

## IMPORTANCE OF KNOWLEDGE MANAGEMENT SYSTEMS IN ONLINE RETAIL COMPARED TO TRADITIONAL RETAIL

Adelin Trusculescu  
goetzpartners Corporate Finance GmbH, Germany  
adelintru@gmail.com

Anca Draghici  
Politehnica University of Timisoara, Romania  
anca.draghici@upt.ro

Victoria-Larisa Ivascu  
Politehnica University of Timisoara, Romania  
larisa.ivascu@upt.ro

### **Abstract:**

Knowledge management systems (KMS) are becoming an essential resource for gaining a competitive advantage in all industries. A well implemented KMS enables industries selling products and services to numerous small customers to understand and track these customers, a practice which traditionally was limited to industries with few large clients, as industries with many customers had no economic way of recoding and using records of customer interactions. An industry that increasingly benefits from real-time collection and usage of customer data through KMS and customer knowledge management systems (CKMS) is retail. A sub-segment of the retail industry which not only depends on KMS to gain a competitive advantage, but whose existence has become dependent on KMS is online retail. KMS are present in all business areas and are directly impacting almost every line of the profit and loss statement of an online retailer. Customer acquisition, customer retention, product offering, pricing, marketing mix and purchasing are some of the key areas of e-commerce in which decisions are very often taken with the help of advanced KMS. This article compares the importance of KMS for the success of e-commerce companies and traditional retail companies. The results of our research show that while KMS can benefit traditional retailers, it is life-defining for e-commerce companies due to the increased information transparency the internet is offering. Furthermore, as cross-channel activities are growing rapidly for traditional retailers, an early adoption of modern KMS can prepare such companies for the future.

*Keywords: knowledge management systems, customer knowledge management systems, online retail, retail, importance of knowledge management systems*

# 1. INTRODUCTION

## 1.1. History and development of the retail industry

The retail industry started forming during pre-historic times in “hunter/gatherer societies”. The evolvement of simple hunting/gathering activities aiming to satisfy certain “needs” to more complex strategies aiming to satisfy “wants” represents the birth of the retail industry. Despite the retail industry going through 5 eras in the last 10,000 years, the primary goal of satisfying certain “needs” and “wants” has not changed. (Intel, The Store - WPP, 2013). The six eras recognized by Intel and The Store in 2013 are the following:

**Table 1:** The six ages of retail

Era	Time	Description
Shopper as hunter/gatherer	Pre-history	Hunter/gatherer activities addressed "needs" and later "wants". Concepts still present in today's retail
Neolithic shopper	8000 - 2000 BC	Agriculture was formalized which enabled production of surpluses which were later traded through the first distribution and trading centres.
Money	2000 BC - 1600	Trade despite being developed, happened through the barter system. Money become the "oxygen" of retail by being liquid and widely accepted.
Mass production	1700 - 1900	The industrial revolution enabled mass production, which required a new distribution platform (appearance of shops and department stores). Trust and brand was born.
Modern shopping	1901 - Now	Appearance of true department stores featuring thousands of products and enabling a shopping experience. Appearance of online retail drastically changed and is still changing the retail industry.
Future retail	Future	Knowledge management, knowledge management systems (KMS) and customer knowledge management systems (CKMS) likely to play a crucial role in the development of the industry. Despite department stores likely to change significantly the shopping and retail objectives will remain the same.

Source: Intel, The Store - WPP, 2013

Furthermore, the rate of change in the retail industry has increased drastically. The changes observed in the last 150 years have been more transformative than those in the previous 1,500 years. (Intel, The Store - WPP, 2013).

While, the impact of online retail on the future of the retail industry is undisputed, when analysing what retail specialists say about the future of the traditional retail industry, opinions are spread, however they all agree that the industry is changing rapidly. Barbara Thau recognizes three trends shaping the retail industry: Instant Gratification, Borrowing and Customization and suggest that retails will sell “‘experiences’ over products”. Companies such as Uber and Amazon have taught consumers that delivering information at their fingertips is possible (instant gratification), while companies such as Zipcar and Drive-Now have built up the idea of renting a durable good instead of acquiring it (borrowing). Furthermore, many producers are trying to offer customized products, with shoe producers being a known example (Thau, 2015). Another analyst, Jennifer Polk, suggests that while traditional retailers regarded the digitalization as a threat, they also start seeing it as an untapped potential by “using data and content to find and connect with customers through digital channels, mainly mobile devices, before, during and after the in-store experience”. Loyalty programs are also becoming indispensable and account for retails like GameStop for over 70% of sales (Polk, 2015).

