

CEHD Grant Application Form

Submit this application form by one of the following due dates along with your proposal. Applications must be received, at tate-center@wmich.edu, by 5:00 p.m. on August 15, November 15, March 15, and June 15.

Application					
Applicant Name: Chitra Singh and Zee-Sun Yun					
Title: Assistant Professor and Associate Professor					
Department: Family and Consumer Sciences					
Title of Proposal: Retail service inclusion: Assessing barriers for older adults while shopping in physical and online stores					
Amount Requested: \$ 2,000					
Dates of Project: May 2020 ~ May 2021					
Evaluation Guidelines					
Strongly Agree 5	Agree 4	Undecided 3	Disagree 2	Strongly Disagree 1	
The proposed research/creative activity is well conceived and organized.	5	4	3	2	1
The proposed work will increase the likelihood that the applicant will secure external funding in the future.	5	4	3	2	1
The methods and/or procedures are clearly stated and appropriate for the proposed activity.	5	4	3	2	1
The plans for data analysis or evaluation critique are clearly stated and appropriate for the proposed activity.	5	4	3	2	1
The costs for the proposed budget are clearly itemized and justified	5	4	3	2	1
This project has the potential to advance the scholarly/creative reputation of WMU.	5	4	3	2	1

Retail service inclusion:

Assessing barriers for older adults while shopping in physical and online stores

Project Purpose

Limited research has been done to understand the vulnerability of older adults arising due to an imbalance between the retail service environment and older adults' capabilities. The purpose of this project is to assess the barriers that older adults face while shopping for their daily needs in physical stores and online stores. These barriers in the shopping environment increase the vulnerability of older adults and can restrict their further interaction with the environment. Since shopping for daily items is an essential Instrumented Activities of Daily Living (IADL), this research will help in giving retail stores insight into how to design their stores for better service inclusiveness. The results of this study will be used in the future second phase of the study to design and test a modified store environment that would provide solutions to the barriers identified in this study and ultimately support service inclusion.

We have conducted a previous study on older adults with osteoarthritis and their limited capabilities due to mobility limitations. This study would extend our initial investigation by understanding the barriers that older adults face due while shopping for daily needs. This study will also give information about older adults' perception of important service quality dimensions across physical and online selling platforms. These would be natural extensions of our previous research and would deepen the understanding of the retail service inclusion.

Background

The United States' (US) population is aging, and individuals over 65 years of age are expected to grow to 83.7 million by 2050 (Ortman *et al.*, 2014). The rapidly aging population will place unprecedented demands on aging-related services. Aging is associated with a decline in vision, hearing, ambulatory movement, and cognitive functions that make older consumers vulnerable (Monov & Kopchev, 2017). Baker and LaBarge (2015) defined consumer vulnerability as a state of powerlessness that arises due to an imbalance between a built environment and a person's capabilities. Due to physical limitations, older consumers face challenges in the store environment (Blut *et al.*, 2018). Hence, it is imperative that the store environment should be inclusive to the needs of this growing population segment. By understanding older adults' needs for inclusion and designing services to meet those needs properly, we can help individuals transition toward healthy aging.

As individuals age, it is vital to continue to sustain the Instrumented Activities of Daily Living (IADL). IADL has been defined as complex, real-world human behaviors that require independence, volition, organizational ability, and judgment to complete the task (Lawton & Brody, 1969). Shopping for daily needs is an important IADL, which plays an important role in the independent healthy living of older adults. Specifically, nutrition has been identified as a major determinant toward healthy aging. Procuring and eating healthy food is critical for the social, cultural, and psychological quality of life. And physical and online stores are among major avenues for the procurement of food (Bernstein & Munoz, 2012).

With changing technology, methods of shopping are changing. Retail stores these days have multiple touchpoints of offering service to customers that include in-store, online, home

delivery, and store-pickup. Service inclusion is a paradigm for providing customers with adequate access to service across all touchpoints, fair treatment during service, and fair opportunity to comfortably exit the service (Edwards *et al.*, 2018). The four pillars of service inclusion are enabling opportunity, offering choice, relieving suffering, and fostering happiness (Fisk *et al.*, 2018). The literature identifies the challenges that vulnerable older consumers often face due to their physical limitations. Yet, research is limited in identifying the service experience of older consumers across physical and online stores. Some questions that need to be answered are: Do marketplace barriers encourage them to use e-commerce or online shopping? And what are older adults' expectations of service quality across these touchpoints of service?. This information will help retail stores to build more inclusive services that could help relieve vulnerable older consumers' burdens during shopping for daily needs. Thus, the research questions that correspond with the purpose of this project include the following:

1. What barriers do older adults face while shopping for daily needs in a physical store?
2. What barriers do older adults face while shopping for daily needs in an online store?
 - a. Do physical marketplace barriers encourage them to use online shopping?
 - b. How often do they use online shopping?
3. Which one of the service quality dimensions significantly influences how older adults judge physical store environment quality?
4. Which one of the service quality dimensions significantly influences how older adults judge online store environment quality?

