# Critical Challenges for IT and Business Alignment in Omnichannel Retailing

#### **Abstract**

The emergence of the Internet, mobile devices and social media is revolutionizing the retail customer experience. Customers use multiple channels to maximize their shopping experience and they expect a seamless brand experience across all channels. These changes in customer technology capabilities drive the new IT capabilities required to support the expected seamless brand experience. To offer this experience, brands must make the transition from a multichannel strategy to an omnichannel strategy. To investigate this transition, we present a longitudinal revelatory case study of a sports fashion company. Four findings explain how alignment between an omnichannel strategy (an extension to the Keller brand management model) and an IT strategy (an extension to the Reynolds and Yetton business and IT alignment model) creates value.

#### 1. INTRODUCTION

For decades, retailers have sold their goods through different outlets, including physical stores, catalogues and home shopping. To do this, they communicated with their customers through posters and flyers, and advertisement in magazines, radio and TV. Frequently, a successful retailer started with one type of outlet and later added another distribution channel. An early, well-known example is the American department store, Sears. In 1886, it launched a catalogue business. Much later, in 1925, it opened its first physical store to complement its catalogue business.

More recently, the rise of the Internet and the development of digital devices, including smartphones, tablets and wearables, have created new distribution channels for retailers. Customers can now shop and interact directly with brands anywhere, 24/7. Developing these channels creates new challenges for lifestyle and fashion brands, which carry high emotional value for customers, including symbolic and status connotations (Kapferer 2008).

These consumers are strongly attached to their favorite brands and want to engage with them through a variety of channels (Keller 2010). This new multichannel, multimedia retail marketing environment presents two potentially incompatible challenges. One is that brands must manage each channel and communication option to maximize the direct sales and brand equity. The other is that brands must also design and implement the channel and communication options to realize the potential synergistic sales and brand equity cross-channel effects.

The first challenge has previously been managed within a market segmentation strategy. Each customer is assumed to be a member of a specific market segment. In the case of Sears, it was assumed that the catalogue customer purchased only from the catalogue and not from the store and vice versa. In that strategy, the customer is a customer of only one channel. Effectively, the channel 'owns' the customer.

The second challenge has previously been framed in the negative terms of the cannibalization of one channel by another channel (Riggins 2004). In the new emergent omnichannel, multimedia retail market,

the challenge is the positive effect of capturing synergies across channels (Keller 2010). The customer is a customer of the brand and not of a channel. So, a channel does not own its customers. Instead, customers use all channels to maximize their shopping experience and expect a seamless shopping experience across all channels.

There is an additional complication around how the company uses IT to manage the interactions between its channels. The complication is that the company cannot control the range of technologies that its customers employ to interact with the various channels. So, to be competitive, a company must match its customers' pace of technical change and always be present on customers' devices and social media platforms.

For example, consider this omnichannel customer experience. A girl notices a dress on Instagram, which her favorite blogger posted in the morning. At lunchtime, she walks into a store to try on the dress. The store does not have her size. The store assistant quickly pulls up the website on a tablet on which she can order the right size. However, now the girl has actually seen the dress, she is not sure that it suits her. She says that she will think about it and walks back to work.

On the bus going home, she sits quietly and browses through the messages on her mobile. She receives an email with a newsletter promoting the dress she just tried on in the store. She clicks the link and buys it through the mobile site. The dress is delivered to her home next morning before she leaves for work. On the weekend, she wears the dress to a party and spills wine on it. Concerned about how she can clean it, she posts a picture of the damage on Facebook asking for help. The retailer, which was tagged in the picture, sees the post and offers advice on wash and care of the dress.

For a brand, to make the transition from a multichannel strategy to an omnichannel strategy, a retailer must develop a strategy that includes the behavior of the young girl described above and many variations on that behavior. Having developed its omnichannel strategy, the retailer must implement it. Critically, the retailer must align its IT with the new omnichannel strategy. Effectively, the retailer must find specific answers to two research questions:

Research Question A: What are the critical strategic differences between a multichannel and an omnichannel marketing strategy?

Research Question B: How do IT governance, IT competences and IT flexibility create value in omnichannel strategies?

The general answer to research question A requires that the Keller (2010) multichannel brand strategy is extended to model the benefits from channel interactions. The general answer to research question B is to show how governance, competences and flexibility, three of the four profit drivers in Makadok's (2010; 2011) theory of profit, are aligned with the omnichannel strategy. To do this, we extend the Reynolds and Yetton (2015) alignment model, which shows how increases in IT structural alignment, IT functional alignment and IT temporal alignment, increase IT governance, IT competences and IT flexibility, respectively.

To investigate the two research questions, we present a longitudinal revelatory case study of the Danish sports fashion brand, Hummel, covering 2010 to 2014. The study focuses on top management strategizing to develop a digital strategy for omnichannel retailing. The rich data from the case study allows us to

theorize about the form of such a digital strategy and, specifically, its implications for business and IT strategic alignment.

The remainder of this paper is structured as follows. In the next section, we present a brief overview of Keller (2010) and Reynolds and Yetton (2015) under the heading of 'Background Literature'. Then, the case study methodology is described. The case findings are presented. Finally, the limitations and contributions to theory and practice are described.

#### 2. BACKGROUND LITERATURE

A review of IS research on multichannel and omnichannel retailing reveals that there is limited research on the former and no published research on the latter (See (Hansen 2015). The limited multichannel IS research draws on the marketing, management, retail and service literatures (Bang et al. 2013; Hulland et al. 2007; Riggins 2004) as Webster and Watson (2002) comment, "because IS is an interdisciplinary field straddling other disciplines, you must look not only within the IS discipline when reviewing and developing theory but also outside the field" (p.4).

Within the marketing literature, there is an overlap in the use of the terms multichannel and omnichannel. Here, multichannel retailing is defined as the set of activities involved in communicating with and selling merchandise to consumers through more than one channel (Zhang et al. 2010), as illustrated by the Sears example above. Omnichannel retailing is defined as being customer-centric rather than channel-centric (Brynjolfsson et al. 2013). An omnichannel retailer offers the customer a coherent and seamless brand and shopping experience across channels (Hansen and Sia 2015).

We begin by reviewing the limited literature on multichannel and omnichannel strategies. The critical difference is the independence of channels in a multichannel strategy compared with the interdependence among channels in an omnichannel strategy. The extant strategy literature identifies three critical challenges for companies intending to transition from a multichannel to an omnichannel strategy. The challenges are organizational and governance conditions, technology and data capabilities, and organizational flexibility.

These three challenges map directly onto the three alignment conditions in the Reynolds and Yetton (2015) alignment model in which structural alignment, functional alignment and temporal alignment are the antecedent conditions for governance, competence and flexibility to create value (See Makadok (2010; 2011). Here, we briefly review the Reynolds and Yetton (2015) model as an analytical framework within which to analyze the strategic change from a multichannel strategy to an omnichannel strategy.

# 2.1 Multichannel and Omnichannel Strategies

The omnichannel marketing literature examines the issue of designing the optimal channel strategy across channels and touch points to ensure that all channels work together in a transparent and synergistic way. The performance of the integrated system is greater than the sum of its parts (Keller 2010; Zhang et al. 2010). To do this, retailers must offer a seamless integration between offline and online operations. There is a reciprocal effect of an omnichannel retailer's online performance on customer offline brand beliefs and vice versa. Customers perceive brand experiences holistically (Kwon and Lennon 2009).

This approach, fulfilling the customer expectation of seamless access to products across channels, is critical to customer purchase decisions and to increasing customer retention rates (Bendoly et al. 2005; Van Bruggen et al. 2010; Webb and Lambe 2007). This seamless approach pays off for companies because multichannel customers are more valuable than single-channel customers. They purchase more from the retailer in the long-term when they have more integrated channel options (Avery et al. 2012; Bendoly et al. 2005; Chung et al. 2012; Zhang et al. 2010).

Keller (2010) argues that successful retailers will be those that offer customers integrated shopping experiences that skillfully "mix and match" direct channels, B2C, and indirect channels, through B2B partners, via physical stores, Internet, telephone, catalogs, and other channels. His framework includes direct channels, interactive channels, and indirect channels. *Direct channels* involve selling through personal contacts from the company to prospective customers, including by mail, phone, Internet, mobile, and in-person visits. *Indirect channels* involve selling to customers through third-party intermediaries, including agents or broker representatives, wholesalers or distributors, and retailers or dealers. In terms of marketing communications, channels can be broadly classified into personal communications and mass communications. *Personal communications* involve 1-to-1 communications between a brand representative and an individual customer, including personal selling, direct marketing, online marketing, word-of-mouth. *Mass communications* involve communications to groups of consumers, including advertising, sales promotions, events, and experiences (Keller 2010, p.58).

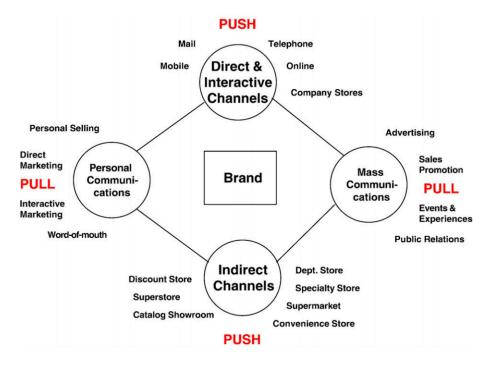


Figure 1 Keller's (2010) Model of Marketing Integration (p.59)

The literature argues that omnichannel retailing will become the dominant strategy. In addition, the literature assumes that companies will differ in how they strategize and implement omnichannel retailing (Sharma and Mehrotra 2007; Sparks 2003; Zhang et al. 2010). However, these differences are not understood because the literature lacks a structured overview of the conditions for developing an integrated omnichannel channel approach. The absence of such an overview is the motivation for Research Question A: 'What are the critical strategic differences between a multichannel and an omnichannel

marketing strategy?' Without such a strategic framework, it is difficult to plan the transition from a multichannel to an omnichannel retailer.

The extant literature identifies three critical challenges for companies intending to transition from a multichannel to an omnichannel strategy. These are organizational and governance conditions (Bendoly et al. 2005; Brynjolfsson et al. 2013; Sharma and Mehrotra 2007; Van Bruggen et al. 2010; Wilson and Daniel 2007; Zhang et al. 2010); technology and data capabilities (Bang et al. 2013; Brynjolfsson et al. 2013; Hulland et al. 2007; Wilson and Daniel 2007; Zhang et al. 2010); and organizational flexibility (Brynjolfsson et al. 2013; Chatterjee 2010; Keller 2010; Kwon and Lennon 2009; Wilson and Daniel 2007; Zhang et al. 2010). This is the motivation for Research Question B: How do IT governance, IT competences and IT flexibility create value in omnichannel strategies?

