

Silver Shoppers: designing a better supermarket shopping experience for the old consumer in China

Yuanyuan Yin*, Ashok Ranchhod**, Song Qiu***

* *University of Southampton, Y.Yin@soton.ac.uk*

***University of Southampton, A.Ranchhod@soton.ac.uk*

****Tsinghua University, qiusongty@sina.com*

Abstract: The population of certain parts of the world is ageing, offering a rationale for this study. This research investigated the difficulties and challenges that elderly consumers face in a supermarket environment in China, so as to understand the way in which the supermarket environment and service can improve elderly consumers' shopping experience. An ethnographic design approach, which combines video-based direct observations and in-depth interviews, has been employed to explore Chinese elderly consumers' supermarket shopping experience. 12 Chinese senior citizens above 60 years of age and able to undertake their own shopping at least once fortnightly joined this research project as participants. Each participant was required to visit 2 retailers in Beijing so as to collect sufficient data of his/her shopping experience for analysis. It has been found that the main difficulties that Chinese senior consumers face at supermarkets include: problems with reading information on product package), poor access to products where items were placed too low or too high and poor signage. Based on the findings, guidelines for improving the design of some elements to improve and enhance the service to older consumers is proposed.

Key words: *Elderly Consumers, Supermarket Design, Ethnographic Research*

1. Introduction

The population of the world is ageing. It has been forecast that the number of people classified as old in the world could rise over 2 billion in 2050. As one of the largest ageing communities in the world, China will have over 440 million people aged over 60 at the same time, 34% of the UK population will be aged over 60 in 2050 [43]. Because of this substantial demographic shift, many researchers have highlighted that the elderly consumer, who was considered as less profitable in the market in the past, is a valuable and vital consumer segment for retailers [21,25]. Researchers have also noted that ageing encompasses social, biological and psychological changes with elderly people having different requirements when shopping, compared to young adults [26,41,42]. The consumer market therefore has to be segmented to take this group into account. Numerous studies have identified characteristics of elderly consumers, such as decreased price sensitivity, preferences for quality products, a tendency to make joint buying decisions and greater levels of store loyalty [17,41]. These features play a significant role on their shopping experience and satisfaction. Thus, a better understanding of consumer behaviour within and between age cohorts can support retailers in improving their service in particular for the ageing group [1]. Numerous issues that have had significant impact on the elderly consumers' shopping experience have been explored and identified from the literature (Table 1).

Table 1. Age-related supermarket Process issues

	Issues	Recourse
Trolleys and baskets	Difficulties of using trolleys	[1,17,29,30,18,19]
	Issues of loading and unloading trolleys	[18]
	Difficulties of carrying baskets	[18]
	Bad-designed trolleys and baskets	[21,39,14]
	Trolleys and baskets are not well-maintained	[30]
	Poor availability of trolleys and baskets	[30]
Store layout and aisles	Bad-designed store environment	[18]
	Poor user friendliness of store layout	[1,17,30]
	Inconsistent aisle signs	[37]
	Aisles are not wide enough	[1,37]
	Unclear signage and labels	[14,39,37]
	Poor access due to aisles	[37]
	Poor availability of seating	[14,29,37,39]
	Stores being too cold	[19]
	Poor lighting system	[1,14,39]
	Store size either too big or small	[21]
	Changing layout	[21]
	Unclear product location	[29]
	Difficult to maneuver between the aisles	[29]
Shelves and freezers	Shelf is too high or too low	[17,18,21,38]
	Unclear price display on shelf	[17,18,19]
	Difficult to use deep freezers	[18]
	Poor accessibility to products on shelf	[1,13,14,24,30,39]
	Need larger print on product labels	[21]
Product	Unhelpful multi-purchase promotion	[14,21,35,39]
	Poor quality of product packing	[14,18,21,39]
	Poor product range	[1,18,29]
	Product price too high	[18,21]
	Unclear product informant labelling	[18,29]
	Unclearing product promotion information	[18]
	Package size too large	[1,13,17,19,21,24,29,30]
Customer Service	Poor customer service	[12,14,17,20,21,30]
	Personal in-store service	[7,27,29]
	In-store assistance	[1,14,21,35,37]
	Friendly service	[21,33]
Checkout	Poor customer service facilities	[2,18]
	Slow checkout service	[14,21,39]
	Long queues	[14,21,30]
	Poor checkout service	[14,24,39]
	Poor packing service	[13,24]
	Difficult to open plastic bags	[21,30]

Although results from the existing research are notable, research gaps still exist. For example, many studies have identified difficulties that older shoppers face, but few practical solutions have been provided. Furthermore, past research has been undertaken mainly through questionnaires or surveys that largely rely on the memory recall ability of participants [11]. As a result, they may have failed to obtain a true account of the problems faced by elderly shoppers. Thus, here was a gap in actually studying customer behaviour patterns within an ethnographic setting without disturbing their ability to shop naturally. The key missing elements in the previous research were the elderly consumers' natural behaviour and interaction with facilities, staff and other customers in a supermarket environment. Another key factor that fails to be addressed is the issue of culture and how this impacts on elderly consumers' behaviour patterns when shopping. Within the globalized retail industry, China is regarded as the biggest and most profitable overseas market by major international firms such as Tesco (UK), Wal-Mart (US), Carrefour (France) and Metor AG (Germany) [32]. Among these retailers, Tesco has 105 stores in China and is planning to develop more over the next five years so as to increase its market share and reach in China [31]. The other UK retail giant Sainsbury's is also keen to move into the Chinese market [10]. However, due to the fact that cultural orientation plays a significant role in shaping consumers' shopping behaviour [40], consumers in China may have different requirements and needs within a supermarket service environment. Thus, it is important to

explore Chinese elderly consumers' shopping behaviour and experience so as to provide effective supermarket service to this group of consumer in China. Therefore, this project aims to investigate difficulties and challenges that Chinese elderly consumers face in a supermarket environment so as to understand the way in which supermarket retailers can improve their service for the elderly consumers in China.