Theoretical framework

This study builds upon the theory of person-environment fit that focuses on the relationship of the individual to the environment and measures performance as a function of both the person and the environment (Kiernat, 1982). Lawton and Nahemow (1973) further looked at the environmental pressure that an environment presents on an individual. According to their environmental press model, if the environment presents significant stress, then there will be a marked decline in the competence of the person to perform the task. This theory also indicates that if the environment is adjusted to present less stress to the individual, then the competence of the person to perform the task might increase. This idea was further supported by a congruence model of the person-environment fit theory by Kahana *et al.* (1980), who suggested that people prefer environments that meet their needs and try to avoid the environments that present difficulty in completing the required task. A mismatch between the demands of the environment and a person's capability leads to the vulnerability of older adults, and that is the focus of this study.

To investigate the demands of the shopping environment that cause challenges for older adults, we will conceptualize this study using service quality and disability orientation based theories that have been used in research on person-environment. Goodrich & Ramsey (2012) examined the effects of environmental factors on consumer perceptions and extended traditional service quality theory and disability orientation theory to understand the retail service environment for young consumers with disabilities. A similar approach for older adults could give insightful results in understanding the quality of the shopping environment. In addition, we will also use Design-Ambient-Social-Trialability (DAST) framework that broadens physical store atmospherics to out-of-store experiences like online websites (Roggeveen *et al.*, 2019).

This framework gives a more comprehensive view of the impact of multiple retail touchpoints on consumers' shopping behavior and will help us understand the same for older adults.

Significance

This research will help fill the gap in the literature about the barriers that the older adult population faces while shopping for their daily needs across physical and online stores. A comparison of physical and online platforms of retail will help in understanding the vulnerability of older consumers that might restrict them from obtaining the items of daily needs across both important channels of commerce. Also, the results of this exploratory study will help researchers to design the next empirical study relating to solving marketplace problems for vulnerable older adults.

Method

A mixed-method research methodology will be used for this study. First, focus groups will be conducted with older adults to identify and understand the barriers that they face while shopping for daily needs in physical and online stores. The results from the focus group will be used to develop a structured questionnaire that will measure the service quality (Parasuraman *et al.*, 1988; Parasuraman *et al.*, 2005) for physical and online stores. Other relevant questions related to the shopping environment and older adults' capabilities will be borrowed from previous studies and adapted for this study.

Research participants. Participants will include older adults 65 years and above who can undertake their food shopping at least once fortnightly. The target sample size is 12 older adults for focus groups and 300 older adults for the survey.

Data collection. Two focus groups will be conducted with six older adults each. Using convenience sampling, older participants for focus groups will be recruited from local churches, community lunch gathering places, malls, and senior living communities where residents still shop for their groceries. After receiving IRB approval, participants in a focus group will discuss the barriers they face while shopping for their daily needs. The Focus group will be audio recorded. An honorarium (\$30 gift certificate) will be provided to participants who participate in the focus group study. After the analysis of focus group results, a structured questionnaire will be developed and administered online. The survey link will be posted at Amazon's Mechanical Turk (MTurk), which provides a web service for researchers or companies to access and connect demographically diverse, on-demand participants.

Data analysis. Content analysis will be performed on the transcripts of focus groups to identify emerging themes. Survey data will be analyzed using appropriate statistical tools like confirmatory factor analysis and multiple regression.

Plan of Work

May-Aug, 2020	Sept-Dec, 2020	Jan-April, 2021	May-Aug, 2021
<ul style="list-style-type: none"> Review related literature Finalize research proposal Prepare data collection instruments 	<ul style="list-style-type: none"> Recruit research participants from church, older adults' afternoon gathering places, malls, older adult living communities, etc. Prepare and conduct focus group interviews to collect qualitative data 	<ul style="list-style-type: none"> Analyze quantitative data Compile results Prepare a final research report 	<ul style="list-style-type: none"> Submit final research report to the Tate center Prepare and submit a conference proposal for presentation

<ul style="list-style-type: none"> • Submit IRB protocol and obtain IRB approval 	<ul style="list-style-type: none"> • Analyze qualitative data, refine survey instrument, and administer online survey 	<ul style="list-style-type: none"> • Prepare and submit a conference proposal for presentation 	<ul style="list-style-type: none"> • Prepare and submit manuscript(s) • Plan future studies
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Budget and Justification

(Redacted)

Anticipated Outcomes

This research will help us assess the barriers with barriers that older adults face while shopping for daily needs in a physical store and online store. The results will also highlight the service quality dimensions that are most important for older adults. In summary, this research aims to identify barriers in the store environment (physical and online) for the older population and give practitioners insight into how to design their stores for better service inclusiveness.

Plans for Dissemination

Plans for dissemination include presentations at annual conferences of the International Textile and Apparel Association (Fall 2021) and/or American Collegiate Retailing Association (Spring 2022). We will submit a manuscript to the *Journal of Retailing and Consumer Services* or *Journal of Service Theory and Practice*. Presenting and publishing in general, and particularly in the area of service inclusion, will help in advancing the scholarly reputation of the faculty members and WMU.

Plan for Continued Research

The results of this exploratory study will help researchers to design the next empirical study relating to solving marketplace problems for vulnerable older adults. We are planning to design and test a modified store environment that would provide solutions to the barriers

identified in this study. We intend to seek external funding for this future study from aging support philanthropic foundations like Michigan Health Endowment Fund: Michigan healthy aging grants and/or American Federation for Aging Research (AFAR). The results of this exploratory study will strengthen our future grant application.

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