Makadok's (2010, 2011) theory of profit explains how governance, competences and flexibility, the three critical challenges identified in the marketing literature above, create value. Drawing on Makadok's theory, Reynolds and Yetton (2015) explain how the three forms of business and IT strategic alignment, namely, structural, functional and temporal alignment (See review by Chan and Reich (2007), create value by increasing governance, competence and flexibility, respectively. Here, we examine the effect on omnichannel retailing of each form of IT alignment.

#### 2.2 Business and IT Alignment

Reich and Benbasat (1996) define alignment as "the degree to which the information technology mission, objectives, and plans support and are supported by the business mission, objectives, and plans" (p.56). In general, alignment between business and IT strategies has a positive effect on organizational performance (Bergeron et al. 2004; Chan et al. 1997; Croteau and Bergeron 2001; Kearns and Sabherwal 2007; Oh and Pinsonneault 2007; Preston and Karahanna 2009; Zahra and Covin 1993).

Specifically, Reynolds and Yetton (2015) show that, in multi-business organizations (MBOs), the critical governance challenge is the allocation of decision rights over IT to the corporate and business unit levels to create structural alignment. Here, treating channels as business units in a multichannel strategy, decision rights over IT resources would be allocated differently under a multichannel compared with an omnichannel strategy. In the former, more decision rights over IT would be allocated to the channel level compared with under the latter strategy. In particular, under a brand-based omnichannel strategy, decision rights over IT resources would be highly centralized to support and leverage the brand. The critical IT structural alignment challenge is to assign decision rights to co-ordinate the new IT platform brand capabilities and the reduced channel-specific IT capabilities.

Harmonizing how the channels work together so that the sum is greater than its parts is contingent on governance, coordination and transparency between channels (Zhang et al. 2010). Central governance of branding, assortment, fulfillment, prices and promotion can lead to harmonization across channels, including price alignment between direct and indirect channels, which can be directed by setting the reference point and benchmark in the direct stores and online channels. Promotions can be rolled out across all channels via central governance. That means that a customer is offered the same deal in stores, online, via mobile and social commerce, reinforcing the concept of a holistic brand presence (Brynjolfsson et al. 2013).

Having a strong existing IT infrastructure and IT skills is paramount for retailers implementing both multichannel and omnichannel strategies (Bang et al. 2013; Hulland et al. 2007; Wilson and Daniel 2007).

However, the required IT architecture and back-end integration to support an omnichannel strategy is much more complex than the IT architecture required to support a multichannel strategy (Zhu and Kraemer 2002; Zhu 2004). Hulland et al (2007) state that IT technical skills relating to both systems hardware and software include not only technical knowledge but also the ability to deploy, use and manage those skills. Integration skills especially are typically immobile and, therefore, more difficult for companies to obtain, trade or substitute. Thus companies with greater IT and integration skills are more likely to implement an omnichannel strategy.

In the Reynolds and Yetton (2015) model, corporate and SBU business strategies are supported by IT functional strategies. Developing functional IT capabilities to leverage and support business capabilities creates distinctive competences, which create value (Makadok, 2010, 2011). In the case of a transition from a multichannel strategy to an omnichannel strategy, new IT functional capabilities, such as managing the large data sets generated by the latter compared with the former, must be developed or acquired, and old redundant IT capabilities must be decommissioned. This is a major challenge in organizational renewal.

In terms of omnichannel retailing, functional alignment creates value in three ways. The first is by leveraging technology to enable a brand seamless experience (Zhang et al. 2010). The second is by Integrating new technologies around legacy IT systems to establish and maintain an efficient omnichannel operation (Zhu 2004). The third is by harnessing the power of data and analytics for improved customer knowledge (Brynjolfsson et al. 2013).

Importantly, in the Reynolds and Yetton model (2015), the development of IT capabilities to leverage new business strategic capabilities takes time. In particular, this is true for the corporate IT platform capabilities. With respect to the transition to an omnichannel strategy, these capabilities include the IT capabilities to manage a brand strategy. The availability or non-availability of these capabilities creates path dependencies that both shape and constrain the subsequent IT strategic options. Selecting specific business and IT strategies and rejecting others reduces organizational flexibility to develop subsequent strategies. Increasing (decreasing) flexibility creates (limits) organizational value (Makadok 2010; 2011).

The emergence of the Internet, digital devices and new interactive technologies has changed the speed to market in many industries. Fast moving markets require correspondingly rapid strategic decision making by managers (Daniel and Wilson 2003). A rapid strategy and implementation cycle is a necessity to meet this requirement and, therefore, has become a key competitive factor in many industries, with different players trying out different mechanisms to reach customers quickly to improve customer satisfaction (Wilson and Daniel 2007). Consistent with this, Hulland et al. (2007) report that successful companies have an outward focused perspective for IT development, including market sensing, brand management and customer service, rather than an internal perspective.

The three forms of alignment, structural alignment, functional alignment and temporal alignment, in combination with Makadok's (2010; 2011) profit drivers, governance, competence, and flexibility, create an analytical framework within which to examine the IT transition from a multichannel strategy to an omnichannel strategy. Zhang et al. (2010) argue that creating the appropriate organizational structure is the major challenge facing omnichannel retailers, because many retail organizations manage their channels in silos or in a decentralized manner, with separate teams responsible for each channel. This creates duplicate teams and inefficiency in the business processes. It also causes internal conflicts across channels and leads to inconsistent customer experiences due to a lack of coordination between channels (Webb and Lambe 2007).

Developing a cross-functional steering committee and creating multichannel leadership helps organizations transition towards omnichannel. However, there is no standard solution. Each organization must take into consideration the history, current management structure, branding strategy, existing distribution, and information systems (Zhang et al. 2010). The major challenge to delivering a seamless experience is mobile technology, augmented reality and wearables (Brynjolfsson et al. 2013). These technologies are blurring the lines between on and offline, and between physical and cyber space. Mobile technology brings the Internet to life in the pocket of the customer 24/7. Augmented reality lets consumers "try on" clothing in front of their computers or a screen in store, and wearables like Google Glass can give products an extra layer of attributes, including contents, customer ratings and comments, and suggestions for use.

Dynamic alignment creates value by maximizing companies' flexibility to respond to unforeseen threats and opportunities. To do this, organizations must minimize the path dependencies embedded in the strategic IT platform choices, which would significantly restrict future IT options. This requires unbundling of corporate and channel IT capabilities and the development of modular IT platform capabilities over time.

#### 3. METHODOLOGY

A revelatory case study approach was chosen (Sarker et al. 2012; Yin 1989). Adopting this methodology, the omnichannel transformation was observed in its natural setting over time (Yin 2003). This approach generates a thick and rich account to support theory building (Benbasat et al. 1987).

Here, the theory building takes two forms. Both require a rich case account. One is to extend the Keller (2010) model of brand management in a multichannel retail strategy to model brand management within an omnichannel strategy. The other is to extend the Reynolds and Yetton (2015) model of business and IT strategic alignment in MBOs to explain performance in an omnichannel strategy, in which the assumption of SBU independence in an MBO strategy is relaxed in an omnichannel strategy.

#### 3.1 Case Selection

Hummel is one of the oldest sportswear brands in the world. It was founded in 1923 in Hamburg, Germany, and is now based in Aarhus, Denmark. Hummel operates in the sport and lifestyle apparel, footwear and accessories market, with an annual turnover of US\$240 million. Before 2010, Hummel had pursued a B2B strategy, selling through its own sales force, distributors, agents and licensed partners in over 40 countries.

In 2010, Hummel recognized that, to compete against larger sport and lifestyle brands, including Adidas and Nike, it had to enter the B2C market. In 2012, Hummel began to introduce B2C ecommerce. In 2013, it launched its own stores and shop-in-shops. Critically, in 2014, Hummel began to integrate the shopping experience across stores and ecommerce to create a seamless shopping experience.

To do this, Hummel restructured to focus on the customer experience. This was the first step in implementing its omnichannel strategy. Interrogating the rich case data identifies the additional strategic demands on the IT resources when a retailer transitions from a MBO strategy to an omnichannel strategy. These extra demands are the basis for the extension to the Keller (2010) model. Similarly, drawing on the rich case data, we explore how business and IT strategic alignment create value differently in MBOs compared with an omnichannel strategy.

The paper 'Aligning with new Digital Strategy: A Dynamic Capabilities Approach' (Hansen et al. 2015) examines the process dynamics by which new aligned competences are developed. The assumption is that alignment creates value. This paper builds on the paper by Hansen et al. (2015) to explain how value is created by alignment within an omnichannel strategy. Here, the analysis shows that the states of alignment and the mechanisms creating value vary between an MBO strategy and an omnichannel strategy. So, while much of the data collection is common between the two papers, the analysis and contributions are different.

#### 3.2 Data Collection

The data collection commenced in August 2010 and concluded in December 2014. The sources of data include interviews, documents and observations. Forty-one interviews were conducted with members of the top management team (CEO, CMO, CSO) and the owner in the period from December 2010 through to the end of 2014. The interviews were in-depth, semi-structured and open-ended. The interviewer probed the why, how and what of the development of the top management's cognition and attitude towards the transformation project (Kvale and Brinkmann 2008). The interviews were recorded, transcribed and analyzed. Each interviewee was asked how she/he evaluated the B2C ecommerce strategy and, specifically for Hummel, how this judgment had changed over time.

In addition, seventy-five interviews with Hummel internal employees and external partners were conducted over a four-year period from mid 2010 to the end of 2014, along with forty-one cross-departmental group interviews (e.g., steering and project groups) that focused on how the company as a whole could develop omnichannel retail. The interviewees were predominantly departmental managers but all levels of the firm were represented. Interviews were between thirty minutes and two hours in length, were all tape-recorded, and extensive notes were made. Interviews with individuals focused on how the individuals or departments were involved in developing the B2C ecommerce. The cross-department groups interviews lasted between one and two hours. They were also tape-recorded and extensive notes were made during the interviews.

In addition, a wide range of documents were reviewed. These included company documents (e.g., Brand book, country contracts, 2016 strategy and plans, yearly plans for each department, etc.), presentation slides regarding the digital strategy and subsequent updates to management, archives (e.g., historical marketing campaigns, website contracts, etc.), emails (e.g., between owner and management group, between management group and the digital team, etc.), meeting minutes (of meetings with different Hummel countries, management meetings, Go-to-Market and marketing meetings), and notes (by the author who worked closely on this transformation project).