Independently of which trends one analyses, KMS and CKMS are at the epicentre of many key operating areas of retails and online retailers. While for traditional retailers, customer knowledge can be “can be a critical source of competitive advantage” (Mukherji, 2012), for online retailers,

“knowledge management is an essential part of the system’s capabilities” (Gordon, Jakubczyc, Galant, & Paprzycki, 2002). It is important not to confuse KMS and CKMS with the enterprise resource planning system (ERP) or business intelligence practices (BI). While both, KMS and CKMS systems are usually part of a company-wide ERP system, which integrates many more tools aiming at operating and optimizing the company, this paper focuses on KMS as a development of classic BI systems which were limited to collection and analysis of data aiming to help decision making. KMS do not only collect, and analyse data, but rather help generating knowledge, manage this knowledge and with the help of the generated knowledge, generate further knowledge, all aiming to help the decision making process. Furthermore, KMS is increasingly implemented in real-time environments in which generation and usage of knowledge happens uninterrupted and simultaneously.

## 1.2. Research objective

This purpose of this study is to identify the key business areas in traditional retail and online retail that depend on KMS and CKMS and to assess the importance of such systems for these business areas. Once the key business areas relevant for KMS are identified, their dependence on KMS in traditional retail is compared to their dependence on KMS in online retail. Implicitly, the study tries to assess the importance of KMS in the competitive position of players in these industries.

## 2. STUDY METHODOLOGY

### 2.1. Study methodology

In order to assess the importance of KMS in each business area of traditional retailers and online retailers, it is important to firstly understand the key revenue drivers and key cost drivers as well as the other key financial and non-financial success factors of these businesses. In order to understand the key cost drivers, the latest profit and loss statements of Carrefour and Amazon have been analysed. These two companies have been chosen as they are the only retailers from the top 20 retailers worldwide (Carrefour is the 6<sup>th</sup> largest while Amazon is the 12<sup>th</sup> largest and largest pure-play online retailer) that provide an unambiguous comparable cost split in their profit and loss statements (Deloitte Global, 2016) (Internet Retailer, 2015). Other retailers are less transparent and often combine costs or even include them in the Costs of Goods Sold, (e.g. Kroger) making the P&Ls difficult to compare and understand. Furthermore, companies such as Tesco and Target are reporting losses, are being restructured and hence, do not represent a standard retailer. Furthermore, Amazon and Carrefour have on a revenue basis a similar size making them comparable to each other. To understand key revenue drivers and further key success factors of traditional retailers and online retailers a literature research and industry article research has been undertaken combined with own industry experience.

### 2.2. Revenue drivers benefiting from KMS

Generally, like in most industries, revenue is defined as quantity sold multiplied by the price at which each product is sold. When considering the quantity sold, customer segmentation, particularly between new customers and recurring customers is very important. In the retail industry, with the emergence of loyalty programs, customers can be segmented into members and non-members (van Heerde & Bijmolt, 2005). From this segmentation we can derive several KMS relevant areas: the loyalty program itself, customer acquisition activities addressing non-member (also reflected in marketing expenses) and customer reactivation activities addressing the member (reflected as well in the marketing expenses).

In addition to ensuring that new customers are attracted and that existent customers keep coming back, it is important to ensure that the retailer is selling the right products and product groups. Hence, product selection and category management is another important application of KMS and CKMS (APQC; KPMG, 2012).

Last, but not least, the price at which a certain item is sold (pricing) represents the last major application of KMS as part of revenue related business areas. This application area is also relevant for the cost of goods sold compared to revenues business driver described in the next sub-chapter.

## 2.3. Cost drivers benefiting from KMS

In order to understand the cost areas which depend to some extent on KMS, it is important to firstly understand what the key costs of retailers and online retailers are. In order to better understand the magnitude of each of these costs, it is important to analyse them relative to revenues (as percentage of revenues).

