Understanding the impact of service convenience on customer satisfaction in home delivery: evidence from Pakistan

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Abstract: The purpose of this study is to find out the impact of five types of service convenience namely decision, access, transaction, benefit and post-benefit on customer satisfaction in home delivery service of online retailing. Service convenience model is applied to identify the consumer’s experience regarding different conveniences encountered at different stages of home delivery. For that purpose, the data was collected from 230 consumers who had experienced the home delivery service during online shopping. After applying EFA, regression analysis has been performed as a statistical technique to test the hypotheses. The result of the study shows that all the independent variables are having a positive and significant impact on customer satisfaction except the one which is access convenience. This shows that accessibility to service provider does not affect customer satisfaction as they are considering online shopping as an efficient virtual store, where they can complete the purchasing process by themselves. It is recommended that online retailers should have to focus in providing convenience services in order to increase customer satisfaction.

Keywords: customer satisfaction; home delivery; online retailer; online shopping; service convenience.


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1 Introduction

The numerous benefits of online shopping are attracting customers to purchase through internet (Chiang and Dholakia, 2003; Wolfinbarger and Gilly, 2003). As people are getting busier, the demand for the home delivery service is increasing because they are not having enough time to go to store and shop. It was observed that the home delivery is the part of logistics service (Bienstock et al., 1997; Mentzer and Williams, 2001) and undoubtedly an important element for online shoppers (Chen et al., 2014; Punakivi and Saranen, 2001). Basically home delivery is a customised type of logistics service, which facilitates customers that they can stay at home and wait for the product to arrive (Xing et al., 2010). Kahn and Mentzer (1996) and Mentzer and Williams (2001) discussed that overall company’s success is greatly affected by the performance of their logistics service, and it was also examined that better the logistic service the higher the profitability (Mentzer and Williams, 2001).

With the growing market of online retailing, the responsibilities of the logistics managers has also been increased, as now they have to efficiently deliver the product to customer’s door (Chen et al., 2014), in order to reduce cost they have to plan routes carefully and integrate relationship with customers to resolve their issues related to home delivery (Persson and Virum, 2001; Chen et al., 2015). This shows that delivering the product directly to consumer’s door has made the physical distribution process of online retailers more complex, because a product purchased online or ‘virtually’ cannot be used by the consumer until it is delivered to them at the right time, right place, in the right quantity and in the right condition (Chen et al., 2014; Christopher and Gattorna, 2005).

The efficient logistic service of any company can be viewed as an effective tool to gain the competitive edge over other organisations as well as help companies to influence customers. By adopting efficient logistics management, a company can reduce its cost and can increase profitability (Nicholls and Watson, 2005). Kahn and Mentzer (1996) and Mentzer and Williams (2001) have also described in their studies that enterprise success is based on the superior quality of logistics service provided to customers. The best quality delivery service is beneficial for organisation in terms of cost and time saving and allows them to increase their market share and profitability (Thompson et al., 1985; Chen et al., 2015). As day by day the logistics service is gaining importance among customers, it becomes necessary for the companies to provide valuable delivery service to them in order to retain profitable customers (Chen et al., 2014; Zeithaml et al., 1988).

Nowadays, people not only want a quality service but the service which is convenient for them too, i.e. they are seeking for a convenience which save their non-monetary cost that are time and effort (Seiders et al., 2000; Kaura, 2013), and the service convenience provided by the companies is largely acknowledged by the customers. Service convenience is basically a convenience which reduces customer time and effort in obtaining the service (Berry et al., 2002; Kaura et al., 2015). Related to different stages of service encounter, Berry et al. (2002) have proposed five types of convenience:

1 decision convenience
2 access convenience
3 transaction convenience
The aforementioned conveniences enable the companies to better understand the customer perception about the use of time and effort at different levels because there is a difference between customer expectation and the service offering and when the service provided by the companies reduces more time and effort of the customer, i.e. more than his expectation, then this will lead to customer satisfaction.

It was examined that service convenience and customer satisfaction are directly related to each other (Sieder et al., 2000; Colwell et al., 2008). This means that companies must not only consider for providing the physical distribution of the product but also the service which is convenient for customers (Smaros et al., 2000). For that, they should have to devise the convenience strategies which enable them to make a long-term relationship with their customers and expand the competitive advantage to the highest level.

The penetration of the internet, frequent use of mobile devices and the rise of social networks in Pakistan have opened the doors to e-commerce. Due to the easy accessibility to internet like 3G and LTE, the online shopping trend is growing in fast pace (Kundi and Shah, 2009). Many online retailers are competing in the market, and after seeing the e-commerce potential of the country many other foreign and domestic retailers are getting ready to enter (Sulaiman et al., 2007).