2. Methodology

In order to achieve the research aim, an ethnographic user study that includes video-based direct observations and in-depth interviews has been employed. This method has been chosen as it supports the researcher in studying behaviour within a natural setting over a long period of time. It also represents a dynamic picture of the life of the targeted elderly consumer group [6]. The key feature of an ethnographic study is its capacity to view a system through the eyes of the user so as to discover the user's needs [16]. Therefore, it is extremely useful in designing service to satisfy the end-user, the elderly consumer in this case. In order to explore the elderly consumers' natural shopping behaviour and experience comprehensively and objectively, video-based direct observations and in-depth interviews were conducted twice with each participant. 1) A video-based direct observation method was chosen because it supports the researcher in discovering and discussing the real, indisputable actions of the elderly consumer's shopping behaviour as they occur [4]. It helps the researcher to capture and fix 'reality' in ways that the elderly consumers undertake shopping in a dynamic environment. In addition, it will also support to reduce bias by checking the validity of other data collection methods [8]. 2) In-depth interview methodology was chosen because it offers a great opportunity for the researcher to understand individuals more deeply and to open up new dimensions of a problem and secure vivid, accurate information that is based on personal experiences [15,9]. According to Morse [23], the interview is one of the most recommended methods to intensely investigate people's opinions about specific issues.






For this study, senior citizens above 60 years of age and able to undertake their own shopping at least once fortnightly were invited as participants. This ensured that they were mentally and physically capable of completing the experiment. A total of 12 participants, comprising 9 women and 3 men took part and their participation was voluntary. A summary of the participants' profiles is shown in Table 2. 58.33 per cent shopped with families and 41.67 per cent had a preference to shop alone; 8 of them (66.67 per cent) conducted their shopping 2-6 times a week; and 25 per cent did their shopping once a week. There was a heavy reliance on walking to the supermarket either on their own or with others (58.33 per cent), 25 per cent chose bicycle as their preferred mode of getting to the store, and few of them prefer electric bike or driving to the store (16.67 per cent).

Table 2. Participant information and shopping details

No.	Gender	Age Group	Marital Status	Usual Shopping Times	Shops	Frequency of Shopping	Mode of Transport
Participant 1	Female	60-69	Married	PM	With family	2-6/week	Walk
Participant 2	Female	60-69	Married	Variable	Alone	Weekly	Walk
Participant 3	Male	70-79	Married	PM	With family	2-6/week	Bicycle
Participant 4	Male	60-69	Married	AM	Alone	2-6/week	Bicycle
Participant 5	Female	60-69	Married	AM	With family	Weekly	Walk
Participant 6	Female	70-79	Married	AM	With family	2-6/week	Walk
Participant 7	Male	60-69	Married	Variable	With family	Weekly	Bicycle
Participant 8	Female	60-69	Married	AM	With family	2-6/week	Drive
Participant 9	Female	70-79	Married	Variable	Alone	2-6/week	Walk
Participant 10	Female	70-79	Widowed	AM	Alone	2-6/week	Electric Bicycle
Participant 11	Female	70-79	Married	AM	With family	2-6/week	Walk
Participant 12	Female	70-79	Widowed	AM	Alone	Daily	Walk

Each participant was required to visit 2 different supermarkets located in Beijing. The purpose of having 2 supermarkets in this study is to examine the differences within companies in the same business with different store sizes. Supermarket A had a small retail area, while Supermarket B had a larger retail space. Both supermarkets were easily accessible by main roads with public transport services. A video recorder was used at both Supermarket A and B for data collection. Because of participants' personal reasons, some of them only visited one supermarket store. Therefore, the results from the data collection from each supermarket were based on 10 responses; and the data analysis was based on a total of 20 trips.

Table 3. Ethnographic user study findings

Category	Interview Findings	Observation Findings	Supporting Images
Trolleys and Baskets	She thought shopping basket (with wheels) was not very easy to control as the wheels were too loose; trolley is too big and basket is too small for her; trolley and basket were not clean.	She had to bend down when put a glass bottle or a box of egg to the shopping basket; the basket was not very steady on escalator, it moved from her back to front; sometimes she pulled the basket and sometimes pushed the basket.	
Store Layout and Aisles	She thought that the passageway was narrow. She indicated that her path was blocked by a member of staff, who was loading products on shelves.	Blocked passageway.	
Shelves and Freezers	She thought that items in freezer were difficult to pick; Price labels of frozen products were listed together. It was difficult to find corresponding prices for the items that she wanted.	She picked up a product from an upper shelf and put it on a lower shelf so as to read the product information.	
Products	She highlighted that elderly consumers have to use glasses to read information on products labels, as the font size was too small for them. Thus, she suggested that the store should locate some glasses for older shopper to use during shopping	Price label was located on the back of a pack of egg; thus, she had to lift the pack up to find the price. The big pack of egg was difficult to put into her shopping bag. So she had to hold it on the way home.	
Customer Services	She mentioned the customer service is better than before. However, sometimes, it is still difficult to find staff when she needs help.		
Checkout	Long queues were a big issue for her. Sometimes she has to wait for an hour for checking out. She indicated that she would put the products back and give up shopping if queue is too long.	She removed her stuff from her shopping bag first, and then put purchased products into her bag.	

