

Online Grocery Shopping: The Affect of Time Availability on Malaysian Consumer Preferences

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Abstract: Online grocery shopping is a new way of buying desired grocery products for household consumption. It has been started in Malaysia few years back with early local online grocer such as PasarBorong.com, SubangGrocer.com, CGdeMart.com and Citrasspicemart.com. Due to the advancement of today technology, online grocery shopping is gaining their market share in the food retail industry in Malaysia. Therefore, this study examined the perceptions and preferences of Malaysian consumers towards online grocery shopping. It is also examines three (3) important factors in online grocery shopping; cost and charges, time availability and convenience of online grocery shopping, which will contribute to the impact of online grocery shopping. Sample of population for this study were consumers who had some experience in online food retailing, particularly online grocery shopping and also those who have not yet to use internet to purchase grocery products. The researcher used self administered questionnaire and applied quota sampling in this study to represent three main ethnic in Malaysia (Malay, Chinese and Indian). Result of the study showed that Malaysian consumers were disagreeing on the extra cost and charges of online grocery shopping charged by the online grocers. The same feeling they expressed on the time availability that they have and also the time used to navigate the online pages. Most of the respondents were strongly disagree to have a repeat purchase for buying grocery product online. Therefore, the overall findings highlighted some important points which should be useful to the online grocers in order for them to capture the market and also to have repeat business in the future. It also helps the online grocers to understand consumers' needs and preferences in online grocery shopping. By acknowledging this study, online grocers are able to position themselves in the market at par to be accepted by Malaysian consumers.

Key words: Online grocery shopping • Cost and charges • Time availability • Convenience • Online retailing.

INTRODUCTION

Retailer is facing increasingly intense challenges, which include continuous development, designs and new operating skills to meet customers' diverse demands. With rapid technological advancement, more innovative retailers, such as department store, hypermarket, wholesales warehouse, warehouse clubs, shopping mall, shopping center, power center, theme/festival center and outlet center, which are develop and introduced into the market [1]. The pattern of retailing store is changing as a growing number of retailer shifts their attention to

developing economies [2]. International retailers such as Wal-Mart, Sam's Club, Carrefour, Kroger, Sears, Home Depot, RT-Mart (Auchuan), Tesco and Costco, seems very popular among consumers [1].

Retailing has always offered a variety of shopping options to consumers [3]. In an advance world today, retailing via internet is one of the most rapidly growing form of trade [4] [5][6]). The ongoing development of communication technologies, particularly the Internet, has increased both the retailers' potential to reach consumers all over the world and the consumers' access to these retailers [7]. The impact of the World Wide Web (www)

on the retail sector has been much greater than that of any other commercial sector, in which resulting in the creation of new form of retail format known as electronic retailing or e-tailing [8]. Due to the rapid growth of technology, online shopping has been a particular cause of excitement and attentions for consumer to explore. Grocery shopping has been regarded as stressful and as a chore [9,10]. However, consumers' uptake of online grocery services has been slower than anticipated [11]. One of the reasons for the low uptake seems to be the delivery fee that grocery retailers charge. Delivery charge is one of the possible reasons why a majority of consumers is still reluctant to use the internet for grocery shopping [11]. Other reasons include issues surrounding privacy and security [12,13]. The uptake of online grocery shopping, however, is much lower than the average online shopping rate [11]. In other words, many consumers who are not shopping for groceries online do have online shopping experience with other products.

Existing e-grocers, as well as traditional grocers, have attempt to provide electronic grocery shopping which enable consumer to purchase online and make payments by credit card transfer [14]. However, consumers are more into walk-in to the physical traditional and modern supermarket to get their daily supplies including grocery items and fresh food products.

This study, however, aims to investigate and find out the level of acceptance among Malaysian consumers. It will focus on the factors of high delivery charges by retailers and time pressure factor and test how they affect Malaysian consumers shopping preferences. The researcher posits that the effects of the two factors are mediated by consumer perceptions on the convenience factors.

Literature Review

Cost and Charges: There is no doubt that any online shopping has additional charges on delivery of the products purchased. When Ring and Tigert [15] described the resistance to online grocery shopping, they mentioned that customers may not be willing to pay the delivery fee. It is also hard to change the established shopping habits of consumers. There is also great concern among consumers with regard to the delivery process of groceries purchased online. According to Keh and Shieh [16], most consumers expect speedy delivery of groceries because they do not always plan their meals ahead. Besides that, the distribution costs of online food retailing are generally twice the distribution costs of traditional supermarkets and most consumers may not be willing to pay the extra. In some countries such as Saudi

Arabia, consumers view offline shopping as an enjoyable and sociable activity. As such, reduction in time to shop may not be that important in this case [17].

