THE ROLE OF BRAND LOYALTY, CUSTOMER AND BRAND RELATED CUES IN THE GAS STATION INDUSTRY IN TURKEY

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Abstract
The main objective of this article is to investigate the role of brand loyalty, customer (i.e. perceptions about service quality, switching cost, access convenience, and satisfaction) and brand related factors (i.e. brand trust and brand affect) in the gas stations industry. Data were collected by survey method from 204 participants who are master’s degree students and get service from the gas stations in Ankara, Turkey. Based on the regression analyses conducted, it was found that both brand quality and access convenience have a positive impact on customer satisfaction. In addition, access convenience has a positive impact on switching costs. Furthermore, customer satisfaction, switching costs, brand trust and brand affect influences brand loyalty positively. In contrary, access convenience does not have a significant influence on brand loyalty.

Keywords: Service quality, switching cost, access convenience, satisfaction, brand loyalty, brand trust, brand affect.
1. Introduction
Gas stations have unique characteristics in Turkey. Unlike in USA and Europe, almost all of the gas stations do not work self-service in Turkey. Specifically, instead of car owners, there are employees who fuel up. In addition to fueling, gas stations provide many other services such as car wash and maintenance some of which are sometimes free of charge. In addition, gas station industry is one of the most competitive industries in Turkey. There is a tough competition among stations since there are more than 125 hundred stations and the average gas sold is extremely low (Kaya, 2013). This competitive environment also triggers the importance of services provided in stations (Sağlam, 2013). Thus, service quality is used as a tool to create competitive advantage and high market share. However, it is not just enough to differentiate in terms of service quality. Stations are also interested in customer satisfaction to have a long-term relationship and loyalty. There are various studies strictly focused on how customers stay loyal to their brand and are satisfied with it (Back & Parks, 2003; Yang & Peterson, 2004; Aydin, Özer & Arasil, 2005). Accordingly, satisfaction is a key element of loyalty. Another significant concept to pay attention is access convenience. In fact, this concept would be one of the precious ways of getting new customers and have strong relationships with them. The reason behind this proposal is that the location of stations manipulates consumers’ preferences. Accordingly, access convenience is a crucial point in the loyalty concept since access convenience may result in loyalty because of higher switching costs. Based on this, loyalty may not be just because of attitudinal or liking the brand itself but because of customers’ perception about the station’s location and their potential costs following their switching to another station. Furthermore, companies’ long-term strategies on brand related cues should be investigated to have a broad sense of loyalty. In the gas station industry, the role of brand trust and brand affect on loyalty is a scarce area of interest. Accordingly, the role of customer (i.e. customers’ perceptions about service quality, switching cost, access convenience, and satisfaction) and brand (i.e. brand trust, brand affect) related factors, and brand loyalty are going to be explained.

In the literature, there are various studies investigating service quality, switching costs, satisfaction and brand loyalty concepts in different industries, such as mobile phone (Aydin & Özer, 2006), banking (Hallowell, 1996), e-tailing (Wang, Wu, Lin & Wang, 2011) and lodging (Back & Parks, 2003). However, there are a few studies focused on the services in gas stations (Bei & Shang, 2006). Also, in the best of our knowledge, such a model including brand trust, brand affect and access convenience was not studied before. Thus, the purpose of this study is both to review the effect of store (i.e. satisfaction, access convenience, switching cost) and brand related cues (i.e. brand trust and brand affect) on brand loyalty. Moreover the influence of service quality on satisfaction is examined. This study not only develop a model on loyalty in the gas station industry but also help stations to better understand their customers’ perceptions about their stations and/or brands, which may lead to have long-term, strong and beneficial relationships.