**Table 2:** Carrefour's and Amazon's Profit and Loss statement (absolute and relative)

Amazon			Carrefour		
Fiscal year	31/01/2015	31/01/2015	Fiscal year	31/12/2014	31/12/2014
Unit	USD	% revenue	Unit	EUR	% revenue
Scale	billion	n.m.	Scale	billion	
Revenue	88.99	100.0%	Revenue	76.32	100.0%
COGS	(62.75)	70.5%	COGS	(59.27)	77.7%
Gross Margin	26.24	29.5%	Gross Margin	17.05	22.3%
Fulfilment	(10.77)	12.1%	Personnel expense	(7.76)	10.2%
Marketing	(4.33)	4.9%	Advertising expense	(0.87)	1.1%
Technology, content	(9.28)	10.4%	Property rentals	(0.91)	1.2%
Gen., admin. costs	(1.55)	1.7%	Fees	(0.86)	1.1%
Other OPEX	(0.13)	0.1%	Other OPEX	(4.26)	5.6%
Total OPEX	(26.06)	29.3%	Total OPEX	(14.66)	19.2%
EBIT	0.18	0.2%	EBIT	2.39	3.1%

Source: (amazon.com, 2014) (Carrefour, 2014)

By analysing Amazon's and Carrefour's profit and loss statement, one can observe that cost of goods sold is by far the largest expense. In relation to revenues, costs of goods sold are 70.5% for Amazon and 77.7% for Carrefour. Despite this observation being expected, it is important to analyse what are the implied KMS relevant areas included in the metric costs of goods sold as percentage of revenues.

The first KMS relevant area, and also the most important one is the acquisition cost of goods. Nowadays, purchasing is a highly professional field and often managed with a specialized software which is usually part of a larger integrated ERP software which implicitly should be integrated with the company wide KMS. Furthermore, the purchasing department exchanges permanently information with the category and product management divisions. The importance of KMS in category and product management has also been observed in the revenue related KMS areas.

The second KMS relevant area which influences the metric costs of goods sold as percentage of revenues is pricing. Being a very competitive industry, the retail industry must often price their items while considering the pricing of their competitors. Tracking pricing has in itself become an area of KMS. This business area is of course also relevant for the revenue related KMS areas.

Looking further down the profit and loss statement, one can observe that Fulfilment, Marketing, Technology & Content and General & administrative costs are the largest cost items for Amazon and Personnel expense, Advertising expense, Property rentals, Fees and Other OPEX for Carrefour represent the highest Operating Expenditures (OPEX) of these companies. While well implemented KMS can be beneficial for any of these expenses, the one with the most impact on the overall performance of the business is marketing. As previously mentioned, marketing expenditures drive both customer acquisition activities and customer reactivation activities. Furthermore, another business area reflected in the marketing expense which can also benefit from KMS is the marketing mix area. (Moradi, Aghaie, & Hosseini, 2013)

## 2.4. Other business areas benefiting from KMS

Various research papers and reports mention various success factors. One of the studies, which addresses these issues was written by Grewal et al. and published in the book "Retailing in the 21<sup>st</sup>

Century”. This study mentions seven factors: store factors (format and retail environment), service factors (customer service), merchandise (merchandise management), price, supply chain (efficient supply chain management) and technology (Grewal, Krishnan, Levy, & Munger, 2010). It can easily be observed that merchandise and price were already identified as business fields benefiting from KMS, while the other factors despite being important, only a small portion of their success can be attributed to KMS. Furthermore, some of the mentioned areas (e.g. store factors) are not relevant for online retail.

Another study done by PwC mentions three success factors: right real estate (location), local products (adjust products offered to the local demand) and supply chain expertise (PricewaterhouseCoopers, 2015-2016), while another study done by Ernst & Young mentions six: lean cost structure, staff management, management of fixed costs, supply chain as key competency, right level of capital expenditure and importance of online (Ernst & Young, 2013). While these studies provide interesting insights into the key success factors of retails, they do not provide additional KMS relevant areas.

### 3. ASSESSMENT OF KMS IN TRADITIONAL RETAIL AND ONLINE RETAIL

In this section, the areas, identified in the previous section, in which KMS play an important role will be listed and their application and significance in retail will be compared to their application and significance in online retail.

