Online grocery shopping adds value to households with children: Insights from a qualitative study

Authors

Dr. Minna Stenius, Arcada University of Applied Sciences, Jan-Magnus Janssonin aukio 1, 00560 Helsinki, Finland, minna.stenius@arcada.fi.

M.Sc. Raisamiina Hagström, Arcada University of Applied Sciences, Jan-Magnus Janssonin aukio 1, 00560 Helsinki, Finland, rimpelar@arcada.fi.

Dr. Niklas Eriksson, Arcada University of Applied Sciences, Jan-Magnus Janssonin aukio 1, 00560 Helsinki, Finland, eriksson@arcada.fi.

Abstract

Time-constrained households with children can benefit substantially from online grocery shopping (OGS) through time saving, convenience, better meal planning etc. This study investigated the conditions that explain and sustain OGS among this demographic, and suggests ways to develop the services to better support it. Data was collected through 14 in-depth interviews with young households in Finland, and analyzed thematically, using the conceptual model of routinized grocery shopping for guidance. The study identified goals that drive OGS, and various situational and temporal conditions as well as sources of repetitive value, that sustain OGS among young households with children. Grocery procurement is a critical routinized household activity, embedded in various other household activities, but rarely conceptualized so in research. This study adopts this perspective and generates important new knowledge, for both researchers and practitioners, on what drives and sustains OGS among young households with children.

Keywords young households, household routines, online shopping, grocery shopping, OGS

1. Introduction

Over the past few years various digital food services including online grocery shopping (OGS) have become popular among consumers (McKinsey, 2023), suggesting that digitalization of food provision is changing the way consumers acquire groceries or meals (Granheim *et al.*, 2022). Despite the rapid initial growth of OGS during the Covid-19 pandemic, most consumers continue to shop for groceries in-store and are often reluctant to even try OGS (Stenius and Eriksson, 2024). This is puzzling as those who buy groceries online say that it saves time (Frank and Peschel, 2020), adds convenience (Anshu *et al.*, 2022; Braun and Osman, 2024), and reduces inconvenience such as in-store hassles (Stenius and Eriksson, 2023). OGS has also been found helpful for meal planning (Berg and Henriksson, 2020; Brand *et al*., 2020). Hence, there are meaningful benefits to be gained from OGS for time-constrained households with many obligations and stress factors.

Research shows that especially households with small children find grocery shopping oftentimes difficult, and cumbersome (Berg and Henriksson, 2020). The challenge of building a career and caring for a young family often coincide, making work-life balance particularly difficult for this demographic (Kumar *et al*., 2023). About 43% of working Europeans report that "work frequently impinges on their time or energy for family or household responsibilities", and this is particularly pronounced in the age bracket 16-39 (Eurofound, 2024, p.17). This suggests that services facilitating the everyday life, such as OGS, can add significant value to households with children.

This study investigates how households with children, who have adopted OGS, reason around their choice, and the conditions explaining and sustaining their online shopping (RQ: What explains and sustains OGS among households with children?). Hence, the study has the potential to generate important new knowledge on what drives and sustains continued OGS, and propose ideas for retailers on how to develop the services to support young households.

2. Theoretical lens

An important but often overlooked aspect of grocery shopping is its routinized nature. For prior studies, see Appendix 1. As a recurrent household undertaking, it benefits from the efficiency generated by routines (Eriksson & Stenius, 2024; Ong, 2006). Retailers, in turn, benefit from regular, predictable customers, who routinely buy their groceries from them. In this study, the focus is on how households with children explain their routinized OGS, using the conceptual model of routinized grocery shopping by Ong (2006) as the lens (see Figure 1). The model suggests that grocery shopping is a goal-driven activity, structured within situational contexts and anticipated temporal conditions, and maintained for positive repetitive value.