2. Theoretical Background
2.1. Service Quality – Customer Satisfaction
Service quality is defined as the difference between customers’ perceptions and expectations (Parasuraman, Zeithaml & Berry, 1985). Customer expectations are customers’ desires and wants from a service provider (Parasuraman, Zeithaml & Berry, 1988). There are five dimensions of service quality as tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1988). Service quality is widely used in various kind of services, such as, medical care (Headley & Miller, 1993), e-business (Lai, 2006), airline industry (Erdil & Yıldız, 2011) and food (Medler-Liraz, 2012). Some researchers claimed that customers’ positive evaluation of service quality results in satisfaction. Crosby, Evans and Cowles (1990) state that customer satisfaction is an emotional state formed by interactions between customers and providers in time.
In addition, satisfaction is also studied in two different conceptualizations, namely, transaction-specific and cumulative (Boulding, Kalra, Staelin, & Zeithaml, 1993). Transaction-specific satisfaction is about customer’s specific evaluations about specific goods and services that customer gets from provider (Wu, 2011). In other words, this type of satisfaction focuses solely on a particular act between customer and provider. On the other hand, cumulative satisfaction is the combination of whole purchase and consumption phases over time (Fornell, 1992). As Wu (2011) claims, “Cumulative satisfaction is the evaluation of firm’s past, current and future service performance” (p. 311) and it is more concerned by firms in terms of economic returns (Anderson, Fornell & Lehmann, 1994).

When consumers get services with higher quality, they may feel more satisfied. Previous studies also state that satisfaction is positively affected by service quality (Cronin & Taylor, 1992; Spreng & MacKoy, 1996; Lee, Lee & Yoo, 2000; Tam; 2004, Deng, Lu, Wei & Zhang, 2010). Based on this perspective; service quality may lead to satisfaction in the scope of this study. Therefore, the following hypothesis is formed:

**H1: Service quality has a positive effect on customer satisfaction.**

### 2.2. Customer Satisfaction – Brand Loyalty

Oliver (1980) defines brand loyalty as a strong commitment to rebuy or repatronize a preferred brand continuously in the future despite of the situational influences and marketing efforts having the potential to cause switching behavior. In addition, brand loyalty is defined in two perspectives as behavioral and attitudinal brand loyalty (Oliver, 1999). While behavioral loyalty is a frequency of customer’s purchasing of a particular brand (Nam, Ekinci & Whyatt, 2011), attitudinal loyalty is consumer’s commitment to the brand (Chaudhuri & Holbrook, 2001). Marketing literature has numerous studies stating satisfaction affects brand loyalty positively (Hallowell, 1996; Back & Parks, 2003; Yang & Peterson, 2004; Aydin et al., 2005; Aydin & Özer, 2006; Nam et al., 2011; Chen, 2012). According to these researches, satisfied customers are more inclined to continue the relationship than dissatisfied ones. That is, satisfaction positively affects customer loyalty. So, the next hypothesis is:

**H2: Customer satisfaction has a positive effect on brand loyalty.**

### 2.3. Access convenience – Customer Satisfaction – Brand Loyalty

As convenience seems as one of the key factors in consumer behavior (Chang & Polonsky, 2012), and is a way of adding value to consumers by means of decreasing time and effort needed (Colwell, Aung, Kanetkar & Holden, 2008), service providers should pay attention to this concept. Berry, Seiders & Grewal (2002) define service convenience as the “consumer’s time and effort perceptions related to buying or using a service” (p. 1). Access convenience is a dimension of service convenience and is consumers’ perceived time, effort, and expenditures to make service delivery begin (Berry et al., 2002). Chang, Chen, Hsu and Kuo (2010) investigated the relationship between service convenience and satisfaction. Results of the study revealed that service convenience have significantly high effect on customer satisfaction. Therefore, the higher the perception of access convenience, the more the customers are satisfied. Chang et al. (2010) also found that access convenience affects customer loyalty indirectly through perceived service value and satisfaction. Furthermore, access convenience of Indian commercial banks has a positive effect on loyalty (Kaura, 2013). Accordingly, this study aims to contribute the literature about the impact of access convenience on satisfaction and loyalty. Hence, the following hypotheses are formed:

**H3: Access convenience has a positive effect on customer satisfaction.**

**H4: Access convenience has a positive effect on brand loyalty.**
2.4. Switching Costs – Brand Loyalty

Switching costs are the costs occur when customer changes his/her current provider (Lee, Lee and Feick, 2001, Burnham, Frels and Mahajan, 2003) and these costs are not only monetary but also nonmonetary, such as time spent and psychological effort (Dick and Basu, 1994). Thus, to some degree, switching costs change customer to customer (Aydin and Özer, 2006). Even though these costs are related to switching process, they do not have to be right after the change (Burnham et al., 2003). Literature promotes various classifications for switching costs (Klempere, 1987; Sharma and Patterson 2000; Jones, Mothersbaugh and Beatty, 2002; Burnham et al., 2003). Jones, et al. (2002) classified these costs as lost performance costs (benefits and the privileges lost by switching), uncertainty costs (likelihood of lower performance when switching), pre-switching and evaluation costs (time and effort needed to gather and evaluate information prior switching), post-switching behavioral and cognitive costs (time and effort needed to learn the new provider), setup costs(time and effort of giving related information to the new provider) and sunk costs (non-recoupable time, money, and effort spent in establishing and continuing with the relationship) (p.242).

Antecedents of switching costs are dependent upon the type of business, customer or product (Yang & Peterson, 2004). Jones and Sasser (1995) stated that higher the switching cost lower the competition in the market. As in the situation of high switching costs customers tend to stay with the current provider (Jones & Sasser, 1995). Researches reveal that there is a positive relationship between switching costs and brand loyalty (Ping, 1993; Jones, Mothersbaugh & Beatty, 2002; Caruana, 2004; Lam, Shankar, Erramilli & Murthy, 2004; Kim, Park & Jeong, 2004; Wang et al., 2011). Therefore, when consumers feel that the cost of switching to a new provider is higher than staying with the current one, they choose to stay with the original provider. So, the following hypothesis is proposed:

H5: Switching costs have positive effect on brand loyalty.

2.5. Access Convenience – Switching Costs

Coughlan, Anderson, Stern and El-Ansary (2001) state that switching costs include opportunity costs (p. 183). Whether they switch to another provider, this would create some opportunity costs in terms of monetary and nonmonetary costs which would also increase switching costs. When a service provider has an access convenience, consumers can save time, effort and expenditures. Based on this perspective access convenience may increase opportunity costs which in turn may increase switching costs.

In addition, three main principles of retailing are location, location and location. In other words, customers use location as a considerable criterion for their retailer choice. In consonance with these, Keaveney (1995) found that when consumers have problems with the location of service provider, they switch to another one. Therefore, if the store has access convenience or convenient location, the cost of switching to another supplier would be high. Hence:

H6: Access convenience has a positive effect on switching costs.

2.6. Brand Trust–Brand Loyalty

Trust has miscellaneous definitions like, “the willingness of a party to be vulnerable to the actions of another party…” (Mayer, Davis & Schoorman, 1995, p. 712) and “the extent to which a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another” (McAllister, 1995, p. 25). Brand trust can also be conceptualized as a willingness of an average consumer to lean on a talent of a brand to perform a promised function (Chaudhuri & Holbrook, 2001) or “the confidence a consumer develops in the brand’s reliability and integrity” (Chatterjee & Chaudhuri, 2005, p. 2). Therefore, brand trust needs more consideration, care and time (Chaudhuri & Holbrook, 2001).
Literature supports the influence of brand trust on loyalty (Chaudhuri & Holbrook, 2001; Chaudhuri & Holbrook, 2002; Matzler, Grabner-Krauter & Bidmon, 2008; Anuwichanont, 2011; Geçti & Zengin, 2013). That is, customers tend to repeatedly buy trusted brands. Thus, the next hypothesis of the study is:

**H7: Brand trust affects brand loyalty positively.**

### 2.7. Brand Affect –Brand Loyalty

According to Chaudhuri and Holbrook (2001), brand affect is “a brand’s potential to elicit a positive emotional response in the average consumer as a result of its use” (p. 82). This emotional response could be happiness, joy or excitement. In addition, brand affect is developed spontaneously or suddenly (Chaudhuri & Holbrook, 2001). When customers have emotional response to the brand they used, they get closed to brand loyalty (Dick & Basu, 1994). Furthermore, Matzler, Grabner-Krauter and Bidmon (2006) stated that in order to have long relationships between consumers and brand, brand affect is an important antecedent of loyalty. In consonance with these findings, there are various studies supporting the idea that brand affect is a good predictor of brand loyalty (Chaudhuri & Holbrook, 2001; Chaudhuri & Holbrook, 2002; Matzler et al., 2006; Matzler et al., 2008). Based on these, the last hypothesis is developed as following:

**H8: Brand affect impacts brand loyalty positively.**

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**Figure 1. Research Framework**

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### 3. Methodology

#### 3.1. Measurement

This study used quantitative research technique, based on a survey method. To ensure the content validity of the questionnaire, extant measurement scales were customized to gas station services in Turkey. First part of questionnaire was the written informed consent provided to the participants. This consent includes brief information about researchers, main objective of the research, average time to complete the survey and their
permission for participating to the study. The second part of the questionnaire composed of questions about research variables and started with brand trust (4 items), brand affect (2 items) and brand loyalty (4 items) scales adapted from Chaudhuri and Holbrook (2001). Service quality scale consisted 16 items adapted from Parasuraman et al. (1988). For satisfaction, 3-item scale was adapted from Oliver (1980) and Back and Parks (2003). Access convenience was tested by adapting the access convenience scale of Berry et al. (2002). Switching costs were tested by 4-item scale consisted modified versions of Ping (1993) and Jones, Mothersbaugh and Beatty (2000). All of the scales used were 5-point Likert type (1-strongly disagree; 5-strongly agree) (Appendix).

3.2. Sampling
The sample consisted of master’s degree students of 3 private universities, in Ankara. Before initiating data collection, questionnaire was approved by ethical committee. Questionnaires were applied to 208 participants and 204 of them were valid for the analyses. Among these participants who provided personal information, 133 (65.2 %) of respondents’ were male and 67 (32.2 %) were female and the average age was 31.07 years (range 22 - 58). Also, majority of participants had average income (140 participants, 68.6 %) or high income (50 participants, 24.5 %).

4. Analysis and Results
Before the hypothesis testing, confirmatory factor analysis was conducted to examine whether the scales used to test variables represent them or not. It was found a good-model-fit with the data ($\chi^2 = 1215.68$, df: 536; RMSEA = 0.07; CFI = 0.89; NFI = 0.82). Since modification variables offered by measurement model are in the within the same scale, modifications on error terms are allowed to correlate between variables CS 2 – CS 3, SQ 1 – SQ 2 and SQ 14 – SQ 15 which are given in the Appendix. Moreover, reliability coefficients were computed to examine the internal consistency of scales. In this study, all of the coefficients are above .70 which means a good reliability (McIntire & Miller, 2000). In addition to the reliability coefficients, means, standard deviations of the scales and correlations are presented in Table 1.

Table 1. Means, Standard Deviations, Reliability (Cronbach Alpha) and Correlation Coefficients

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>S.D.</th>
<th>Cronbach Alpha</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Brand Quality</td>
<td>3.62</td>
<td>.74</td>
<td>.90</td>
<td>1.00</td>
</tr>
<tr>
<td>2. Customer Satisfaction</td>
<td>3.88</td>
<td>.89</td>
<td>.94</td>
<td>.70**</td>
</tr>
<tr>
<td>3. Access Convenience</td>
<td>3.94</td>
<td>.96</td>
<td>.90</td>
<td>.45** .53**</td>
</tr>
<tr>
<td>4. Switching Cost</td>
<td>2.78</td>
<td>1.03</td>
<td>.87</td>
<td>.30** .15* .17*</td>
</tr>
<tr>
<td>5. Brand Trust</td>
<td>3.91</td>
<td>.89</td>
<td>.95</td>
<td>.62** .71** .47** .14*</td>
</tr>
<tr>
<td>6. Brand Affect</td>
<td>3.49</td>
<td>.98</td>
<td>.90</td>
<td>.64** .71** .36** .25** .60**</td>
</tr>
<tr>
<td>7. Brand Loyalty</td>
<td>3.53</td>
<td>.84</td>
<td>.74</td>
<td>.64** .69* .42** .37** .64** .65** 1.00</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01

