# THE IMPACT OF DIGITAL TECHNOLOGIES ON INNOVATIONS IN RETAIL BUSINESS MODELS

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**ABSTRACT**

The journey to business success in the retail industry is neither straightforward nor even. It is a journey fraught with difficulties, obstacles and obstructions that arise from the interplay of several factors and elements that, taken together, render the selection of the correct course intricate and arduous. Not all retailers can stay the correct course in the face of external forces and heightening competitive pressures. However, there are those retailers who have successfully taken advantage of the changes happening in the customers' shopping behavior and in the retail industry as a whole. Innovation in technology, both inside the retail stores and in the hands of customers, is one of those external forces that impact the retail industry and is also the primary focus of this study. This study lists examples of retailers and of recent developments in marketing and technology in retailing that transform the way retail business has been done. Through this study, the reader, potentially retail store or retail chain manager, will explore the topic of retail business model innovation evidenced by cases of retail companies, such as Wal-Mart, Tesco, Safeway, Target, Burberry and other.

The role of technology is discussed in these cases and also separately with an outlook to those future technologies that are poised to grab the attention of retailers. Examples of those technologies include, but are not limited to, location-based applications, targeted and customized mobile promotions, mobile point-of-sale, personal shopping assistants and radio frequency identification technology. The study describes how these technologies might affect customer behavior and change the role performed by the store personnel. The combination of these examples sets the stage for a look into the near future of retailing. Moreover, these examples convey an

interesting insight into current and future technology trends.

KEYWORDS: Business Model, Information Technology, Retail Trends…

**INTRODUCTION**

In order to meet evolving and shifting customer expectations and demands, retailers need to get to grips with multi-channel shopping behavior of today's shoppers. Shoppers the world over, armed with smart phones, tablets and virtually "unrestrained" access to the Internet from the comfort of their homes, at work ,in stores or on the move ,now have the upper hand over retailers and demand shopping experiences anywhere, anytime, and through any sales channel.

The retail industry is being driven by a new, dynamic, global transformation that further adds to the general competitive nature of the retail industry. This transformation has been set in motion by greater adoption of the Internet by the general public on a global scale which has forced retailers to develop e- commerce strategies and incorporate the multi-channel approach into their business models (Geyskens etal. 2002).Another contributing factor is the rising sales and penetration of smart phones and tablets worldwide that enable customers to stay connected to the Internet even outside of their homes or workplaces.

Other contributing factors are the increasing number of global population and purchasing power of people,especiallymiddle-classpeople,living both in developed and  Nowadays, consumers enjoy, and perhaps are even in undated, by a wide selection of services, products, brands, shopping choices and shopping channels in the form of legacy bricks-and-mortar stores, flagship stores ,department stores, catalogue shopping, TV shopping, on-line shopping ,mobile shopping and other online shopping electronic systems (PwC,2012).

The rapid speed of technology development and rising adoption of mobile digital devices on a global scale, such as smart phones and tablets, have a profound transforming impact on consumer behavior and retail businesses at large(Bain,2012;Nielsen,2013).Ail All these technological innovations, platforms and applications present a tremendous potential in the form of access to previously untapped sources of data. Data that now can be collected, e.g. at the point of sale (POS), and analyzed to obtain a more complete view of the customer on the one hand and to improve and enrich the overall customer experience on the other hand. Moreover, customers are not anymore just "customers". They are content creators, marketers and advertisers (e-Marketer, 2012b; Accenture, 2013a).They blog and chat about products with their friends, colleagues, and followers while spreading word-of-mouth on-line. They check and contribute to product review websites, as well a store retailers own websites and social media sites by expressing their likes, dislikes and recommendations.