**Table 3:** Significance of KMS in the business areas where KMS is relevant

	Retail	Online retail
Loyalty program	Implemented	Essential
Customer acquisition	Not implemented	Essential
Customer reactivation	Not implemented	Essential
Product selection/category management	Implemented	Essential
Pricing	Essential	Essential
Acquisition cost of goods	Essential	Essential
Marketing mix	Not implemented	Essential

Essential = KMS indispensable for the business area

Implemented = KMS is implemented, but is not indispensable

Not implemented = KMS is used at low potential

Loyalty program: Loyalty programs are becoming indispensable for some niche traditional retailers such as GameStop, which for example derives over 70% of its sales with the help of loyalty programs (Polk, 2015). However, most retailers have built a “me to” commodity offering in this segment which brings little benefit. “Often companies have a ‘set it and forget it’ attitude” regarding this marketing medium and fail not only to take advantage of it, but also to update it and keep it relevant. (Shaukat & Auerbach, 2011). An older study from 1997 even concluded that in order for such programs to work, “programs must enhance the overall value of the product or service and motivate loyal buyers to make their next purchase” (Dowling & Uncles, 1997). In order for such programs to work nowadays, all marketing channels including offline marketing, in-store marketing, mobile marketing through beacons, app marketing and social media among others need to be integrated (Polk, 2015).

The loyalty program in e-commerce is not directly identifiable as a separate business area as it is usually integrated in the core business model. As Gommans et al. showed in 2001, the area of “e-loyalty” is integrated in many other business areas such as website and technology and customer service (Gommans, Krishman, & Scheffold, 2001). The idea of e-loyalty lays at the quintessence of the e-commerce business model, as often the customer acquisition costs do not cover the profit an e-commerce shop can obtain from the first purchase. Furthermore, an online retailer does not have the “real world” exposure an offline retailer has and has therefore often to pay third parties for virtual exposure. These factors have forced the e-commerce industry to focus on returning customers and to put a loyalty program at the core of their operations.

Customer acquisition: Customer acquisition is an area in which traditional retails and online retailers have fundamental differences. The difference arises primarily from their sales medium. While traditional retails have brick and mortar stores accessible only to customers in a geographic proximity, online retails are located on the internet and hence accessible from all over the world. Of course, this

is less of a limitation for large traditional retailers, however, even those need to take in account geographic proximity and availability of goods at individual stores while launching a marketing campaign. The difference in sales medium dictates also the marketing channels which can be employed. Traditional retailers employ relatively untargeted marketing campaigns by using public advertising spaces or by sending out catalogues while online retailers employ highly targeted online based marketing channels (Cordray, 2015). Even when consulting traditional retail marketing experts, it is easy to observe that all modern marketing strategies are based on the location of the store (Khan, 2014). Consequently, the customer acquisition techniques and the use of KMS is very different in traditional retail and online retail. While traditional retailers can see little benefit from employing KMS, online retailers are dependent on such systems in order to improve their targeting, marketing mix and implicitly optimize acquisition costs. As explained by Britt: "E-commerce companies are depending on KMS for growth, customer acquisition and retention and to manage variable costs." (Britt, 2014).

Customer reactivation: Similarly to customer acquisition, there are important differences in reactivation capabilities for traditional retailers and online retailers. While both types of retailers have access to physical and online reactivation channels, such as newsletters, traditional retailers in most cases do not have access to customers' e-mail address, unless these customers have joined a loyalty program or something similar. Online retailers on the other hand have access to their customers' e-mail addresses and many even choose to add a newsletter option during the checkout process. Furthermore, since online retailer have access to past purchases and also see what the customers look at while browsing the shop, they can easily target individual customers with tailored offers. Well implemented KMS enable precise and often individual level targeting as well as customer lifetime value maximization (Britt, 2014).

Product selection/category management: Similarly to the customer activation business areas, detailed customer knowledge enables online retailers to better plan their product offering and category management as well as efficiently manage their inventory. In addition to having less information about their customers, traditional retailers need to "manage increasing product proliferation and various consumer choice effects with limited shelf space" (Hübner & Kuhn, 2012). Online retailers do not have "shelf space" limitation, as goods are stored and distributed from a central location. Hübner and Kuhn's study show that traditional retailers are also facing many technical challenges when managing "shelf space" (Hübner & Kuhn, 2012), fact demonstrating that the KMS implemented here usually do not meet all requirements.