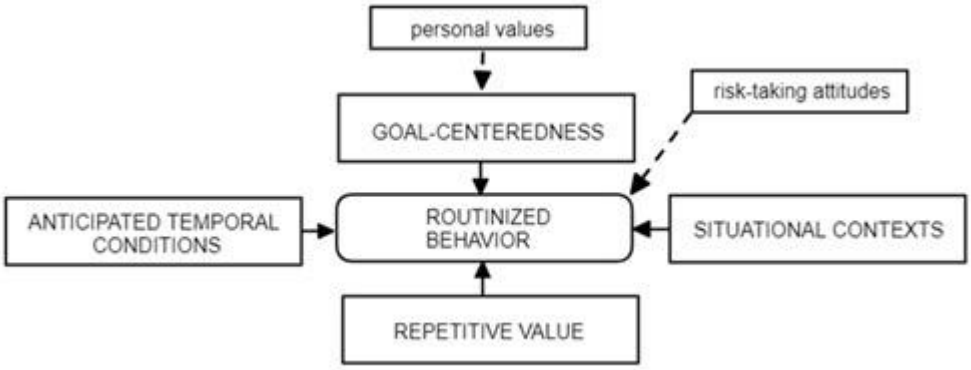

Figure 1. Conceptual Model of Routinization of Grocery Shopping (Ong, 2006)

First, consumer behavior is typically goal-driven (Pieters *et al.*, 1995): goals energize and give behavior direction and value (Locke and Latham, 1990; Deci and Ryan, 2000) and activate the necessary knowledge structures for attaining them (Gollwitzer and Moskowitz, 1996). Furthermore, goals form hierarchies (Pieters *et al.*, 1995) and vary considerably in the degree of abstraction. Shopping for groceries to feed a household is considered a focal goal. Retailers typically focus their efforts on this goal and offer products and services to help attain it. They could adopt a broader lens as shopping for groceries also serves superordinate goals in a person's life, reflecting for instance health or identity related concerns (e.g. wanting to be a decent parent or a good cook), practical goals (saving time or money), or even more abstract goals, such as sustainable lifestyle, good family life, or financial security.

Second, grocery shopping is typically performed in a situation that creates a structure for it (Ong, 2006). The situational context alone can prompt its initiation, and affect its performance (Gardner and Rebar, 2019). Stable conditions are especially prone to fuel routine repetition (Brotherton, 2001). Closely related to the situational contexts are the anticipated temporal conditions. Consumer routines are embedded in temporal structures: they are often performed regularly on preferred days and times; they have a frequency and a duration; and a rhythm which can reflect abundance of time, or time constraints due to other activities (Ong, 2006). This aligns with Southerton (2006), who argues that temporalities are a fundamental feature of how everyday practices are configured and performed.

The last component in Ong's model is repetitive value. Grocery shopping accomplishes certain goals for a household, but it is an activity that is also sustained by "the functional utility of its repetition" (Ong, 2006, p.103). Reliance on routines generates efficiency: it saves time and cognitive resources (Clark, 2000). Ong (2006) lists at least seven sources of repetitive value: convenience, satisfaction, sunk costs, familiarity, involvement, commitment, and consideration sets (the subset of choices considered of all available options; Hauser, 2014).

Ong's conceptual model (2006) offers a reasonable basis for understanding routinized grocery shopping and is therefore used as an organizing framework in this study.

3. Method

Fourteen semi-structured deep interviews (referred to as R1-R14) were conducted in Finland. Participants were selected using pre-defined criteria as follows: representing households with children under 18; living in urban areas with access to large OGS selection; minimum 1 year of OGS experience to ensure routinization (habits form in 18-254 days; Lally *et al.*, 2010); buys minimum twice/month to ensure regularity.

Most households interviewed (10/14) had two adults and two children; most respondents (10/14) were in their early thirties, and most households (10/14) had shopped for groceries online regularly for three years or more, and nine shopped at least weekly. All households used one of the two dominant grocery retailers in Finland (the S- and K-chains).

The interviews took place in Zoom™ or Microsoft Teams™, with one adult from each household, and they lasted 36-73 minutes. The interviews were semi-structured with open-ended questions, conducted with the help of an interview guide, which was developed utilizing the work by Ong (2006) for guidance. As recounting a specific incident can generate a more reliable description of the activity (Schwarz and Oyserman, 2001), the participant was asked about the last time they shopped for groceries online, and by probing them on their reasoning around their shopping to elicit rich data (Magaldi and Berler, 2020).