In order to elicit information participants were asked to undertake certain tasks. After their shopping, they had to locate and identify 3 products, including a 200ml bag of yoghurt, a 210g bottle of mushroom sauce and a 1000g pack of frozen wonton from both supermarkets. The purpose of finding the 3 items was to serve as a reference point and to examine the issues and challenges that the elderly shoppers might potentially face. The 3 products belonged to specific brands that were sold at both supermarkets. The yoghurt was chosen as it was found from the pilot study that its location was inconsistent, sometimes being placed at soft drinks section or at the dairy section. In addition, the yoghurt came in various brand, flavours, quantities and package. Thus, the challenge was to locate and identify the correct item. The bottle of mushroom sauce was chosen as it was found that the packaging looked identical to the other sauces and the product information on the label was very small. The pack of frozen wonton was chosen as a representative of the frozen food and to examine whether access to frozen food was a problem.

During the exercise, each participant was given colour photographs of the 3 items so that they had a clear understanding of the task. After the shopping, face-to-face in-depth interviews were conducted to confirm and validate what was observed. The researcher had the opportunity to show and clarify with the respondents the key scenes that illustrate their difficulties. At the end of the interview, the respondents were asked to summarise their shopping experience and to suggest improvements.

The information from the observations and interviews were then compiled into a matrix based on the six categories as showed in Table 3. And then, the findings were grouped into a table in order to identify common themes. It involved clarifying the findings with the participants; bringing words with the same meaning together; merging broader terms into identical concepts; and putting topics that are frequently mentioned into clusters [36]. The process was repeated for all the participants until no new themes could be identified [19]. The list of topics and sub-topics are shown in Table 4. Lastly, the number of problem areas that occurred at both supermarkets was counted. This process of tabulation quantifies the findings so that patterns can be identified [34]. The results are shown in the frequency distribution table in Table 4. The most signification findings are discussed in the next section.

Table 4. Tabulated findings

Category	Sub-Topic	Supermarket		
		A	B	Total
Trolleys and Baskets	Number of trolley was not sufficient for customers	4	5	9
	Trolley and trolley basket were hard to control	0	8	8
	Trolley and trolley baskets need better maintenance (broken or dirty)	4	4	8
	Size of trolley was too big to manage	2	3	5
	Baskets were located too close to escalator landing area	0	5	5
	Trolley basket was too low to pick up product from it or drop down product into it	0	4	4
	Trolley basket does not stable on escalator	0	4	4
	Trolley basket with wheels only can be used in-store, no access to car park	0	3	3
	Basket was too small	1	2	3
	Basket caught in retail hook	2	1	3
	Trolley basket handle was too low to reach	0	3	3
	Basket is too heavy to carry during shopping	2	0	2
	Deep trolleys make it hard to reach for items at checkout	0	1	1
	Basket does not accommodate the trolley well	0	1	1
	Total number of issues	10	34	44
Store layout and Aisles	Narrow passageways	8	6	14
	Signage is not clear	3	6	9
	Products on floor obstructed passageway	3	3	6
	Product display keep changing	1	1	2
	Working staff block passageway	1	1	2
	Store is small	2	0	2
	Slippery floor	0	1	1
	Store is too big	0	1	1
	Escalator does not have voice prompt when near landing area;	1	0	1
	Escalator landing area should provide handrail	1	0	1
	Total number of issues	20	19	39
Shelves and Freezers	Items placed too low on shelves	4	7	11
	Items placed too high on shelves	3	6	9
	Disordered product display, products mixed together	5	3	8
	Items paced too deep on shelves	3	1	4
	Items were a distance away in freezers	3	1	4
	Labels and items do not correspond	3	1	4
	Over stacking made it hard to find or remove items	1	2	3
	Price labels on freezers were a distance away to read	2	1	3
	Access to product in freezer is blocked by items on floor	2	1	3
	Bigger sized products are always stuck between shelves	0	1	1
	Passageway too long	1	0	1
	Total number of issues	27	24	51

Product	Problems with reading information from product package	7	8	15
	Product price labels too small to read	2	4	6
	Product price labels are located together. It is difficult to find price of correspond item.	4	1	5
	Best before date was difficult to find on product package	1	3	4
	Products in the same category priced with various unit quantities (per 100gm and per 200gm)	2	2	4
	Price label was not available	2	1	3
	Products variety is not sufficient	1	2	3
	Difficult to read product information and price label on low shelf	1	2	3
	Products were not appropriately placed. Yoghurt products are not located in fridge.	0	1	1
	Package does not fully protect product (for example: eggs)	0	1	1
	Total number of issues	20	25	45
Customer Service	Store staff are indifferent to customers	2	2	4
	Store staff are difficult to find	1	2	3
	More service should be provide such as kids centre and food process service	2	1	3
	Store staff have limited knowledge and information of their products	0	3	3
	Quality of free shuttle service should be improved	0	2	2
	Long queues to customer service, especially during promotion season	0	2	2
	Total number of issues	5	12	17
Checkout	Long queues	0	6	6
	Lifting heavy items at checkouts was an issue	1	3	4
	Free plastic shopping bag are not provided	2	1	3
	Checkout staff should help in packing grocery	1	1	2
	Checking out area is too narrow	3	0	1
	Payment machine need better maintenance	0	1	1
	Difficult with putting basket back to retail hook at checkout	1	0	1
	Only accept cash and one type of shopping card, bank card can not be used	1	0	1
	Total number of issues	5	13	18
Additional Feedback	Would like to have more seats available	1	5	6
	In-store air circulation should be improved. Seafood section is very smelly.	1	4	5
	Toilet should be provided	1	3	4
	Lighting system needs to be improved	3	0	3
	Self-service lockers need better maintain	0	3	3
	Too many stairs in store	1	2	3
	Need a staff member to pull trolley at the escalator landing area	1	1	2
	Number of self-service lockers is not enough	0	1	1
	Location of self-service lockers is not easy to find	0	1	1
	Disable toilet should be provided	0	1	1
	Baby changing room should be provided	0	1	1
	Toilets are not well maintained	0	1	1
	The store should pay more attention on fire precaution	0	1	1
	Difficult to use escalator and toilet for customers with children	1	0	1
	Not enough parking space	0	1	1
	Total number of issues	9	25	34

