

**E-grocery pre-purchase trajectories:
In between technological and social practices**

Ronan de Kervenoael*
Sabanci University School of Management, and Aston University
Orhanli, Tuzla, 34956
Istanbul, Turkey
Email: dekervenoael@sabanciuniv.edu

Alan Hallsworth
Portsmouth Business School
University of Portsmouth
Richmond Building, Portland Street
Portsmouth, P01 3DE
Email: alan.hallsworth@port.ac.uk

&

Jonathan Elms
Institute for Retail Studies
Stirling Management School
Stirling University
Stirling, FK9 4LA
Email: j.r.elms@stir.ac.uk

*** Corresponding author**

Author biographies

Ronan de Kervenoael is a Lecturer in Marketing at Sabanci University and network Lecturer at Aston University. His wider research interests lie under the umbrella of consumer behaviour and retailing, including the study of social, cultural, and technological transformations in how consumers (re)organise their lives and become producers of their experiences.

Alan Hallsworth was formerly a Professor in the Department of Retailing and Marketing at Manchester Metropolitan University and is currently visiting researcher at Portsmouth Business School. His interests in retail range widely: from EU competition policy to local food.

Jonathan Elms is a Senior Lecturer based in the Institute for Retail Studies, University of Stirling. His research interests encompass retailing and consumer behaviour. More specifically, this includes retail change (particularly in relation to consumer choice and public policy debates), everyday consumption practices, and shopping spaces and places.

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Abstract

Understanding intra-household pre-purchase activities is crucial for e-retailers as Information and Communication Technologies (ICTs) have become embedded within modern lifestyles and affect household decision-making processes: influencing e-grocery choice. From social practice theory, we analyse the potential of consumer's preparatory (i.e., front-loading) activities to influence, [restrict or facilitate] the e-grocery experience. The multi-level technological aspect of preparatory activities, information sharing, and decision making are unpacked through two waves of 31 Skype interviews with active e-grocery consumers. We then suggest how intra-household communication flows in pre-purchase practices are re-defined and re-established, and how, in the context of intra-household decision making, the cumulative effect of activities between household members will stimulate changes at field level. These in turn provide an alternative perspective on the emerging diffused communication conventions that impact grocery choices and retailers' long term strategy.

Key words: e-grocery choice, intra-household pre-purchase practices, ICT.

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Introduction

ICTs have transported retail space into the home (Peterson et al. 1997). As the foundation for ‘productions’ by post-industrial societies, ICT enables progress from the information age to a (socially-related) knowledge-based society (Castells, 2001). E-shopping can reformulate household activities - influencing role enactments and re-negotiation of responsibilities (Kraut et al. 2000). Most e-grocery research has to date focused on the roles played by purposeful actors such as key large retailers, supply chain management, lobby groups, and government planners as stakeholders that spearhead change at the field level (Elms, et al, 2010; Dacin et al, 2002). Yet, with the advances in ICT, and especially mobile technologies, the cumulative effect of everyday household behaviours can trigger change at industry level (Ansari and Phillips, 2011). Referred to as change generated via ‘partaking’ activities, a tipping point is reached when previously uncoordinated behaviours attain critical mass (Dorado, 2005).

This paper, through an exemplar in emerging market conditions (where the largest growth potential exists for e-retailers and where technology leapfrogs traditional cycles), attempts to understand how households establish e-grocery pre-purchase practices around emerging behaviours, mediated by ICT, and thereby pressure for change at industry level. In other words, to what extent do front-loading diffused communication convention practices impact (a) on the ultimate choice of household groceries, and (b) industry strategy, when mediated by new ICT conventions?