As has been reasoned above, technology advancements and innovations present a transforming impact on the retail industry through a change in consumer behavior. Customers, the world over, have been quick at adopting new digital mobile technologies enabling access to the Internet24/7.Digital mobile technologies bring the retail store inside customers' homes or rather their devices. Despite hard economic times, customer demands have not let up. Customers seek time efficiency, avoidance of crowds and queues, convenience and flexibility when searching for products that would satisfy their needs and wishes while striking the best possible deal the biggest bang-for-the-buck, and avoiding disappointment(e.g. from empty shelves or rude shop assistants),i.e. gaining the best possible value from every purchase through the use of modern technologies(Karayanni,2003). Customers are changing the rules of doing business and retailers must adapt accordingly. Retailers, therefore, need to meet shifting customer demands both on-line and in the physical stores through the introduction of relevant innovative solutions, and the integration of on-line and off-line shopping experiences. They need to maximize share gain, keep customers happy, and at the same time look to get a greater share of wallet .The customer experience must, however, remain in the forefront for every retailer as customer expectations grow each year and, more crucially, the customer experience may also hold the key to maintaining the competitive advantage derived from a business model innovation.

The research problem this research paper addresses:

1. Can innovations in retail business model lead to a sustained competitive advantage?
2. Do new technologies have the potential to influence the introduction of completely new retail formats?
3. What are some of the key technologies and trends that have the potential to change the way we shop in retail stores in the future?

This research paper highlights the area of retail business models through creating a link between customer behavior and technological innovations (mobile digital technologies in particular) by taking a holistic view of current and future trends that affect, directly and indirectly, the retail industry.

## LITERATURE REVIEW

Business Model

A solid business model is vitally important for the success of each company irrespective of its size, products or services it sells or an industry sector the company competes in. Developing a clear idea of a business model is just as important step for a new venture as it is for an established market player (Zott&Amit, 2010). Rethinking a business model that has been in place for years and that is now challenged by external market forces is even a greater undertaking due to people's inherent inertia and propensity to cherish the status quo or "it-has-always-been-done-this-way" mindset (Zott&Amit, 2010, p.217; Chesbrough, 2010).

Solid business models elevate some companies to such a position where they surpass their competitors by offering greater value to a common group of customers. Similar or even identical products may be available on the market but a certain distinguishing feature sways customers to buy one over the other. Some customers may ascribe greater value to post-purchase services such as delivery options and service terms. Other customers, however, ascribe more importance to the product price, brand, packaging, convenience and store atmosphere. Therefore, every business model must specify what the customer values are and how the company delivers the perceived value. To put it differently, thebusiness model tells the story of how the company is going to earn money through selling its offerings to targeted customers (Magretta, 2002).

Views on Business Models:

" Who are the customer and what does the customer value?

" What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?

" The business model refers to the logic by which the organization earns money.

" A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities.

" The logic of the firm, the way it operates and how it creates value for its stakeholders.

There may be several profitable companies in each market sector but there are surely those that are more profitable than the others. What distinguishes them from the rest of the pack? Could it be a successful business model that represents a more profitable way of doing business that sets them apart? Could it also be that some business models create completely new ways of doing business? Magretta (2002, p.87) reasons it could by initiating, for instance, process innovations in terms of product or service delivery that resonate with a specific group of customers and that become the new, future standard. Redesigning a company's processes involves a fundamentally different business model supported by resources and a variety of either internal or external capabilities (Zott&Amit, 2010). The company might be lacking some capabilities that some of its value chain partners could provide. If the capabilities are not of crucial importance to the company, a decision should be made about which external partner candeliver optimal performance. In some cases, even entire key activities, such as product development, can be outsourced to value chain partners (Hippel& Katz, 2002).

Competing through Business Model Innovation

Innovating in a company's business model with success has been identified as a necessary managers' ability due to external market forces (advances in information and communication technologies, globalization, deregulation, etc.), rising competitive pressures, shifts in economic power from western developed countries to emerging markets (BRICS, Indonesia, Mexico, etc.), and relentless changes in customer tastes and preferences (Casadesus-Masanell&Ricart, 2009; Sorescu et al., 2011; Zott&Amit, 2012). This should come as no surprise since managers are the decision makers and their choices reflect how the organization must operate (business model) and what outcomes shall be realized (value). A global survey by the Economist Intelligence Unit confirmed that 55 percent of 4,018 senior managers favored new business models over new products and services as a source of future competitive advantage (EIU, 2005, p.9). In another study of 1,709 chief executive officers in 64 countries, IBM (2012, p.13) stated that technology change and its impact on companies' business models over the next three to five years had been cited as the most critical one.