3. Findings and Discussions

In terms of trolleys and baskets (Figure 1), 14 issues have been explored. The top three key issues that were raised by the participants include problems with availability of trolleys (45%, N=20), trolleys were hard to control (40%, N=20) and maintenance of trolleys and baskets (40%, N=20). 9 participants highlighted that the number of trolleys was inadequate and it was difficult to find a trolley when they needed one. Meanwhile, some other participant suggested that trolleys and baskets need better maintenance, as they were broken or dirty. The availability and operability of baskets and trolleys was also reported in the past [30]. 8 respondents felt that trolleys and trolley baskets were hard to manage due to loose wheels. For instance, it has been observed that trolley baskets were not stable on a moving escalator and the participants had to clasp basket handle all the time on escalator. A number of participants pointed out that the size of trolley was too big to manage and the basket was too small. They suggested that it would be better if a smaller sized and better-designed trolley could be provided. Some other participants mentioned that shopping baskets were located very close to escalator landing

area. It has potential risk that the landing area might be blocked by congested customers who picking up baskets during rush hours. From the study, it was found that the trolleys also served as a walking aid and this was highlighted by Meneely et al. [21]. A number of respondents also felt that bottom of trolley basket was too low for them to put items into it safely without bending, especially for items with glass bottle. Other issues that have been found include: basket caught in retail hook, deep trolleys make it hard to reach for items at checkout, trolley and basket were only available for use in-store and basket does not accommodate the trolley well.

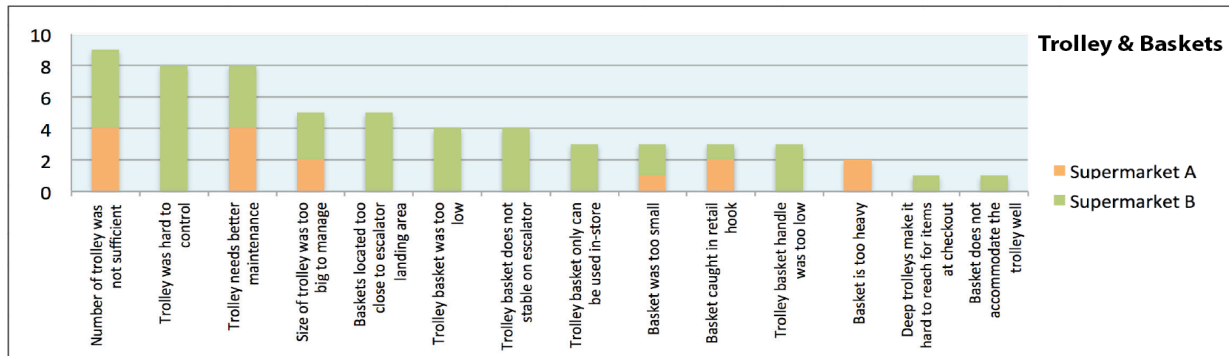


Figure 1: Significant issues related to trolleys and baskets

For the store layout and aisles (Figure 2), 10 issues have been discovered. The top three key issues that were raised by the respondents include narrow passageways (70%, N=20), poor signage (45%, N=20) and products on the floor that blocked their way (30%, N=20). One of the participants commented that “the signs were not very clear and I must have missed (seeing) a lot of things”. Furthermore, 2 participants highlighted that it was difficult to find products because product display was keep changing. Other issues that have been found include: working staff blocked passageway, store was small, slippery floor, store was too big, escalator does not have voice prompt when near landing area and the landing area should have handrail for old consumers.

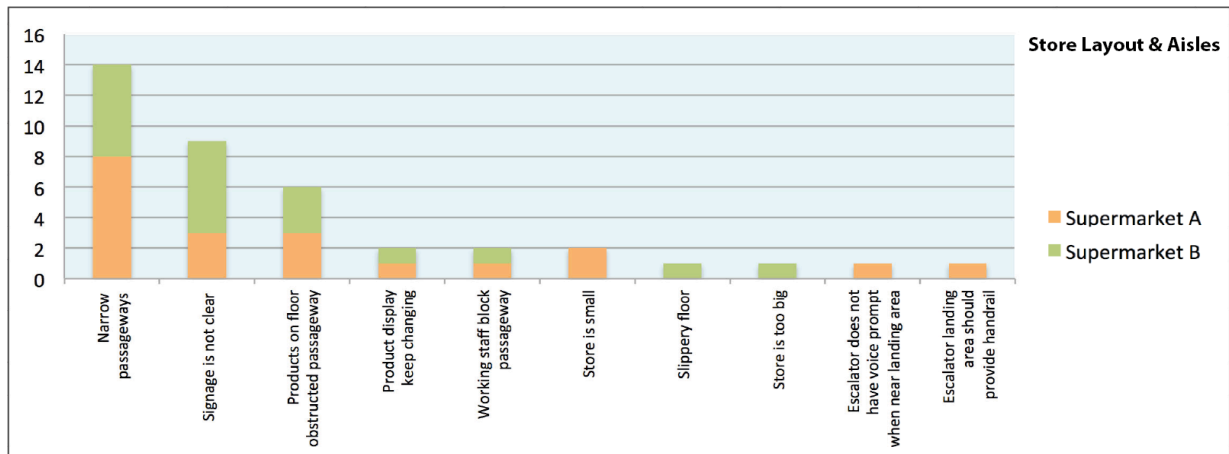


Figure 2: Significant issues related to store layout and aisles

In terms of shelves and freezers (Figure 3), 11 issues have been discovered. The top three key issues that were raised include items being placed too low (55%, N=20), items that were located too high (45%, N=20) and disordered product display (40%, N=20). “If the shelves are too low, then I will have an issue because I have a bit of a knee problem when I bend down”. Another areas of particular attention were items that were positioned too far inside the shelves (4 participants) and products and labels were not corresponding (4 participants). It has been observed that products in a same range were mixed together on shelves and it was difficult for the participants to find the particular item that they wanted. One participant emphasised that “products are mixed together and they