## 3.3 Data Analysis

The case was initially written up chronologically, describing the key challenges, actions and milestones. This was presented in detail to senior management multiple times to verify the accuracy of data and of the interpretation (Mason 1996). We then applied theory and categorized the case study data according to Keller's (2010) marketing integrations framework and according to Reynolds and Yetton's (2015) analytical framework of IT and business alignment. From the detailed analysis, we first analyzed the IT and business alignment by iterating between theory and data. Then, by iterating between theory and data, we created a model that identified the characteristics of an omnichannel strategy.

## 4. CASE STUDY FINDINGS

Hummel had operated as a single channel supplier since 1923, with business solely through B2B channels via distributors, agents and partners. By the early 2000s, it had grown to operate in 40 countries. These business units or channels operated independently of any interference or control structures from the corporate headquarters. As its international success demonstrated, this B2B strategy worked well.

However, the emergence of the Internet highlighted the scattered and unaligned brand presence across markets and channels. Some SBUs, in markets like Korea, sold sport products exclusively through Hummel concept stores. Turkey and France sold fashion products through a mix of channels. Holland sold sport products, which they produced themselves under license, through B2B channels. In the home markets of Scandinavia and Germany, Hummel sold sport, fashion and children's products through B2B channels. Before 2010, Hummel had not explored or even considered the option of selling directly to consumers. The CEO stated:

"2010 was the year in which the Board of Directors decided to have a more strategic focus on the web and the possibilities it gave." (Hummel CEO)

He further explained that there were no existing B2C or digital knowhow, skills or resources within the company:

"The only thing I knew was that this thing [digital] was something we needed to do something about. Internally in the company, including myself, we had no knowledge at all as to what the world or market would bring in the next three or four years [in terms of digital]. So we needed something; we needed capacity and brainpower within this area. That was actually the only knowledge I really had." (Hummel CEO)

With the emergence of the Internet, B2C ecommerce and social media, Hummel experienced increasing pressure from consumers to align its brand across channels, including launching a B2C channel. To do this, Hummel had to re-organize and centralize, building new IT competence, governance and flexibility to transform into a multichannel retailer and, ultimately, become an omnichannel retailer.

In the following sections, we document how Hummel addressed the various challenges to implement this strategy. These included: How the company developed multiple B2C sales and marketing channels, and how the channels were integrated, to give consumers a coherent and meaningful experience wherever and whenever they met the Hummel brand and products.

# 4.1 Organizational Structure and Governance

Create a cross-functional omnichannel leadership team

When the board of Hummel decided to embark on a multichannel strategy in 2010, a Head of Digital was hired to lead the projects. Immediately following the formal approval of the strategy, a steering group consisting of the CEO, CMO, CFO, and Head of Digital, and eight cross-departmental project groups representing every department in the company were established. It was essential to create cross-functional teams and include all departments because the multichannel projects would affect everyone in the company. The success of the strategy would be dependent on the involvement of all departments and their commitment to the strategy. The CMO was happy that the top management had recognized that the company's website was not just a marketing tool but also a fundamental business opportunity:

"We have once and for all 'killed' the old silo policy about the web only being a marketing tool – the company's business card." (Hummel CMO)

In 2011, a digital department was created to run B2B and B2C ecommerce, social media and digital marketing and to coordinate the different multichannel projects. In 2013, a retail department was also created, responsible for physical stores, shop-in-shops and retail fittings. At the same time, the marketing department, responsible for brand and product images, and for catalogue and other print advertising, was tasked with the challenge of including online and retail channels in the brand positioning.

However, there was a lack of co-ordination and integration, with the marketing, digital and retail departments working in silos. This created daily tensions across a divide based on old and new marketing mindsets. At the same time, customers were increasingly crossing channels, interacting with and shopping with Hummel in various ways, from the existing B2B stores to the new B2C stores, and via social media. The existing silos and ways of working were undermining the execution of a seamless brand experience across channels. The CMO expressed it like this:

"There is still a lack of will and capacity, cross-departmental, in getting the entire business adapted for the full potential. So I can't say, as the CMO, that I'm happy with where we are today. I'm happy with the competences and the technology. And I know that there is willingness in the organization. But there is inertia, a fear and a change management issue, which still implicates the speed with which we are executing. I'm confident that we are moving in the right direction, but I think that we should have been further along by now." (Hummel CMO)

To support the seamless integration across channels, the marketing, digital and retail departments were merged at the beginning of 2015. Some employees were let go, omnichannel minded employees were promoted, and new omnichannel minded people were hired. The Head of Digital became Head of Marketing and Omnichannel to integrate channels and to promote a vision of 'digital first'. The reason for thinking digital first, was not just for marketing purposes, but also for IT and data purposes, as it was clear that it was IT, data and digital devices that were the foundations for omnichannel retailing and were the glue between channels.

"In the future, we will not ever create campaigns, which are not online campaigns from the starting point. We are thinking omnichannel, but we will need to make campaigns which are digital – it would be foolish not to." (Hummel CEO)

### Integrate channels

For Hummel, the first steps in the channel integration program were evaluating and prioritizing channels, and then launching each channel. The first interactive B2C channel had been launched on Facebook in 2008. Subsequently, each Hummel country business unit launched its own local Hummel Facebook page. By 2012, Hummel's brand presence on Facebook was inconsistent and lacked impact. Corporate governance was needed to set a consistent tone of voice and service standards. Internally at Hummel, this was referred to as creating 'OBOV' (One Brand One Voice). To achieve OBOV, a technical mechanism was required to merge the various Hummel Facebook pages into a "Global page" under the control of Hummel Corporate. The CMO commented on the value of OBOV for Hummel:

"OBOV is a question of standardizing versus complicating things. We seek synergies, efficiency and effectiveness through tools, processes, brand expression, products, campaigns and so on. OBOV is our most important frame of understanding how to service our markets and customers. It has become a culture, a way of thinking, so when one hear OBOV one knows 'oh yes, we all need to do things more aligned."" (Hummel CMO)

The digital media with its inherent transparency motivated the first efforts to align Hummel internationally. A Digital Manual was created and published, listing a comprehensive set of standards and guidelines. It described the core values, target customer segments and standards for the use of Hummel's brand image online. This was updated biannually. It quickly became apparent that the Digital Manual could also be used to select partners who would strengthen the brand by adhering to the corporate guidelines. The Export Manager, who was responsible for selecting and managing local Hummel partners, explained this:

"We need to be the ones that control the brand and control what we want to be - with an understanding for market differences. Armed with our digital guidelines we can say no to the small distributors who won't do anything good for the brand. They would hurt the brand if they didn't follow the guidelines that we have. So the digital guidelines are going to be a really important tool for us in controlling and selecting who we want to deal with." (Hummel Export Manager)

In 2012, to further strengthen an aligned web presence, Hummel launched its first global website with integrated Facebook, Instagram, YouTube and Twitter feeds. By integrating channels the need for coherence became even more apparent. Further technical features were also developed to support this, including a What You See Is What You Get (WYSIWYG) editor for the global website, enabling the manager in each country with web responsibility to upload local stories, events and promotions, and to select the social media feeds to support each post. The CMO commented on this, saying:

"The website is the most important path to achieving brand alignment and availability for Hummel. And most important because it is accessible 24/7 for all geographies, all ages, all nationalities, and it is, across all this, a place where we can publish as many stories as Hummel has. And we have many stories, as we are a storytelling brand." (Hummel CMO)

Hummel's largest channel, in terms of turnover, is still the B2B channel. So, it is important to support and collaborate with the B2B partners to ensure an aligned brand and product message between the B2B channel and all other channels. Apart from sharing the newly created B2C content and product data, including retail fittings, product and lifestyle images, sales descriptions, size guides, and customer comments, Hummel also developed competitions, events and partner programs in collaboration with B2B customers. Finally, to commit to supporting the B2B customer and to ensure better control with and standards for selling and marketing Hummel products, the Online Retail Guidelines were developed and introduced. They included standards for servicing customers, for assortments, for the use of logo, images and brand text, and use of Adwords and domain names.

With the new B2C business strategically positioned to support the existing B2B business, Hummel addressed the threat of cannibalization. The initial solution for this was for the company not to fully implement the omnichannel strategy and structure, where all channels are integrated and sales are pushed through the channels that best serve the end-consumer. Instead, it treated B2B and B2C as two groupings with a strong omnichannel layer to support each other. This meant that the B2C channels did not mount aggressive promotions or visible sales discounts because that would upset the B2B customers, who still

accounted for more than 95% of the business. Instead, Hummel focused on developing the central systems and internal capabilities to service end-consumers, and to improve customer experience across channels. In 2011, the CEO expressed it in this way:

"We need to focus on our own operations first. We need to have the central structure in place first, make it really cool." (Hummel CEO)

In 2013, he continued to focus on this issue, saying:

"Where before we said, that we just needed the systems to work, I think that, as soon as we have the logistical setup, we need to offer something so that people can say, it actually pays off going there to have a look." (Hummel CEO)

The CEO led the development of the omnichannel vision. It was agreed that the ability to offer various combinations of purchases, pick-up or delivery, and returns, was critical. Supported by new technology integrations, Hummel built the capabilities to fulfill many of these offerings, including: Buy online – home delivery (all B2C customers); buy online – pick up in store for B2C stores integrated with the Hummel website; buy online – return in store (for B2C stores integrated with the Hummel website); go to store – buy online in partner stores with in-store shop-in-shop. As yet, Hummel cannot yet fulfill: Buy online (B2C ecommerce) – return in Intersport stores (a B2B customer); and buy in store – return to online store. For this to happen, a closer collaboration between B2B and B2C business would have to be established. This is not yet viable due to the low volume of the B2C sales and the continued priority of the B2B business. However, the CEO recognized that the next step was to resolve the remaining fulfillment challenges:

"Now the systems work, I think that we need logistics in place. It is not in place today for large-scale ecommerce, but we can make it work for now. If it were anything like normal ecommerce volumes our logistics would collapse. It's a bit like an elephant in a porcelain shop. It can work, but it is unstable." (Hummel CEO)

The numerous variations for omnichannel shopping are illustrated in Figure 2 below. The figure shows how the customer, from the left hand side, has several browsing, buying, ship to, return and after sales options. The options can be fulfilled online (via brand web, store web, shop-in-shop, pure players, multibrand) or offline (via own shops, franchise, shop-in-shop, and multibrand retailer).

## 4.2 Strategic IT Competence

Harnessing the power of data and analytics

Hummel used analytics to track when customers began to migrate to mobile devises. At the beginning of 2013, when the data showed an increasing trend for mobile visits, it was decided that the trigger point for developing a new support system would be when 7% of visitors accessed the website from a mobile device. At that time, Hummel would develop a dedicated mobile version of its website. The intention was to launch the new mobile website before mobiles reached 10% of total website visitors. In 2014, the percentage of mobile visitors had grown to 25%, with tablets 15% and desktop 61%. The percentage of ecommerce conversions across devices was 13% on mobiles, 15% on tablets and 72% on desktops. The ecommerce channel was on a strong growth curve.