A general, internally entrenched emphasis on innovation within the company, i.e. within the minds of its people, is surmised to lead to business model innovations, as experimentation will motivate employees and enable the company to discover viable new business models without jeopardizing current performance (McGrath, 2010; Chesbrough, 2010). Indeed, current performance is just a short-term and passing state in the company's existence. Business model innovation either creates new markets or sets the company in a position to pursue new business opportunities in existing markets. Subsequently,competitive position of those companies that successfully embrace business model innovation is elevated above the industry average as value creation and appropriation logic are dramatically improved (Sorescu et al., 2011). This applies even in times of economic hardship when resource scarcity and ensuing cost-cutting may seem to dominate the company's manager's agendas (Amit&Zott, 2011).

Lastly, as the revolution in information and communication technology and social media opens broad new opportunities, both in the on- and off-line worlds, business model innovation is increasingly vital for business growth and survival. Hence, retailers need to adapt to this new world of "unrestrained access to information" to survive the shoppers' changing expectations about how they wish to be engaged all along their path to purchase.

As technology opens new possibilities and options to both customers and retailers, the customer purchase journey changes as well and customers have more options of how to discover, research, purchase, and enjoy the products bought.

RESEARCH METHODOLOGY

In this regard, this research paper primarily draws on case studies published and discussed by the academia and available in various on-line academic journals. Other important sources of cases are market research reports prepared by global consulting companies and market research agencies that are available to general public on the Internet. In addition, news articles written by respected or globally renowned on- line news agencies, newspapers, bloggers and contributors have been tapped in order to further enrich and contribute to the quality of this study and to increase the number of both pertinent company cases and technology examples considered.

## CONCLUSION

1. Can innovations in retail business model lead to a sustained competitive advantage?

Technology is a driving force of change and the cases discussed in preceding sections offer a number of lessons in terms of business model innovation as a springboard to a sustained competitive advantage.

Primarily, they highlight the crucial role technology plays for retailers who want to stay relevant to their current customers and cater to the needs and wishes of new ones. The case of Burberry, among others, is an evident example of a legacy fashion retailer that has built its success on quality luxurious fashion products and brand heritage since its foundation in 1856. Nevertheless, as time passes by, Burberry has kept pace with innovations in the areas of store technology, as well as consumer technology. Consequently, what seemed unthinkable in the first half of 2000s became reality in the second half and gains momentum today? At first, it was a far-fetched idea to sell luxury fashion products on-line as it ran contrary to the proposition of memorable shopping experience. Nonetheless, in the second half of 2000s major luxury brands embraced the Internet as a new sales channel. Burberry was at the forefront of this shift in the luxury market and successfully transformed a decades old approach to selling luxury fashion items through the use and application of modern technology - tablets and smartphones - while, at the same time, staying true to its core value proposition and products.

Cases of Wal-Mart, Tesco, and Safeway have been discussed to further support the assumption that innovating in retail business models leads to a sustained competitive advantage. These retailers have been present in the market for decades and are still going strong even in the face of local or international competition.

1. Do new technologies have the potential to influence the introduction of completely new retail formats?

The case of My M&Ms highlight the ongoing trend towards the customers playing a crucial role in co-creating the products and brand experiences; experiences that transcend the physical store and take place in the digital world. The connection, however, between the store experience and the on-line experience is still crucial. Customers can visit one of many M&Ms branded stores all around the world to purchase the colorful chocolate candies and enjoy the brand. Nevertheless, the Internet in combination with mobile digital technologies has introduced a completely new perspective to thinking about retail formats. In consequence, the product is not "chained" anymore to a built up network of physical retail stores. The product can be bought and even more importantly adjusted to the wishes of each individual customer on-line. This, undoubtedly, changes the retail format of each retailer. Even legacy retailers, such as Wal-Mart, Tesco or Safeway, have embraced the potential opportunities offered by technology to change their retail formats. Wal-Mart, for instance, is not anymore a big box retailer with several hundred stores across the USA.