Pricing: Pricing is a topic of equal importance for both, traditional retails and online retailers. "Pricing has long been - and will continue to be - a core capability for retailers" (Kilroy, MacKenzie, & Manacek, 2015). Traditional retails are increasingly facing competition from online retailers, even in the traditionally online safe segments such as groceries. The proof that online shopping for groceries is growing in importance is the success AmazonFresh has seen since 2013 and which recently even expanded into the UK (Kharpal, 2016). Online retailers are increasingly implementing dynamic pricing, which is type of "data-driven repricing" based on the information that KMS are constantly gathering and using. Furthermore, for online retailers, it is a lot simpler to reprice an item compared to traditional retailer which need to change the physical in-store pricing (Valentine, 2015). Traditional retailers are increasingly implementing pricing strategies with similar effects. A study done by Retailtouchpoints in 2014 found out that my retailers, including Target, Toys "R" Us and Walmart used price-matching strategies (Retailtouchpoints, 2014), a technique mostly available to the online retailers due to transparency of competitors' pricing and simple repricing. Overall, it seems like both online and traditional retailers are investing significant resources in constantly improving their pricing strategies and technologies.

Acquisition cost of goods: Acquisition cost of goods is, similarly to pricing, very important for both traditional retailers and online retailer. It is very safe to assume that both industries are using the best available technologies and KMS in order to minimize the costs. The only advantage that online retailers seem to have over the traditional retailers is the detailed individual customer knowledge which on an aggregated basis provides a better estimate of future demand.

Marketing mix: Marketing is one of the key areas that differentiate traditional retailers from online retailers. As Sharma explains, "internet marketing can be referred as the backbone of ecommerce" (Sharma, 2015). When comparing the profit and loss statement of Amazon and Carrefour (see table 2) it can easily be observed that Amazon spends almost five times more on marketing relative to

revenues than Carrefour. Another big difference between traditional retailers and online retailers when it comes to marketing are the available channels and size of addressable audience. While traditional retailers face the geographic limitation, online retailers can target everyone in the world who uses the internet. Because of the large addressable market and the vast availability of marketing channels, but also because of the lack of physical presence, online stores are required to focus on online marketing and consequently develop and use advanced KMS in order to be effective (Britt, 2014). While in online marketing is all about targeting, a new study done by SWIRL in December 2015 shows that “traditional retailers are failing to meet consumer desires for ‘amazon-like’ personalization” and that “three out of four shoppers say that traditional retailers don’t understand their preferences and needs” (Swirl, 2015), highlighting that traditional retailers are far away from implementing a KMS based, data driven marketing strategy.

#### 4. CONCLUSION

The importance of KMS is significantly higher for online retailers compared to traditional retailers. From the seven areas identified as relevant for applications of KMS (loyalty program, customer acquisition, customer reactivation, product selection/ category management, pricing, acquisition cost of goods, marketing mix), all seven are highly dependent on KMS for online retailers and only two for traditional retailers. Traditional retailers also have three areas (customer acquisition, customer reactivation and marketing mix) which from our outside-in analysis seem to either lack the implementation of KMS or underuse the implemented systems. From a business model perspective, the online retailers are also much closer to customer data than traditional retailers. Online retailers have the luxury of precisely tracking customer purchases, visits, visits on other websites and even track where people look on a particular page. With so much data available, it is natural that online retailers have implemented KMS in most areas of their business. However, traditional retailers have to make sure that they do not slack in implementing modern technologies aiming to improve their interaction with their clients and implicitly revenues and profits. Loyalty programs with active customer reactivation programs as well as the implementation of a cross-channel / multi-channel strategies are just a few of the options. A study from 2015 demonstrated that multi-channel shoppers, tend to use the online shop of their preferred traditional retail chain at the beginning, but once they become more experienced, they use the online grocery store with the best offering (Melis, Campo, Breugelmans, & Lamey, 2015) demonstrating the importance of the implementation and usage of state-of-the-art KMS and CKMS aiming to acquire and reactivate new customers instead of using traditional one way data processing BI systems.