The interviews were recorded, transcribed and analyzed using MaxQDA™ (software for qualitative data analysis) with the aim of identifying reasons for and conditions that explain and sustain OGS routines. A thematic analysis using template analysis technique, a commonly used approach for analyzing individual interviews (King, 2012, p. 426), was conducted. It allows the use of a priori coding (see e.g. Elliott, 2018) with pre-defined themes/codes to be applied to a subset of data and flexibly modify and revisit the codes when analyzing the full data (King, 2012, pp. 426-433). Ong's model (2006, Figure 1) was used as an organizing framework but flexibly, allowing for additional themes to arise.

4. Results

The themes arising from the data aligned well with those identified in Ong's model and are presented in accordance with it. No additional themes were detected.

Goal-centeredness of OGS

In this study the focal goal was described as shopping for groceries online for the needed period of time. It ranged from 3-4 days to two weeks, with shopping frequency ranging from twice a week to twice a month. Nearly half of the households (6/14) shopped for groceries for a one-week period.

The superordinate goals, the values guiding the focal goal, were similar across the respondents: save time, add convenience, and reduce stress. Most households felt that OGS was more efficient than in-store shopping, and it freed up precious time for other, more important activities, such as spending time with the family or for personal time, such as exercising.

> *"I don't understand how you could ever have time to do this in another way. It does save a lot of time"(-R2)*
> *"…it has made it possible for me, for example, to go and exercise during the time I would otherwise have gone to the shop"(-R12)*

Convenience, or minimizing inconvenience, was another main reason for OGS, which was perceived as easy, and the benefit of getting the groceries collected and either delivered home or picked up, was valued by the households.

> *"Because it's convenient and simple. And we get all the weekly products we need and use every week, [they] are already copied to the next shopping list. So you don't need to put effort into thinking about it."(-R1)*

> *"…when the amount of food has just increased and increased, and carrying all the milk, yoghurt and everything else has been really exhausting. It's just easier in every way to order."(-R10)*

The third motivation was stress reduction resulting from better (advance) meal planning that led to fewer impromptu meal plans and last-minute shopping in-store. Some households had strong routines for meal planning, which reduced their stress as they knew they had what they needed. Not having to do "big grocery shopping trips" was another way to reduce stress.

> *"…our everyday stress is much less"…"we do the food planning in that other app, which means that we always know what [food] is available and what we have decided"…"so no one has to be [ad hoc when we get home from work] like 'what are we going to eat now, we have to go to the store"(-R7)*

> *"it [grocery shopping] is a stress factor, but for me it's a big relief that I don't have to go to the store, at least not to any big market to do any big weekly shopping"(-R13)*

Situational context

The situational context of everyday life in households with children follows a hectic, but relatively stable rhythm of work, school or day care, and hobbies, which generates support for a stable OGS routine.

> *"This (OGS) works well. At least for the time being, when you're in the midst of this hectic life with children"... "It's suits this stage of life well."(-R10)*

The weekly food needs and time schedules were central to the OGS routines of the households. The planning phase consisted of anticipating and preparing for the needs for the upcoming week, starting with a close look at the weekly schedule, plans to eat out, hobby activities, etc. Both expected and unexpected changes in everyday life affected the shopping needs albeit not usually the routine. Vacations, in turn, altered the situation so thoroughly that it often disrupted the routine as both the schedules and needs changed, and more ad hoc decisions were taken on the fly. Some households contrasted everyday life with being on holiday, which demonstrates the importance of stable conditions for routine maintenance.

> *"There is a rhythm when we are at home and kind of settled… In the summer we do not shop so much online when we are more at the cottage or travelling. But it's then when we're back to the routine of the daycare and everything so then it usually goes hand in hand with online shopping."(-R11)*

Anticipated temporal conditions

Most households (12/14) in the sample followed a relatively regular order cycle for their OGS routines even if the order, or the delivery or pick-up, did not always fall on the same weekday. Most families (9/14) had a typical day for the delivery.

> *"Normally we order about every 10 days so that an order lasts then like 1.5 weeks."(-R6)*

Some households did their OGS at the last minute (the abundance of delivery times enabled this). Some households booked a time slot well in advance to secure a certain time, whereas others booked it while ordering for the next day. The availability of delivery/pick-up times thus supported the temporal structure of many different OGS routines. Also, the possibility to edit and complete the order over several days, or redo the order entirely if plans changed, added important flexibility to the shopper.