In consequence and with reference to the previous question, ongoing business model innovation leads to a sustained competitive advantage while technology serves as an enabler to a change in the way the retailers are structured (change of retail formats, adoption of new sales channels, taking on a different position in the value chain, etc.), and in the way they carry out their business.

2. What are some of the key technologies and trends that have the potential to change the way we shop in retail stores in the future?

The introduction of new in-store technology can have an immense impact on the overall retail store shopping experience. A wise application of modern technology inside retail stores can lead to enhanced customer convenience, service, and time savings that time-sensitive customers are likely to appreciate and welcome. In this respect, RFID technology and personal shopping assistants combine all of these elements. Firstly, the customer is not subject to long lines at the checkout and does not waste time. Secondly, the customer is well-informed of current store sales and product offerings. Thirdly, the customer discovers new products and product information which piques interest and translates into higher spending and profit per customer. Self-service checkouts and RFID technology are likely to benefit both the customers and retailers. On one hand, customers, who are not keen on personal service, are expected to embrace the self-service checkouts which will save them time and contribute to their satisfaction with the shopping process. On the other hand, retailers, by installing these checkouts in their stores, will reap the benefits of decreased labor costs and increased efficiency. RFID technology also renders labor-cost savings and increased efficiency achievable as it streamlines processes in the retailer's supply chain and inventory management. The time-saving potential of this technology for customers is then realized at the cash register as products do not have to be scanned again. Hence, both technologies can be reasonably expected to be adopted by more and more retailers which also means that more and more customers will be in a position to benefit from the use of these technologies in the retail stores.

Nevertheless, as technology adoption by retailers will surely rise across different retail formats and across multiple sales channels in the foreseeable future, it is unlikely to secure a lasting competitive advantage in the long run. The reason for this proposition is quite simple. If some technology helps lower the costs of operating stores of one retailer, other retailers, especially those whose primary value proposition centers on price, will follow and adopt the technology to remain cost competitive. Those retailers, whose primary concern is an enhanced customer experience, will implement technology to reinforce their position and to further differentiate themselves from price discounters. Cost savings, increased efficiency, and improved customer satisfaction will, however, lead to a growth in profitabilityfor those retailers who quickly introduce modern technology in their stores, at least in the short run.

As a result, technology grants several opportunities in terms of costs, efficiency, and customer satisfaction but also in terms of product and process innovations. Moreover, technology presents opportunities, and arguably challenges, to retailers' business models. Therefore, keeping abreast of new technological developments, as well as monitoring those technologies actively used by both the retailer's customers and competitors is a vital, live-or-go-bankrupt mission.

Customers bring technology, their mobile devices, to the store and expect to be able to use them while going about their shopping.

Anticipating how customers' are going to use technology in relation to shopping and modifying the business model accordingly have helped such global retailers as Metro Group, Target, Tesco, and Wal-Mart build competitive advantage.

Hence, technology itself is one side of the coin whereas how customers use the technology and what benefits they expect to realize is the other side. Technology, in the hands of customers, facilitates access to product information and product reviews that customers can tap in a matter of a few seconds to make informed purchase decisions and share their experience with thousands of other customers. Accordingly, traditional bricks-and-mortar retailers are faced with circumstances that reach beyond the walls of their stores to the on-line sphere. Challenges for retailers to cope with these shifts are rising as a result. The additional amounts of data to be processed and analyzed from various sources - point of sale, social media and corporate sites or product review sites - add to the challenges since the volume of data rises faster than retailers' ability to transform them into workable solutions and actions, such as targeted and customized mobile advertising and digital couponing or loyalty programs connected to mobile digital wallets. In conclusion, the following technology trends must be complemented by delivering on what customers truly want and value by not only listening to what customers say, but also by analyzing their purchase behavior. Consequently, each retailer's business model is only as good as the suppositions each retailer makes about what customers expect. In some instances, the situation may require radical business model innovation whereas a process or product change may be sufficient in other. Striking a balance and maintaining organizational flexibility, together with the monitoring of technology and customer trends, are important aspects of keeping the retailer's business model current and the whole concept of bricks- and-mortar stores valuable in the future.

