 20.0 Statistical Program and subjected to hierarchical regression analysis to test the hypothesis. Finally, it is concluded that, among different dimensions of changing prices, procedural changing prices have a significant effect of regulation between customer satisfaction and customer loyalty, but the financial and relational changing prices have not significant moderating effect. Thus, to improve customer loyalty, operators are suggested to enhance customer satisfaction and procedural changing prices simultaneously.

Keywords: Mobile Communication; Changing Prices; Regulation Effect; Customer Satisfaction; Customer Loyalty.

Email: makarandjaipur@gmail.com

INTRODUCTION

The world is becoming increasingly competitive and integrated. Due to the enhanced power of customers coupled with fierce competition organizations are facing the risk of losing market share and eroding their profit margins. Hence it is increasingly important to focus on customer satisfaction than on other variables which could enhance their competitive position. In today's modern world, customers are well informed, integrated to the world economy and have more options than ever. Hence it is of prime importance for organizations to be customer centric. The main aim of organization is to

maximize its profits. Customer satisfaction is likely to retain customers and this in turn can help in enhancing profitability. Competition on Bahrain's mobile communication market grows increasingly fierce nowadays. Universities and colleges form a giant market, which becomes a hot battlefield for the three major communication network Zain and Betlco). Operators keep releasing various sales promotions to improve customer satisfaction, seize more market shares and attract more new customers. Services and prices provided by operators who don't have the biggest

market share seem attractive. However, switch by a large number of student customers among operators has not happened yet. Due to a steady increase in the disposable income of the younger generation of Bahrain and the region, the mobile operators cannot afford to ignore the specific requirement of this category.

The mobile phone and the internet are the most important communication tool and have become an integral part of college life. Bahrainis are increasingly using the mobile phone and internet as a way to keep in touch with friends, family and business associates. College students represent a unique group of people. They have been the frontiers of social changes since the struggle for Independence. Due to recent advancements in science they have become more technology savvy. The way in which they have used the technology has been remarkable.

Mobile phones have enabled the youth to make develop new relationships and maintain the existing ones. However every comfort introduced by technological development also brings some hostile impacts along with. Likewise, mobile phone technology has connected the masses in a magical way but its excessive usage has brought many negative implications as well. Addiction to cell phone for calling or texting is most commonly observed disadvantage of cell phones. Increased Stress Level, male infertility, negative effect on environment due to their unsafe disposal etc. are some other disadvantages of mobile phones.

Every comfort introduced by technological development also brings some hostile impacts along with. Likewise, mobile phone technology has connected the masses in a magical way but its excessive usage has brought many negative implications as well. People are no more taking it as an accessory; rather it has been becoming a necessity of life. Users keep looking for upgrading of brands, models, network providers and other mobile phone related accessories. Users seem so obsessive about all mobile phone related activities that its usage is going beyond the limits of needs towards the spheres of addiction. Among the major non-drug addictions of this century, mobile phone addiction is becoming a powerful phenomenon as proclaimed by Psychiatrists. Economic loss and social isolation are the sufferings which an addictive victim passes through. They proposed that feeling an overwhelming need to use the cell phone for more than half an hour per day is the symptom of being mobile phone addict. A drop in incoming calls or text causes the arousal of such symptoms especially among non-confident, unsociable and eccentric people.

Although there may be many advantages to be gained from using the Internet there are also many drawbacks.

Internet users especially teenagers are often addicted to it. Social Networking sites often have privacy loopholes. There are number of fraud websites which bank frauds. Presence of such websites has made

online transactions unsafe. Since anyone can start a website and publish information therefore it is tough to segregate accurate and inaccurate information this is another major disadvantage of internet.

Previous theoretical studies have shown that, changing cost is an important factor. Customer satisfaction does have a significant positive influence over customer loyalty but is not enough to maintain customer loyalty, and that customer loyalty is also affected by changing prices of customers. For different dimensions of changing prices, relation between customer satisfaction and customer loyalty may differ. And the behavior of student customers may be also different from other categories of customers.

This paper is based on an empirical study on relations among changing prices, customer satisfaction and customer loyalty in the field of mobile communication utilization of college students, to further explore the mechanism of action thereof.