> *"The night before pick-up, I check is there still something we need… or is there something I think we don't need anyway? I go through it (order) again as I can still edit it..."(-R7)*

> *"The nice thing is that we can both open the link [order link] and add [items] when we notice that, oh this [ingredient is missing]. It's great that you can constantly replenish [the order]. And especially when you have children, you don't always have the chance to do everything right away and you will be interrupted."(-R11)*

Usually, the item picking took place in the evening. Getting small children to bed was important for many to have the peace and quiet to focus on the order, and for those with older children and hobby activities, shopping in the evening was also convenient. The online store being open around the clock enables this with the added benefit of not having to leave the house/children.

Repetitive value of OGS

Familiarity or expertise of OGS supported the routine of all households. Initially it took some effort to order online, but they learned fast and it then evolved into a routine. Using the same grocery retailer and getting used to its online store helped. Selecting familiar products or using the same recipes for cooking meals from week to week, knowing that they work well for the household, was also perceived as efficient.

> *"It's (OGS) actually really fast as we have routine products we use, and the platform is familiar."(-R13)*

Reduced cognitive demands translated into convenience, a further benefit supporting routine repetition. OGS made the households more inclined to plan their shopping, meaning that they only had to think about groceries perhaps once a week, instead of visiting the store several times. This upfront effort reduced cognitive demands during the week, and the flexibility to edit the order over a longer time did the same.

> *"Not having to wonder every day, do we have ingredients at all and what do we have the ingredients for… Yes, it has made it a lot easier."(-R10)*

The OGS routine was also supported by considerations sets, in this case shopping lists, meal lists, and recipe lists, used frequently by these households to facilitate shopping. They included

handwritten lists (e.g. post-its) or different digital applications. Some shopping lists were in the OGS application in the form of previous order, or in marked favorites, that could be used for the new order.

> *"I usually copy the previous order, because then I automatically get basic items we want."(-R7)*

Meal plans were mostly listed in separate applications whereas some listed them on paper. Some households used recipe lists to choose meals from and pick items to basket. List use reduced cognitive effort and the search function highlighting frequently bought items helped find the familiar products fast. As a downside, many felt that a physical grocery store gave more impulses to try new products which they sometimes missed.

OGS helped some households optimize the amount of groceries, and avoid food waste, a source of satisfaction that supports the routine. Similarly, for some OGS meant better control of the household's finances, a further source of satisfaction. Being satisfied with the services strengthened loyalty to OGS but also to the retailer. Most households used the same grocery chain all the time, also because of the loyalty programs generating financial benefits.

> *"This (the grocery retailer) has worked well for us… we have partly stayed because of the loyalty program, so it has been perhaps a bit of an easy choice. And since we have used it so many years now…, of course the threshold to move somewhere else is quite high."(-R3)*

5. Discussion

The analysis suggests that routinized OGS serves a value-based goal for young households, of a more manageable and satisfying everyday life, where family time and convenience are prioritized over grocery shopping. The findings align with prior studies suggesting that time saving (Frank and Peschel, 2020) and convenience (Anshu *et al.*, 2022; Stenius and Eriksson, 2023) are associated with OGS. In this study the respondents explicitly pointed out stress reduction as an important aspect of OGS, in line with Blitstein *et al.* (2020), and that time saving means more time for the family, aligning with Berg and Henriksson (2020).

Having children was a central motive and situational context for OGS, similarly to the study of situational factors by Hand *et al.* (2009). More specifically, the study showed that the life of a household with children is structured by work, day-care or school, hobbies, and regular mealtimes, which creates a relatively stable situational context that both explains and sustains the OGS routine. A long vacation could put the routine at risk by altering the situational context completely.

Meal planning was perceived as an upfront effort that reduced ongoing stress and cognitive effort during the busy week. Planning reflected the weekly schedule of a household, and was often followed by, or performed jointly, with picking items to basket. The flexibility embedded in OGS enabling integration of planning and shopping in many different ways, together with helpful features (shopping lists, marked favorite items, suggestions), and independence from opening hours, form a situational context that facilitates routinized OGS, in line with an earlier qualitative study into routinized OGS (Stenius and Eriksson, 2023). The regular temporal cycles of shopping, typical of households with children, further support routinized OGS. The importance of delivery time availability aligns with prior research (Anshu *et al.*, 2022).