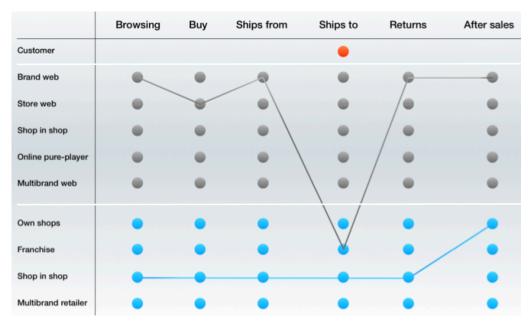


Figure 2 Purchase Journeys in Omnichannel

Two dimensions of the omnichannel data management proved to be problematic. One was how to link store sales data with ecommerce sales data. The stores used many different till systems across the 40 countries. In addition, Hummel did not own many of its stores. So, while data aggregation was possible, data integration was not.

The other challenge was to follow each customer across channels and to build a profile of the customer across all channels. While Hummel could aggregate data from all channels on dashboards, it could not follow the individual customer from print advertising to stores, from stores to social media and to ecommerce, and back to stores. The technology did not yet exist. However, it was a top management strategic intention to own the customer contact:

"I have a dream, which is not fulfilled yet, of us going to market every season with one message, which covers everything." (Hummel CEO)

"I wish to be able to say, in two years from now, "We own the consumer contact now!"" (Hummel CMO)

## Leverage IT to deliver a seamless shopping experience

Within the above constraints, Hummel strived towards developing a unified view of the consumer to offer a better experience and service, and more targeted messages and products. Google analytics, Facebook analytics, Instagram analytics, newsletter analytics, customer clubs, ecommerce analytics, and retail analytics, increasingly enabled those improvements.

By 2014, Hummel had access to data and some analytical tools. The challenge was to integrate and manage the new big data set. Previously, the company had handled data from thousands of B2B customers. Its systems could not manage data from millions of end-consumers. Hummel began a search for a system that could aggregate the end-consumer data and provide a customer-centric view of the business.

"We are actually just about to taste the [omnichannel] experience. Not just delivering the system, but also deploying it. In principle we could get data from everywhere. When it is digital it gets more factual. The market is judging us real-time. Before it was just based on [our own] sensing." (Hummel CSO)

Consider three examples of how Hummel leveraged technology to present a seamless shopping experience. First, to create a seamless experience across its website, newsletter subscribers and Facebook, a pixel was placed on Hummel's website that followed visitors from the website back to Facebook. If a visitor had been looking at a sneaker at the website, Facebook would place Hummel's sneaker ad on his Facebook wall with a buy button. This seamless experience from browsing on different channels to a direct buy opportunity created a high ecommerce conversion rate on Hummel's website compared to other advertising initiatives.

The second example is how Hummel leveraged technology to enable a seamless presence in the B2B owned space. Hummel developed a "Brand Button", which they installed on online retailers' webshops. It worked by placing a "more Hummel info" button next to Hummel products. When clicked it would open Brand Button as an iframe on top of the retailer's site displaying product specific data and brand content, which could be controlled by Hummel in real time.

The third example is how Hummel leveraged technology to capture presence in the indirect channels by placing order screens in B2B partner stores. This was done by developing a shop-in-shop website for the individual retailer with a customized front page and product lines. This shop-in-shop website could be displayed on computers, tablet and mobiles. It was placed as a Hummel designed tablet for use in the store. Customers could order Hummel products on the tablet in store and either pick up in store, or have their purchases delivered to their home or office. The CSO commented on the second order benefits from this strategy, specifically, the close relationship it forged with partners:

"The iPad shop-in-shop is a three times win. A win for the store, a win for the customer and a win for us. One thing is being strong through your partners, but it actually starts with ourselves. We ought to always have an interesting platform that explicates the full brand experience, which we can place in partner spaces." (Hummel CSO)

To develop an integrated view across channels, Hummel installed large visible dashboards, which aggregated data in real-time from all channels via APIs or plugins. Hummel changed the dashboard view according to the strategic priorities, but always integrated Google analytics on hummel.net, B2C ecommerce sales, B2B ecommerce sales and visits, Store Finder clicks, Facebook, Instagram, YouTube, and the mobile app downloads. In this way, not only the digital department but all members of the organization could obtain a visual overview of how Hummel performed in each channel.

# Integrate new technologies around legacy IT systems

The ERP system at Hummel was referred to as the backbone of the company. So, it was natural to build the B2B ecommerce systems on top of the ERP system and later to integrate the B2C ecommerce system with the ERP system. However, it was quickly recognized that the omnichannel strategy required a large variety of integrated systems.

The new IT infrastructure had to be complex and dynamic. Integration with social media channels required frequent updates, as new platforms were introduced or third party platforms changed their integration mechanisms. Nevertheless, it became a standard at the company to carefully integrate new systems with

the old legacy systems. The ERP system remained the heart of the complex omnichannel infrastructure. This was also the case, at the end of 2014, when it became evident, that the ERP system needed to have a major update due to the increasing demands from the omnichannel structure both internally at Hummel and externally from its B2B partners. The CEO explained the importance of connecting the digital world with the ERP system:

"Having built an option to work omnichannel, we have also in a technical sense built an IT structure now, which enables us to do not only B2C and B2B and online handling, but the whole data handling, which is of eminent importance. So I think, that it is only fair to say that we are putting a lot of emphasis on the IT structure of the business. And coming from a system of Navision, where we prior to this project had no connection whatsoever with the digital world, it is now quite closely connected. And going forward, one of the top priorities we have is to make this whole digital and IT structure work together." (Hummel CEO)

End-consumer data became increasingly in demand as Hummel began to communicate with and sell directly to consumers. Hummel's B2B systems could not cope with the new rich data, including sales descriptions, images, videos, 3D animations, customer ratings, comments and user-generated images. Hummel had to develop a product information management system (PIM), in collaboration with its IT vendor, which could handle and maintain the rich product data. Following the standard protocol, the PIM system was carefully integrated with the ERP system.

However, Hummel increasingly came to recognize that the management structure was incomplete. A new position was required to manage the exponentially growing volume of consumer friendly product data. The IT department was responsible for the systems and the Digital department was responsible for the interfaces and consumer contact. No one was responsible for masterdata and data management. Initially this was solved by appointing a cross functional group to manage and control the demands for data. Soon, it was accepted that Hummel must appoint one or more full-time managers responsible for data management. The Board endorsed this in 2014.

"Ownership of data needs to be placed in the organization. We have discussed where the ownership should sit and have defined that it is not suitable in the Digital department or in the IT department as they are structured today. Instead, we propose to create a new cross-functional project group with a fulltime project leader and manager." (Proposal from Head of Digital and IT Manager to the Board)

# 4.3 Flexibility

The need for IT flexibility

When Hummel entered the B2C world and interacted directly with end-consumers in 2010, it quickly became apparent that the company had to match the customers' pace of change and always be present on customers' devices and social media platforms. This 'speed to customer' required flexible IT systems and IT infrastructure, and an agile development methodology to support any unexpected trends in social media.

One way to achieve this was to continuously be present on social media platforms, and to secure and establish an official company profile on every new platform. The social media team could then assess the uptake of the new platform. If the following gained mass, the team would decide when and how to integrate the platform into both the B2C system infrastructure and into the weekly marketing campaign plan. The CMO explained the importance of this strategy:

"As the CMO, social media means a lot to me. One, because I know that consumer behavior and purchase patterns have become more digital. Two, because internally it helps us to develop an onbrand expression in all our markets with all our partners. It is valuable to us, as it gives us real time insights into consumer behavior, reception of products, campaigns and sponsorships. We could buy expensive analysis from research institutes, or we could do what is far more effective, which use Facebook. So social media is absolutely contributing to the business, it's not just a communication channel. It helps qualify my decisions for a number of things." (Hummel CMO)

## Social media integration

The B2C website was developed with flexibility as a major requirement. The platform must be able to integrate with the current and future unknown social media platforms. Initially, the website was launched with real-time integration with Facebook, Twitter, YouTube and Instagram. However, after two years, it was evident that Twitter was not relevant for the Hummel community. There were few Hummel Twitter followers compared to Facebook followers. Therefore, the Twitter integration was decommissioned.

In contrast, Instagram grew and became highly relevant for Hummel. So much so, that the new Hummelkids.com website was launched at the end of 2014 with a live Instagram feed for the hashtag #hummelkids to show real Hummel kids in action. The back-end mechanics of this was handled through the customized B2C PIM system, which pulled in the Instagram images via an API. These images could be published on the B2C website when a member of staff had approved the image by simply ticking it off in the system.

## Separate and flexible B2C systems

The social media integrations did not affect the back-end ERP system because the front-end B2C and back-end B2B systems were kept separate (see Figure 3). This separation also meant that Hummel could launch multiple B2C ecommerce websites and shop-in-shops without affecting the back-end systems. There was one core B2C ecommerce shop system, which was integrated with the ERP system, and which could host an unlimited number of ecommerce websites.

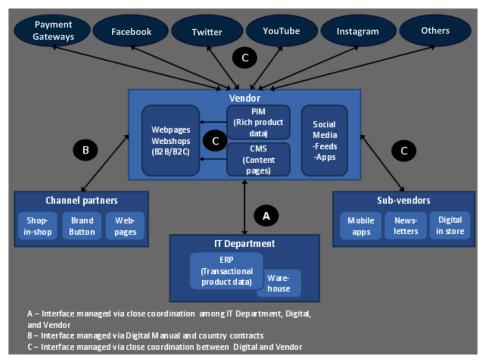


Figure 3 Hummel's Emerging IT and Data Infrastructure Source: Hansen and Sia (2015, p. 20)

An example of this flexibility in integrating with social media is the ecommerce shop-in-shop module. This was designed for maximum flexibility and speed to customer. A new ecommerce website with a unique domain, customized front page, campaign images and selection of product assortment, was launched in less than a day. In fact, it took less than one hour to set up the new ecommerce shop-in-shop in the B2C back-end.