Yan and Oppewal [11] stated that delivery fees charged by the online grocers were one of the reasons why consumers had the hesitation to shop grocery product online. In line with the statement, PriceWaterHouseCooper [18] in their research and survey done in America found that almost half of the internet users (46%) cited that delivery fees on product purchased online act as the factors that hinder them to use online shopping as the medium to purchase grocery items. Furthermore, delivery charges have deterred 20 percent of the internet users from shopping groceries online [11].

Bell *et.al.* [19] identify fixed costs as travel costs associated with going to a store plus a shopper's inherent preference and historic loyalty for the store Travel costs such as petrol or parking charges are clearly an expense that consumers will like to forego. Similarly, they will prefer not to pay extra for the delivery of everyday groceries needs [20]. Clarke [21] have revealed that a large proportion of consumers consider delivery charges a major deterrent of online grocery shopping.

Time Availability: As applied to shopping, time pressure can significantly alter shopping behaviors [22]. High versus low levels of time pressure may permit grouping consumers and servicing specific target markets based along this dimension [23]. Impulse may drive the purchase of food products and involve low effort in searching and processing information [24]. Specifically, limited amounts of time may influence food purchasing behavior [25]. Berry *et.al.* [26] studied the relationships between consumer's perception of time pressure and the importance of time saving.

Time-pressured shoppers are found to strive for efficiency [22]. Vermeir and Van Kenhove [27] study the relationship between the need for closure and perceived time pressure in retail grocery shopping. When facing time pressure, confidence in products and convenience play important roles in the buying decision [28].

The ability of consumer to carry out transaction at anytime of each day was an advantage when compared to physical shopping [29]. Consumers do not need to go through the several processes that are unavoidable in physical shopping, such as dressing up, travelling, parking the car, waiting and carrying [30]. By buying their regular weekly repeat items such as groceries from the internet, busy consumers will have more opportunity and time to shop for specialty items at the traditional supermarket [31,32].

Time starvation is also a significant predictor of online shopping [33]. Bellman *et.al.* [34] in their study were assessing the predictors of online buying behavior which found that consumers who with little discretionary time, including those who work long hours and those with a number of obligations, tend to have little time to research and but product in traditional stores. As a result, those consumers tend to browse online to research and shop their desired products via online [33]. Alreck and Settle [35] found that internet shopping was viewed as saving more time than traditional modes of shopping.

Perception of waiting time assumes more importance in the case of online shoppers, profiled as convenience seekers who wish to economize on time [36-38]. Supported by Freeman *et.al.* [39] indicate that any delay and increase in actual waiting time, or the perception of it, is likely to disconfirm the consumer's expectation of a quick shopping episode. This results in their dissatisfaction leading to abandonment of the shopping cart. Some of the factors that contribute to the delay in completing online transactions include slow page downloads (waiting for pages to open up), uploads (waiting for page submissions to be uploaded to the site), lengthy forms and unique formats of forms for clearances [39].

Nielson [40] found that consumers are likely to lose interest in a website if the response time is greater than 10 seconds. A finding also supported by Selvidge *et.al.* [41] and Kuhnmann [42]. Further, Selvidge *et. al.* [41] noticed that a longer waiting time (delay) leads to increased frustration, which eventually results in the participant's failing to complete tasks. A similar conclusion was reached by Taylor [43] in her research on factors affecting service evaluations, which explore the relationship between delays and evaluation of service.

Convenience of Online Shopping: Convenience concerns psychological cost and other forms of non-monetary costs such as time, effort and stress [44, 9]. In line with Berry *et.al.* [26] conceptualization of service convenience, shopping convenience can be defined as a reduction of the opportunity costs of effort and time involved in shopping activities.

In addition, Wilson-Jeanselme [3] notes that in the context of grocery retailing, the convenience benefits offered by the online experience can "leak away" due to a poor internet interface, ineffective management of customer demand information, badly planned warehouse/store operations and poor physical flow of product from warehouse/store.

Some of the reasons why an increasing number of consumers buy groceries online are common to all

Internet purchases, including better prices, larger selection, convenience and time savings [45]. Study done by Morganosky and Cude [46] on consumer demand for online food retail channels found that a huge majority stated convenience and saving time as their primary reasons for buying groceries online, followed by physical or constraint issues that made it difficult for them to shop at traditional grocery stores.