As the culture of Pakistan in terms of online shopping is emerging rapidly, it is necessary to discover whether reducing time and effort of customers during online shopping will affect satisfaction of the customer or not; because according to Sieder et al. (2000), Berry et al. (2002) and Colwell et al. (2008), service convenience and customer satisfaction are strongly related to each other. According to researchers’ knowledge, in an emerging economy like Pakistan, many has done the research on online shopping in terms of marketing or focusing on online factors but has given less attention to overall home delivery service experience. According to Chiang and Dholakia (2003), home delivery is considered as the most important element to customer, because if they fail to get the product then their purchase may be perceived as inconvenient. So it seems that there is a need of identifying the impact of service convenience in home delivery of online shopping on customer satisfaction.

By reviewing many studies, it was observed that in recent times the customers are looking for the convenience in the service and desiring more comfortable lifestyle (Brown, 1990). In Pakistan, the customers are moving from real store purchases to shop via online (Kundi and Shah, 2009), and this shift has raised the need of home delivery service among customers because home delivery is a very crucial element of online shopping (Mentzer and Williams, 2001). Thus keeping in mind the significance of logistic service to the customer and the increasing demand of the service convenience, this study is addressing the five types of service convenience (Decision, Access, Transaction, Benefit and Post-benefit) in home delivery service of online shopping and examines its impact on customer satisfaction.

Progressively, convenience is becoming an important factor for the customers who have limited time and are not interested in putting much effort to get the service. The result of Seiders et al. (2000) shows that in future, people are willing to spend less time in shopping, these customers are now in the search of the companies who will provide them a convenient service in terms of purchasing, delivering and after-delivery
benefits. Graver and Gragnon (2002) identify the positive relationship between the customer satisfaction and organisational success that organisation should have to recognise the unmet needs of the customers and work on it to fulfil it, if they want to maximise the profit and strengthen their market position.

Therefore, scope of the study is customer driven, primarily inspired by the increasing need of the home delivery service in Pakistan. This study basically provides the understanding of the convenience in home delivery service and how it interacts with satisfaction. The study will be helpful for the online retail industry to identify which convenience influences customers more. Furthermore, it will also serve as a future reference for researchers on the subject of service convenience and home delivery.

The remaining part of this study is organised as follows. Next section contains an empirical evidence of home delivery service, customer satisfaction and service convenience of online shopping, followed by a hypothesised framework regarding service convenience and customer satisfaction in home delivery. It then presents the methodology with respect to research framework, which describes the application of framework to the customer who received home delivery of internet purchasing within last one year. Next, the results of an empirical study of internet consumers are analysed and discussed, and then study finishes with conclusions, managerial implication and future recommendation.

2 Review of related literature

2.1 Theoretical background

The reason that the companies are performing well and competing in the market is that they want to satisfy their customers by fulfilling all their needs, because when the customer is happy then their business will flourish which in return, affect the profitability of the company (Shen et al., 2000) and earning high profit is the ultimate goal of any business (Garbarino and Johnson, 1999).

In the race of winning higher satisfaction level of customers, the companies are continuously innovating, discovering, planning new strategies and trying to provide comfort and convenient services to their customers (Weiss et al., 2005). Convenient services provided by the companies are recognised and valued by the customers (Anderson and Mittal, 2000), it means service convenience is one of the factors which is important for them. Therefore service convenience is used as a base model in this study to analyse its impact on customers who use home delivery service.

2.2 Home delivery

Home delivery is basically an additional and value-added service provided by the firm in which they personally deliver the purchased item to customer’s door (Kassim and Abdullah, 2010). It is gradually gaining importance among customers because of numerous reasons, first it avoids customers to visit store again and again in case of stock out, second it helps customer to carry heavy goods and third the rise in internet shopping make home delivery service more vital for customers (Chen et al., 2011, 2015; Punakivi and Saranen, 2001) as now they can order and receive goods rapidly. In other words, the home delivery is important for online retailers as they can satisfy customers and gain
competitive advantage by providing efficient, convenient and customised service to them (Ehmke et al., 2012).

2.3 Customer satisfaction

Satisfaction is the moment when customer rejoices by having that particular service or product, i.e. the service received by the customer has been met up to its expectation (Oliver, 1980; Weiss et al., 2005). Customer is satisfied by the product or service when its perception about any product or service is equivalent to its expectation (Dai and Salam, 2014; Kaura et al., 2015; Roy et al., 2016). For many businesses, customer satisfaction is a very effective tool in measuring the ability of their product or service. It helps the company to evaluate the customer’s purchasing decision. Therefore, Reichheld and Sasser (1990) have identified that when the customer is satisfied with the company’s current product or service then there are more chances of buying that product persistently, and it also identified that the customer relationship with the company becomes more strong which will result in purchasing the other products or services of the same company.