By the end of 2014, Hummel had implemented 23 individual ecommerce shop-in-shops for kids B2B retailers, one individual ecommerce shop-in-shop for a Hummel brand store with full product assortment, one individual ecommerce shop-in-shops for a fitness center with a training and fitness assortment, and two individual ecommerce shop-in-shops for promotional use. The last two included a pop up store for a special footwear promotion in conjunction with a real life event in a mall, where shop assistants were carrying iPads showing the shop-in-shop. The CMO commented on this, saying:

"You would digitalize the physical retail space in order to sell more and in order to offer them a larger profit in the space. They have normal handling cost by selling a product, which they can't show physically. But they get a cut of the sale without spending much time on it, without warehouse cost, shipping cost, returns and claims, etc. It's a pure win for them. It is not just more sales, its larger profit and thereby a larger entitlement for our general physical store presence. For what it is worth it can also be differentiating from our competitors, who are still not in the market with screens in-store. And we can place ourselves in a category with brands like Nike and Adidas." (Hummel CMO)

All these shop-in-shops had their individual statistics in the back-end of the core ecommerce shop system, which made it possible for the Ecommerce Coordinator to overview the sales and to allocate earnings to the relevant channel partners.

## **4.4 Omnichannel Brand Management**

In 2010, Hummel commenced aligning its brand and product message online by gradually taking control of all Hummel websites and Facebook accounts across the 40 countries. The company introduced guidelines for use of the brand on social media, newsletters, Adwords, and for online sales on different platforms in 2012. While these guidelines, policies and contracts were paramount for aligning and digitalizing the brand, Hummel believed that the best way to enforce them was to produce strong standards and good quality material to entice partners to use Hummel HQ materials instead of using their own. With this conviction, Hummel Corporate was re-structured to be responsible for brand management, creating marketing material, and setting the global policy guidelines with which the marketing manager responsible for each country must comply.

The channel mix was also re-aligned when Hummel Corporate began setting guidelines for when and how channels should be launched. Initially, Facebook was the focal social media channel for Hummel, and each country was encouraged to operate a local Facebook page under the Hummel's global pages umbrella. For example, the local pages provided local news and services for customers in their local language. To be delegated this option, countries had to prove that they could post a minimum three times a week, execute the global posts and competitions in local language, and respond to customers within 24 hours. If they could not comply, the corporate social media manager closed down their account. In contrast, if they did it well, and were skilled in servicing and delighting consumers, Hummel Corporate provided an advertising budget for their local pages.

When a new channel emerged, Hummel Corporate developed guidelines for when and how it should be adopted. As an example, when Instagram became an important platform for brands, corporate developed guidelines and cases for the use of Instagram with the countries, including profile name, logo, posts with the purpose of showing instant Hummel moments, and hashtag #hummel and #hummelsport. For partner businesses, the guidelines covered how sponsorship clubs and ambassadors should post new products in use, and how to link to live games with the hashtags. For employees, for example, the guidelines specify that they should use only hashtag pictures when they are wearing Hummel products and, if there is a visible logo, the pictures should be appropriate for the Hummel Character Wall, a large screen showcasing all #hummelsport images in real-time, which is posted in various locations around the world.

When the structure for and control over channels had been implemented, it was easier to align and implement the annual yearly marketing and communication plan. Each week, Hummel Corporate launched a new theme or campaign with customized content and images for each channel, including all online and offline channels. This was shared with the countries in advance, so that it could be executed in all channels at the same time. As the CEO noted:

"Looking at brand message alignment, I think that online is the area that has developed the most in the company, coming from a completely scattered and random picture, depending on the country, to having a common platform. It is not completely identical for all markets, and perhaps it shouldn't be, but the basic structure for all our large interesting markets is now the same – for the first time ever." (Hummel CEO)

In addition, it was important for the company to involve end-consumers and to show the Hummel products in action on real life people. So, customers were encouraged to share their Hummel experiences on the different platforms. Some campaigns were launched and driven by bloggers and consumers. Authenticity, 'virtual word of mouth' and ambassador appearances are more important to the Hummel marketing

strategy than are TV commercials and print advertising. In this way, Hummel has begun to co-create the brand with its ambassadors, fans and consumers.

Overall, the brand is now accessible and transparent to consumers. This required Hummel to develop a clearly defined brand strategy and position. As the Hummel community grew from 13.000 members in 2010 to 1,5 million members at the end of 2014, the data, analytics and insights gathered from the community's interaction with the brand enabled Hummel to review and correct the brand positioning. For example, when Hummel launched "Karma" as the core brand promise in 2012, analytics showed that less than 2% of the website visitors clicked on the Karma related pages. Similarly, there were few likes on "Karma" posts on social media. Reacting to these findings, Hummel refined and repositioned the brand message strategy. In this way, the Hummel community forced the brand managers to clarify and effectively to re-launch the brand message in a more consumer relevant and friendly form.

#### 5. ANALYSIS and DISCUSSION

The case study presents four findings with major implications for theory and practice as retailers replace a multichannel strategy with an omnichannel strategy. First, the transition requires the development of a brand strategy for omnichannel retailing. The solution presented here extends the Keller (2010) framework for a multichannel retailer to an omnichannel retailer implementing a global brand strategy.

Second, the transition from multichannel to omnichannel retailing requires a fundamental change in the organizational structure. In a multichannel organization, each channel operates independently. In contrast, the omnichannel organization provides a seamless brand and shopping experience as illustrated by the example of the young girl in the introduction to this paper.

This strategy requires that the governance structure, the assignment of channel management decision rights, is centralized and owned by the corporate level of Hummel. In this way, customers become customers of Hummel and not of one of its channels. Independent country-based channels, which presented variations on the Hummel brand, are replaced by interdependent channels, which present a consistent global brand presence across countries. The new governance structure leverages the global brand to create value. As Prahalad and Hamel (1990) argue: "Think globally and act locally".

Third, to leverage its global brand, Hummel is developing IT capabilities to support a seamless shopping experience. Recall the example of the young girl from the introduction to this paper. She does not think about the channel by which she interacts with the brand. Rather, she views browsing, shopping and interacting, as her aggregate experience with the brand. This required new IT capabilities to integrate customer social media technologies and Hummel channel technologies. It also required new business marketing capabilities that, when aligned with the new IT capabilities, created new sustainable strategic competences (Hansen et al. 2015).

Fourth, changes in customer social media capabilities drive the required new IT capabilities. Critically, these changes are neither under the control of Hummel nor are they strategic choices made by Hummel. Instead, they are a function of trends in social media about which Hummel initially had limited exposure and knowledge. In addition, Hummel's core customers are young, active and 'cool'. They quickly adopt the latest technology, social media platforms and trends.

So, to be competitive, Hummel must match their customers' pace of technological change and always be present on customer devises and social media platforms. Indeed, Hummel must be more than present on those platforms. It must interact with customers to provide seamless communication and shopping across channels. To do this, Hummel must continuously be up-to-date in terms of technology and social media presence. This 'speed to customer' rather than the traditional 'speed to market' requires a flexible IT platform and agile development methodologies to support unexpected shifts in social media.

The three mechanisms, IT governance, developing novel IT strategic competences in which business capabilities leverage IT capabilities, and a flexible IT platform and agile developmental methodologies, are three of the four profit drivers in Makadok's (2010; 2011) theory of profit. Reynolds and Yetton (2015) present a theoretical model of how these three profit drivers create value when business strategy and IT strategy are aligned in MBOs. Here, to explain alignment in an omnichannel strategy, we relax the assumption of SBU independence in the Reynolds and Yetton (2015) model.

The four findings help to explain Hummel's success in the emergent omnichannel sports fashion market. In combination, they explain how alignment between an omnichannel strategy, the extended Keller model, and an IT strategy, based on an extension off the Reynolds and Yetton (2015) model, creates value for Hummel. Before discussing the implications for theory and practice, we review four limitations to the findings.

#### 5.1 Limitations

All research is subject to limitations. Four are reviewed here. First, the omnichannel implementation cycle at Hummel is not fully complete. Therefore, this research is still a work in progress. The cycle is expected to be completed within eighteen months. During this period, the author will be a senior executive with responsibility to complete the implementation of the IT support for the omnichannel strategy, with unlimited access to the relevant data. A paper for publication will then be prepared.

However, the four findings presented above are not threatened by the implementation cycle not yet being complete. On completion of the cycle, there are likely to be additional findings and insights. These are likely to contribute to our understanding of how flexibility contributes to Hummel's performance and the challenges involved in sustaining 'speed to customer' response.

Second, the findings reported here are based on a single case study. Generalizations are subject to a number of validity threats. However, in a new domain with very limited theory, Yin (2003) recommends the adoption of case analysis to develop initial contributions to theory. Certainly, the findings reported above are similar to those reported for another recognized successful omnichannel transformation case, which is the British fashion brand Burberry (see, for example, (Webcredible 2012; Westerman et al. 2014) . Subsequent research should explore the domains to which these findings can be generalized.

Third, in case study research, the researcher is not an independent observer (Eisenhardt 1989). Instead, the researcher is an actor in the context. This is particularly the case in action research. Therefore, there is a potential internal validity threat to the findings due to the researcher's potentially biased perception of the outcomes.

To mitigate this threat, the researcher systematically documented all evidence to ensure that the investigation was scientifically valid with the purpose of generalizing to theoretical propositions for the

particular type of problems (Yin 2003). Based on that evidence, the researcher developed a narrative that included the complexities and contradictions of real life (Flyvbjerg 2012). See the Methodology section above for a detailed description. In addition, the top team at Hummel has reviewed and endorses the findings. Subsequent research adopting different methodologies will resolve this potential validity threat.

Fourth, the study is limited to the fashion industry. While the fashion industry is characterized by its high touch and emotional connotations (Kapferer 2008), the impact of ecommerce and social media is not exclusive to this industry. The entire retail sector is experiencing the same external threats, and is now starting to innovate with technologies such as social media, mobility and analytics, and moving towards omnichannel retailing. Therefore, we believe that the strategic framework and findings presented in this paper and the collective practical implications are useful for and transferable to other retail sectors, including the lifestyle, auto and leisure industries.

#### 5.2 Implication for Theory

Having repositioned itself from being a multichannel retailer to becoming an omnichannel retailer, Hummel has changed how it competes. In a multichannel organization, value is created within each channel. In the omnichannel organization, the independent channels of the multichannel retailer are integrated and brandbased value is created at the corporate level. We begin by analyzing how these changes require that the Keller (2010) model of multichannel brand management must be extended when applied as a component of an omnichannel brand management strategy.

To implement an omnichannel strategy, the decision rights over channel IT management are centralized. In this context, the strategic benefit from centralization is not cost reduction from standardization as argued by Hodgkinson (1996). Instead, the benefit is from strengthening brand control by aligning business and IT strategies (Keller 2010; Reynolds and Yetton 2015; Zhang et al. 2010).

In the short run, Hummel loses the benefits from its previous focus on channel sales and revenue within a B2B strategy. In the medium to long term, the brand will be stronger and the sum of the channels will be greater than the sum of each individual channel in the multichannel strategy (Keller 2010; Zhang et al. 2010). This shift changes the way Hummel competes by changing the requirements for the three drivers of profit, governance, competence and flexibility (see Reynolds and Yetton 2015).