Grunet and Ramus [47] suggested in order to be successful, online sellers of food should focus on a combination of convenience and an emphasis on information intensive food products. Similarly, Nielsen [40] in his study found that convenience and ease of use were the reason that people buy online. The results of Nielsen's [40] study indicated that the promise of low prices attracted them to online retailers, but at the same time making the shopping experience easy, pleasant and convenient were the main reason they actually purchased, rather than browsed, at a particular sites.

Park and Kim [48] stated that other factor of convenience was the easy of website navigation. Supporting this was the study Jayawardhena *et.al.*[49] which examines the purchase intentions of online consumers by segmenting their purchase orientation. The researchers found that internet consumers are principally motivated by convenience on purchasing. This is related to the study by Szymanski and Hise [50] on user interface of online store. Store layout organization features, as well as ease of use are considered in this category. Since user interface of an online store influences the experience of consumer interacting with a retailer's product or service offering [51, 52]. A well-designed user interface system may reduce consumers' cost of searching and time required for information processing. Thus, it minimized the effort needed to perform choice and purchasing tasks [53].

Methodology: For the purpose of this study, quota sampling was used to access the related information by using the instrument developed by the researcher. Quota sampling was employed to ensure that certain characteristics of the Malaysian population sample were well represented. Brymen and Bell [54] stated that quota sampling has been used intensively in marketing research and also political opinion polling. By using the sampling, researcher is able to produce sample that reflects the proportion of people in different categories of basic demographic profiling. In this study, the sampling frame targeted an equal distribution of the sexes from the three major ethnic groups in the ratio of 50:40:10 (percentage of Malays: Chinese: Indian and other races).

Accordingly, Roscoe's rules of thumb as cited in Sekaran [55] indicated that sample sizes larger than 30 and smaller than 500 are appropriate for most studies. In line with the argument and consistent with the standard given by Krejcie and Morgan [56], 600 questionnaire were distributed and sample size for this study was set at a minimum of 234 respondents, which was considered large enough for vigorous statistical analysis. With the total expected respondent to participate in this study, quota sampling applies with ratio 50:40:10 of Malay, Chinese and Indian respondents. In this case, Malay respondents should not be less than 117, followed by Chinese respondent must not less than 93 and Indian respondents must at least consist of 23 respondents.

For the test instrument, respondents were asked question about time availability factors. The factors assessed were: time to do online shopping, time limit for online shopping, time to search for information, time for confirmation on ordering process and accuracy of time delivery of the product to consumers. Eight questions were developed based on the previous studies and modification made to suit with the objective of this study. The importance of this section was not only the time available for consumers to do online purchasing. It comprises the length of time taken to browse the internet and also to browse for the appropriate online grocer and its products, the time taken by both consumer and online grocer in ordering confirmation process and also the accuracy of delivery time that need to be measured. Five points Likert scales were used to measure the items from strongly disagree 1 to strongly agree 5.

Data administration begins with data coding and data entry on the variables which have been discussed in the first chapter of this study. Then, a reliability test was administered in order to determine the connection between scores obtained from different administration scales.

Table 2: Analysis of consumer time availability in online purchasing

No.	Item	N	Mean (M)	Standard deviation (S.D)
1.	I have an ample time to do online	243	2.60	0.68778
2.	There is no time limit in online grocery shopping.	243	3.81	0.67392
3.	Online grocery shopping can be done anytime.	243	3.86	0.69222
4.	I have time to browse online grocery service provider.	243	2.16	0.92874
5.	Browsing online grocery products list need less time.	243	2.75	0.72906
6.	Placing an order take no time at all.	243	2.61	0.66761
7.	Confirm order from service provider take no time at all.	243	2.48	0.61881
8.	Delivery of online grocery product is following the schedule.	243	3.37	0.59753

RESULTS

Frequency distribution used mostly in summarizing a set of data by summarizing the value of each variable. Descriptive analysis used in order to describe collection of data in quantitative terms. In the next stage of analysis, researcher used Pearson Correlation Coefficient analysis. It is the support measure in order to determine the strength of the relationship between dependent and independent variables. Finally, Regression analysis used to measure the linear association between dependent and independent variables. Both regression and correlation analysis were closely related.

Analysis of Internal Reliability Assessment: This assessment is crucial to generate the information of how much consistency presents among the ratings given by the respondents in all the data collected. With that the assessment of internal reliability by using the Cronbach's Alpha method was undertaken.