2.4 Service convenience

Service convenience is basically the little strength put by the consumers to execute any task (Dai and Salam, 2014; Morganosky, 1986). Brown (1990) has defined service convenience as any ease that fascinates the customer towards that particular service like by providing it in such a manner that reduces the time and effort of the customers. Service convenience was first proposed by Copeland (1923) that the utilisation of the time and both the physical and mental efforts of the consumer should be minimised when they are going to purchase the product. In order to provide high-quality service or the service which meets the consumer expectation, the company must have to offer the service convenience to its customers (Berry et al., 2002; Liang and Wang, 2006). Service convenience helps the organisation to strengthen their relationship with their customers and achieve the competitive edge by bringing it to new position (Seiders et al., 2000). When other companies are also providing the convenience services to their customers, the company must have to differentiate itself by providing greater value to the customers as compared to their competitors in order to maintain its market position and to gain an advantage over them (Colwell et al., 2008). Many researchers have found that customer purchasing behaviour has been largely influenced by the convenience offered by the companies (Dai and Salam, 2014; Kaura et al., 2015; Roy et al., 2016). Berry et al. (2002) in their study have described that five service convenience extents have been playing a major role in customer satisfaction and company’s success. Following are the five kinds of service convenience that help to evaluate customer’s perception related to different stages of purchasing a service.

2.4.1 Decision convenience

When customer is putting its time and exerting its effort in deciding what service to use or purchase. In other words, the perceived time and effort of the customer is used to decide whether to purchase a service or self-perform it (Dai and Salam, 2014; Kaura et al., 2015; Roy et al., 2016). The decision is made on the available information about
the service, word of mouth, brand recognition and the tangible facilities and employee’s appearance (Chang and Polonsky, 2012). Decision convenience is positively associated with customer satisfaction (Bendall-Lyon and Powers, 2004). For home delivery service provider, it is necessary to attract customer’s attention to their specific service through providing relevant information related to product and brand. This information could help consumers to make better decision regarding the purchase of service. On the basis of above rational, the hypothesis is constructed as:

**Hypothesis 1:** Decision convenience has a significant impact on customer satisfaction.

### 2.4.2 Access convenience

It is a type of convenience required while initiating the service. For example: customers settling their perceived time and effort to request for service. It basically involves the accessibility of the consumer to the product or service or organisation. Seiders et al. (2007) later showed that the accessibility of service providers through various ways and availability of service provider at convenient hours are powerfully influencing customer satisfaction (Dai and Salam, 2014; Kaura et al., 2015; Roy et al., 2016). Access convenience is important to customers, because if they have issue regarding the product, brand or delivery date, then they need a service provider to facilitate them in resolving their problem (Jiang et al., 2013; Chang and Polonsky, 2012). On the basis of above rational, the hypothesis is constructed as:

**Hypothesis 2:** Access convenience has a significant impact on customer satisfaction.

### 2.4.3 Transaction convenience

It is the time and effort required by the consumers in order to fulfil the whole process of transaction, it mainly starts when customer reached the site after making decision of purchasing (Jiang et al., 2013). The convenience in transaction is necessary for customers as they want to quickly conclude their purchase and save their time and effort (Dai and Salam, 2014; Roy et al., 2016). According to Kaura et al. (2015), customer feels that online transaction is complicated process, thus providing convenience by making it simple or giving other means of payment will increase customer satisfaction. Additionally Aagja et al. (2011) confirms that transaction convenience has a positive impact on customer satisfaction. On the basis of above rational, the hypothesis is constructed as:

**Hypothesis 3:** Transaction convenience has a significant impact on customer satisfaction.

### 2.4.4 Benefit convenience

It is the moment when customer is coming across with the core benefits of the service. It is necessary for the company to provide convenience at this stage, because customer wants to spend less time and effort to experience the benefit of the service and little inconvenience at benefit stage will create a negative impact of overall service experience on customers (Dai and Salam, 2014; Kaura et al., 2015; Roy et al., 2016). Aagja et al. (2011) and Colwell et al. (2008) verified that benefit convenience has a strong effect on
Understanding the impact of service convenience

Customer’s essential benefit convenience in online shopping is the safe and timely delivery of the product. According to Aagia et al. (2011), customers are more satisfied when the benefit convenience in terms of flexible delivery timings will be provided on demand. On the basis of above rational, the hypothesis is constructed as:

Hypothesis 4: Benefit convenience has a significant impact on customer satisfaction.

2.4.5 Post-benefit convenience

It refers to the customer perceived time and effort required after the benefit stage when customer has completed the purchasing of service or product but for a particular reason have to get in touch with the firm (Jiang et al., 2013). This convenience mostly depends on the need of the customers like whether they want to return any product or has to obtain any maintenance service from the company (Kaura et al., 2015; Roy et al., 2016). Chang et al. (2010) have supported that post-benefit convenience, experienced by customers is positively associated with satisfaction. On the basis of above rational, the hypothesis is constructed as:

Hypothesis 5: Post-benefit convenience has a significant impact on customer satisfaction.

According to the aforementioned literature, a hypothesised framework that shows the connection between service convenience in home delivery and customer satisfaction is structured in Figure 1.