We conceptualize front-loading as physical, relational, and cognitive (defining and framing perceptions) forms of behaviour balance crafting. This behaviour allows the co-existence of different (sometimes contradictory) approaches to preparation. In the context of e-grocery shopping, individuals must foresee intra-household tensions, bottlenecks and extend the usual time horizons of meal planning to create an appropriately-sized shopping basket. Understanding these emerging dynamics is valuable as they require substantial resources (skill, time, effort, ICT access), are subject to marketer strategies (market orientation), socio-cultural uncertainties, and are situated in a global, multi-channel, competitive commercial environment (Jackson et al, 2006). The complexity and range in today’s supermarket offerings - both food and non-food goods - make it impracticable for individuals to (a) remember the household’s entire set of products and brands: especially where (re-) purchase is required on a regular basis and (b) respond to the household’s continually-evolving demands and expectations. Furthermore, gathering and processing the amount of pre-purchase information (i.e. retailer name / type, location, brand, amount in kg/litre, reviews, comments, etc.) remains daunting. Yet, the reason for adopting, and more importantly fully engaging with, any new technology, is the promise that the latter will solve problems in coping with modern lifestyles and even the intra-household decision problems that are likely to emerge. Nonetheless, individual preferences affect the interpretation of the value of front-loading and individual reactions to that value in practice. While innovation adoption research has investigated many different variables related to adopter characteristics including socio-demographics, education, income, and psychographics -- including innovativeness, opinion leadership, social identity, media proneness, and involvement (Timmor and Katz-Navon, 2008; Arts et al., 2011), our research expands this landscape by observing effects: (a) at household level (multi-individuals needs/ compromises), (b) in the dynamic market of FMCG that requires both regular re-purchase of staple goods and demand for novel goods that

respond to social trends and fashion characteristics, and (c) mediated by the impact of new communication technologies. These three have yet to be combined in previous research.

Our main contribution to the literature is two fold: (a) on the *domestication of e-grocery shopping* and its affect on the dynamics of intra-household decision making, information sharing and responsibilities of tasks *before the actual act of e-shopping* and (b) on the exploration of the role of consumers in catalyzing change at the field level.

This paper is organised as follows. In the next section, we provide a literature review on contemporary intra-household roles and decision making and propose a wider conceptualisation of the ICT impact on roles within and outside the household regarding the grocery purchases. The third section introduces the concept of front-loading and its application in the relationship between the role of ICT and [succeeding or failing] intra-household coping mechanisms. In the fourth section, we describe the methodology. This is followed by a discussion of the emerging salient themes which are mapped through the empirical analysis of the data, provided in the sixth section. In the last section, we offer our concluding remarks.

Re-conceptualising modern intra-households’ ‘operational environment’

The conceptual framework of the paper draws upon social practice theory research, retailing and consumer behaviour respectively in order to develop a conceptual framework for understanding e-grocery pre-purchase practices at household level within the well researched area of intra-household dynamics and relationship formation included in the complex domestic consumption cycle (Giddens 1992; Seltzer 2000). How consumers attach meanings to mundane tasks influences the development of new organisational schematics (Miller, 1998). Many accounts of change at the household level privilege the re-framing of norms, routines and the understanding of choice/anti-choice in consumption practices (deKervenoael et al, 2013; Jackson et al, 2006). Certainly, traditional notions of unified and stable households and preferences no longer hold true (Lundberg and Pollak 1993). Different members either choose *or are forced to undertake* different roles for the aggregate “welfare” of the household. We regard "household" and "family" as closely related terms. “A household includes all the people who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements.”¹ Three main aspects are of particular importance. Firstly, the resources available to the household (time, energy, finances, access to retailers and technologies) require evaluation. Secondly, the allocation rules for distributing and consuming these resources and the compensation, value – even status/prestige – that they provide to a particular individual needs unpacking. From this perspective, value *in use* as opposed to value *offered by retailers* is the relevant element (Vargo and Lusch, 2004; Vargo et al, 2006). The notion of a ‘gatekeeper’ ‘active manager’ or ‘social influencer’ is particularly relevant here. Thirdly, the consequences of choice or non-choice of the products purchased should be scrutinized. Contradictions in personal shopping habits will be compounded by different levels of technological competence. We regard task allocation procedures and bargaining frameworks of households as neither set in stone nor linear but following household life cycle stages (Wilkes, 1995; Jackson et al, 2006). This dynamic situation also makes some households more responsive than others to the challenges and opportunities offered by ICT changes (Elms and Tinson, 2012). Households should be considered from both social and spatial perspectives since members have a unique set of experiences. More research is needed on aggregate household demand from social science

¹ <http://www.umanitoba.ca/anthropology/tutor/residence/defining.html>

perspectives as well as from conventional micro-economic utility-maximising modelling (Dauphin 2001).