all looks similar. I could not find the product that I want”. This could be improved by a better merchandise design or identical packaging design. 4 participants mentioned that it was difficult to pick items from bottom of freezer. And price labels of frozen products were a distance away to read. Other issues that have been found include: over stacking made it hard to find and remove items, access to frozen product was blocked by boxes on floor and passageway was too long. These results are in line with previous research about the poor access to products. Older shoppers who are unable to reach for products considered this problem as their main barrier towards a good shopping experience [38]. Pettigrew et al. [30] also found that reaching for products from higher shelves or deep freezers was more difficult for older female customers as they tend to be shorter than younger adults and people sometimes lose their height as they age.

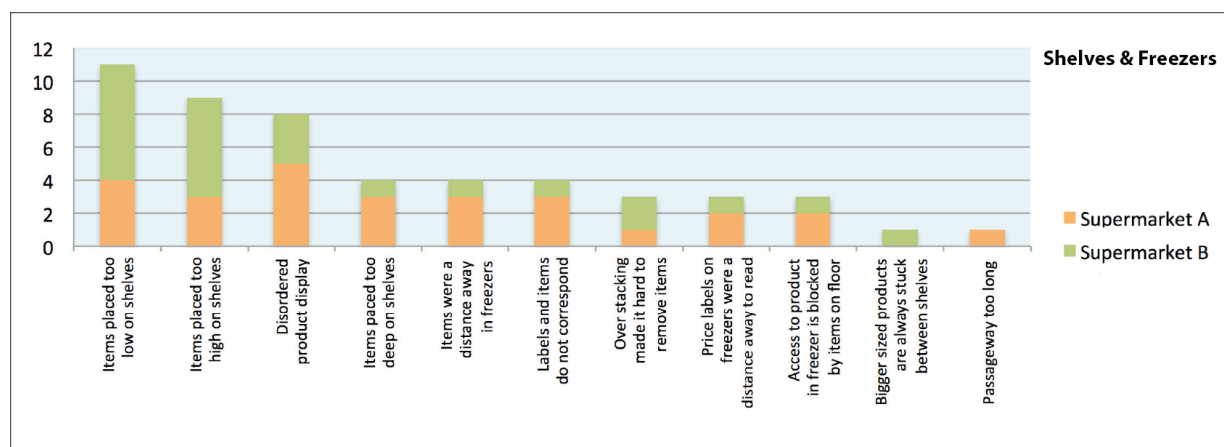


Figure 3: Significant issues related to shelves and freezers

In the relation to products (Figure 4), 10 issues have been discovered. The top three key issues include problems with reading product information from packages (75%, N=20), price labels were too small to read (30%, N=20), and key product information such as ‘best before date’ was difficult to find (25%, N=20). Many participants felt that it was difficult to read product information on package because size of the font was too small. It was found that the list of ingredients was important to those with a special diet. “I look at the ingredients – what goes inside. I have to look out for wheat as I can only take gluten-free food... and the expiry dates are sometimes too small”. This has been noted in previous research where elderly customers with visual impairments had issues reading labels, highlighting the need for larger text with contrasting colours as discussed in the literature review [30,17]. Other issues that have been found include: products were not appropriately (e.g.: yoghurts were not placed in fridge), price label was not available and package does not fully protect product (e.g.: egg).

In terms of customer service (Figure 5), 4 participants felt that store staff was not friendly and indifferent to customers. Some other respondents mentioned that they could not find a customer assistant easily. 3 participants commented that supermarket staff was not very helpful due to their knowledge and information of the store and products were limited. One participant mentioned that “ she tried to help me, however, after 20 minutes searching she still could not find the light bulb that I wanted. So, she gave up and asked me to find another supermarket employee for help. I was very upset...” This shows the need for the availability of suitably trained and effective staff that could guide the customers properly. This particular issue has also been raised by Petermans and Van Cleempoel [29]. Some other participants also felt that more types of service should be provided such as a child centre or creche and food process service. Other issues that have been found include: quality of free shuttle service should be improved and long queues to customer service.