Figure 1  Hypothesized framework

3 Methodology

This section covers the research methods in order to analyse the relationship between five kinds of service convenience and customer satisfaction in home delivery obtained through online shopping.

3.1 Research approach and design

Quantitative research uses numerical data for statistical analysis and allows the researcher to generalise result from a sample to an entire population (Duffy, 1985). It is basically a
deductive approach that involves the construction of hypotheses which are free from researcher’s own values and biasness (Frankfort-Nachmias and Nachmias, 1992). Counting and measuring of specific set of data, i.e. gathered through survey is performed in quantitative research, and the result obtained after measurement is considered as reliable and valid (Bryman, 2015).

Hence in this study the research approach used is quantitative that includes numeric data of variable, attempted to analyse the perception of the respondents with respect to service convenience. Furthermore, the design of this study is based on correlational research. In this kind of research, the researchers determined whether the relationship exists between the variables and to what degree (Johnson, 2001).

3.2 Data and sampling

Data was collected from the customers who had utilised the home delivery service through online shopping within the last one year, the reason of gathering data from them is because their remembrance according to the home delivery experience is clear. The sample size is 250 and the sampling process, used to analyse the experience of respondent related to home delivery service, was convenience sampling and this process was adopted because of ease of accessibility and proximity to the researcher (Anderson and Mittal, 2000). Collecting data through web base is beneficial in a way that researcher gets an accurate answer of the survey as it allows the respondent to give answer at their convenience (Granello and Wheaton, 2004). Whereas, paper-based survey is considered as an alternative option in this study which helps to reach to those who are not contacted through internet.

3.3 Instrument

A structured questionnaire consists of 31 items; used to measure the five variables of service convenience and customer satisfaction. The questionnaire is based on five-point Likert scale, ranging from 1-strongly disagree to 5-strongly agree. It is based on two sections, first one encompasses of variables to measure, and the second one contains the information regarding demographics. The 26 measuring items of service convenience was adopted from past researches (Berry et al., 2002; Colwell et al., 2008). Whereas, five items that are used to measure the dependent variable was adopted from the research of Olorunniwo and Li (2010).

3.4 Variable description

3.4.1 Customer satisfaction

In this study, customer satisfaction is a very important factor. The business will prosper when the customer is satisfied and this will happen when he/she experiences more required and relevant service convenient from the service provider (Berry et al., 2002). Therefore, the service provider who wants to succeed must provide service convenience to the customer (Berry et al., 2002; Liang and Wang, 2006).
3.4.2 Decision convenience

Decision convenience is the first stage of convenience when customer is actually deciding that he is getting enough information from the company to obtain this particular service, for example, the online retailer providing customer sufficient information related to delivery charges, brand or product prices and warranties. Because on the basis of information given by the company, customer will take his purchase decision so for the companies it is important to make a decision stage more convenient (Berry et al., 2002).

3.4.3 Access convenience

This is the second stage where customer is spending time and effort to initiate the service through contacting them or the stage where customer is approaching the service provider (Berry et al., 2002). For example, in online purchasing the convenience in accessibility is the ease in ordering or the communication with the service provider at what time he wants to. This is crucial for customers, because shortage of time will not permit them to talk to the service provider at some restricted time or location (Seiders et al., 2000).

3.4.4 Transaction convenience

Transaction convenience starts when customer has decided to utilise this service and also approaches to the service provider. And between them a contract is being occurred which is swapping of product and money (Meuter et al., 2000). Thus in online retailing, the transaction convenience is that the company is providing the multiple options of payment or not. In online shopping, the customer is also concerned about the transaction convenience because of the cybercrime.

3.4.5 Benefit convenience

This is the stage when customer comes in the contact with the benefits of the particular service or product. And when this convenience will not satisfy customer then the experience built with other conveniences will possibly diminish, because this is bringing customer to experience the core benefit of the service (Berry et al., 2002). For example, customer goes for online shopping because he wants the product by sitting at home as soon as possible and when the company delayed in delivering the product or does not provide the product in the safe manner, then this inconvenience will take customer to the dissatisfaction level.

3.4.6 Post-benefit convenience

This stage occurs when customer has experienced the core benefit of the service but still getting an advantage from the service provider (Berry et al., 2002). This kind of convenience will help companies to develop an unending relation with the customer and because of this customer will not switch to other company (Berry et al., 2002). According to the study, the reverse logistics is considered as a post-benefit to the customer that he can easily return the product or take a maintenance service from the company.

3.6 Demographic profile of respondents

A total of 255 questionnaires were filled by the respondents and 100% data returned from them, from which five were discarded because the information obtained from them is
inappropriate. After discarding, the 250 responses are left which are usable, and representing 98% of response rate. Of them, 20 were found as multivariate outliers as per the criteria of Mahalonobis distance as suggested by Tabachnick and Fidel (2007).