Routines also generate value; they are an economic means of completing a task and therefore they themselves help perpetuate the activity. Learning to shop online happened quickly, in line with Anesbury *et al.* (2016), and the subsequent familiarity with the online-store fostered a sense of ease and control, an important predictor of OGS among regular shoppers (Eriksson and Stenius, 2024). Flexibility embedded in online shopping and ready lists further speed up shopping.

Flexibility, familiarity, expertise, convenience, ready lists, and payment details help sustain the shopping routine. They, however, also seem to strengthen the commitment to a specific retailer, as does satisfaction with the service quality and the incremental benefits of OGS (better finances; minimizing food waste). Satisfaction fuelled loyalty to OGS overall.

6. Conclusions

The study suggests that OGS is an opportunity for time-constrained households with children to reduce stress, increase family and personal time, and create a more satisfying everyday life. How this group is served online can have long-term implications for retailers, as young families are only establishing their shopping routines and loyalties. Furthermore, the digital environment offers various ways for retailers to develop their services to better support the OGS routines of young households, such as integrated meal planning features, proactive assistance and idea generation. It also enables retailers to detect routine disruption and react to it. Appendix 2. summarizes the conditions that explain and sustain OGS routines, and offers more ideas for retailers on how to support them.

Unlike most prior studies, this study conceptualized OGS as a routinized activity embedded in other household activities. Thus, we contribute to theory development by promoting a conceptualization of OGS that goes beyond shopping, and considers its routinized nature and embedded role in a household. We also established that Ong's model offered a reasonable way to organize our findings.

References

Anesbury, Z., Nenycz-Thiel, M., Dawes, J., and Kennedy, R. (2016), "How do shoppers behave online? An observational study of online grocery shopping", *Journal of Consumer Behaviour,* Vol. 15 No. 3, pp. 261-270. https://doi.org/10.1002/cb.1566

Anshu, K., Gaur, L., and Singh, G. (2022), "Impact of customer experience on attitude and repurchase intention in online grocery retailing: A moderation mechanism of value Co-creation", *Journal of Retailing and Consumer Services*, Vol. 64, 102798. https://doi.org/10.1016/j.jretconser.2021.102798

Berg, J., and Henriksson, M. (2020), "In search of the 'good life': Understanding online grocery shopping and everyday mobility as social practices", *Journal of Transport Geography*, Vol. 83, pp. 102633. https://doi.org/10.1016/j.jtrangeo.2020.102633

Blitstein, J. L., Frentz, F., and Jilcott Pitts, S. B. (2020), "A mixed-method examination of reported benefits of online grocery shopping in the United States and Germany: is health a factor?", *Journal of Food Products Marketing*, Vol. 26 No. 3, pp. 212-224. https://doi.org/10.1080/10454446.2020.1754313

Brand, C., Schwanen, T., and Anable, J. (2020), "Online Omnivores' or 'Willing but struggling'? Identifying online grocery shopping behavior segments using attitude theory", *Journal of*

Retailing and Consumer Services, Vol. 57, 102195. https://doi.org/10.1016/j.jretconser.2020.102195

Braun, S., and Osman, D. (2024), "Online grocery shopping adoption versus non-adoption among the over-50s in Germany", *Electronic Commerce Research*, pp. 1-38. https://doi.org/10.1007/s10660-024-09840-7

Brotherton, T. P. (2001). *The concept of routinization and its effects on marketing variables*. The University of Alabama.

Carver, C. S., and Scheier, M. F. (2004), "Self-regulation of action and affect", *Handbook of self-regulation: Research, theory, and applications*, Vol. 2, pp. 3-21.

Clark, F. A. (2000), "The concepts of habit and routine: A preliminary theoretical synthesis", *The Occupational Therapy Journal of Research*, Vol. 20(1_suppl), pp. 123S-137S. https://doi.org/10.1177/15394492000200S114

Deci, E. L., and Ryan, R. M. (2000), "The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior", *Psychological inquiry*, Vol. 11 No. 4, pp. 227-268. https://doi.org/10.1207/S15327965PLI1104_01

De Kervenoael, R., Hallsworth, A., and Elms, J. (2014), "Household pre-purchase practices and online grocery shopping", *Journal of Consumer Behaviour*, Vol. 13 No. 5, pp. 364-372. https://doi.org/10.1002/cb.1484

Dyen, M., Sirieix, L., Costa, S., Depezay, L., and Castagna, E. (2018), "Exploring the dynamics of food routines: a practice-based study to understand households' daily life", *European Journal of Marketing*, Vol. 52 No. 12, pp. 2544-2556. https://doi.org/10.1108/EJM-10-2017-0775

Elliott, V. (2018), "Thinking about the coding process in qualitative data analysis", *Qualitative report*, Vol. 23 No. 11, pp. 2850–2861.