Disruption to traditional family stereotypes implies greater sharing-out of household chores by all family members. Although such trends recall the capability approach used by economists, it can be insensitive to adjustment concerns within the household (Iversen 2003). Practice involves (a) practitioners (people actually using / experiencing / creating), (b) practices as defined by Jarzabkowski et al. (2007) as ‘*the social, symbolic and material tools through which [...] work is done*’ and (c) praxis that embraces the flow, intensity and timing of activities. This is a contested realm – not one that exists naturally or is fostered by all stakeholders (Chiappori 1992). Strategies can aim at, say, time-saving; however, available local alternatives may bias outcomes. The idea of consumption inequality thus becomes relevant - resulting in varying consumption or role allocations encompassing personal convenience, duties, and expectations (Agarwal 1997).

Such strategies have changed the economic and social organization of the household in terms of power, gender relations and positions (Kremmer et al. 1998). Linked to this argument, the notion of intra-household social cohesion and the extent of interactions between individuals remain central. Consensus may be desirable, but many key decisions will likely be taken by a ‘benevolent dictator’ forcing individual role changes to ensure food supply (Narayan 2002). Note that despite virtual accessibility of the Internet, most grocery consumption and preparation still occurs within the household.

Practices, constraint and implications: towards a real engagement with retail service provision: the cognitive environment

Of late there has been an increasing realisation that evolving geographies of corporate retail provision have critical implications for the choices and life experiences of consumers (Clarke et al, 2006; Elms, et al 2010). In a consumption-based society, even grocery shopping signifies lifestyle, prosperity and taste (Kapferer and Bastien, 2009). However, for staple groceries, little is known about the practices whereby a household: a) aggregates the total information required, b) evaluates the importance of novelty and choice and c) divides food gathering across multiple channels (Marshall and Anderson 2000). Each household member may have a mental list of what to buy and where best to obtain it but little is known about how ICT mediates knowledge sharing and facilitates pre-planning (Bouwman, and. Van Der Duin, 2007). Yet every individual must evaluate a new channel against pre-existing options and mundane routines (Clarke et al. 2006; Jackson et al. 2006). Unsurprisingly, households seem to ‘muddle through’ the pre-purchase process.

Innovative technologies (e.g. Apps for menu planning and calorie-counting) can reinforce gender divisions because of the “gendered social systems” inherent in technology creation (Shade, 2008; Brown and Venkatesh, 2005). While adoption of technology has been researched, less is known about technology use within households (Shih and Venkatesh, 2004; Silverstone, and Hirsch, 1992). It is perceived as a mediator between the domestic cycle and dynamic relations that constitute household power (Bakardjieva and Smith 2001; Cockburn 1992; Ghertner 2006). Today, technological artefacts such as Smartphones, tablets and net-tops, owned by individual family members, re-define domestic technology usage: (a) all members are accessible at any point in time, (b) immediate feedback regardless of geographical location, (c) novelty/promotions are a click away, and (d) coordinating individual timing and social activities. Technological artefacts help represent intra household knowledge differences (preferences) and dependencies (consequences) between individuals without face to face discussion. They also provide a platform for shared practices and experiences (keeping records of previous purchases) (Schilling, 2010, Ling, 2008).

Embedding the analogy of front-loading process into the shopping practices

Front-loading improves pre-purchase performance by shifting problem-solving to earlier phases in the shopping process. Front-loading activities are ‘scripted behaviours’ (Erasmus et al., 2002) encouraging simplification of complex tasks (Arnould et al, 2002). They are both iterative and interactive; i.e. retailers and consumers alike engage in a ‘win-win game’ by improving the overall attraction of the e-grocery experience. Such activities surpass the simple ‘list’ or organization of coupons often cited in the literature (Putrevu and Ratchford, 1997). With front-loading problem-solving, all members can identify and solve problems. Front-loading reduces substandard experiences and cycle times, eliminates bottlenecks in the buying process, increases system loyalty as well as convenience (Thomke and Fujimoto 1998).

Front-loading also reduces possible public embarrassment and private anxieties. Although its first step involves knowing yourself as a consumer, research on introspection is rare (Miller, 1998). Since years of shopping in the same locations eradicate the sensations of a new shopper (Gudykunst, 1993), step two requires one to be surprised by the familiar. Frenetic shopping for staple goods leaves little time for structured critical conversations among household members. Because new product purchases may be interpreted by others as making a mistake, step three involves collaborative problem solving. Common household shopping problems often distil to one or two issues with a particular retailer. Accordingly, these issues can be shared and solutions then be put into practice by all (Brookfield 1995).