Of these 230 questionnaires, 45% were completed by male respondents, while 55% were completed by females. Regarding the age distribution of the respondents, those between 26 and 35, which accounted for 54.7% followed by those between 20 and 25 accounted for 20%. Regarding the education, the majority 54.7% were post-graduates, followed by the graduates of 30%. The majority 37.8% earns an income ranging from Rs. 25,001 to Rs. 30,000 per month. Finally, regarding the objects delivered most often, clothes accounted for 33.9%, electronic items for 28.2%, books accounted for 7.3%, jewellery accounted for 19.1% and miscellaneous accounted for 11.3%. The demographic profile is summarised in Table 1.

Table 1  Demographic profiles of respondents

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>103 (44.7)</td>
</tr>
<tr>
<td>Female</td>
<td>127 (55.2)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>≤20</td>
<td>30 (13)</td>
</tr>
<tr>
<td>20–25</td>
<td>46 (20)</td>
</tr>
<tr>
<td>26–30</td>
<td>126 (54.7)</td>
</tr>
<tr>
<td>31–35</td>
<td>12 (5.2)</td>
</tr>
<tr>
<td>36–40</td>
<td>9 (3.9)</td>
</tr>
<tr>
<td>41–45</td>
<td>4 (1.7)</td>
</tr>
<tr>
<td>&gt;45</td>
<td>3 (1.3)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>23 (10)</td>
</tr>
<tr>
<td>Graduate</td>
<td>69 (30)</td>
</tr>
<tr>
<td>Post-Graduate</td>
<td>126 (54.7)</td>
</tr>
<tr>
<td>Above</td>
<td>12 (5.2)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>12 (5.2)</td>
</tr>
<tr>
<td>≤20,000</td>
<td>46 (20)</td>
</tr>
<tr>
<td>20,001–25,000</td>
<td>18 (7.8)</td>
</tr>
<tr>
<td>25,001–30,000</td>
<td>87 (37.8)</td>
</tr>
<tr>
<td>30,001–35,000</td>
<td>51 (22.1)</td>
</tr>
<tr>
<td>35,001–40,000</td>
<td>7 (3)</td>
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<tr>
<td>40,001–45,000</td>
<td>5 (2.1)</td>
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<tr>
<td>≥45,001</td>
<td>4 (1.7)</td>
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<tr>
<td>Items</td>
<td></td>
</tr>
<tr>
<td>Books</td>
<td>17 (7.3)</td>
</tr>
<tr>
<td>Clothes</td>
<td>78 (33.9)</td>
</tr>
<tr>
<td>Jewelry</td>
<td>44 (19.1)</td>
</tr>
<tr>
<td>Electronic</td>
<td>65 (28.2)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>26 (11.3)</td>
</tr>
</tbody>
</table>

Source: Authors estimation
4 Data analysis

4.1 Common method variance

Common method variance refers to the observed variance or error that is being caused because of the measurement procedure rather than the variance that is shared among the constructs (Bagozzi and Yi, 1991). Many researchers have urged to address the CMV prior to hypotheses testing (Afshan and Sharif, 2016; Najmi et al., 2017; Ahmed and Umer, 2017). For the issue, Harman’s single-factor test was used as discussed by Podsakoff et al. (2003). By using promax rotation in principal axis factoring framework while fixing the extraction to 1 factor, the total accumulated variation was found to be 37.98% which is less than the threshold of 50%. Thus the test shows the absence of the CMV.

4.2 Factor analysis

Factor analysis is a data reduction technique. It basically reduces large number of factors to smaller number of factors (Tabachnick and Fidel, 2007). Exploratory factor analysis is done in this study, and it yields different results, i.e. first it shows the value of KMO (Kaiser Meyer Olkin). KMO basically measures the adequacy of the sample size; if it is greater than 0.55 (Leech et al., 2005), then the sample size is adequate, whereas Bartlett sphericity test measures the correlation among the variables, and the significance value \( p < 0.05 \) indicates that the correlation matrix is not an identity matrix means correlation is highly enough for factor analysis (Leech et al., 2005). Here the result of KMO shows a value of 0.901, which is more than 0.55 and similarly the significance value of Bartlett test is less than \( p < 0.05 \), i.e. it is significant. The result of both KMO and Bartlett test in Table 2 shows that the data is appropriate for factor analysis.