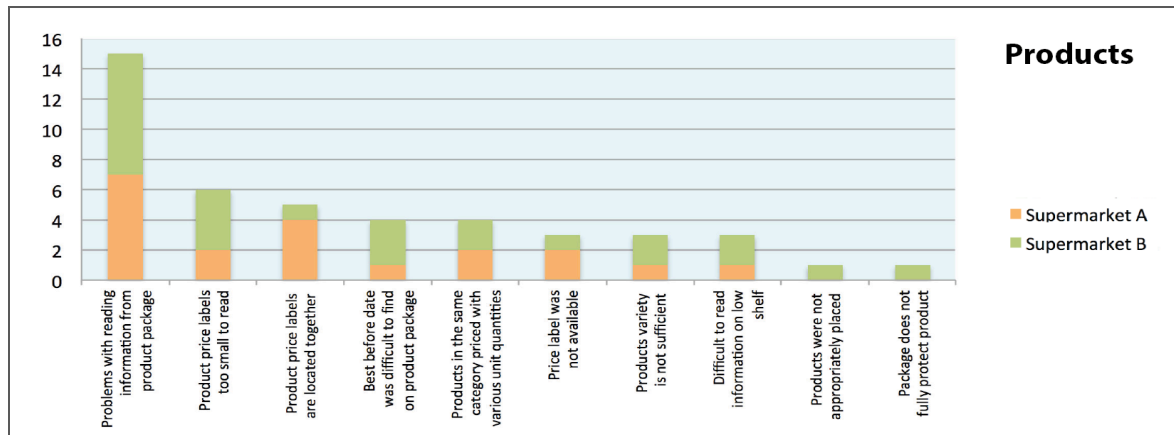


Figure 4: Significant issues related to products

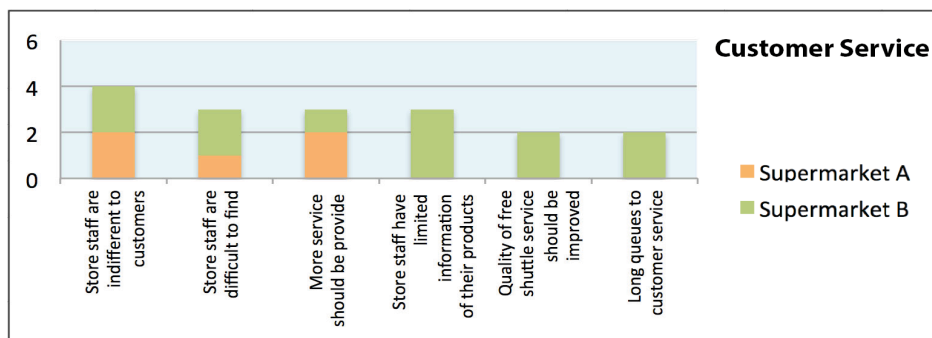


Figure 5: Significant issues related to customer service

The significant issues identified at the checkouts include long queues (30%, N=20), problems with lifting heavy items at checkout area (20%, N=20), the size of the small checkout area and the need for free plastic bags (15%, N=20)(Figure 6). This is in-line with Goodwin and McElwee [12] who found that the waiting time at checkouts were linked to the level of satisfaction among customers and long queues contributed towards their dissatisfaction. Another respondent highlighted an issue with payment machine. He said “the payment machine was broken so I had to move from one checkout account to another. Also the buttons on payment machine are too stiff and small, and I sometimes enter the pin number wrongly”. Other issues that have been found include: checkout staff should help for packing, difficult with putting basket back to retail hook at checkout and limited types of payment means.

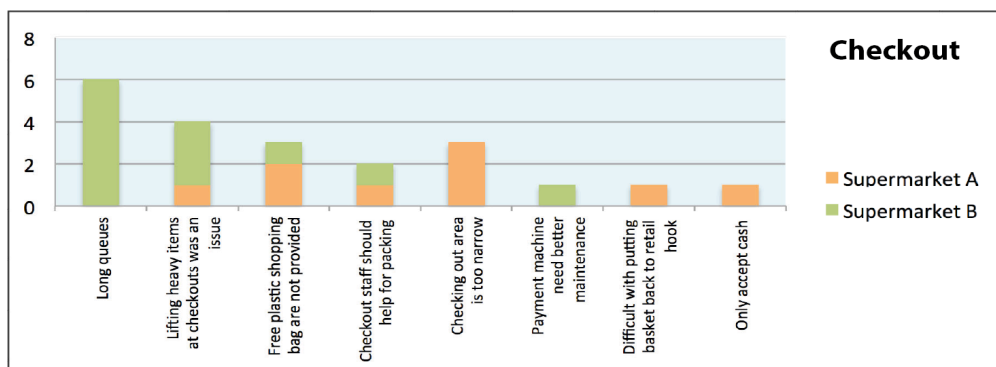


Figure 6: Significant issues related to checkouts

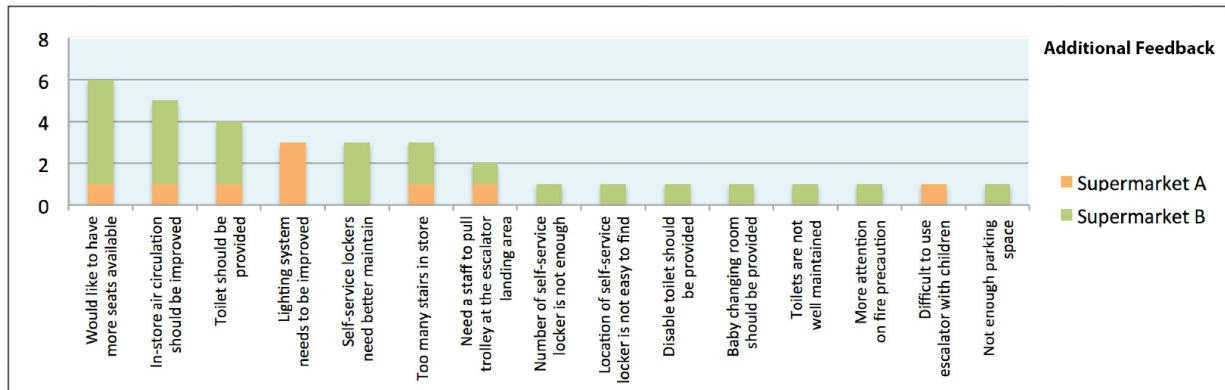


Figure 7: Additional feedback

When asked for additional feedback (Figure 7), 15 issues have been discovered. 6 participants would like to see more seats made available at the store and 5 of them expressed their concerns about air circulation in the store. 3 participants felt that the lighting system should be improved. Other issues that have been found include: disabled toilet and baby changing service should be provided, toilet should be better maintained, self-service lock was not easy to find and not user-friendly, difficult to use escalator and toilet with children and inadequate parking space.