Literature Review and Study Hypotheses

According to the expected-perceived model, customer satisfaction is a measure of how a customer feels about comparison between perceived condition and expected condition of a service. Customer satisfaction is the judgment of customers which follows after a consumption experience. It is a customer's perception of how well the product or services could fulfill his desired level of expectation (Oliver, 1997). Companies need to focus on customer satisfaction as acquiring new customers is comparatively much more expensive and difficult. Higher customer satisfaction leads to higher retention of customers which in turn increases profits of the company (Kotler, 2003). Customer satisfactions must not be considered as a goal by itself; however customer satisfaction must be used only as a method to improve performance of an organization. A deeper understanding and knowledge of each of the driver's impact on customer satisfaction can help organizations to appropriately allocate resources (Martensen, Gronholdt, Kristensen, 2000). Customers expect certain value from the product which can satisfy them. Satisfied customers keep purchasing and also share their good experience, whereas dissatisfied customers will soon switch to competitors and will also spread the negative impression through word of mouth. Hence companies try their level best to satisfy important customers. Many studies show that higher levels of customer satisfaction bring about greater customer loyalty, which in turn leads to better organizational performance. Hence it is also important for organizations to only promise what they can deliver and actually deliver more. For organizations focused on customer satisfaction, excellent services are not only a set of policies, but it is an attitude and culture across the organization (Kotler, Armstrong, 2010). It is important for organizations to be sensitive towards

customer's consumption experience (Kerin, Berkowitz, Hartley, Rudelius, 2003).

Customer loyalty is defined as "a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 1997).

Customer loyalty can be defined as a customer continuing to believe that the organization's product or service offer is the best possible option. It best fulfills their value proposition. They take that offer whenever faced with that purchasing decision. A loyal customer remains with the organization even when there is a problem. This tendency is because the organization has been good to them in the past and addresses issues when they arise. It means that they are not looking out competitors and, when approached by competitors, turns them down. Loyal customers spend the time and effort to communicate with the organization so as to build on past positive experiences and overcome any weaknesses (Loyalty Reserach Center, 2015).

Customer loyalty is the result of a combination of three important factors viz. consistently positive emotional experience, physical attribute-based satisfaction and perceived value of an experience, with regard to a product or service. Hence in order to develop customer loyalty, organizations need to blend the physical, emotional and value elements of an experience into one cohesive experience. It is also important to deliberately focus on customer experience management which is the most cost-effective way to bring about customer satisfaction, customer retention and customer loyalty (Beyond Philosophy, 2015).

Customer loyalty can be viewed as both an attitudinal and behavioral tendency which prefers one brand over all others. This tendency may be due to satisfaction with the product or service, its convenience or performance, or simply familiarity and comfort with the brand. It is further observed that customer loyalty not only encourages consumers to shop more consistently, but also encourages customers to spend a greater share their income, and cherish a nice shopping experience. It must also be noted that there are different types and degrees of loyalty (PR Loyalty Solutions, 2015).

A company enjoys customer loyalty when their customers won't switch to any other product or services. Loyal customers pay back the company in long-term cash flows and in generating a stream of referrals. Customer retention rate to a large extent reflects customer loyalty; however there may be other factors like inertia or indifference or even a contract that compels customers to stay with the organization. Building loyal customers requires a company to discriminate between profitable and unprofitable customers. Some companies offer a loyalty award program in order to win customer loyalty. A loyalty program is intended to build customer loyalty, but many loyalty schemes do not create loyalty. It is also interesting to note that while every company should

aim to build loyal customers, loyalty is never so strong that customers can resist a competitor who comes up with a much stronger value proposition that gives customers a better deal (Kotler, 2003).

Loyal customers are willing to consistently buy products even when there are attractive alternatives available also buy other products of the same company, recommend the company's goods or services to potential customers and communicate with the company giving honest feedback (Reichheld, Sasser, Jr., 1990).