In front-loading activities, preparation (meal planning calendars, easy recipes) precedes solutions yet few consumers use existing ICT mediated aids (Doherty and Miller 2000). The perception of groceries as commodities explains the difficulty of generating extrinsic motivation. Extrinsically motivated individuals work on a task because of anticipated satisfaction from a planned delivery. This motivation type implies a relationship between retailer and consumer where both are ready to participate (Biggs 2003). Indeed, few retailers have specific online marketing strategies “where a consequence is presented dependent on a behaviour leading to the behaviour to become more likely to occur. The behaviour becoming more likely to occur because and only because of the consequence².”

Nevertheless a sense of achievement matters in iterative processes such as e-grocery. Achievement motivated people usually want feedback, set high but achievable objectives, are concerned for personal achievement rather than a reward of success and desire task-related feedback. Lastly, we consider intrinsic motivation-- the pleasures offered by the task itself or completing or even working on a task. Why then front-load in the FMCG and grocery market in particular? Front-loading activities, as a broader set of practices may allow: (a) a greater systematization process; (b) opportunity to stock-up on good deals, (c) greater sensitivity to new retail opportunities leading to better retail experiences, (d) greater awareness of healthy choices, and (e) a feeling of progression via shared knowledge and tips to a wider often online community as a proactive behaviour, thus regaining influence over retailers (Art and Garland, 2004; Arnould et al, 2002).

Research methodology

This exploratory research uses a series of semi-structured open ended questions, via Skype interviews in a multi-wave strategy over a 12 month period. Postings and announcements on e-shopping web forums recruited 31 individuals (see Table 1) who agreed to answer our two sets of questions (pre-purchase activities and intra-household organisation); their responses facilitated the emergence of data-driven theory (Yin, 1994). Questions related to: (1) grocery shopping in general, (2) reasons for adopting online grocery shopping, (3) pre-purchase

² <http://psych.athabascau.ca/html/prtut/reinpair.htm>

organization activities and (4) intra-household organisation. Intra-household themes included: personal responsibilities, group decision routine practices, choice negotiation criteria and external mediating factors (especially ICT). Interviews lasted between 25 to 45 minutes. Information was sought on all actions - positive or negative - taken by respondents to engage with front-loading. By situating grocery front-loading activities in the everyday life of real households, we strove to make sense of a very complex activity. A laddering method was used by the interviewer: probing for differences with and without front-loading activities and tapping into the respondents' networks of meaning to uncover deeper thinking around the themes. We followed Jones' (2000) work with framework analysis (Jones 2000), and the same key stages (Ritchie and Spencer 1994) were applied in this study. Reading the interview transcripts familiarised us with the data. Key issues were identified and compared with existing literature to construct a final thematic framework. An indexing process was then initiated in which the thematic framework was systematically applied to the data which were classified (interview wave, themes grocery pre-purchase, themes intra-households, type of respondents). A picture of the data emerged, followed by mapping and interpretation. The final decoding of the main research themes followed the methodology of grounded theory (Strauss and Corbin 1990). Using the general categories and subcategories assigned to the data, we made the best possible connections to interpret the data as a whole and visualized organically-emerging 'constellations'. Re-reading the data and re-working categories was a process of agreement among the authors and addressed trustworthiness in our data (Goodwin and Goodwin 1984; Silverman 1993).

Following institutional ethical guidelines, ID numbers were used to protect respondent confidentiality. As the study concerns usage rather than adoption or engagement with the technology, the macro-socioeconomic environment of Turkey is not deemed to have any impact or bias. All respondents were from large metropolitan areas (Istanbul, Ankara), where e-grocery shopping has been available since 1997 from international e-grocers Carrefour and Migros. E-consumer characteristics are deemed fairly similar to any mature market (i.e., access to personal computer, Smartphone, Tablets and broadband). The only differences arise from: (a) the considerable presence of offline small independent grocery retailers increasing local competitive pressures, (b) the presence of many formats (markets, street vendors, independent store, self service machine etc), (c) home delivery option offered by many independent around their location stores and (d) extended hours everyday of the week, e.g. 10pm (PWC, 2012). As of 2011, Turkey's GDP per capita was about twice that of China and its growth rate in 2011 was second to China (Deloitte, 2010). According to Planet Retail, the turnover of the retail sector in Turkey in 2010 was \$199 billion. Alongside these trends, since 2000, a tremendous growth in Internet usage (a recorded 700 percent growth experienced between 2000 and 2007) and a rapid increase in online shopping activity have occurred. According to The Interbank Card Center, total online transactions were \$1.2 billion in 2008 and expected at more than \$2 billion by close of 2010. Of the 35 million consumers using the Internet half do so for shopping (Aydemir, 2010).