4. Conclusions and Recommendations

Ageing has been closely linked to loss of agility and strength that makes shopping a challenge for the elderly [15]. The results from this research have revealed a number of issues that senior shoppers face at supermarkets in the China are in line with those found in previous literature. For example, research by Meneely et al. [22] in Northern Ireland also identified negative factors such as inappropriate shelf height, long queues, poor customer service, and illegible labels. This is echoed by the findings from Pettigrew et al. [30] in Australia who identified the key issues that include access to products, customer service and the use of trolleys and baskets.

From this research, the main difficulties that were found include problems with reading information on product package (15 responses, 75 per cent), poor access to products where items were placed too low (11 responses, 55 per cent) or too high (9 responses, 45 per cent), issues with trolley and baskets (9 responses, 45 per cent) and poor signage (9 responses, 45 per cent). Decreasing visual acuity has been identified as one of the most important problems that influence older people's daily life [28]. Elderly consumers have to rely on their glasses so as to read information that written with small sized fonts, especially information that printed on product packages. This issue could be improved by a better- package design, which considers elderly consumers' eyesight problems and provides information with bigger sized font. Alternatively, supermarket stores can also provide glasses for elderly consumers to use. The problem of reaching high and low shelves is not unique to only shoppers in China and this has been reported among older consumers living in the United States and other parts of Europe [18]. It is proposed that the access to products could be enhanced if existing shelves are redesigned to accommodate the anthropometric limits of some senior shoppers, as well as determining the positioning of certain products. For example, identical products could be displayed in vertical arrangement, rather than occupying the entire shelf. Problems with trolleys and baskets are associated with easy to control, problems with lifting item up from bottom, availability and maintenance. In terms of signage, 45 per cent response concerned signage was a key issue because of the fact that they may be more prone to eye ailments and poor posture. Therefore, the existing ceiling mounted signs could be less effective, leaving them feeling disadvantaged when navigating around the store and

this is supported from studies by Backstrom and Johansson [2] who stressed that the level of shopping experience increases when consumers are able to find products easily. The shopping experience for consumers could be improved by having signs installed at more appropriate height levels and by ensuring that they can be clearly seen from a distance.

The findings of this research should be considered in light of its limitations. This preliminary study comprised a small sample of 14 participants and while every effort has been made to obtain an equal number of elderly males and females, the female participants still outnumbered males. It is important that a larger sample is looked at, as there are likely to be differences between different socio-economic groups in the same age band. Also, this study was limited to 2 supermarkets. Despite several attempts to invite other retailers to participate, they declined to take part.

The results from this study have several significant implications. First, this research has identified the key difficulties that senior shoppers face in China and the findings will allow retailers to cater towards a more customer-centered retail experience. Second, it is proposed that future work should focus on the aspects of reading information from product package, product access, trolley & baskets and signage. Lastly, the use of ethnographic method has provided a more accurate, comprehensive and objective representation of the study. In conclusion, this study has built greater awareness and provided an increased research focus on the elderly shopper in China. At the same time it indicates the need for better-designed products and supermarket service to achieve a much better customer-centred retail experience.

References

- [1] Angell, R., Megicks, P., Memery, J., Heffernan, T. and Howell, K. (2012) *Understanding the older shopper: a behavioural typology*, Journal of Retailing and Consumer Services, vol.19, pp 259-269
- [2] Backstrom, K. and Johansson, U. (2006) *Creating and consuming experiences in retail store environments: comparing retailer and consumer perspectives*, Journal of Retailing and Consumer Services, vol.12, pp 417-430.
- [3] Backstrom, K. and Johansson, U. (2006) *Creating and consuming experiences in retail store environments: comparing retailer and consumer perspectives*, Journal of Retailing and Consumer Services, vol.12, pp 417-430.
- [4] Berg, B.L., Lune, H. (2012) *Qualitative Research Methods for the Social Sciences*, Eighth Edition, PEARSON, USA
- [5] Burgess, R.G. (1982) *Field research: a source book and field manual*, Allen and Unwin, London
- [6] Burns, R.B. (2000) *Introduction to Research Methods*, Sage, London
- [7] Cox, A.D., Cox, D. and Anderson, R.D. (2005) *Reassessing the pleasures of store shopping*, Journal of Business Research, vol. 58 no. 3, pp 250-259.
- [8] Denzin, N.K., Lincoln, Y.S. (2011) *The SAGE Handbook of Qualitative Research*, SAGE, USA
- [9] Easterby-Smith, M.P.V., Thorpe, R. and Lowe, A. (2002) *Management research: an introduction*, Second Edition, Sage, London
- [10] Fletcher, R. (2010) *Sainsbury's considers move into China*, The Telegraph, 25 Sep 2010. Available at <<http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/8025025/Sainsburys-considers-move-into-China.html>> [Accessed 1st March, 2013]
- [11] Fournier, S. (1998) *Consumer Resistance: Societal Motivations, Consumer Manifestations, and Implications in the Marketing Domain*, Advances in Consumer Research, vol.25, pp 88-90.
- [12] Goodwin, D. R. and McElwee, R. E. (1999) *Grocery shopping and an ageing population: research note*, International Review of Retail, Distribution and Consumer Research, vol.9, no.4, pp 403-409.
- [13] Hare, C. (2003) *The food-shopping experience: a satisfaction survey of older Scottish consumers*, International Journal of Retail & Distribution Management, vol.31, no.5, pp 244-255.
- [14] Hare, C., Kirk, D. and Lang, T. (1999) *Identifying the expectations of older food consumers - more than a "shopping list" of wants*, Journal of Marketing Practice: Applied Marketing Science, vol.5, no.6/7/8, pp 213-232.