Specifically, the change in governance challenges the boundary conditions of the Reynolds and Yetton (2015) alignment model. Extending that model to include interdependences among business units in this case, interdependences across channels has potential implications for business and IT strategic alignment in platform-based organizations. Below, we discuss the contributions to theory under the four headings of the Keller (2010) theory of multichannel brand management, organization structure and governance, strategic IT-based competences, and IT-based flexibility. We then summarize the research contribution from this paper.

Before we do that, we consider an additional finding not listed above. Hummel was successful in implementing its multichannel strategy. So, we apply the Reynolds and Yetton (2015) model to analyze that success. This shows that properties of that strategy and its implementation, which were changed to implement the omnichannel strategy, were critical factors in the success of its multichannel strategy.

## 5.2.1 Hummel: A Successful Multichannel Strategy

Interpreting the country channels in the Hummel multichannel strategy as strategic business units (SBUs), the Hummel IT strategy and structure are consistent with those recommended by the Reynolds and Yetton (2015) alignment model. Recall from the background theory section above, each SBU's IT application portfolio should be independent of other SBU IT portfolios to support the unique way in which each SBU competes in its own market. Shared IT-based services should be supplied by the corporate IT platform.

The case study above reports that: 'The emergence of the Internet highlighted the scattered and unaligned brand presence across markets and channels. Some SBUs, in markets like Korea, sold exclusively sport products through Hummel concept stores. Turkey and France sold fashion products through a mix of channels.' These variations are a threat to a strong global brand strategy but are consistent with a multichannel or multi-business strategy in which the governance structure delegates the business decision rights, including how they compete in their own market, to the individual SBUs. Consistent with this strategy autonomy, IT strategy is aligned to these differences in the business models across countries. For example, each channel developed its own Facebook page and brand presence, which was the source of the '... unaligned brand presence across markets and channels'.

The corporate platform, the ERP system, was limited to managing financials, production and logistics. Even this limited corporate level of control was not universally applied: 'Holland sold sport products, which they produced themselves under license through B2B channels.' This minimized the IT corporate overheads in a business model where value was primarily created at the SBU level.

The different IT capabilities in each country-based channel were leveraged by different country-based business capabilities to create the different competences required to compete in each country. The success of this strategy is consistent with the predictions of the Reynolds and Yetton (2015) model, providing empirical evidence to validate their theoretical model. In addition, this secondary analysis shows how the governance that is appropriate for one strategy, a multichannel strategy, can be inappropriate for another, an omnichannel strategy, which includes the creation of 'OBOV'.

## **5.2.2 Omnichannel Brand Management**

When applying the Keller (2010) framework to Hummel (see Figure 1), it shows how Hummel as a brand owner would reach the end-consumer through direct sales and marketing channels (e.g., through new consumer channels, including Facebook, newsletters, ecommerce, stores etc.) or through indirect sales and marketing channels (e.g., through B2B business). However, the Keller framework does not distinguish clearly between online and offline channel choices, or show where the boundaries between on and offline channels are becoming increasingly blurred due to new technology advancements with omnichannel features (e.g., augmented reality, tablets in store, holograms, etc.). Most importantly, the model does not include the links across channels, which are the critical difference between a multichannel strategy and an omnichannel strategy.

Adapting the Keller (2010) marketing integration framework to incorporate the Hummel features above, we extend the framework to model an omnichannel strategy (see Figure 4). Furthermore, we found it useful to show the company's dependence on each area as percentages of total turnover in the direct and indirect sales channels. We also present the percentages in the personal and mass communication channels. These are proxies for the share of impressions/eyeballs reached.

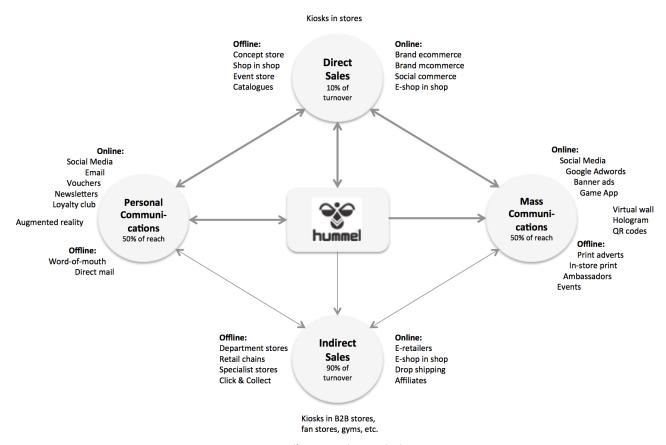


Figure 4 Hummel's Omnichannel Characteristics

Figure 5 gives an overview of the omnichannel environment in which Hummel operates. Generalizing Hummel's experience, we highlight four aspects of omnichannel management strategy to offer a brand-based seamless communication and shopping experience.

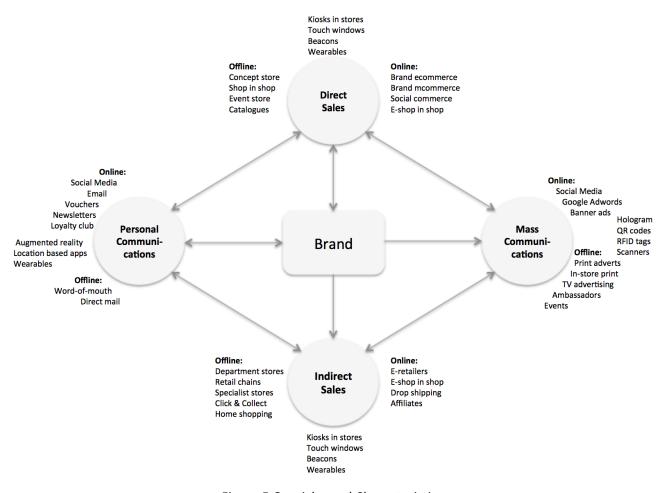


Figure 5 Omnichannel Characteristics

First, we relax the assumptions of channel independence with channels operating as separate business units. In transforming to the omnichannel structure, the customer ownership, decision rights and value creation are reassigned from the channels to the corporate center. This change is examined in more detail below in our analysis of how governance creates value. Figure 5 presents the Omnichannel Characteristics framework, showing how the corporate brand affects the end-consumer with the brand located in the middle of the Figure, interacting with partners and consumers. As described by Keller (2010), this can be enacted through direct sales and marketing channels or through indirect sales and marketing channels, but with those mechanisms subject to centralized brand control.

Second, to have an overview of the channels to be integrated, Figure 5 shows the online and offline channel choices, and the channels where lines between online and offline are becoming blurred due to technology advancements with omnichannel features, including, for example, augmented reality, wearables including Google Glass, location based apps, and tablets in store. In addition, arrows are included in the model to identify the important interrelationship between the channels, and the brand owner's influence on those relationships.

Third, offering customers a coherent and seamless communication and shopping experience compared with a multichannel shopping experience requires that the organizational structure described above is aligned with both the omnichannel business and IT strategies. The new IT structure is centralized as explained in the organization structure and governance section below.

Fourth, while omnichannel retailing involves a fundamental shift in how retailers compete, we recognize that it will still essentially be a multichannel world but with a strong omnichannel overlay. While the brand is managed centrally, channel managers will still focus on their individual channels. An omnichannel strategy will be one of the critical strategic differences between successful and unsuccessful retailers in the world driven by the fast, ever-changing consumer behavior and social media technology.

#### 5.2.3 IT Governance structure

The transition from multichannel to omnichannel retailing involves a fundamental change in the governance structure. In the multichannel organization, each channel operated independently to create value. Each channel manager was effectively running an independent business unit. In contrast, in the omnichannel organization, the channels are highly interdependent in how they create value. "We have .... killed the old silo policy about the web." (Hummel CMO).

Restructuring from a multichannel strategy to an omnichannel strategy is not similar to adding more channels. Instead, it involves designing an organization structure to deliver a seamless brand and shopping experience. To achieve this, the new governance structure centralizes the decision rights over brand management to implement a strong global brand strategy. In 2013, the existing marketing department was 'tasked with the challenge of including online and retail channels in the brand positioning'.

This created tensions between the marketing department and the digital department, set up in 2011 to manage digital marketing and ecommerce, and the retail department set up in 2013. 'This created daily tensions across a divide based on old and new marketing mindsets.' To resolve this weakness in the governance structure, the three departments were merged in 2015. 'The Head of Digital became Head of Marketing and Omnichannel to integrate channels and to promote a vision of 'digital first''. In this way, Hummel centralized all decision rights over channels, including channel IT that supported the global brand strategy. "The website is the most important path to achieving brand alignment and availability for Hummel" (Hummel CMO).

The decision in 2012 to launch Hummel's first global website, integrating Facebook, Instagram, YouTube and Twitter feeds, identifies the limited residual decision rights retained by the country managers. 'Further technical features were also developed ..., including a What You See Is What You Get (WYSIWYG) editor for the global website, enabling the manager in each country with web responsibility to upload local stories, events and promotions, and to select the social media feeds to support each post.'

These examples and others in the case findings above are consistent with the arguments underpinning the Reynolds and Yetton (2015) alignment model. Governance creates value by aligning business strategy and IT strategy within the corporate and/or business unit levels. This reduces transaction costs and agency problems.

Within the previous multichannel strategy, value was created by alignment between the business and IT strategies in each channel, which operated as a business unit. Within the omnichannel strategy, value is created by alignment at the corporate center. Traditionally, IT strategy is centralized as part of central IT shared services, with standardization realizing economies of scale (see, for example, (Hodgkinson 1996). In contrast here, decision rights over channel resources, including IT resources, are centralized to strengthen the, global brand strategy (Keller 2010; Reynolds and Yetton 2015; Zhang et al. 2010).

However, the case findings also report an apparent major inconsistency between the Hummel case experience and the Reynolds and Yetton (2015) model. The model assumes that within a multi-business strategy, each SBU competes in its own market independently of the other SBUs. Within an omnichannel strategy, the channels operate interdependently (see, for example, the multiple linkages between channels in Figure 5). We return to this issue below in the discussion of flexibility to show that the effects on value creation of interdependences among channels are asymmetric between multi-business organizations and omnichannel organizations. This extends the Reynolds and Yetton (2015) model to explain the effects of governance on value creation in omnichannel strategies.

#### 5.2.4 Strategic competences

Governance essentially determines where, at the corporate center or at the business unit level, value is created. However, the alignment between business and IT capabilities, which create unique IT-based competences, occurs at the same level. Within a level, alignment creates competences when business capabilities leverage IT capabilities to create novel competences.