Attitudinal customer loyalty is an attitude of a customer preferring or relying on a product or service, with high level of attitudinal loyalty, customers have high level of psychological attachments and attitudinal advocacy; which may lead to positive word of mouth, while behavioral customer loyalty is a behavior of the customer with such an attitude buying the product or service. Defined by Dick, loyalty is a combination of both attitudinal loyalty and behavioral loyalty, it implies "the strength of the relationship between an individual's relative attitude and their repeat patronage" (1994). This means, a customer who is satisfied by the previous service feels good, prefers the service emotionally, and tends to adopt a behavior of secondary utilization to feel satisfied again. Many scholars in Bahrain and abroad point out that, customer satisfaction has positive influence over and is an important drive to customer loyalty. Therefore, a hypothesis comes as below from the aforementioned analysis.

H1: Customer satisfaction has a positive influence over customer loyalty.

Customer Satisfaction, Customer Loyalty and Changing Prices of Customers

Practices tell us that, a part of customers with relatively high satisfaction do not always keep their loyalty to products or services used currently when other suppliers' products or services are available. Loyalty does not depend on customer satisfaction only. In other words, a satisfied customer may be not loyal. Fornell (1992) thinks that, an enterprise looks in its customers by means of not only customer satisfaction, but also changing prices of customers, which occurs when a customer switches between different product/service suppliers. According to Bumham et al. changing cost is the onetime prices that "customers associate with the process of changing from one provider to another" (2003). Changing prices include labor prices and economic prices used by customers to search, losses of money, materials and personal relationship that might arise from abandoning current suppliers, and psychological risks, utilization habits and emotional prices that customers perceive when they are changing. A representative classification of changing prices made by Burnham et al. (2003) is comprised of three

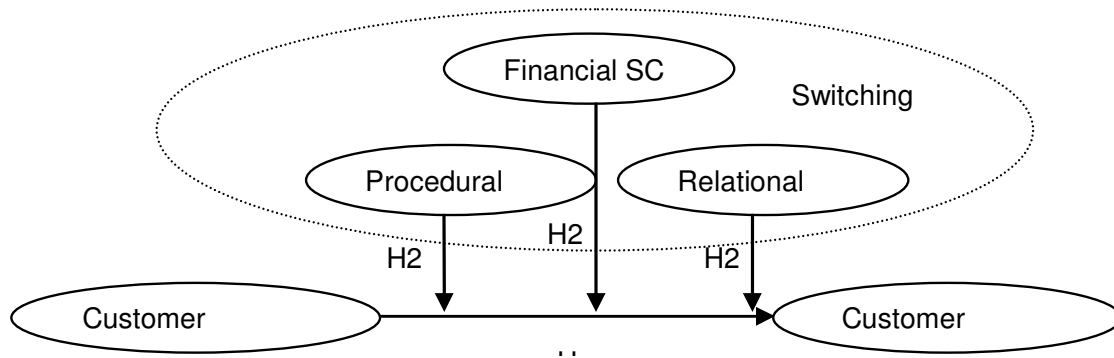


Figure 1. Research structure

dimensions, i.e., procedural changing prices, financial changing prices and relational changing prices. Procedural changing prices include economic risk prices, evaluation prices, learning prices and setup prices. Financial changing prices include benefit loss prices and monetary loss prices. Relational changing prices include personal relationship loss prices and brand relationship loss prices.

Due to the asymmetric policy of changing from one operator to another without changing mobile phone number, most of mobile users who want to switch must change their mobile phone numbers. Such a user has to spend certain time and energy notifying his or her contacts of new number, to avoid impacts on personal relationship. As a result, setup prices increase. Furthermore, some users, who have their mobile phone numbers registered for some websites, micro-blogging, QQ, e-mails or games, may suffer from certain economic risk prices and evaluation prices. Hence, certain procedural changing prices exist in changing among operators.

Since competition among network operators in universities and colleges is quite fierce and preferential promotions are launched one after another, a college student only has to pay a relatively low financial cost to enjoy benefits from these sales promotions. For users who are students, financial changing prices are low.

By subscribing for a campus network, mobile users of one operator can enjoy preferential prices for calling each other and consolidate their personal relationships in the network. Changing to another operator may well impair existing personal relationships and loss thereof may incur relational changing prices. Furthermore, for consumers who built up their identifications by associating themselves with the brand or company through purchases, when they switch, their identifications may suffer, thus may also result in affective losses.

