Technological Forecasting & Social Change 132 (2018) 217–229

Contents lists available at ScienceDirect

Technological Forecasting & Social Change

journal homepage: www.elsevier.com/locate/techfore

The future of omnichannel retail: A four-stage Delphi study

Frederik von Briel

School of Management, QUT Business School, QUT, 2 George Street, Brisbane, QLD 4000, Australia

ARTICLE INFO

Keywords:
Delphi
Omnichannel retail
Retail technologies
Customer touchpoints
Trends

ABSTRACT

Omnichannel retail refers to the integration of retail channels like stores, online, and mobile into a single, seamless customer experience. The emergence of new online channels has had a major impact on the retail industry over the past decade, and it is expected that the need to integrate different channels will transform the retail industry over the next decade. We conducted a four-stage Delphi study with eighteen retail experts to identify the key trends, major challenges, important technologies, and main customer touchpoints that will emerge in omnichannel retail in the next ten years. Using both qualitative and quantitative data analysis techniques, we first elicited open-ended predictions from experts, then transformed and consolidated these predictions into close-ended statements, to finally obtain expert ratings of these statements and analyze changes of expert ratings between two consecutive stages. Based on this approach we derived four broad themes of core insights: future competition in the retail industry will be based on holistic customer experiences; omnichannel retail requires the development of human capabilities and changes in the organizational mindset; physical stores will become key destinations for unique sensory shopping experiences; and omnichannel retail will improve operational productivity.

1. Introduction

The retail industry, an important element of the global economy, has had US$ 22.6 trillion revenues in 2015 and accounts for 31% of the global gross domestic product (Research and Markets, 2016). The top 250 global retailers alone generated almost $4.5 trillion in revenue in 2014 (Kalish et al., 2016)—more than the GDP of most countries. The retail industry is also in constant flux, undergoing significant transformations that require retailers to adapt continually if they want to survive in the market. Hence, efforts to understand the retail industry and its transformations warrant the attention of both researchers and practitioners.

Over the last two decades, the transformation of the retail industry was largely driven by the internet and emergence of new online channels (Verhoef et al., 2015). The internet led to the emergence of purely online retailers like Amazon and eBay and transformed traditionally storefront-based (i.e., bricks-and-mortar) into multi-channel retailers (Min and Wolfinbarger, 2005; Pentina et al., 2009; Zhang et al., 2010). Online channels also brought changes to consumers' purchasing behaviors and loyalty (Zhang et al., 2010) as consumers started to browse products in stores and then purchase them online elsewhere, intensifying competition in the industry (Balakrishnan et al., 2014) and forcing many retailers to add online channels to their mix (Bernstein et al., 2008). By 2008, > 80% of US retailers were serving more than one channel (Kilcourse and Rowen, 2008), and driven by continual advances in digital technologies, the number of new channels keeps growing (Rigby, 2011). As a result, while a simplistic distinction between online and offline channels was sufficient in the early 2000s, today a more nuanced view of online channels must distinguish among web stores, mobile apps, and social media (Verhoef et al., 2015).

While the emergence of new channels has transformed the retail industry over the last decades, over the next decade the retail industry's ongoing transformation will be driven by the integration of these and other channels into a single, seamless customer experience: omnichannel retail. Consumers already interact with a single retailer via multiple channels (Sorescu et al., 2011) and increasingly expect these channels to “talk to” one another, to be integrated in a seamless shopping experience (Hansen and Sia, 2015) that allows them, for example, to use different channels for product search, purchase, and after-sales service (Neslin et al., 2006). Integration of these channels into a seamless experience is likely to increase customers' purchase intentions (Herhausen et al., 2015), but retailers continue to operate separate channels separately (Neslin et al., 2006; Piotrowicz and Cuthbertson, 2014). This traditional approach imposes transformational challenges for retailers who want to integrate previously disintegrated channels and implement services that bridge multiple channels (Verhoef et al., 2015). Omnichannel retail is largely driven by technological advances like the increasing pervasiveness of mobile computing and the rise of augmented reality technologies, which enable retailers to blur the boundaries between channels (Brynjolfsson et al., 2013). However, they

E-mail address: frederik.vonbriel@qut.edu.au.

https://doi.org/10.1016/j.techfore.2018.02.004
Received 12 August 2016; Received in revised form 1 February 2018; Accepted 5 February 2018
Available online 12 February 2018
0040-1625/

also lead to an exponentially increasing number of touchpoints between retailers and their customers that must be managed (Verhoef et al., 2015). As a result of changing customer expectations and an increasing number of channels that require integration, many retailers struggle in their efforts to move from multi-channel to omnichannel retail (Business Insider, 2017; Forrester Consulting, 2014; Williams and Cameron, 2015; Wurmser, 2014).

While the retail industry's transition toward omnichannel retail is gaining importance, research that could provide guidance to retailers remains in its infancy (Beck and Rygl, 2015; Piotrowicz and Cuthbertson, 2014; Verhoef et al., 2015). Hence, this article sets out to establish a foundation for future research on omnichannel retail and to provide practical guidance for retailers. Specifically, this article reports findings from a four-stage Delphi study with eighteen international retail experts who opinionated on the following research questions: *What will be key trends, major challenges, important technologies, and main customer touchpoints in omnichannel retail over the next ten years*? In answering these questions, this article derives four broad themes of core insights that contribute to literature and can provide guidance to retailers: future competition in the retail industry will be based on holistic customer experiences; omnichannel retail requires the development of human capabilities and changes in the organizational mindset; physical stores will become key destinations for unique sensory shopping experiences; and omnichannel retail will improve operational productivity.