Eriksson, N., and Stenius, M. (2022), "Online grocery shoppers due to the Covid-19 pandemic-An analysis of demographic and household characteristics", *Procedia Computer Science*, Vol. 196, pp. 93-100. https://doi.org/10.1016/j.procs.2021.11.077

Eriksson, N., and Stenius, M. (2024), "What explains routinized online grocery shopping? A study of experienced shoppers", *Proceedings of the European Marketing Academy*, 52nd, (118329).

Eurofound (2024). *Becoming adults: Young people in a post-pandemic world*, Publications Office of the European Union, Luxembourg.

Frank, D. A., and Peschel, A. O. (2020), "Sweetening the deal: The ingredients that drive consumer adoption of online grocery shopping", *Journal of Food Products Marketing*, Vol. 26 No. 8, pp. 535-544. https://doi.org/10.1080/10454446.2020.1829523

Fuentes, C., Samsioe, E., and Östrup Backe, J. (2022). Online food shopping reinvented: developing digitally enabled coping strategies in times of crisis. *The International Review of Retail, Distribution and Consumer Research*, *32*(2), 130-150. https://doi.org/10.1080/09593969.2022.2047758

Gardner, B., and Rebar, A. L. (2019), "Habit formation and behavior change", in *Oxford research encyclopedia of psychology*. https://doi.org/10.1093/acrefore/9780190236557.013.129

Gollwitzer, P., and Moskowitz, G. B. (1996), "Goal effects on action and cognition", in E. T. Higgins, & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles,* pp. 361-399, Guilford Press.

Granheim, S. I., Løvhaug, A. L., Terragni, L., Torheim, L. E., and Thurston, M. (2022), "Mapping the digital food environment: a systematic scoping review", *Obesity Reviews*, Vol. 23, No. 1, pp. e13356. https://doi.org/10.1111/obr.13356

Hand, C., Dall'Olmo Riley, F., Harris, P., Singh, J., and Rettie, R. (2009), "Online grocery shopping: the influence of situational factors", *European journal of Marketing*, Vol. 43 No. 9/10, pp. 1205-1219. https://doi.org/10.1108/03090560910976447

Hansson, L., Holmberg, U., and Post, A. (2022). Reorganising grocery shopping practices–the case of elderly consumers. *The International Review of Retail, Distribution and Consumer Research*, *32*(4), 351-369. https://doi.org/10.1080/09593969.2022.2085137

Hauser, J. R. (2014), "Consideration-set heuristics. *Journal of Business Research*", Vol. 67 No. 8, pp. 1688-1699. https://doi.org/10.1016/j.jbusres.2014.02.015

King, N. (2004), "21 Using templates in the thematic analysis of text, 256-270", in Cassell, C., & Symon, G. (Ed.s), *Essential guide to qualitative methods in organizational research*, Sage.

Kumar, S., Sarkar, S., and Chahar, B. (2023), "A systematic review of work-life integration and role of flexible work arrangements", *International Journal of Organizational Analysis*, Vol. 31 No. 3, pp. 710-736. https://doi.org/10.1108/IJOA-07-2021-2855

Lally, P., Van Jaarsveld, C. H., Potts, H. W., and Wardle, J. (2010), "How are habits formed: Modelling habit formation in the real world", *European journal of social psychology*, Vol. 40 No. 6, pp. 998-1009. https://doi.org/10.1002/ejsp.674

Locke, E. A., and Latham, G. P. (1990), *A theory of goal setting & task performance*, Prentice-Hall, Inc.

Magaldi, D., and Berler, M. (2020), "Semi-structured interviews", *Encyclopedia of personality and individual differences*, pp. 4825-4830.

McKinsey (2023), "The State of Grocery Europe: Living with and responding to uncertainty", McKinsey & Company.

Ong, A. (2006), *The impact of disruptions on routinization of goal-directed grocery shopping behavior*, Doctoral dissertation, RMIT University.