According to previous studies on effects of changing prices, most scholars thought that, changing prices impact customer loyalty directly. For example, by analyzing mobile communication data of a country, Hu

and Hwang (2006) find that, customer loyalty is significantly affected by procedural changing prices and relational changing prices, and insignificantly affected by financial changing prices. But if we define customer loyalty as a combination of attitudinal loyalty and behavioral loyalty, we believe changing prices have effects of regulation between customer satisfaction and customer loyalty. On the premise that customers are satisfied, customers seeing low changing prices tends to behave disloyally to original products or services, while customers seeing high changing prices will not change products or services easily and will keep a relatively high loyalty even if market competition is fierce. That is to say, changing prices have effects of regulation between customer satisfaction and customer loyalty.

Following hypotheses are proposed in this paper based on the aforesaid analysis, and a theoretical hypothesis model is established as shown in Figure 1 for this study.

H2a: Procedural changing prices have significant effects of regulation between customer satisfaction and customer loyalty;

H2b: Financial changing prices have significant effects of regulation between customer satisfaction and customer loyalty;

H2c: Relational changing prices have significant effects of regulation between customer satisfaction and customer loyalty.

Study Design

Data Acquisition

Survey objects for this study are students using mobile communication services, who are enrolled in universities

Table 1. Reliability coefficients of variables

Variables	Cronbach's α
Customer Satisfaction	0.799
Customer Loyalty	0.782
Procedural Changing Prices	0.752
Financial Changing Prices	0.742
Relational Changing Prices	0.772

Table 2. Regression analysis of customer satisfaction and customer loyalty

R	R ²	Adjusted R ²	F	Sig.
0.721	0.513	0.512	169.991	0.000

and colleges all over Bahrain (mainland). In this survey carried out on-line, totally 300 questionnaires were issued to 300 students in Bahrain. Actually 277 questionnaires were recovered, with the recovery rate being 92.3% or so. From the perspectives of gender, grade, region and operator, distributions of samples were relatively rational and representative.

Measures

Scales for customer satisfaction and customer loyalty are relatively mature. In this study, we adapted scales from previous study and modified the scale to suit the situation of telecommunication field. Scales were all expressed from the first person point of view, to avoid influence of objective situational factors. Studies of Hu and Hwang (2006) were referred for scale for changing prices, the scale consisted of three dimensions: procedural changing cost, financial changing cost and relational changing cost. The scale was revised to needs of this study and based on characteristics of perception of changing prices of college students. To improve validity of scales, we translated original scales, carried out discussion and pretest and worked out final scales through revision for survey use. Questionnaire survey employed 7-point Likert scales, with figures from 1 through 7 representing levels of agreement about each statement. "1" is for "totally disagreed", while "7" for "totally agreed".

STUDY METHODS

To study the effects of regulation for this paper, data about customer satisfaction, customer loyalty and changing prices in the field of mobile communication utilization of enrolled college students were acquired through questionnaires and listed in a 7-point Likert scale, and a hierarchical regression model was employed. The following test steps were followed:

1) Do regression analysis between value of dependent variable and values of independent and moderator variables;

2) after centering of the independent and moderator variables, do regression analysis among the value of the dependent variable, the values of the independent and moderator variables and interaction term (product term) of the latter two variables;

3) Compare values of coefficient R² measured at the two hierarchies, and effects of regulation are significant if the latter R² is significantly higher than the former one.

What's more, since changing prices are composed of three dimensions, i.e., procedural changing prices, financial changing prices and relational changing prices, the three dimensions are subjected to hierarchical regression analysis respectively in this paper for the purpose of convenient computation.

Data Analysis

Reliability Analysis

For this research, a coefficient of internal consistency, Cronbach's α , was applied to reliability analysis of samples. As shown in Table 1, all the terms passed reliability test, each α value was higher than 0.7, and total reliability of questionnaires was 0.902. The reliability result was relatively good and met study requirement.