We proceed as follows. First, we review the literature on multi and omnichannel retail. Next, we describe the Delphi methodology and detail the specific procedure adopted by us. Then, we introduce the results of our study. We end by discussing the core insights, their implications, and the limitations of our study.

2. Background

Different retail channels such as bricks-and-mortar stores, catalogues, and telephones exist since a long time. However, largely driven by the advent of the internet (Verhoef et al., 2015), many traditional single channel retailers started to diversify their channel mix and have become multichannel retailers over the last two decades (Min and Wolfinbarger, 2005; Pentina et al., 2009; Zhang et al., 2010). Most of these multichannel retailers operate their different channels separately and have traditionally grown siloed organizational structures (Gallino and Moreno, 2014; Piotrowicz and Cuthbertson, 2014; Rigby, 2011). Accordingly, research on multichannel retail typically compares individual channels (Min and Wolfinbarger, 2005; Polo and Sese, 2016) or analyzes how adding or eliminating individual channels from retailers' channel mix (Avery et al., 2012; Melis et al., 2015; Pauwels and Neslin, 2015) influences various aspects of retailing from customer behavior (Melis et al., 2015; Polo and Sese, 2016) to retail performance (Avery et al., 2012; Min and Wolfinbarger, 2005; Pauwels and Neslin, 2015).

Today, an increasing number of retailers try to integrate their separate channels into a single, seamless customer experience, called omnichannel retail. Empirical studies on omnichannel retail are relative scarce but their number is growing constantly. Findings of these studies suggest various benefits to both retailers and customers including increased sales across channels (Cao and Li, 2015; Gallino and Moreno, 2014), enhanced operational efficiency (Oh et al., 2012), as well as improved customer experiences (Herhausen et al., 2015), loyalty (Van Baal, 2014), and trust (Cao and Li, 2015). However, the integration of different channels also increases operational complexity (Gallino and Moreno, 2014), presents "far greater obstacles to retailers […] than the literature suggests" (Lewis et al., 2014, p. 60), and many retailers struggle with their integration efforts (Business Insider, 2017; Forrester Consulting, 2014; Williams and Cameron, 2015; Wurmser, 2014).

Empirical research on both multi and omnichannel retail focuses traditionally on physical bricks-and-mortar and online stores as the two primary channels (e.g., Cao and Li, 2015; Gallino and Moreno, 2014; Herhausen et al., 2015; Pauwels and Neslin, 2015), with an increasing number of studies paying closer attention to mobile as a dedicated online channel (e.g., Rapp et al., 2015; Wang et al., 2015). Online channels have grown significantly over the last few years, with consumers increasingly using them to buy goods from clothes (Luo et al., 2016) to groceries (Wang et al., 2015). Physical bricks-and-mortar stores in turn have become destinations where customers examine products to afterwards purchase them online, called "showrooming" (Rapp et al., 2015). This confronts both retailers and practitioners with challenging questions such as how physical bricks-and-mortar stores can be integrated into a seamless omnichannel experience (Herhausen et al., 2015), how retailers can benefit from showrooming (Verhoef et al., 2015), which role store employees will play (Grewal et al., 2017), and how store employees will interact with customers (Rafaeli et al., 2017).

Digital technologies are a major force driving the retail industry's transformation toward omnichannel retail (Luo et al., 2016; Piotrowicz and Cuthbertson, 2014; Rigby, 2011). Empirical research on multi and omnichannel retail typically treats technologies either as dedicated channels and examines the addition or integration of one specific technology such as online shops or mobile devices (e.g., Cao and Li, 2015; Gallino and Moreno, 2014; Wang et al., 2015), or treats technologies broadly as infrastructure and examines how certain infrastructure characteristics influence retail performance (e.g., Luo et al., 2016; Oh et al., 2012). However, digital technologies are evolving at a rapid pace, leaving retailers often overwhelmed and puzzled about which technologies they should invest in (Inman and Nikolova, 2017). For example, some retailers have started to experiment with virtual reality technologies (Bain, 2016), others with check-out less stores (Garun, 2016), and again others with mobile apps (Perez, 2016). As a result, digital technologies contribute to an increasing number of touchpoints between customers and retailers (Lewis et al., 2014), calling for a more fine grained understanding of retail that goes beyond channels and takes individual customer touchpoints into account (Baxendale et al., 2015; Beck and Rygl, 2015; Verhoef et al., 2015). Appendix A provides an overview of technology "megatrends" that are expected to transform society, and thus also the retail industry, over the next 10–20 years.

Because omnichannel is gaining increasing attention of both practitioners and researchers, but many retailers struggle with their transition toward omnichannel retail (Business Insider, 2017; Williams and Cameron, 2015) and research is still in its infancy (Beck and Rygl, 2015; Piotrowicz and Cuthbertson, 2014; Verhoef et al., 2015), this study sets out to clarify the nature of omnichannel retail and its future.

3. Method

3.1. Overview

Our study is based on the Delphi method which has proven useful for forecasting purposes in many fields, including international business (Griffith et al., 2008), innovation management (Munier and Munier, 2001), and information systems (Paré et al., 2013). Given that omnichannel research is in its early stages, we chose the classic Delphi method with its open-ended questions because it allowed our forecasts to emerge naturally and did not constrain them to aspects had been covered in the extant literature. The classic Delphi method employs a facilitated, iterative group-communication process to solicit feedback from participants—usually subject matter experts—on a particular subject (Linstone and Turoff, 1975). The facilitator collects feedback from participants via individually administered questionnaires, consolidates the feedback, and returns the consolidated feedback to the participants individually, whereupon they can revise their feedback in the light of other participants' feedback until a group opinion (i.e., the forecast) is derived. Individual participants remain anonymous during