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Innovations in the Retail Sector and Their Influence on the Market

Summary

In the article, the main points of Schumpeter's view on innovation are presented as well as its development presented by W.J. Abernathy and K.B. Clark in their article *Innovation Mapping the Winds of Creative Destruction*. Then the idea of retail innovations and their classification are proposed. Thus along with disruptive innovation and both technological and non-technological innovations in retailing, the architectural, niche creation, regular and revolutionary innovations are identified and their influence on the market – the established system of production and marketing – is shown. By such an approach, J. Schumpeterian theory of innovations is expanded and implemented to the retail sector. The focus is on retail changes at the meso level.

Key words: innovation, retailing, meso level, competitiveness.

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Introduction

In the modern economy, which is also called the knowledge-based economy, a lot of attention is paid to innovations as one of its main drives. They are usually associated with the tech and telecom industries which take the leading position on the Boston Consulting Group Survey of the most innovative industries (BCG). Yet it should be mentioned that they have also played the crucial role in the retail sector development, raising the productivity of retail enterprises and by the same token the whole economy. In the article, a wide spectrum of retail innovations is presented. The special attention is paid to their relations to the existing competences and market influence.

The role of innovations in the development of market structures

According to J. Schumpeter, innovation is “doing things differently in the realm of economic life” (Sweezy 1943, p. 93). He considered innovation as a cause of economic development, which is an impulsive change of the existing circular movement, which in an irreversible way modifies the pre-existing balance (Schumpeter 1960, p. 101). This process is called creative destruction due to the fact that the old knowledge is destroyed and the new one is necessary to operate in the new environment. It takes some time to get the new economics balance but the progress is achieved.

In Schumpeter's view, innovation is the "outstanding fact in the economic history of capitalist society (Bostaph 2014, p. 429) that changes the production function and that requires new plants or the rebuilding of old plants and New Firms" (Bostaph 2014, p. 430).

The crucial role in innovations' introduction is given to the entrepreneur who takes the risk but also expects supernormal profits as a reward. In Schumpeterian theory he (or the business) plays an active role whereas the role of consumers is rather passive – they are often reluctant to changes and should be convinced to accept them.

Taking this view W.J. Abernathy and K.B. Clark have developed the following definition of innovation: "An innovation is the initial market introduction of a new product or process whose design departs radically from the past practices. It is derived from the advances in science and its introduction makes existing knowledge in that application obsolete. It creates new markets, supports freshly articulated user's needs in the function it offers and in practice demands new channels of distribution and aftermarket support. In its wake it leaves obsolete firms, practices and factors of production, while creating a new industry" (Abernathy and Clark 1985, p. 6).

It should be pointed out that although the Schumpeterian view is still very important in innovation analysis not all innovations could be considered as radical – some of them have the other nature, what was noticed *inter alia* by W. J. Abernathy and K. B. Clark who also developed the framework for analysing the competitive implication of innovations presented later in this paper. They also stressed the role of the consumer, which sometimes is very important. On the threshold of these assumptions they distinguished architectural, niche phase, regular, and revolutionary innovations.

Architectural innovation is the new technology that departs from the established systems of production and opens up new linkages to markets thus users. The most important phenomenon is that development of this innovation is rather stimulated by market needs not by science. Architectural innovations could create new industries as well as reform the old ones.

The idea of niche phase innovation is to open new market opportunities through the use of the existing technology. As technology is generally defined (there are only small changes in it), the established technical competences are sufficient. The examples of niche phase innovation include a new product introduction with new features like shapes, colours, functions which could provide the company implementing them competitive advantage and encourage competitors to copy these ideas and in this way to change the patterns of competition. In case of regular innovation the established technical and production competences are applied to the existing markets and consumers.

Revolutionary innovation disturbs and renders the established technological and production competences whereas it is applied to the existing markets and customers. It is an incremental change in the process technology, which raises productivity and increases the process capacity, which results in economies of scale but also requirements for the capital necessary to compete.

The characteristics of retail innovations

When trying to define retail innovations the specificity and function of the retail sector in the economy should be taken into account. The innovation in retailing could be defined

as a change in the way the retail functions (being the intermediate in exchange) is fulfilled, which is accepted by the consumers, which operate the criterion “value for money” (Tallman and Blomstrom 1962).

B. Kucharska indicates some characteristics of retail innovations which include that (Kucharska 2014, p. 23):

- Changes are related to different aspects of the ways of doing things and thinking about the enterprise, supply chain, market, which means changing the previous routine and they are introduced intentionally, consciously and often long lasting.
- Generally solutions implemented by other enterprises (in other sectors) are copied.
- Due to the fact that a successful solution could not be prevented by patents it is often copied; only technological and capital requirements could constitute barriers.
- They are beneficial for consumers, retail companies, the retail sector and the whole economy.
- Often research and development are not necessary to be innovative; knowledge, capabilities and experiences of managers, employees, suppliers, and competitors could be the source of innovation.
- Innovations could be risky and expensive, especially if they are radical.
- In retail companies there is not an utterly integrated system of innovation management like in the case of industry companies.