#### REFERENCE LIST

1. amazon.com. (2014). *2014 annual report*. Seattle: amazon.com. Retrieved January 15, 2016, from <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9Mjg5MzI2fENoaWxkSUQ9LTF8VHlwZT0z&t=1>
2. APQC; KPMG. (2012). *Supplier Category Management - Driving value through the procurement organization*. Houston: APQC. Retrieved February 20, 2016, from <https://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/supplier-category-management.pdf>
3. Britt, P. (2014, October). KM for e-commerce growth. *KMWorld*, 23(9). Retrieved February 29, 2016, from <http://www.kmworld.com/Articles/Editorial/Features/KM-for-e-commerce-growth-99412.aspx>
4. Carrefour. (2014). *2014 annual financial report*. Boulogne-Billancourt: Carrefour. Retrieved January 15, 2016, from [http://www.carrefour.com/sites/default/files/DDR\\_2014\\_EN.pdf](http://www.carrefour.com/sites/default/files/DDR_2014_EN.pdf)
5. Cordray, R. (2015, September 17). *How e-commerce companies can easily define their target audience*. Retrieved February 29, 2016, from [itworldcanada.com/: http://www.itworldcanada.com/blog/how-e-commerce-companies-can-easily-define-their-target-audience/377074](http://www.itworldcanada.com/blog/how-e-commerce-companies-can-easily-define-their-target-audience/377074)
6. Deloitte Global. (2016). *Global Powers of Retailing 2016 - Navigating the new digital divide*. Deloitte. Retrieved February 10, 2016, from <http://www2.deloitte.com/content/dam/Deloitte/global/Documents/Consumer-Business/gx-cb-global-powers-of-retailing-2016.pdf>
7. Dowling, G. R., & Uncles, M. (1997, July 15). Do Customer Loyalty Programs Really Work? *MIT Sloan Management Review*. Retrieved February 27, 2016, from <http://sloanreview.mit.edu/article/do-customer-loyalty-programs-really-work/>
8. Ernst & Young. (2013). *Retail Operations - Six success factors for a tough market*. London, London, United Kingdom. Retrieved February 23, 2016, from

- [http://www.ey.com/Publication/vwLUAssets/Retail\\_Operations\\_-\\_Six\\_success\\_factors\\_for\\_a\\_tough\\_market/\\$FILE/EY\\_Retail\\_Operations\\_-\\_Six\\_success\\_factors\\_for\\_a\\_tough\\_market.pdf](http://www.ey.com/Publication/vwLUAssets/Retail_Operations_-_Six_success_factors_for_a_tough_market/$FILE/EY_Retail_Operations_-_Six_success_factors_for_a_tough_market.pdf)
9. Gommans, M., Krishnan, K., & Scheffold, K. (2001, January). From Brand Loyalty to E-Loyalty: A Conceptual Framework. *Journal of Economic & Social Research*, 43 - 58. Retrieved February 29, 2016, from <http://connection.ebscohost.com/c/articles/8559264/from-brand-loyalty-e-loyalty-conceptual-framework>
  10. Gordon, M., Jakubczyc, J., Galant, V., & Paprzycki, M. (2002, January). Knowledge Management in an E-commerce System. *International Conference on Electronic Commerce Research (ICECR-5)*. Retrieved February 16, 2016, from [https://www.researchgate.net/publication/240790062\\_Knowledge\\_Management\\_in\\_an\\_E-commerce\\_System](https://www.researchgate.net/publication/240790062_Knowledge_Management_in_an_E-commerce_System)
  11. Grewal, D., Krishnan, R., Levy, M., & Munger, J. (2010). Retail Success and Key Drivers. *Retailing in the 21st Century*, 15 - 30. Retrieved February 25, 2016, from <http://www.springer.com/de/book/9783540720010>
  12. Hübner, A., & Kuhn, H. (2012, April). Retail category management: State-of-the-art review of quantitative research and software applications in assortment and shelf space management. *Omega*, 40(2), 199 - 209. Retrieved February 29, 2016, from <http://www.sciencedirect.com/science/article/pii/S0305048311000946>
  13. Intel, The Store - WPP. (2013). *The History of Retail in 100 Objects*. The Store, WPP. Retrieved February 15, 2016, from <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=7&cad=rja&uact=8&ved=0ahUKewi-t7WB8JjLAhXFJJJoKHRItBkoQFghBMAY&url=ftp%3A%2F%2Fdownload.intel.com%2Fnewsroom%2Fkits%2Fnrf%2F2014%2Fpdfs%2FHistory-of-retail-in-100-objects.pdf&usg=AFQjCNE3fnfa24R>
  14. Internet Retailer. (2015). TOP 500 - The World's Most-Trusted E-Commerce Resource. Chicago, United States. Retrieved January 23, 2016, from <https://www.internetretailer.com/top500/#/whats-included>
  15. Khan, H. (2014). *shopify.com*. Retrieved February 29, 2016, from 10 Retail Experts Share Their #1 Tip for Marketing and Growing Your Store: <https://www.shopify.com/blog/16185976-10-retail-experts-share-their-1-tip-for-marketing-and-growing-your-store>
  16. Kharpal, A. (2016, February 29). Amazon's bringing fresh groceries to UK. United Kingdom. Retrieved February 29, 2016, from <http://www.cnbc.com/2016/02/29/amazon-brings-fresh-groceries-to-uk-with-morrisons-deal.html>
  17. Kilroy, T., MacKenzie, I., & Manacek, A. (2015, April). *Pricing in retail: Setting strategy*. Retrieved February 29, 2016, from mckinsey.com: <http://www.mckinsey.com/industries/retail/our-insights/pricing-in-retail-setting-strategy>
  18. Melis, K., Campo, K., Breugelmans, E., & Lamey, L. (2015, June). The Impact of the Multi-channel Retail Mix on Online Store Choice: Does Online Experience Matter? *Journal of Retailing*, 91(2), 272 - 288. Retrieved February 29, 2016, from <http://www.sciencedirect.com/science/article/pii/S002243591400092X>
  19. Moradi, M., Aghaie, A., & Hosseini, M. (2013). An Agent-Based Knowledge Management Framework for Marketing-Mix Decision Making. *International Journal of Strategic Decision Sciences*, 109-128. Retrieved February 25, 2016, from <http://www.igi-global.com/article/an-agent-based-knowledge-management-framework-for-marketing-mix-decision-making/94664>
  20. Mukherji, S. (2012, June). A framework for managing customer knowledge in retail industry. *IIMB Management Review*, 24(2), 95 - 103. Retrieved February 15, 2016, from <http://www.sciencedirect.com/science/article/pii/S0970389612000250>
  21. Polk, J. (2015, January 11-13). *How Retailers Are Reinventing Themselves to Remain Relevant*. Retrieved February 17, 2016, from 2015 Retail's BIG Show, author is a research analyst at Gartner: <http://bigshow15.nrf.com/how-retailers-are-reinventing-themselves-remain-relevant>
  22. PricewaterhouseCoopers. (2015-2016). Key success factors in retail in India. India. Retrieved February 23, 2016, from <http://www.pwc.in/industries/retail-and-consumer-key-success-factors.html>
  23. Retailtouchpoints. (2014). *Data-Driven Personalization Drives Advanced Pricing Strategies*. Retrieved February 29, 2016, from [retailtouchpoints.com: http://www.retailtouchpoints.com/features/special-reports/data-driven-personalization-drives-advanced-pricing-strategies](http://www.retailtouchpoints.com/features/special-reports/data-driven-personalization-drives-advanced-pricing-strategies)
  24. Sharma, S. (2015, December). Internet Marketing: The Backbone of Ecommerce. *International Journal of Emerging Research in Management & Technology*, 4(12), 200 - 202. Retrieved