In the hypothesis testing, multiple regression analysis was conducted to examine the influence of service quality and access convenience on customer satisfaction. The overall model was significant ($R^2 = .55$, $F (2,201) = 123.29$, $p<.001$). There is a positive effect of both service quality ($\beta = .57$, $p<.001$) and access convenience ($\beta = .27$, $p<.001$) on customer satisfaction. Therefore, H1 and H3 were supported.

Linear regression analysis was conducted to assess the effect of access convenience on switching costs. According to analysis results, access convenience ($\beta = .17$, $p<.05$) has a positive effect on switching costs.
Lastly, multiple regression analysis was conducted to examine the effects of satisfaction, access convenience, switching costs, brand trust and brand affect on brand loyalty. Results show that the overall model was significant, \( R^2 = .61, F(5,198) = 61.96, p<.001 \). Loyalty is positively affected by satisfaction (\( \beta = .31, p<.001 \)), switching costs (\( \beta = .23, p<.001 \)), brand trust (\( \beta = .24, p<.001 \)) and brand affect (\( \beta = .20, p<.01 \)). However, access convenience has no significant effect on loyalty (\( \beta = .02, p>.05 \)) Hence, while H2, H5, H6, H7 and H8 were supported, H4 was not supported.

5. Conclusion and Discussion

In this study, the role of brand loyalty, customer and brand related factors in the gas station industry were analyzed. Initially, analyzing the relation between service quality and customer satisfaction, it has been concluded that service quality influences customer satisfaction positively. This result supports the findings in the relevant literature (Cronin & Taylor, 1992; Spreng & MacKoy, 1996; Lee et al, 2000; Tam, 2004; Deng et al, 2010). Moreover, findings showed that access convenience has positive effect both on satisfaction and switching costs which is also parallel with the literature. Thus, it seems that when stations are access-convenient, customers feel more satisfied and costs associated with switching to another station will be higher. This result revealed that service quality and access convenience are the key elements in customer satisfaction. Accordingly gas station managers should be aware of the crucial role of service quality level perceived by customers and access convenience. By investing in service quality dimensions (e.g., physical appearance of stations, employees’ behavior toward customers) customers would be more satisfied. In addition, carefully planned location decisions result in access convenience which has a positive impact on customer satisfaction. Therefore, gas station managers should pay more attention on recruitment decisions, physical conditions and location of stations to make their customers satisfied.

The results concerning loyalty provide support for the positive impacts of satisfaction and switching costs. Furthermore brand related factors such as brand trust and brand affect positively influence brand loyalty. Analysis revealed that satisfaction, switching costs, brand trust, and brand affect explain a high proportion of brand loyalty. This would be a hint for gas station managers to retain their customers. In this sense, gas station managers should try to make their customers satisfied and should follow up their existing customers’ satisfaction level. In addition, gas station managers may try to compete in trying to decrease the costs such as time and energy customers spent for having the service to increase switching costs. For example, point of sale (pos) equipment next to gas pump would benefit to customers who wants to pay by credit card. This equipment would decrease time and effort spent for payment process which in turn would increase costs of the customers who switch. By this way, gas stations would gain competitive advantage. Additionally, gas station companies should focus their energy on their brand trust or their brand’s being perceived as trustworthy and safe. These companies should also support their brands with advertising messages like happiness and pleasure to create brand affect.