For Hummel, as the CEO said in 2010: "... we needed capacity and brainpower in this area [digital]. That was the only knowledge I really had." The capabilities to run the multichannel strategy had no overlap with the digital marketing capabilities and IT integration capabilities in social media required to implement the omnichannel strategy. Certainly, Hummel did not have the capabilities to run the analytics that are critical to the omnichannel strategy.

Hansen et al. (2015) describe the dynamic development of competences at Hummel. Here, the concern is with the level of those competences. When the marketing, digital and retail departments were merged in 2015, 'some employees were let go, omnichannel minded employees were promoted and omnichannel minded employees were hired. The Head of Digital became the head of Marketing and Omnichannel.'

Hummel began to build the business and IT capabilities required by the omnichannel strategy. Each step forward in the implementation required new capabilities. When running the multichannel strategy, Hummel 'had handled data from thousands of B2B customers. The systems could not manage data from millions of end-customers' in an omnichannel strategy. To manage the new Big Data sets, Hummel had to hire new data managers. So, at every step in the development of the omnichannel strategy described in the case study above, Hummel had to acquire digital business and IT integration capabilities.

An additional challenge is that the newly recruited IT resources know little about an omnichannel retail strategy, and the newly recruited retail resources know little about interpreting Google analytics, other online feeds and the use of real time dashboards. Critically, value is not created by recruiting and developing the business and IT resources but by the new business resources leveraging the new IT resources to create competences (Reynolds and Yetton 2015). Furthermore, this occurs in a dynamic environment in which the resources and their interactions change quickly.

# 5.2.5 Flexibility

In an omnichannel strategy, the driving force for IT-based change is the dynamic customer technology sets and social media platforms. Customers' use of social media and ecommerce does not pause, let alone stand still for a while. Instead, it is constantly evolving. The central IT system therefore must be flexible.

Hence, the challenge is not about making the organization internally flexible as assumed in the Reynolds and Yetton model (2015). There the threat to performance is that the company implements IT upgrades

and makes other IT-based changes, which reduce the IT flexibility over an investment cycle, increasing the cost and reducing the impact of the next innovation. Here, the argument is that the company needs the flexibility, not in terms of the investment cycles, but in terms of the flexibility to respond to unexpected innovations in mobile devices and/or social media.

Our findings above describe how the multichannel team (steering group) in Hummel came together to design the IT infrastructure for B2C ecommerce. This was mainly achieved by designing new separate systems for the B2C interfaces (e.g., B2C CMS and ecommerce shop system, B2C PIM system, apps and social media integrations), which were integrated with the existing B2B back-end ERP system. However, after two years, it has become clear that the rapidly changing B2C omnichannel business has requirements with which the existing back-end cannot cope.

At the same time, the traditional B2B customers had also changed their data exchange requirements, as they became more integrated into the ecommerce business and the world of social media. As a consequence, Hummel has to rethink and rebuild its entire master data structure and supporting back-end systems. This is a major project, which is still in its initial phases. We speculate that future systems at Hummel and other retail companies will be highly modularized, so that the systems can be changed, recombined and reconfigured quickly to cope with changes in customer demands and business offers.

This raises a separate, but related, issue. Retail companies must to understand the trajectory of social media or they must build a very high level of potential flexibility into their IT platforms in order to compete in this new omnichannel world. We speculate that they will adopt a combination of the two.

The first choice, of understanding the trajectory of social media and the inherent changes in customer behavior patterns, is difficult, as there is no expertise, knowledge or judgment about how social media will to change. In its short life span, it has been dynamic and unpredictable.

The other choice, of building a high level of flexibility into the IT platforms, is expensive. However, the high level of flexibility can be achieved by either specifically developing the IT systems for the company or by accessing the systems from a standard supplier like SAP or Microsoft. In Hummel's case, the company bought in Microsoft Dynamics Navision, but will need to upgrade to a completely new version in the near future and buy in a PIM system. This is expensive both in terms of investment in the systems and investment in external and internal resources to implement the system.

## **5.3 Implications for Practice**

The transition from a multichannel to omnichannel brand strategy raises a number of challenges for an organization. If developing the right model is difficult in theory, it is likely to be more difficult in practice. Five of the challenges are reviewed here: The transition is a revolution and not an evolution; there are major changes for existing staff with few winners and many losers; channel conflict has a significantly increased impact on organizational performance; new key performance indicators (KPIs) must be developed; and not all combinations across channels can be serviced. Hummel has experienced all of these challenges. To some extent, all are still a work in progress. As recognized in the Limitations section above, the implementation cycle is on-going.

First, the transition from a multichannel to an omnichannel strategy is a major strategic change without a proven model to copy. It is not about adding more channels, but about handling a lot more complexity to

make a seamless world a successful business. The complexity includes building a new corporate IT platform to integrate the channels; implementing a new organizational structure and writing all the new job descriptions; recruiting new IT global brand management and marketing resources; and retraining and letting go of existing resources. These are all on the transition critical path with limited opportunities to mitigate the risks involved.

Second, the transition from value being created primarily in the individual channels through increased sales to value being created at the corporate level through global brand management and collaboration across channels has implications for the channel managers. Many will feel that they have lost their independence and been stripped of their power. Their expertise has not changed, but it does not have the same critical role in value creation in the new omnichannel business model as it did in the previous model.

In the transition, it is in the thinking global, where the opportunities are large. In the acting local, the opportunities are limited. The reverse was the case in the multichannel business model. The new organizational structure removes much of the discretion from channel managers, including their rights over IT decisions. Instead, the omnichannel organization competes as a global brand. For channel managers, there will be only small variations in each country. In Hummel's case, lighter fabrics are used in southern Europe compared to Scandinavia, and sizing and colors are different in Asia compared to Europe.

In contrast, for the global brand and IT managers, the world is full of opportunities and the resources to exploit them. The global brand manager is king: The customer must have the same collective experience of the brand whether she gets off the plane in Seoul, Korea, and shops in the flagship store, shops online in Spain, or in a shop-in-shop in Denmark. The global IT platform manager is the architect of the new model. And, of course, the players in these roles are mostly new highly technically trained recruits with university degrees unlike many of the existing staff.

Third, because it is not possible to collapse and integrate channels in the short run, especially when a retail company is constrained by its legacy structures, channel conflicts occur. Customers judge a brand by their collective and holistic experience of all interactions with the brand (Kwon and Lennon 2009). They do not think about channels. However, the previously dominant physical store channel will naturally compete with online, mobile and future new channels.

Within a multichannel strategy, channel conflict identifies where the market segments underpinning the channel structure are not independent. Various solutions are available to resolve the conflict at an operational level (see, for example, (Avery et al. 2012; Riggins 2004; Van Bruggen et al. 2010). In an omnichannel strategy, channel conflict threatens collaboration across channels, which is a critical component of the strategy. Consequently, in a multichannel strategy, we remove the conflict. In an omnichannel strategy, we must embrace it, explore and define how to collaborate (Brynjolfsson et al. 2013). To enable this, the new IT platform must provide the transparency to identify the source of the conflict and the flexibility to support a collaborative solution, without increasing temporal misalignment.

Fourth, in a multichannel world, KPIs are structured around the performance of each channel. There is experience in the industry on how to do this. In contrast, in an omnichannel world, the challenge is how to measure the contribution to performance of the interactions among the various channels. There is limited experience in the industry about how to do this.

Early solutions at Hummel were that sales assistants in stores would be rewarded for the sales they sent to the online channels and the online channel managers would be rewarded for the traffic they sent to the stores. While straightforward in theory, these benefits were difficult to measure in practice. Then, there was the added complication of how to account for returns.

Another solution could be that bonuses would be contingent on the value that the corporate brand creates compared with the value created by the channels, with the challenge of how to measure these values. At Hummel, the annual bonus payment is equal for all roles to minimize channel conflicts and support collaboration. For those who previously were paid high bonuses, this is frequently resented.

Over time, Hummel implemented evaluation and performance metrics for all communication channels. These were visible on real-time dashboards on the large screens at the head office, and were reported in detail once a month to the Board of Directors. This helped not only to gain understanding of the new digital channels, but also to infuse excitement about the growing impact of the consumer channels as Hummel grew its customer community from 13,000 members in 2010 to 1.5 million in 2014.

However, it was only when sales hit a significant amount (which was helped by a large gross margin when selling directly to consumers) that Hummel considered implementing sales performance cost controls and commissions. As an example, independent Hummel countries would pay for the development and operation of a local website and receive a share of the revenue from the ecommerce in their local territory. Another example is how the B2B partners are incentivized and rewarded for introducing customers to the iPad shop-in-shop. The incentive is higher than if the B2B partner purchased the product for the customer through the B2B platform. In this way, Hummel tried to manage the channel mix to give the end-consumer the best possible experience. Again, there is very limited experience in the industry on how to implement such a process.

Fifth, deliveries and returns of products purchased through the ecommerce channels were amongst the largest operational obstacles. Partly, this was because Hummel had to change from a B2B mindset to a B2C mindset in which Hummel itself had to service the contact with the end-consumer. For example, the warehouse systems were not set up to pack individual beautifully wrapped packages with custom notes and small gift-with-purchases for the end-consumers. Instead, it was set up for large pallet deliveries for the B2B customers. When additional B2C ecommerce channels and physical stores, directly and indirectly owned, were added to the channel mix, it became more complex and difficult to operate in an omnichannel manner. So, when Hummel next went out to tender for warehousing services, extensive requirements for B2C ecommerce services were included.

There are numerous potential combinations of purchases, pick-up or delivery, and returns, in an omnichannel strategy. Helped by technology integration, Hummel learned to fulfill many of these, including: Buy online – home delivery (all B2C customers); buy online – pick up in store for B2C stores integrated with the Hummel website; buy online – return in store (for B2C stores integrated with the Hummel website; go to store – buy online in partner stores with in-store shop-in-shop. However, Hummel cannot yet fulfill: Buy online (B2C ecommerce) – return in Intersport stores (a B2B customer); and buy in store – return to online store. In an omnichannel strategy that espouses a seamless shopping experience, the failure to support some patterns is frustrating for customers and threatens the espoused strategy.

The different shopping patterns also have the potential to create channel conflict. For example, Hummel initially developed a separate inventory management location for B2C ecommerce in the ERP system.

However, it was realized later that this was too complex for the new business, as not all allocated inventory would be sold through the ecommerce channel. In addition, because the B2C ecommerce products were not stored separately from all other products in the warehouse, they were still physically available for other channels. After three seasons, it was decided to cease using the separate inventory management location. Instead, the inventory was treated as one entity available to all the channels. This created conflict between channels, for example, the ecommerce channel would lose styles, which had suddenly all been purchased by a large sport chain.