<table>
<thead>
<tr>
<th>Source: Authors estimation</th>
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| Kaiser–Meyer–Olkin measure of sampling adequacy | 0.901 |
| Bartlett’s test of sphericity                   | Sig. 0.000 |

Table 3 shows total variance explained, six factors were requested because the study includes six variables which are decision convenience, access convenience, transaction convenience, benefit convenience, post-benefit convenience and customer satisfaction. The first factor accounted for 12.51% of variance, the second factor accounted for 11.97% of variance, the third factor accounted for 11.91% of variance, the fourth factor accounted for 11.32% of variance, the fifth factor accounted for 10.65% of variance, the sixth factor accounted for 9.97% of variance and having the cumulative variance of 68.3%, which indicates that the data collected for the research is appropriate and the factors which are formed are useful (Leech et al., 2005).
Table 3  Total variance explained

<table>
<thead>
<tr>
<th>Component</th>
<th>% of variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12.518</td>
<td>12.518</td>
</tr>
<tr>
<td>2</td>
<td>11.972</td>
<td>24.49</td>
</tr>
<tr>
<td>3</td>
<td>11.916</td>
<td>36.405</td>
</tr>
<tr>
<td>4</td>
<td>11.32</td>
<td>47.725</td>
</tr>
<tr>
<td>5</td>
<td>10.656</td>
<td>58.381</td>
</tr>
<tr>
<td>6</td>
<td>9.927</td>
<td>68.308</td>
</tr>
</tbody>
</table>

Source: Authors estimation

4.3 Reliability analysis

Table 4 shows the internal consistency of the questionnaires filled by 230 respondents. Internal consistency is measured by Cronbach’s Alpha value. Value above 0.7 means that it matches the internal consistency of the instrument (Arif et al., 2016; Raza and Hanif, 2013; Nunnally, 1978). Here, the value of all independent and dependent variables is greater than 0.7.

Table 4  Rotated component matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pben 4</td>
<td></td>
<td>0.795</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pben 5</td>
<td></td>
<td>0.732</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pben 1</td>
<td></td>
<td>0.663</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pben 3</td>
<td></td>
<td>0.624</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pben 2</td>
<td></td>
<td>0.551</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Csat 1</td>
<td></td>
<td>0.745</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Csat 2</td>
<td></td>
<td>0.711</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Csat 3</td>
<td></td>
<td>0.690</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Tra 4</td>
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<td>0.763</td>
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<tr>
<td>Tra 3</td>
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<td>0.684</td>
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</tr>
<tr>
<td>Tra 1</td>
<td></td>
<td>0.653</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Acc 3</td>
<td></td>
<td>0.763</td>
<td></td>
<td></td>
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<tr>
<td>Acc 4</td>
<td></td>
<td>0.733</td>
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</tbody>
</table>
Table 4  Rotated component matrix (continued)

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
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<tbody>
<tr>
<td>Acc 2</td>
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<td>0.690</td>
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<td></td>
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<tr>
<td>Acc 5</td>
<td></td>
<td>0.653</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Benefit convenience</td>
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<td></td>
</tr>
<tr>
<td>Ben 2</td>
<td></td>
<td></td>
<td>0.846</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Ben 3</td>
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<td>Ben 1</td>
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<td></td>
<td>0.758</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Decision convenience</td>
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</tr>
<tr>
<td>Dec 5</td>
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<td></td>
<td>0.778</td>
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<td></td>
</tr>
<tr>
<td>Dec 4</td>
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<td></td>
<td></td>
<td>0.769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec 6</td>
<td></td>
<td></td>
<td></td>
<td>0.699</td>
<td></td>
<td></td>
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<tr>
<td>Cronbach alpha</td>
<td>0.802</td>
<td>0.872</td>
<td>0.844</td>
<td>0.785</td>
<td>0.883</td>
<td>0.757</td>
</tr>
</tbody>
</table>

Source: Author’s estimation

4.4 Convergent and discriminant validity

Furthermore, in this study the convergent and discriminant validity are assessed by exploratory factor analysis. When the items of the variable are related with the items of the same variable, i.e. showing high correlation with each other, then convergent validity is established. Whereas, discriminant validity is an extent in which the items of one construct shows less correlation with the items of other construct. According to Hair et al. (2010), discriminant validity demonstrates that the construct is unique to other constructs means it does not capture the phenomena of others.

Convergent validity is established when the indicators of factor are loading in the same construct and are greater than 0.5 (Hair et al., 2010; Nunnally, 1978). The result shows that the items of each construct are greater than 0.5, this high inter-correlation among items of the same construct demonstrates that they are converging for the same thing. After that, discriminant validity is examined. In this context, discriminant validity is analysed by rotated component matrix. According to Floyd and Widaman (1995), items of every variable loaded in its particular variable and no cross-loading of items occur in any other variables showing that they are distinct from each other, i.e. no correlation occur among the items of different variables it means they are explaining what they meant to be explained. Here, the result shows that the discriminant validity is established as all the factors are loading in their own construct.

4.5 Regression analysis

According to Leech et al. (2005), the significant value ($p < 0.001$) of regression demonstrates that how well combination of predictor variables predict the outcome variable. Table 5 shows the significant value less than 0.05; this indicates that the combination of independent variable predicts dependent variable significantly well.
Table 5  ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
</tr>
</tbody>
</table>

Source: Authors estimation

Table 6 shows the value of multiple correlation coefficient (R). Value of R is used to determine the correlation between independent and dependent variables (Leech et al., 2005). Here, its value is 0.765, which means that dependent and independent are highly correlated. Whereas, the value of $R^2$ indicates that how much dependent variable is explained by independent variables (Nagelkerke, 1991). The result of this study shows that independent variables are explaining 58.5% of dependent variable. Moreover, the adjusted $R^2$ explains 57.6% of deviation is captured by the model.