Insert Table 1. Respondent demography and background about here

Findings

Data analysis allowed for the thematic recognition of both subtle and not-so-subtle forms of front-loading activities mediated via ICT.

Processing threshold 1: functional front-loading

Basic front-loading activities were described as indispensable tools in respect of price-quality, mix of brands and product variety. Included were expectations of a clear and simple process

that minimized risk and fulfilled basic household needs. Primarily, limits were set on the type of products (standards) and level of financial risk (low cost) in respondents' minds (offline prices are considered). A high level of re-purchase using historical lists is the simplest strategy beyond relying on memory. Non-standard product needs are expected to be evaluated and acquired (at least in the first instance) via other channels by the individual concerned rather than delegating the task to others.

"it allows us to buy all the necessities..."(2); "known products... be able to compare them in price and brands" (7); 'Planning even mentally the list of what we need allows me to limit what I will forget and keep all of us reasonably happy (11).

Even experienced users see everyday ICT troubles as impediments to concentrating on more hedonistic aspects of the e-shopping experience. The unique advantages of the e-channel and intra-household ICT communication are not clearly identified in most respondents' minds. Respondents tended to order first - rather than ask other household members before ordering. Many small local shops were found to offer delivery and order-taking via phone or SMS. Grocery shopping was seen as impulsive - eg just passing by a shop and not requiring an online debate for each item. Some respondents questioned if in fact both models were substitutes or complementary in nature.

"I cannot find the items that I want, too many graphics and etc. [...] in the middle of my shopping session, I just lose my cart. After that I re-do it again but I have noticed that I am not ordering the same. It is not an exact science" (11); "An sms to whom??... the shop or my husband?" (7)

Hence some front-loading activities involve a channel and service provider choice that reflects preferences and lifestyle within the household (treats vs. everyday vs. role allocation). Here the nature of the built environment e.g. gated communities - is impacting technology (speed), online channel's main advantages (delivery), and within-household communications. The latter leads to missing items to be supplied by a concierge or free deliveries by local shops. These coping mechanisms are portrayed as reducing the need for formal front-loading practices and demonstrate the impact of the environment on the industry strategy.

"I order groceries online but it is easy to pick products from the local small stores, they even deliver. I try to remember which store does what best" (9); "There are too many categories. And each category has numerous sub-categories. You get lost easily while I can ask my concierge (I pay for the service if I use it or not), drop the money and the products will be waiting for me" (3).

Istanbul itself, as with many metropolises, may hinder time horizons for meal preparation due to traffic or clashing social engagements. Having a holistic, linear, view of the front-loading process prevents the needs of household members from being taken into account. Secondly, the potential benefits of front-loading activities is also restricted by the unmatched 30 minute delivery services from the take away industry and smaller local shops. Third, potential benefits are limited by the range of technological skills and tools.

"To determine our needs appropriately [...]I have a [paper] list of needed items in hand before going e-shopping. I do not just compare prices but other features of products as well, I have to be flexible as my family often change their mind due to external issues, the city or social activities and retailers are often out of stock (especially Carrefour)" (9); "I determine what exactly to buy on a list (notepad) before proceeding to e-shopping but nothing never work as planned (get interrupted), I think I need to go twice at least on the site" (20). "I feel I am getting better with practice too [over Smartphone platform]. I forget less items and spend more time looking at other things" (2);

Despite e-retailers efforts to develop socially-oriented services on their websites, most respondents did not seem to have reached a stage where they can clearly identify e-tools, categories and priorities or brand associations. Also, multitasking while grocery shopping reduces potential benefits from traditional front-loading tools such as favourite lists.

*“The organization of links available within e-grocery sites forces you to adopt **their** order of buying things [...] it might be one reason why I often forget some items during the ordering process even though you had them in mind before you logged on” (6); “I ... utilize favourites lists, product categories etc. to speed up the process but I also tend to do more than grocery shopping when I am online. I get sidetracked” (15); “I am trying to buy the correct product by spending the least time but it is not easy to change/ modify your order when you have submitted it, also it may be delivered only in two days” (13).*

In addition, over two third of respondents are even happy to admit that they have lost touch with what it takes to cook a full meal: making it harder to prepare for e-shopping. Lifestyle constraints (plus some de-skilling) have led to downgrading a once pleasant and creative activity to a chore. They also describe the range and diversity of tastes as difficult to reconcile with the reality of shopping and cooking. We note: (a) the overall negative perception of the preparation process for buying foods and organization of meals has led to a re-appearance of traditional gender role stereotypes. Whoever cooks (often the female) seems de-facto, to have the responsibility for front-loading activities. Also food shopping preparation requires knowledge (eg key ingredients) that not all household members are ready to assume and (b) big shopping baskets do not fit a built environment of small dwellings and even smaller kitchen/storage areas. Respondents note how food waste is blamed on the person ordering.