**FUTURE SCOPE**

Following list presents the trends retailers should keep their eyes on:

" On-line shopping will continue to grow and, more importantly, the on-line competition will intensify as it is becoming easier to take the bricks-and-mortar retail business on-line. Enter Tic tail, for instance, is a Swedish company that simplifies the process of starting an on-line shop for other businesses by combining its e-commerce platform with PayPal (The Economist, 2013). This means it will get more complicated to distinguish Internet-only retailers from bricks-and- mortar stores with online portals. It also means that show rooming may gain even more attention as more stores will sell their products through the Internet (Heller, 2011). Lastly, mobile platforms for shopping online and flexible product delivery options of on-line retailers will have bricks-and-mortar retailers see their store sales decrease unless they create a clear and differentiating value proposition that exploits the physical store advantages in a more fundamental way (IBM, 2012);

" The growth in smartphone and tablet shipments will only intensify as populations in developingcountries increase their incomes and cheaper versions of both devices are introduced (IDC, 2012). The sales of these mobile devices will further eclipse the sales of personal PCs which means that retailers will need to optimize their on-line presence and promotional efforts to the smaller sizes of screens of mobile devices;

" Sales of luxury products, traditionally confined to bricks-and-mortar stores, will be increasingly happening over the Internet (E-Marketer, 2013). On-line pure plays, department stores' retail sites, and brands with their own online stores will be offering more luxury products on-line to cater to the demands of luxury-seeking but time-strapped customers. As has been mentioned in the previous example, the format of the websites will have to be adjusted to mobile devices to ensure true luxury shopping experience even on mobile devices;

" With more mobile devices in the hands of customers, retailers can expect the role of thecustomer, and the information he/she can access, to be strengthened even further. Customers will demand more transparency into, for example, the origins of the products, how they have been sourced, what ingredients and substances have been used in the production process, etc. In this respect, increased transparency may lead some customers to shift demand more rapidly and more frequently to retailers that do not obstruct the access to information. Customer loyalty programs will have to reflect this scenario because maintaining loyalty will become harder (IBM, 2012);

" Mobile-based solutions, applications, store sensors and connectivity to social media will be amust-have for bricks-and-mortar retailers. These solutions will not, however, improve store sales if a store assistant is not trained on using them. Therefore, the assistant's role will be redefined from a person who takes customer orders and provides general assistance to a person who is a specialist in using mobile devices and solutions. A person who can quickly recommend relevant products and offer additional services based on customers' purchase history, loyalty data and the store's inventory levels. A person who knows what the customer might be looking for the moment he/she enters the store and checks in with a mobile application. Professional and personal customer approach is what will continue to be the feature that distinguishes bricks-and- mortar retailers from on-line pure plays. If executed to the highest standard, it can also be a competitive advantage. Therefore, retailers should strive for attracting and retaining congenial and tech-savvy assistants which means that talent recruitment will experience increased rivalry;

All the aforementioned trends will contribute to a short-lived competitive advantage. In consequence, retailers will have to become more skillful at developing new competitive strategies and, potentially, rethinking their business models. New forms of retail formats are likely to emerge as a result.