Table 6  Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R$-square</th>
<th>Adjusted $R$-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.765</td>
<td>0.585</td>
<td>0.576</td>
</tr>
</tbody>
</table>

Source: Authors estimation

Further, multicollinearity analysis has been done in our data. It is the case of multiple regression, applied to determine whether the independent variables are themselves highly correlated or not. It is measured with Variance Inflation Factor (VIF) and when the value of VIF is more than 10 it means that correlation among independent variable is high and it is damaging-dependent variable (Hair et al., 2010). In Table 7, the results of the test shows that our predictor variables are not highly correlated as the value of VIF of all variables are less than 10.

Table 7  Regression coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>$B$</th>
<th>$t$</th>
<th>Sig.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-0.025</td>
<td>-0.124</td>
<td>0.901</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>0.140</td>
<td>2.511</td>
<td>0.013**</td>
<td>1.526</td>
</tr>
<tr>
<td>AC</td>
<td>0.088</td>
<td>1.545</td>
<td>0.124</td>
<td>1.611</td>
</tr>
<tr>
<td>TC</td>
<td>0.224</td>
<td>3.765</td>
<td>0.000***</td>
<td>1.872</td>
</tr>
<tr>
<td>BC</td>
<td>0.135</td>
<td>2.583</td>
<td>0.010**</td>
<td>1.658</td>
</tr>
<tr>
<td>PC</td>
<td>0.437</td>
<td>8.235</td>
<td>0.000***</td>
<td>1.361</td>
</tr>
</tbody>
</table>

Note: DC, Decision convenience; AC, Access convenience; TC, Transaction convenience; BC, Benefit convenience; PC, Post-benefit convenience; ***Significant at 1%; **Significant at 5%.

Source: Authors estimation

The multiple regression analysis was used to measure the effect of five service convenience factors on customer satisfaction in home delivery service of online shopping. The regression result is presented in Table 7.

Table 7 shows the relationship between independent variables “Decision Convenience, Access Convenience, Transaction Convenience, Benefit Convenience and
Post-Benefit Convenience and dependent variable Customer Satisfaction. The value of B shows how strongly independent variable is impacting dependent variable. In the above table, all the independent variables have a positive relationship with dependent variable as the value of Beta is positive. Additionally, we find that Post-benefit Convenience has a greater impact on customer satisfaction with the highest value of PC (B = 0.437, \( P < 0.01 \)), whereas transaction convenience and decision convenience are having second and third most impact on customer satisfaction with the beta value of TC (B = 0.224, \( P < 0.01 \)) and DC (B = 0.140, \( P < 0.05 \)). Meanwhile the less impact on customer satisfaction is of benefit convenience and access convenience with the value of BC (B = 0.135, \( P < 0.05 \)) and AC (B = 0.088, \( P > 0.05 \)).

Moreover, Table 7 also shows the significant relationship between all independent and dependent variables except access convenience which is having the significant value more than 0.05, i.e. showing an insignificant impact. The impact of independent variables on dependent variables is also outlined in the revised hypothesised framework which is presented in Figure 2.

**Figure 2** Revised hypothesized framework. Here, the solid line indicates the significant impact of independent variable on dependent variable and the dotted line indicates the insignificant impact. Likewise, **Significance at 5%, ***Significance at 1% level of significance**

5 Conclusion and discussion

This research aimed to identify whether different types of service convenience have an impact on customer satisfaction in home delivery of online shopping. According to Liu et al. (2008), the home delivery is not just getting the product safe and on time but the other factors are also associated with it. The factors which are related to home delivery in online shopping are like making the information available to customer, providing them security so they can easily do purchasing, making service provider available to customers when needed and after-sales customer service is also an important element for customer satisfaction (Yan and Dai, 2009). The main purpose of conducting this research is to provide the insights to online retailers, that whether five types of service convenience in online home delivery service are affecting customer satisfaction and which convenience is most important to them. To identify this, different statistical techniques have been
applied on the sample size of 230. Overall, the results from this study have endorsed previous researches except for the variable of access convenience. The insignificant effect of access convenience on customer satisfaction shows that customers are considering online shopping as a virtual store, where they can complete the purchasing process by themselves and not require any service provider (Ahn et al., 2005). This also explains that because the design of the website of online retailer is so proficient that customers can easily find any information they need, that is why the accessibility to service provider is insignificant to them.

Additionally, findings revealed that post-benefit convenience has a great impact on customer satisfaction followed by transaction convenience, decision convenience and benefit convenience.