Analysis of Influence of Customer Satisfaction over Customer Loyalty

Regression analysis was conducted on the influence of customer satisfaction over customer loyalty, with Spss20.0 Statistical Program. Analysis result was as shown in Table 2. The correlation coefficient of customer satisfaction and customer loyalty was 0.721,

Table 3. Analysis of moderating effects

Moderator	Steps	Regression Equation	R ²	ΔR ²	T
Procedural changing prices	1	Y=0.081P+0.667X	0.512	-	-
	2	Y=-0.061+0.118P+0.634X+0.169PX	0.539	0.035**	3.589
Financial changing prices	1	Y=0.081F+0.688X	0.512	-	-
	2	Y=-0.013+0.069F+0.658X+0.033FX	0.511	0.002	0.798
Relational changing prices	1	Y=0.139R+0.598X	0.506	-	-
	2	Y=-0.049+0.159R+0.599X+0.069RX	0.519	0.005	1.391

and determination coefficient R^2 was 0.513, which was 0.512 after adjustment. Because there was only one regression model, variation of R^2 was 0.513, equal to statistic of R^2 . This meant: the variable of customer satisfaction could explain 50.6% of variance of customer loyalty; F value was 169.991 and the corresponding p value was less than the significance level of 0.001; explained variance of the regression model reached the significance level. As a result, H1 was supported. Customer satisfaction has a positive influence on customer loyalty.

Analysis of Effects of Regulation

Computation was conducted for the three dimensions of changing prices respectively in this Study for the purpose of convenient computation, according to study methods applied by Wen et al. (2005) to effects of regulation. See Table 3 above for results of data processing.

For procedural changing prices, regression of product term (PX) in Step 2 was significant, where $t=3.589$ and variance of R^2 was about 3.6%, so procedural changing prices had a significant effect of regulation. Regression coefficient for relation between customer loyalty and customer satisfaction was $0.169P+0.634$, which was a linear function of P. That meant, the higher the procedural changing prices, the greater the positive influence of customer satisfaction over customer loyalty. Hence, H2a was proved. As for regression analysis of financial changing prices, $t=0.798$ and variance of R^2 was about 0.2%, where the effect of regulation was insignificant. Hence H2b was not proven. When it came to relational changing prices, $t=1.391$ and variance of R^2 was about 0.5%, where the effect of regulation was insignificant. H2c was not supported.

Note: ** $p < 0.01$, Y: Customer loyalty, X: Customer satisfaction, P: Procedural changing prices, F: Financial changing prices, R: In this paper, the effects of regulation b Relational changing prices.

CONCLUSIONS AND SUGGESTIONS

The three dimensions of changing prices between customer satisfaction and customer loyalty is studied based on mobile communication utilization of college students. It is concluded that customer satisfaction has a positive major influence over customer loyalty, which is in line with consequences of earlier studies. Among the dimensions of changing prices, procedural changing prices have a significant positive effect of regulation. In other words, the higher the procedural changing prices, the more loyal the satisfied customers are. However, the effects of regulation by financial changing prices and relational changing prices are insignificant. For financial changing prices, we suppose this is because, compared with procedural changing prices, financial cost is not very important, for many customers, the accumulated credits are useless and the financial cost of telecom card is one-off. As for relational changing prices, we believe this is because the brands of operators are not yet powerful enough and customers seldom build personnel relations with service persons of operators. And this is the situation telecom operators want to change.

Consequently, to enhance customer loyalty, operators must increase procedural changing prices of customers in addition to improving customer satisfaction. Operators are suggested to improve their service quality, expand coverage of their networks and improve communication quality during growth of customers to keep a high customer satisfaction for mobile communication services. Operators are also suggested, at the same time, to develop relevant products, provide more service packages of higher value that are closely related to customers' daily life, and increase procedural changing prices of customers. Particularly, nowadays college students use a lot of web interaction products, registration at most of which is for free. So operators can develop products in relevant fields and promote bundled use, to raise value perceived by customers, to satisfy customers and increase their changing prices

and hence to keep high customer loyalty.

Mobile communication technologies are advancing rapidly. For example, cell phones with Internet access and multimedia capabilities are becoming common in parts of the world such as Europe and Asia. With advances in technology come changes in users attitudes toward those technologies. These generate new social and cultural phenomena. These social and cultural phenomena may change the way technology evolves. This represents social construction of technology. This social construction of technology is seen in the symbiotic relationship between the users of the technology and the technology itself. Users (such as young people) respond to the technological advancement (such as cell phones); in return, the technology evolves based on users demands. To fully understand the social and cultural changes brought about by the technology, it is important to continue investigating individuals current attitudes and uses toward the technology.