In this and many other ways, Hummel has been on a steep learning curve to implement their omnichannel strategy, which has required strong and consistent top management support and involvement. In practice, the move from a multichannel strategy to an omnichannel strategy is a mixture of opportunities and problems. These have the potential to create conflict rather than collaboration, with significant winners and losers. Frequently, the winners will be the new recruits and not the long-term members of the organization. Hence, the strategic change is a major challenge in organizational transformation.

#### 6. CONCLUSIONS

This paper poses two questions: What are the critical strategic differences between a multichannel and an omnichannel marketing strategy; and how do governance, competence and flexibility create value in omnichannel strategies? The contribution in response to the first question is an extension to the Keller (2010) model of brand management. This extension recognizes the critical effect of interactions among channels in an omnichannel strategy. The importance of this insight and contribution will increase with the increased use of mobile devices in the retail shopping experience.

The contribution in response to the second question is relevant to the general domain of platform organizations. The global brand retailer is one example of the general set of platform organizations. The dominant organizational form of the last thirty years has been the MBO. Moving decisions close to the customer creates value. The corporate center determines in what markets the SBUs compete and the level of services that they shared. IT services have been a critical component of those shared services. Reynolds and Yetton (2015) present a model of alignment for MBOs.

Increasingly, corporations are competing as platform organizations. The corporation rather than the SBU owns the customer. Value is created at the corporate level, rather than within the lines of business, which are frequently interdependent. Examples include CISCO, Amazon and Google. The analysis above suggests how the Reynolds and Yetton (2015) model can be extended to model business and IT strategic alignment in these platform organizations, including Hummel and other omnichannel retailers.

#### REFERENCES

- Avery, J., T. Steenburgh, J. Deighton, and M. Caravella. 2012, "Adding Bricks to Clicks: Predicting the Patterns of Cross-Channel Elasticities Over Time," *Journal of Marketing* (76:3), pp. 96-111.
- Bang, Y., D. Lee, K. Han, M. Hwang, and J. Ahn. 2013, "Channel Capabilities, Product Characteristics, and the Impacts of Mobile Channel Introduction," *Journal of Management Information Systems* (30:2), pp. 101-126.
- Benbasat, I., D. K. Goldstein, and M. Mead. 1987, "The Case Research Strategy in Studies of Information Systems," *MIS Quarterly* (11:3), Sep., pp. 369-386.
- Bendoly, E., J. D. Blocher, K. M. Bretthauer, S. Krishnan, and M. Venkataramanan. 2005, "Online/in-Store Integration and Customer Retention," *Journal of Service Research* (7:4), pp. 313.
- Bergeron, F., L. Raymond, and S. Rivard. 2004, "Ideal Patterns of Strategic Alignment and Business Performance," *Information & Management* (41:8), pp. 1003-1020.
- Brynjolfsson, E., Y. J. Hu, and M. S. Rahman. 2013, "Competing in the Age of Omnichannel Retailing," *MIT Sloan Management Review* (54:4), pp. 23-29.
- Chan, Y. E., S. L. Huff, D. W. Barclay, and D. G. Copeland. 1997, "Business Strategic Orientation, Information Systems Strategic Orientation, and Strategic Alignment," *Information Systems Research* (8:2), pp. 125-150.
- Chan, Y. E., and B. H. Reich. 2007, "IT Alignment: What have we Learned?" *Journal of Information Technology* (22:4), pp. 297-315.
- Chatterjee, P. 2010, "Multiple-Channel and Cross-Channel Shopping Behavior: Role of Consumer Shopping Orientations," *Marketing Intelligence & Planning* (28:1), pp. 9-24.
- Chung, C., S. C. Chatterjee, and S. Sengupta. 2012, "Manufacturers' Reliance on Channel Intermediaries: Value Drivers in the Presence of a Direct Web Channel," *Industrial Marketing Management* (41:1), pp. 40-53.
- Croteau, A., and F. Bergeron. 2001, "An Information Technology Trilogy: Business Strategy, Technological Deployment and Organizational Performance," *The Journal of Strategic Information Systems* (10:2), pp. 77-99.
- Daniel, E. M., and H. N. Wilson. 2003, "The Role of Dynamic Capabilities in E-Business Transformation," *European Journal of Information Systems* (12:4), pp. 282-296.
- Eisenhardt, K. M. 1989, "Building Theories from Case Study Research," *Academy of Management Review* (14:4), pp. 532-550.
- Flyvbjerg, B. 2012, "Five Misunderstandings about Case Study Research, Corrected," *Qualitative Research:*The Essential Guide to Theory and Practice, London and New York: Routledge pp. 165-166.
- Hansen, R. 2015. "Toward a Digital Strategy for Omnichannel Retailing," *Unpublished Thesis, Copenhagen Business School, Department of IT Management*.
- Hansen, R., and S. K. Sia. 2015, "Hummel's Digital Transformation Toward Omnichannel Retailing: Key Lessons Learned," *MIS Quarterly Executive* (June forthcoming).

- Hansen, R., A. Yeow, and C. Soh. 2015, "Aligning with New Digital Strategy: A Dynamic Capabilities Approach," Under review at Journal of Strategic Information Systems.
- Hodgkinson, S. L. 1996. *The Role of the Corporate IT Function in the Federal IT Organization*, Oxford University Press, Oxford, UK.
- Hulland, J., M. R. Wade, and K. D. Antia. 2007, "The Impact of Capabilities and Prior Investments on Online Channel Commitment and Performance," *Journal of Management Information Systems* (23:4), pp. 109-142.
- Kapferer, J. N. 2008. The New Strategic Brand Management: Creating and Sustaining Brand Equity Long Term, Kogan Page Ltd, London.
- Kearns, G. S., and R. Sabherwal. 2007, "Strategic Alignment between Business and Information Technology: A Knowledge-Based View of Behaviors, Outcome, and Consequences," *Journal of Management Information Systems* (23:3), pp. 129-162.
- Keller, K. L. 2010, "Brand Equity Management in a Multichannel, Multimedia Retail Environment," *Journal of Interactive Marketing* (24:2), 5, pp. 58-70.
- Kvale, S., and S. Brinkmann. 2008. *Interviews: Learning the Craft of Qualitative Research Interviewing*, Sage Publications, Thousand Oaks.
- Kwon, W. S., and S. J. Lennon. 2009, "Reciprocal Effects between Multichannel Retailers' Offline and Online Brand Images," *Journal of Retailing* (85:3), pp. 376-390.
- Makadok, R. 2011, "The Four Theories of Profit and their Joint Effects," *Journal of Management* (37:5), pp. 1316-1334.
- ———. 2010, "The Interaction Effect of Rivalry Restraint and Competitive Advantage on Profit: Why the Whole is Less than the Sum of the Parts," *Management Science* (56:2), pp. 356-372.
- Mason, J. 1996. Qualitative Researching, Sage Publications, Inc., Thousand Oaks, CA, US.
- Oh, W., and A. Pinsonneault. 2007, "On the Assessment of the Strategic Value of Information Technologies: Conceptual and Analytical Approaches," *MIS Quarterly* pp. 239-265.
- Prahalad, C. K., and G. Hamel. 1990, "The Core Competence of the Corporation," *Harvard Business Review* (68:3), pp. 79-91.
- Preston, D. S., and E. Karahanna. 2009, "Antecedents of IS Strategic Alignment: A Nomological Network," *Information Systems Research* (20:2), pp. 159-179.
- Reich, B. H., and I. Benbasat. 1996, "Measuring the Linkage between Business and Information Technology Objectives," *MIS Quarterly* pp. 55-81.
- Reynolds, P., and P. Yetton. 2015, "Aligning Business and IT Strategies in Multi-Business Organizations," Journal of Information Technology (forthcoming).
- Riggins, F. J. 2004, "A Multichannel Model of Separating Equilibrium in the Face of the Digital Divide," Journal of Management Information Systems (21:2), pp. 161-179.

- Sarker, S., S. Sarker, A. Sahaym, and N. Bjørn-Andersen. 2012, "Exploring Value Cocreation in Relationships between an ERP Vendor and its Partners: A Revelatory Case Study," *MIS Quarterly* (36:1), pp. 317-338.
- Sharma, A., and A. Mehrotra. 2007, "Choosing an Optimal Channel Mix in Multichannel Environments," *Industrial Marketing Management* (36:1), 1, pp. 21-28.
- Sparks, L. 2003, "A Catalogue of Success? Argos and Catalogue Showroom Retailing," *The Service Industries Journal* (23:2), pp. 79-111.
- Van Bruggen, G. H., K. D. Antia, S. D. Jap, W. J. Reinartz, and F. Pallas. 2010, "Managing Marketing Channel Multiplicity," *Journal of Service Research* (13:3), pp. 331.
- Webb, K. L., and C. J. Lambe. 2007, "Internal Multi-Channel Conflict: An Exploratory Investigation and Conceptual Framework," *Industrial Marketing Management* (36:1), pp. 29-43.
- Webcredible. 2012. *Omni-Channel Report 2012* http://www.webcredible.com/blog-reports/white-papers/omni-channel-report-2012.pdf.
- Webster, J., and R. T. Watson. 2002, "Analyzing the Past to Prepare for the Future: Writing a Literature Review," *MIS Quarterly* (26:2), pp. xiii-xxiii.
- Westerman, G., D. Bonnet, and A. McAfee. 2014. *Leading Digital: Turning Technology into Business Transformation*, Harvard Business Press.
- Wilson, H., and E. Daniel. 2007, "The Multi-Channel Challenge: A Dynamic Capability Approach," *Industrial Marketing Management* (36:1), pp. 10-20.
- Yin, R. K. 2003. *Applications of Case Study Research (Applied Social Research Methods)*, Sage Publications, Thousand Oaks.
- ———. 1989. Case Study Research: Design and Methods (Applied Social Research Methods), Sage Publications, Thousand Oaks.
- Zahra, S. A., and J. G. Covin. 1993, "Business Strategy, Technology Policy and Firm Performance," *Strategic Management Journal* (14:6), pp. 451-478.
- Zhang, J., P. W. Farris, J. W. Irvin, T. Kushwaha, T. J. Steenburgh, and B. A. Weitz. 2010, "Crafting Integrated Multichannel Retailing Strategies," *Journal of Interactive Marketing* (24:2), pp. 168-180.
- Zhu, K. 2004, "The Complementarity of Information Technology Infrastructure and E-Commerce Capability: A Resource-Based Assessment of their Business Value," *Journal of Management Information Systems* (21:1), pp. 167-202.
- Zhu, K., and K. L. Kraemer. 2002, "E-Commerce Metrics for Net-Enhanced Organizations: Assessing the Value of E-Commerce to Firm Performance in the Manufacturing Sector," *Information Systems Research* (13:3), pp. 275-295.