The result of benefit convenience shows a positive and significant impact on customer satisfaction but as compared to other conveniences it is having less significance, which is contrast to previous findings (Chen et al., 2011), where benefit convenience is considered as an element having the highest impact on customer satisfaction. Although benefit convenience is the most crucial convenience which customers are looking for as they want the product reliably, conveniently and quickly by sitting at home and during online shopping the only tangible thing customers get are the product they receive after delivery. But here the less significance impact of benefit convenience and greatest impact of post-benefit convenience explain that customer of Pakistan have different preferences related to convenience like usually customer wants timely and safe delivery of the product but here the customer wants that the company will provide them a guarantee of product return because as the product is intangible to customers and sometimes customers had not received what they want so due to this, the demand of services like return, exchange and complaining regarding the product damage is increasing among them and they expect that they can easily return or get the refund when they are not satisfied. According to Goebel et al. (2012), transaction convenience is necessary for the satisfaction of customer as most customer finds difficulty in concluding the purchase due to complex payment procedure, and our result is consistent with this finding.

The positive and significant impact of decision convenience on customer satisfaction shows that information acts as an important tool in making any decision, it is necessary when people do online shopping (Lim and Dubinsky, 2004). The availability of right, reliable and appropriate information about the product and brand is the key requirement of a customer to make the buying decision (Senecal et al., 2005).

After analysing the data, the result shows the lowest beta value of benefit convenience which is indicating that it is having a less significant impact on customer satisfaction as compared to decision convenience and transaction convenience, because according to Franzak et al. (2001) when the information is not reliable and complete or when the payment procedure is not secure then how customer could be able to purchase the right product. This explains that before receiving the product, the customer has to experience other conveniences and those conveniences are too important to them.

5.1 Recommendation

For every organisation, the key to success is their satisfied customers. Supply chain was used to ensure that companies have supplies to make and a product to deliver, in full and on time. But as time passes the expectations of customers from online retailers are
changing due to which only receiving a product on time is not enough for them. Now customers are demanding a service which is convenient for them from which they can reduce their non-monetary cost (time and effort). So the online retailers who want a competitive differentiation must have to make their supply chain customer facing.

Based on the results, this research provides the recommendation for future improvement in the home delivery of online retailers. By focusing on these suggestions the online retailer can enhance the whole home delivery experience of customers and gain competitive advantage means that generate convenience for customers in deciding what product to purchase, till the fast and safe delivery of the product and also provide the assurance of return policy.

According to Liu et al. (2008) that whenever, customers go for online shopping the major risk associated with it is that whether they get the same product they ordered because they have not touched the product as they normally do. This risk is called post-purchase risk. To minimise this risk and to increase the satisfaction level of customer, the companies should have to improve their post-benefit convenience. According to Zeithaml (2000), unresolved or unreported complaints generally result in decreased customer satisfaction. The result of this research also shows the highest impact of post-purchase on customer satisfaction.

In Pakistan, many of the online retailers lack in offering after-sale customer service. The companies who want to gain a competitive advantage must start thinking of providing effective post-benefit convenience like solving the problems related to product damaged or product exchange as soon as possible. Moreover, the services related to maintenance of product are also highly appreciated among customers.

Improvement in transaction convenience is also important for the online retailers as it has the second highest significant impact on customer satisfaction. Companies should make sure that the procedure of payment would be less time consuming and guarantee the customers that it is safe and secure if it is done via online or some other means. Because of the increasing crime cases in Pakistan have made customer reluctant to trust, it is important for online retailers to provide a safe and convenient online shopping environment.

Providing complete and reliable information to the customers is important for the companies in order to provide a convenience in making decision. Koivumaki (2001) finds that displaying pictures of the goods has greater influence on customer’s purchase decision than just listing out the product description. After analysing the result of this study, it is recommended that companies must have to provide information as complete as possible, including the colour, functionality, producer, model and most importantly the picture of the product.

To satisfy customers in today’s competitive world of e-market, online retailers must have to focus on the benefit convenience of the online shopping. As in Pakistan, the business of e marketing is growing day by day but still many online retailers are failing to provide quick and secure delivery of the product as their logistic infrastructure lags. Delayed delivery and not getting product at their original condition will result in the dissatisfaction of the customers. So here is to recommend that in order to sustain in the market, the companies should start focusing on the improvement of delivery service which is very crucial for customers.

By providing free delivery up to certain amount of shopping or providing discounts for the next time delivery and making sure that the product reaches to them in an efficient and safe manner will help company to attract and retain customers.
5.2 Future suggestions

As present study discusses the common features of home delivery service, it is suggested to focus on any single specific online retailer. As access convenience is not having a significant effect on customer satisfaction. For that, it is recommended to focus on any other variable which would be helpful in gaining customer satisfaction like website attributes which hold effective features and customer will not need service provider for any query. This service convenience model can be applied on courier service companies to analyse its impact on customer satisfaction.

References


Understanding the impact of service convenience


Understanding the impact of service convenience