- [15] Herne, S. (1995) *Research on food choice and nutritional status in elderly people: a review*, British Food Journal, vol.97, no.9, pp 12-29.
- [16] Hughes, G., Bennett, K. and Hetherington, M. (2004) *Old and alone: barriers to healthy eating in older men living on their own*, *Appetite*, vol. 43 no. 1, pp 269-79.
- [17] Kohijoki, A. (2011) *The effect of ageing on consumer disadvantage in grocery retail services among the Finnish elderly*, Journal of Retailing and Consumer Services, vol. 18, pp 370-377
- [18] Leighton, C. and Seaman, C. (1997) *The elderly food consumer: disadvantaged?* Journal of Consumer Studies and Home Economics, vol.21, pp 363-370.
- [19] Mason, J. and Bearden, W. (1979) *Satisfaction/dissatisfaction with food shopping among elderly consumers*, The Journal of Consumer Affairs, vol. 13, no. 2, pp 359-69.
- [20] Meneely, L., Burns, A. and Strugnell, C. (2008) *Food retailers' perceptions of older consumers in Northern Ireland*, International Journal of Consumer Studies, vol.32, pp 341-348.
- [21] Meneely, L., Burns, A. and Strugnell, C. (2009a) *Age associated changes in older consumers retail behaviour*, International Journal of Retail and Distribution Management, vol.37, no.12, pp 1041-1056.
- [22] Meneely, L., Strugnell, C. and Burns, A. (2009b) *Elderly consumers and their food store experiences*, Journal of Retailing and Consumer Services, vol.16, pp 458-465.
- [23] Morse, J. M. (1994) *Designing funded qualitative research*, In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp 220-235), Sage, Thousand Oaks, CA
- [24] Moschis, G., Curasi, C. and Dellenger, D. (2004) *Patronage motives of mature consumers in the selection of food and grocery stores*, Journal of Consumer Marketing, vol.21, no.2, pp 123-133
- [25] Mumel, D. and Prodnik, J. (2005) *Grey consumers are all the same, they even dress the same – myth or reality?*, Journal of Fashion Marketing and Management, vol.9, pp 434-449.
- [26] Park, N. and Farr, C. (2007) *Retail store lighting for elderly consumers: an experimental approach*, Family and Consumer Sciences Research Journal, vol.35, no.4, pp 316-337.
- [27] Patterson, P. (2007) *Demographic correlates of loyalty in a service context*, Journal of Services Marketing, vol.21, no.2, pp 112-121
- [28] Pattison, M. and Stedmon, A. (2006) *Inclusive design and human factors: designing mobile phones for older users*, PsychNology Journal, vol.4, no.3, pp 267-284
- [29] Petermans, A. and Van Cleempoel, K. (2009) *Retail design, experience economy and the greying population: a European perspective*, 8th European Academy Of Design Conference, 1-3 April 2009, The Robert Gordon University: Aberdeen, Scotland.
- [30] Pettigrew, S., Mizerski, K. and Donovan, R. (2005) *The three 'big issues' for older supermarket shoppers*, Journal of Consumer Marketing, vol.22, no.6, pp 306-312.
- [31] Rigby, E. (2010) *Tesco's expansion in China will overtake UK footprint*, Financial Times, April 21, 2010.
- [32] Samiee, S. Yip, L.S.C., Luk, S.T.K. (2004) *International marketing in Southeast Asia*, International Marketing Review, vol. 21, no. 3, pp 247-254
- [33] Semeijn, J., Riel, A. and Ambrosini, A. (2004) *Consumer evaluations of store brands: effects of store image and product attributes*, Journal of Retailing and Consumer Services, vol. 11, pp 247-58.
- [34] Silverman, D. (2006), *Interpreting Qualitative Data*, 3rd ed., Sage, London.
- [35] Solomon, M. (2004) *Consumer Behaviour: Buying, Having, Being*, 6th ed., Pearson Prentice-Hall, Englewood Cliffs, NJ.
- [36] Spencer, D. (2010) *A Practical Guide to Information Architecture*, Five Simple Steps, Penarth.
- [37] Tongren, H.N. (1988) *Determinant behavior characteristics of older consumers*, Journal of Consumer Affairs, vol. 22, no.1, pp136-57.
- [38] Underhill, P. (2000) *Why We Buy: The Science of Shopping*, Thompson, Andover.
- [39] Wallis, Z. (1994) *The age-old problem*, Retail Week, 4 November, pp 8
- [40] Wang, Y.J., Doss, S.K., Guo, C., Li W. (2010) *An investigation of Chinese consumers' outshopping motives from a culture perspective*, International Journal of Retail & Distribution Management, vol. 38, no. 6, pp 423-442.
- [41] Wilson, L., Alexander, A. and Lumbers, M. (2004) *Food access and dietary variety among older people*, International Journal of Retail and Distribution Management, vol.32, pp 109-122.
- [42] Wolfe, D. B. (2005) *The Changing psychology of the older consumer: the myth of ageing boomers' differences from their parents*, Generations: The Journal of the American Society on Aging, Silver Industries, Winter 2004-2005, pp 15-19.
- [43] World Population Ageing Report (2009) *World population Ageing 2009* [Online PDF]. Available at: http://www.un.org/esa/population/publications/WPA2009/WPA2009_WorkingPaper.pdf [Accessed 25 March 2013]