Pieters, R., Baumgartner, H., and Allen, D. (1995), "A means-end chain approach to consumer goal structures", *International journal of research in marketing*, Vol. 12 No. 3, pp. 227-244. https://doi.org/10.1016/0167-8116(95)00023-U

Schwarz, N., and Oyserman, D. (2001), "Asking questions about behavior: Cognition, communication, and questionnaire construction", *The American Journal of Evaluation*, Vol. 22 No. 2, pp. 127-160. https://doi.org/10.1016/S1098-2140(01)00133-3

Southerton, D. (2006), "Analysing the temporal organization of daily life: Social constraints, practices and their allocation", *Sociology*, Vol. 40 No. 3, pp. 435-454. https://doi.org/10.1177/0038038506063668

Stenius, M., and Eriksson, N. (2023), "What beliefs underlie decisions to buy groceries online?", *International Journal of Consumer Studies*, Vol. 47 No. 3, pp. 922-935. https://doi.org/10.1111/ijcs.12874

Stenius, M., and Eriksson, N. (2024), "What can we learn from non-adopters of online grocery shopping? Insights from Finland", *The International Review of Retail, Distribution and Consumer Research*, pp. 1–20. https://doi.org/10.1080/09593969.2024.2437663

Appendix 1. Prior studies into routinized OGS

Study	**Approach**	**Service**	**Sample**	**Main findings**
Berg and Henriksson (2020)	Practice theory	OGS	*n*=19 Sweden	The goal: a good life; requires resources/competences
De Kervenoael *et al.* (2014)	Practice theory	OGS	*n*=31 Turkey	Shopping/planning requires coordination in a household
Dyen *et al.* (2018)	Practice theory	OGS	*n*=23 France	Meal related routines embedded in other household practices
Fuentes *et al.* (2022)	Practice theory	OGS	*n*=31 Sweden	OGS as a way to cope with the pandemic
Eriksson and Stenius (2024)	TPB	OGS	*n*=412	Combining meal planning & shopping and a sense of control predict routinized OGS
Hansson *et al*. (2022)	Practice theory	OGS	*n*=38 Sweden	Elderly remained independent with the help of OGS
Stenius and Eriksson (2023)	TPB	OGS	*n*=14 Finland	Assistance for meal planning liked by regular OG shoppers

Appendix 2. Conditions explaining OGS routinization and suggestions for retailers

Conditions explaining OGS routinization	**Ideas for retailers:**
Goal-centeredness	
Goal: Easier everyday life, room for other more important priorities than grocery shopping	Keep the service easy, supportive of the household needs, and glitchfree
Situational conditions	
Having children is the main motive and situational context for OGS	Offer products/services relevant for households with children, also outside the food context; consider the school year needs; develop communities
OGS is fitted into overall activity plans and time schedules of the household, typically on a weekly basis	Offer planning tools that integrate meal planning to weekly schedules; suggest full daily or weekly plans, incl. add-items-to-basket features
List use is an important element of OGS, and ease to edit, is part of this	Offer flexible use of lists, assist with list creation, analyse lists and generate suggestions to them
OGS encourages repeat purchases	Suggest changes to regular purchases; Collaborate with mealbox/other services for variety
Stable schedules sustain routines, but changes in situational context pose a risk for OGS routines	When signs of routine disruption emerge, be proactive (nudge, remind, offer discounts) Be extra vigilant during risky times, e.g. vacations
Anticipated temporal conditions	
Delivery time availability is critical for households with children Mere amount of groceries makes in-store shopping painful for these households	Ensure delivery time sufficiency to ensure loyalty Offer free delivery for large households, or those with small children (e.g. < 5 years)
Shoppers have regular shopping cycles	Detect the cycle and tailor marketing to support it
Shoppers plan for a longer period	Offer planning tools, ready lists, assistance, ideas
Shopping takes place in the evening	Prompt, nudge, remind, assist in the evening
Repetitive value	
Expertise and familiarity with the interface and offering encourage repetition	Invest in usability; keep changes to minimum. Ensure flawless search engine function.
Ready lists create repetitive value but meal lists are in a separate app	Offer flexible use of lists, assist with list creation; integrate meal lists and shopping lists online
Satisfaction with retailer encourages repetition	Ensure some personal service encounters; manage any service glitches with utmost care