This study focuses to explore some horizons that are not being in consideration by researchers. It covers the consumption patterns of mobile users. It spotlights on both the service preferences and mobile phone preferences of the users in Bahrain. Very few studies are available considering both the dimensions that are covered in the present study. This study is still limited to only small sample size , in order to get in depth view point and preferences of customers it can be broadened by selecting higher sample size. So suggesting the future implementation of the study it should be repeated with larger sample.

REFERENCES

- Beyond Philosophy (2015). Retrieved March 23, 2015, from <http://beyondphilosophy.com:http://beyondphilosophy.com/customer-experience/customer-loyalty/>
- Burnham TA, Frels JK, Mahajan V (2003). Consumer Changing Prices: A Typology, Antecedents, and Consequences, *J. of the Academy of Marketing Sci.* 31: 109-126.
- Cohen J, Cohen P (1975). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, Erlbaum Associates, Hillsdale, New Jersey.
- Dick AS (1994). Customer Loyalty: Toward an Integrated Conceptual Framework, *Journal of the Academy of Marketing Sci.* 22: 99-113.
- Fornell C (1992). A National Customer Satisfaction Barometer: The Swedish Experience, *Journal of Marketing*, 56: 6-21.
- Hu AW, Hwang IS (2006). Measuring the Effects of Consumer Changing Prices on Changing Intention in Taiwan Mobile Telecommunication Services, *J. of American Academy of Bus.* 9: 75-85.
- Jahanzeb S, Fatima T, Khan MB (2011). An Empirical Analysis of Customer Loyalty in Pakistan's Telecommunication Industry, *J. of Database Marketing and Customer Strategy Management*, 18: 5-15.
- Kerin R A, Berkowitz E N, Hartley SW and Rudelius W (2003). *Marketing*. New York: McGraw Hill.
- Kotler P (2003). *Marketing Insights from A to Z: 80 Concepts Every Manager Needs to Know*. New Jersey: John Wiley and Sons.
- Kotler P, and Armstrong G (2010). *Principles of Marketing*. New Jersey: Pearson.
- Lam SY, Shankar V, Erramilli MK and Murthy B (2004). Customer Value, Satisfaction, Loyalty, and Changing Prices: An Illustration From a Business-to-Business Service Context. *J. of the Academy of Marketing Sci.* 32: 293-311.
- Li XG, Duan XK (2011). The Relationship Among Changing Cost, Customer Satisfaction and Customer Loyalty Based on Mobile Communication Customer Behavior, *Bahrain Soft Sci.* 4:154-160.
- Loyalty Research Center (2015). Loyalty Research Center. Retrieved March 23, 2015, from <http://www.loyaltyresearch.com: http://www.loyaltyresearch.com/insights/thought-perspectives/customer-loyalty-what-is-it-how-can-you-measure-and-manage-it/>
- Martensen A, Gronholdt L and Kristensen K (2000). The drivers of customer satisfaction and loyalty: Cross-industry findings from Denmark. *Total Quality Management.* 544-553.
- Oliver RL (1997). *Satisfaction: A Behavioural Perspective on the Consumer*. New York: McGraw Hill.
- PR Loyalty Solutions (2015). Retrieved March 23, 2015, from <http://prloyaltymarketing.com:http://prloyaltymarketing.com/customer-loyalty/what-is-customer-loyalty/>
- Reichheld FF and Sasser JRWE (1990). Zero defections. Quality comes to services. *Harvard Business Review.* 105-111.
- Ting SC (2014). The Relationship Between Customers' Changing Cost and Repurchase Intention: The Moderating Role of Satisfaction, *J. of Service Sci. and Management*, 7: 313-322.
- Wen Z, Hau KT, Chang L (2005). A Comparison of Moderator and Mediator and Their Applications, *Acta Psy. Sinica*, 37: 268-274.
- Wu E, Cutright K, Fitzsimons G (2011). How Asking 'Who Am I?' Affects What Consumers Buy: The Influence of Self-Discovery on Utilization, *J. of Marketing Research*, 48: 296-307
- Zhang XA, Tian P (2007). An Empirical Study of Relation Between Customer Satisfaction and Customer Loyalty, *J. of Management Sciences in Bahrain*, 4: 62-72.