The questionnaire consisting 8 items measuring on the factors contributed to time availability achieved alpha coefficient of 0.741. An alpha coefficient above 0.70 were scored, which was an acceptable value of reliability. Alpha coefficient range in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous and/or multi-point formatted questionnaire or scales. The higher the Alpha is, the more reliability the test. There is not a generally agreed cut-off. Usually 0.70

Table 1: Alpha coefficient of internal reliability for each section of the questionnaire

Section B: Online grocery shopping Time Availability.	
Alpha Coefficient	0.741
Number of items	8
Number of cases	243

and above is acceptable value. Thus, with the acceptable value of alpha coefficient above 0.70, the data then was considered suitable for further analysis.

Analysis of overall result on Time availability: Time availability factors were important in order for respondents to precede the process of purchasing grocery product via internet. Result of Section B then compiled in Table 2.0.

Result from the questionnaire shows that out of 8 items, respondents' rate neither agrees nor disagrees on 3 items, which were no time limit in online grocery shopping (Item 9, $m=3.81$), shopping can be done anytime (Item 10, $m=3.86$) and delivery of product follows schedule (Item 16, $m=3.37$). From 3 items mentioned above, Item 9 and 10 scored near to mean 4 which indicate that most of the respondents nearly agree with the statement of no time limit in online grocery shopping and it can be done at anytime. Rated by respondents, most of them disagree that they have an ample time to do online grocery shopping (Item 8, $m=2.60$). This in line with the scores gave by most respondents on time that they had to browse online grocer (Item 11, $m=2.16$). Respondents rate disagree on less time need to browse online products (Item 12, $m=2.75$). This had been supported by the next item measuring time need to place an order for online grocery product (Item 13, $m=2.61$) and order confirmation time needed by online grocer (Item 14, $m=2.48$). From the above results, it can be conclude that most of the respondents had rated between disagree and neither agree nor disagree on the factors involving time availability of the respondents in online grocery shopping.

CONCLUSION

The perception of consumer then further corroborated through the next analysis on their view of time availability of online grocery shopping. Most of the respondents disagree that they have enough time to shop online. This was due to the factor that most of the respondents were working and they had less time to purposely browsing for online grocery shopping. On the other hand, most of the respondents agree that online shopping can be done at anytime because there is no time limit in browsing the internet. In contrast with the above statement, most of the respondents disagree on the fact that they have time to search online grocer in the internet. Also they reported that they felt neither agrees nor disagree less time needed in searching for the online grocery product lists.

In addition to browsing of product listing, most of the respondents disagree that to place a purchase order need less time. This was because consumer has to view from one page to another page in order for them to look for desired products to be put in the purchase order. From the online grocer, they have to confirm the purchase order placed by the consumer and most of the respondents said that they neither agrees nor disagree with the time take by the online grocer to confirm an order. Also respondents felt that the delivery of products purchased was not consistent with the delivery schedule promised by the online grocer when most of the respondents neither agrees nor disagree with the product delivery follow the schedule.

Beside the above notion, time had played an important role not only in delivery schedule of online purchased. The time availability of consumers tells us that to search for online grocery shopping information will define their purchase preferences. When too much time needed in searching for online grocer in the Net, it will restricts consumer from proceed to purchase of online products. This may due from the problem of online page navigation which may took a long waiting time from one page to other pages. This was consistent with the responds from most of the respondents which answered that they disagree that they have enough time to search for online grocer information. In dealing with online shopping which did not has any time limit; consumers may think that once they submit their purchase order, confirmation will be given by the online grocer immediately. But it happened the other way round where order confirmation only took place when they were in the office. Thus, consumers' perception on time waiting will affect their decision to purchase groceries online. Therefore, to overcome the problem on consumer waiting time on order confirmation, managers of online grocer should have the initiative to ensure that consumers do not have to wait too long for the order confirmation or they will lose customers. Although this may incur some cost of operation, for the long run in the industry it would help online grocer to gain more potential customers.

In Malaysia, food retailing has always been a very competitive business and in recent years traditional supermarkets are constantly improving the value provided to consumers. Very competitive retailers with every day bargain price, high service levels and late at night opening hours are aggressively fighting for customer loyalty by improving their marketing mix and increasing their efficiency. As such, the average consumer in Malaysia may not have a good reason to go for grocery shopping online. On top of that, the supermarkets are also gaining

market share and are making the food business a war zone for new entrance, even on the internet. However, by offering customers superior responsiveness and service, online grocery retailers can build brand equity, generating repeat business and this will result in market penetration in this industry. Another way to gain consumer acceptance is by going into partnership or alliances with the traditional supermarkets. This would lead to mutual benefit with reduced risks.

All in all, it is hope that the finding of this study would benefit the online grocer of how important the consumer preferences in online grocery retailing. Understanding the consumer needs in turn will help them to position their services and be more competitive in this rapid growing of food retail industry.

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