“I am a passive shopper since I am a man [...] my wife cooks, I think cooking makes a difference. If I cooked I could have been better in focusing on our actual needs.” (11); “as often practiced by traditional Turkish families, we have the mom [mine or mother-in-law] assigned for the grocery shopping then she decides, we order and she complete offline everyday (18); “I do not have too much space in my house, so a big delivery is a problem. Preparing involves the skills of remembering to buy only what we need, I blamed myself for wasting” (3)

Indeed, the storage aspect was considered relevant but ignored in the ordering process by all retailers (packaging and size of items). So, ‘experience’ and overall ‘lifestyle approach’ to grocery and planning is more relevant than formal front-loading.

“I am not very experienced in planning in general. I hate cooking, yet I cook as I have to [...] I don’t like grocery shopping either [...] I just rely on my memory to remember the missing items”(13); “I take notes on my phone when I am commuting not to forget. But it is hard as my husband buys things without telling me. It is not always rewarding to be ...organised ” (12).

In this context, an initiative that improves the front-loading for one household member may not be perceived as rewarding for others - nor the online retailer. This cycle was often encouraged by the lack of sharing of responsibility within the household, a commoditization of food and a progressive detachment from food. Basic strategies by retailers to represent front-loading as a rewarding task are missing.

Processing threshold 2: Becoming proactive pre-purchase organizer

Smartphones offer further opportunities whilst QR codes in magazines and product reviews are used by some. New modes of knowledge organization included sharing of information within households and with friends (social networks). Pre-purchase organisation is structured via new e-tools including lifestyle magazines, YouTube videos, and discussions on social networks. Pre-purchase activities influenced by the external ICT (multitasking) environment (ambient marketing: ads on metro walls etc) reflect how the new complexity of intra-household organization requires novel solutions. While half the respondents used traditional coping mechanisms (paper or e-list), wider communication processes include postings on Facebook where members know it will be read. Inter-household discussions happen ‘online on social networks’ with reference to wider news and lifestyle information, and mediated by friends’ comments; allowing the different stakeholders to engage with the topic with the appropriate level of attention, making e-grocery shopping a more enjoyable experience.

“beyond notes, when I am online I tend to buy on impulse in any case [...] we try to persuade each other on Facebook by saying ok lets buy it ...[...] we trust each others social network, sms links and reviews”(1); “We tend to be tempted by new products, you can see them on ads and discussion forums, I discuss all my decision with my family and also friends online on Facebook” (12).

Furthermore, beyond traditional scripting scenarios, online information about novelty, services, products or brands is an important front-loading task. Indeed, brand loyalty seems to be stronger than the specific promotional packages developed for the channel. Activities are described as complementary: Smartphone users take SMS, then newsletters and the App (if downloaded) as another point of contact. Accordingly, the time gap between front-loading activities and ordering facilitates tasks including knowledge sharing, learning, evaluation, reflection and revision of choice but also intra-household micro-re-negotiation and compromise-reaching.

“If I have a specific folder [for food preparation] I search online, I am part of 3 discussion groups (33); “I learn about [e-grocery] novelty through Word-of Mouth, I discuss food with my friends on twitter”(7), ‘all members of our household can easily be consulted for grocery shopping via twitter or an sms, which I mainly use. When consulted, it is very rare to get rejection but I like to be ready to explain why I choose this or that ... I read reviews on seasonality last week” (12)

We have uncovered further evidence demonstrating that the front-loading organization process is neither linear nor repetitive and is intrinsically linked to household roles and tempos. Relatives or online friends seem to have a further mediating role and the virtual world is depicted as part of the wider planning process through ‘influencers’. Peer influence of children is also mentioned.

Processing threshold 3: I have experienced much better services with other online retailers: e-Grocers do your homework!