- February 29, 2016, from [http://www.ermt.net/docs/papers/Volume\\_4/12\\_December2015/V4N12-206.pdf](http://www.ermt.net/docs/papers/Volume_4/12_December2015/V4N12-206.pdf)
25. Shaikat, T., & Auerbach, P. (2011, December 01). *Loyalty: Is It Really Working For You?* Retrieved February 25, 2016, from forbes.com: <http://www.forbes.com/sites/mckinsey/2011/12/01/loyalty-is-it-really-working-for-you/#4f812ef918c0>
  26. Swirl. (2015, December 10). *New Study Reveals That Traditional Retailers Are Failing to Meet Consumer Desires for "Amazon-like" Personalization.* Retrieved February 29, 2016, from swirl.com: <http://www.swirl.com/new-study-reveals-that-traditional-retailers-are-failing-to-meet-consumer-desires-for-amazon-like-personalization/>
  27. Thau, B. (2015, February 10). *A Look At The Retail Model Of The Future.* Retrieved February 16, 2016, from Forbes.com: <http://www.forbes.com/sites/barbarathau/2015/02/10/a-look-at-the-retail-model-of-the-future/#264a124d17e8>
  28. Valentine, A. (2015, April 10). *How Dynamic Pricing is Disrupting Online Retail in 2015.* Retrieved February 29, 2016, from <http://www.cpcstrategy.com/>: <http://www.cpcstrategy.com/blog/2015/04/dynamic-pricing-disrupting-online-retail-2015/>
  29. van Heerde, H. J., & Bijmolt, T. H. (2005, November). Decomposing the Promotional Revenue Bump for Loyalty Program Members Versus Nonmembers. *Journal of Marketing Research*, 42(4), 443-457. Retrieved February 20, 2016, from <http://journals.ama.org/doi/abs/10.1509/jmkr.2005.42.4.443>