However, in contrast with the findings of Chang et al. (2010) and Kaura (2013), in this study, results indicated that access convenience has no significant effect on brand loyalty. Thus, in this study access convenience does not contribute to brand loyalty in gas stations industry. This result should be interpreted carefully by other variables. It was found that most of the participants regard access convenience as “convenient” and which influences their switching costs. However, access convenience explains switching costs to some extent. Based on these, it is switching costs and other variables such as satisfaction, brand trust, and brand affect participants take into account in their loyalty and which explains brand loyalty considerably instead of access convenience.
6. Limitations and Future Research
Our study has some limitations in terms of sample, variables and methodology. First of all, as sample, we chose master’s degree students of 3 private universities located in Ankara. Thus, in order to generalize the results, this study should also be replicated in a non-student sample. In terms of variables and methodology, attitudinal and behavioral dimensions of brand loyalty were not tested separately. In the further studies, attitudinal and behavioral dimensions may be analyzed. In addition, this might also overcome the insignificant effect of access convenience on brand loyalty. Furthermore, some studies (Lee et al, 2001; Yang & Peterson, 2004; Aydin et al, 2005; Shi, Chen, & Ma, 2011) support that switching cost is a moderator between customer satisfaction and loyalty. According to these studies, when switching costs increase, the effect of satisfaction on the loyalty decreases. In future, moderator role of switching costs may be examined. Moreover, this model includes access convenience which is very well known but quite newly empirically used concept in the literature. Thus, future researches may be conducted in different industries in order to explain more about the antecedents and other consequences of access convenience. Lastly, the mediator effect of satisfaction on the relationship between access convenience and brand loyalty can also be the subject of further studies.

Appendix 1
The Measures
Brand trust (5-point Likert scale: ‘1’ strongly disagree and ‘5’ Strongly agree)
- BT 1. I trust this brand.
- BT 2. This brand is safe.
- BT 3. This is an honest brand.
- BT 4. I rely on this brand.
Brand affect (5-point Likert scale: ‘1’ Strongly disagree and ‘5’ Strongly agree)
- BA 1. This brand gives me pleasure.
- BA 2. This brand makes me happy.
Brand loyalty (5-point Likert scale: ‘1’ Strongly disagree and ‘5’ Strongly agree)
- BL 1. I will buy this brand the next time I buy gas.
- BL 2. I intend to keep purchasing this brand.
- BL 3. I am committed to this brand.
- BL 4. I would be willing to pay a higher price for this brand over other brands.
Service quality (5-point Likert scale: ‘1’ Strongly disagree and ‘5’ Strongly agree)
- SQ 1. This brand’s stations have modern-looking equipment.
- SQ 2. This brand’s physical facilities are visually appealing.
- SQ 3. This brand’s employees are neat-appearing.
- SQ 4. When this brand promises to do something by a certain time, it does so.
- SQ 5. When you have a problem, this brand shows a sincere interest in solving it.
- SQ 6. This brand insists on error-free records.
- SQ 7. Employees of this brand give you prompt service.
- SQ 8. Employees of this brand are always willing to help you.
- SQ 9. Employees of this brand are never too busy to respond to your requests.
- SQ 10. The behavior of employees of this brand instills confidence in customers.
- SQ 11. You feel safe in your transactions with this brand.
- SQ 12. Employees of this brand are consistently courteous with you.
SQ 13. Employees of this brand have the knowledge to answer your questions.
SQ 14. This brand gives you individual attention.
SQ 15. This brand has employees who give you personal attention.
SQ 16. This brand has your best interests at heart.

Access Convenience (5-point Likert scale: ‘1’ Strongly disagree and ‘5’ Strongly agree)
AC 1. It did not take much time to reach this brand’s stations.
AC 2. I was able to get to the location of this brand’s stations quickly.

Customer Satisfaction (5-point Likert scale: ‘1’ Strongly disagree and ‘5’ Strongly agree)
CS 1. I am happy about my decision to prefer this brand.
CS 2. I believe I did the right thing when I preferred this brand.
CS 3. Overall, I am satisfied with the decision to prefer this brand.

Switching Costs (5-point Likert scale: ‘1’ Strongly disagree and ‘5’ Strongly agree)
SC 1. It takes me a great deal of time to get used to a new gas station brand.
SC 2. It takes me a great deal of effort to get used to a new gas station brand.
SC 3. It costs me too much to switch to another gas station brand.
SC 4. In general it would be a hassle switching to another gas station brand.

References