Next, 5 of the 31 were regularly highly involved with technology developed expectations of front-loading. Having deeper experience of ICT they tolerated only the most advanced multimedia communications. Some also had an intrinsic interest in food, going beyond choices currently offered in the retailers’ listed ranges. These 5 describe themselves as unsatisfied and disappointed by e-grocery retailers. They identified too few real value-driven improvements to the shopping event, including pre-purchase tool/models. Pre-purchase practices thus merely raised expectations that were subsequently not realised.

“I tend to use ABC Virtual Store but I still believe they should carry more products” (2); “Grocery shopping should be like a game, not a process to think about” (15);

“Copying and pasting catalogue information to their web sites that does not tell me what the product is [...] I shop online for a long time. I have a credit card just for e-shopping and a separate e-mail address for such matters. I am also aware of group that point out at issues with additive and PCB for example. Many retailers are short-changing us in term of information and traceability of products” (21)

The channel does not yet seem to have delivered on promises of convenience, and social, experiential shopping. The divergence between technologies and household devices is clearly nothing like ‘nomadic computing’ where consumer electronics, home appliances, wired and mobile devices interact to facilitate pre-purchase activities.

Discussion and Conclusions

We have sought to move on from analysing the actions of key/ purposeful actors to look at the part played by households pre-shopping. We sought to conceptualize the role of households’ pre-purchase practices mediated by ICT whereby cumulative behaviour begins to influence new practices that significantly impact field level strategies (Bijker and Law, 1997; von Hippel, 2005). Pre-purchase activities were analysed to capture key changes in day to day practices. Contrasting motives for engaging in pre-purchase practices result in improvisation, evolving relationships and interpersonal tensions; all impact the sustainability of the e-grocery channel. Our work emphasises the multiplicity of household histories and trajectories that e-grocers have yet to integrate fully in their operating systems. Arguably, the co-existence of interest in food and e-shopping can be at odds. Retailers are portrayed as unfair to consumers, limiting the potential of the channel and acting as market-driven dictators with a dominant discourse on (a) how to behave online and (b) what choice is, that smoothes out pluralism. In this sense, the actualisation of activities such as e-retailer’s inventory, brand choice, pack size and the establishment of a rigid structure controlling delivery processes underplays the crucial importance of less observable activities, including front-loading and sharing of food knowledge online. Households develop a market-driving proactive attitude that leverages communication technologies. Changes at household level are found to be driven by personal goals such as the search for better control over quality and spending, greater experiential shopping and solutions to practical lifestyle problems. A crucial point is that the process is not merely technical. The findings suggest that considerable untapped collaboration and synergic possibilities exist among households’ members towards a more efficient usage of ICT and emerging sharing knowledge practices for e-grocery shopping.

Insert Figure 1. Illustrative model of intra-household e-grocery decision making with front-loading activities about here

Current evidence indicates a lack of preparatory coping mechanisms embedded within e-services, to better handle any pre-purchase difficulties. Following Ansari and Phillips (2011), online retailers need not simply focus on superior technological gadgetology but also consumers’ practices. These diffuse through everyday activities and are progressively more social rather than economically (utility) oriented. Shared consumption interests, learning new skills (cooking) and participation to the overall i-society render the emerging set of practices more legitimate and logical. They oppose traditional marketization tools and market oriented strategies that surface from within the firm.

From an intra-household organisation perspective, three levels of household pre-purchase service activities emerged. The first threshold, *functional front-loading activities*, primarily consider grocery as commodities and are the most non-reflective group. Traditional firm-driven marketization dominates behaviour. Second, *the proactive pre-purchase organizer*,

presents a rising interest in grocery and social technologies to solve day-to-day problems. This group reflects more on the potential of front-loading practices. At intra-household level, they tend to have developed specialized roles or practices conducive to negotiation and open communication. Finally the third threshold, *I have experienced much better services with other online retailers: e-Grocers do your homework*, respondents are emphatically refusing to engage with the e-grocers because their service provisions are deemed poor in comparison to other e-retailers. Household members act in groups, through their high-tech devices privileging interactive social experiences.

Overall, many household sought new ways and processes to better integrate pre-purchase practices e-grocery as both necessary and a social tasks whereby social knowledge sharing is an important goal. Front-loading practices allow (i) a greater engagement with both food as a category and as a learning proposition, (ii) novel communication convention and bonds within the household to emerge and (c) indirect encouragement voicing to e-grocer advocating them to go beyond what is currently a very mechanistic / logistic based operational system. At this points, our findings link back to discursive power model in consumer behaviour (Denegri-Knott, 2006) whereby consumers and retailers goals are congruent rather than divergent and not based on confrontation and resistance but co-creation, interaction and exchange (Kozinet and Handelman, 2004). For this reason, as underlined by Mady (2011) readiness to embrace technologies as well as the marketing function is attributed to consumers themselves.