**BIBLIOGRAPHY**

1. Adner, R. &Zemsky, P., 2006, "A Demand-Based Perspective on Sustainable Competitive Advantage," Strategic Management Journal, 27 (3), 215-39.
2. Amit, R.H. &Zott, C. 2011, Business Model Innovation: Creating Value in Times of Change, Rochester, Rochester.
3. Ansari, A., Mela, C.F. &Neslin, S.A. 2008, "Customer Channel Migration", JMR, Journal of Marketing Research, vol. 45, no. 1, pp. 60.
4. Casadesus-Masanell, R. &Ricart, J. E. 2007, "Competing Through Business Models". IESE Business School Working Paper No. 713.
5. Casadesus-Masanell, R. &Ricart, J. E., 2009, "From Strategy to Business Models and to Tactics", Long Range Planning, 43 (2/3), 195-215.
6. Debruyne, M., Frambach, R.T. &Moenaert, R. 2010, "Using the Weapons You Have: The Role of Resources and Competitor Orientation as Enablers and Inhibitors of Competitive Reaction to New Products", The Journal of Product Innovation Management, vol. 27, no. 2, pp. 179.
7. Geissler, G. L., &Zinkhan, G. M. 1998, "Consumer perceptions of the World Wide Web: An exploratory study using focus group interviews", Advances in Consumer Research, 25(1), 386-392.
8. Geyskens, I., Gielens, K. &Dekimpe, M. G. 2002, "The market valuation of internet channel additions",Journal of Marketing, Vol. 66, No. 2, pp. 102-119.
9. Harris, W. 2010, "Mobile Coupons Gaining Steam", Picture Business & Mobile Lifestyle, vol. 7, no. 5, pp. 26-26.
10. Hayashi, F. 2012, "Mobile Payments: What's in It for Consumers?", Economic Review - Federal Reserve Bank of Kansas City, , pp. 35-66.
11. IBM, 2012, "Customer Checkout Getting Easier, Faster, Smarter with IBM Retail Systems", Technology & Business Journal, pp. 108.
12. Jacob, K. &Lunn, A. 2011, "Exploring the new face of retail payments", Chicago Fed Letter, no. 290, pp. 1- 4.
13. Karayanni, D.A. 2003, "Web-shoppers and non-shoppers: Compatibility, relative advantage and demographics", European Business Review, vol. 15, no. 3, pp. 141-141.
14. Kaufman-Scarborough, C. & Lindquist, J.D. 2002, "E-shopping in a multiple channel environment", The Journal of Consumer Marketing, vol. 19, no. 4, pp. 333-350.
15. Morrison, M. 2012, "A Focus on Digital has made Burberry Relevant to a New Generation", Advertising Age, vol. 83, no. 44, pp. 24-24.
16. Nobbs, K., Moore, C.M. & Sheridan, M. 2012, "The flagship format within the luxury fashion mar-

ket", International Journal of Retail & Distribution Management, vol. 40, no. 12, pp. 920-934.
17. Sorescu, A., Frambach, R.T., Singh, J., Rangaswamy, A. & Bridges, C. 2011, "Innovations in Retail Business Models", Journal of Retailing, vol. 87, pp. S3-S16.
18. Warrington, P.T., Gangstad, E., Feinberg, R. &Ko, d.R. 2007, "Multi-Channel Retailing and Customer Satisfaction: Implications for E-CRM", International Journal of E-Business Research, vol. 3.
19. Zalud, B. 2012, "Video Analytics: Big Retail Deal with Big Data", Security, vol. 49, no. 9, pp. 80-82, 84, 86.
20. Zhang, J. & Wedel, M. 2009, "The Effectiveness of Customized Promotions in Online and Offline Stores", JMR, Journal of Marketing Research, vol. 46, no. 2, pp. 190.
21. Zhou, R. &Soman, D. 2003, "Looking back: Exploring the psychology of queuing and the effect of the number of people behind", Journal of Consumer Research, vol. 29, no. 4, pp. 517-530.
22. Zimmerman, A. 2010, A Fashion Identity Crisis at Walmart --- Newly Installed Apparel Chief Needs to Strike Balance Between Boring Basics and 'Chasing Glitter', New York, N.Y., United States, New York, N.Y.
23. Zomerdijk, L.G. & Voss, C.A. 2010, "Service Design for Experience-Centric Services", Journal of Service Research : JSR, vol. 13, no. 1, pp. 67.
24. Zott, C. &Amit, R. 2010, "Business Model Design: An Activity System Perspective," Long Range Planning, 43 (2/3), 216-2.
25. Zott, C. &Amit, R. 2012, "Creating Value Through Business Model Innovation", MIT Sloan Management Review, vol. 53, no. 3, pp. 41-49.

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