It would be pertinent to further develop research in cognate environments where the sub-prime recession has played less of a role and where a rising middle class is driving ICT applications that challenge established retail practises.

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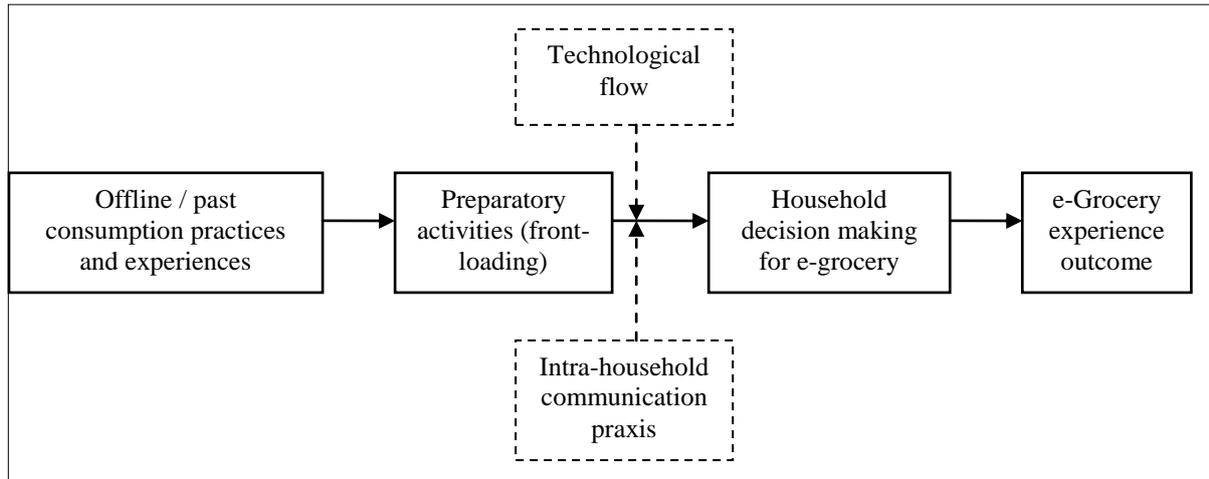


Figure 1. Illustrative model of intra-household e-grocery decision making with front-loading activities

Table 1. Respondent demography and background

ID	gender	age	occupation	education	city	number of household members
3	F	23	Student	masters	ankara	2
4	M	29	Researcher	masters	istanbul	2
5	F	32	Banker	undergrad	istanbul	2
6	F	34	Marketing communications specialist	masters	istanbul	2
7	F	30	Banker	masters	istanbul	2
9	F	34	CRM services	undergrad	istanbul	2
10	F	24	Housewife	undergrad	istanbul	2
11	M	38	Telecommunication	undergrad	istanbul	2
12	F	28	Administration	n/as	istanbul	2
13	F	31	Telecommunication	undergrad	istanbul	2
15	M	30	Service sector	masters	istanbul	2
20	M	29	Software designer	masters	istanbul	2
24	M	24	Engineer	undergrad	ankara	2
26	F	30	Small business owner	undergrad	istanbul	2
27	M	25	Service sector	masters	istanbul	2
2	F	26	Foreign trade	masters	ankara	3
8	F	38	Doctor	masters	ankara	3
17	M	30	Service sector	phd	istanbul	3
18	F	43	Entrepreneur	undergrad	istanbul	3
21	M	26	Student	undergrad	istanbul	3
22	M	28	Engineer	masters	ankara	3
23	M	30	Service sector	masters	ankara	3
28	M	39	Bank branch manager	undergrad	istanbul	3
30	F	28	Tourism	masters	istanbul	3
31	F	26	Tourism	undergrad	ankara	3
1	M	29	Entrepreneur	masters	istanbul	4
16	M	36	Academician	phd	istanbul	4
19	M	22	Student	undergrad	istanbul	4
29	F	20	Housewife	n/a	istanbul	4
14	M	18	Student	undergrad	istanbul	5
25	M	24	Designer	masters	ankara	5