Innovations could be classified in different ways, according to the adopted criterion. So, depending on their impact on the market, one could distinguish radical (disruptive) and incremental innovations. Radical innovations have a significant impact on the market and on the economics activity of the companies operating in it whereas the incremental innovations only upgrade or enhance the existing product, process or service. In J. Schumpeter's view the most important are the radical innovations which create disruptive changes; the incremental innovations only advance the process of changes.

In case of retailing development of new retail forms, e.g. department stores in the mid of the nineteenth century, then mail order (end of the nineteenth century), chains stores (1912), and supermarkets (after the II World War) constituted radical innovations. They changed the market structure due to the fact that close competitors that did not adjust to new methods of doing business were eliminated from the market. They also forced changes in the behaviour of suppliers and consumers. For example, development of department stores caused many bankruptcies of concept stores, organised delivery directly from producers which had to provide storage for goods, whereas clients had to get used to new methods of selling products. The new forms of retailing (which also include discount stores, hypermarkets and then e-commerce which appeared on the market scene later) have been in the words of J. Schumpeter the main competitive force which determined the direction of changes of the market structure and the ways profits have been distributed (Schumpeter 1947, p. 85). It was due to the fact that economies of scale were not very important as it started to be in the end of the twentieth century when information technologies (IT) allowed monitoring and controlling the spread activities of retail chains even in the global scale.

The incremental innovation in case of retail forms are all changes which have taken place in the way they operated, and allowed e.g. some of department store companies survive. They include implementation of some promotional tools or addition of food into assortment. Innovations could also be divided according to their nature into technological and non-technological. The technological group includes innovations in product and processes caused by the involvement of new technology, non-technological – important changes in the marketing and organisation of the enterprise.

There are two main processes, which effectiveness is core for the success of a retail company – the supply and selling process. Introducing innovations in these processes has been stimulated by the development of information and communication technologies (ICT). It has started by implementing in retail business the invention of bar code, which then became crucial for development of other technologies increasing the productivity of logistics and selling processes. In logistics processes there are such technologies as Electronic Data Interchange (EDI), Quick Response (QR), and Efficient Consumer Response (ECR). In spite of some weaknesses and development of Internet technology they are still widely used in retailing. Their implementation not only reduces costs but also improves the level of consumer's service due to the fact that assortment better fits their needs. The scanning system has also directly influenced selling processes by the improvement of checkout. The product in retail is a new retail form (wide meaning) as well as the new product in assortment (narrow meaning). New retail forms as innovations have already been discussed. As far as the new product in assortment is concerned the opportunities to be innovative came together with the idea of private labels. Some of them created the assortment which distinguished the retailer from competitors and influenced the whole market structure when copied¹.

Parallel to technological innovations, non-technological innovations involving marketing activities and organisation of enterprises have been introduced. Marketing innovation concerns all elements of marketing mix but mainly promotion. They evinced in the assortment policy – scrambling merchandising policy (e.g. assortment of department stores was enriched with food whereas the assortment of supermarkets with household chemicals), location policy (malls outside the city centres), pricing policy (odd prices – e.g. \$1.99), merchandising (new ways of displaying products), and promotional policy (loss leaders, stamps). They were very easy to copy so as a result many of them very fast became standards in mass merchandiser's policies.

Organisational innovation could involve changes in the organisational structures. Since 1912, when the first chain was founded, this structure has started to evolve. Later, due to development of ICT, different networks have appeared – the most important has been the franchise system which could provide the same benefits as chains without investing a lot of capital in founding own stores. The other important retail structure is the shopping centre, which is a type of cluster, which follows the idea of shopping streets, but is generally located outside the city and offers the clients many services besides shopping.

¹ The examples include Ikea, which changed the market for furniture by offering the wooden piece of furniture sold not in sets, and Benetton with its colourful and comfortable clothing.

In the second part of the twentieth century, as far as the new forms of retailing are concerned, discount stores and hypermarkets were founded and they turned out to be radical innovations. It could be noticed that Wal-Mart, which was the follower of the first discounters, is now the biggest retailer in the world, whereas Carrefour, which was first to introduce the hypermarket concept, for many years occupied the second position (in 2014, it was the fourth) (Baranowska-Skimina). Their success would not have been possible if this innovation had not been fostered by ICT technologies and non-technological innovation. It is due to the fact that this period was also the era of technological innovations introduced in logistics and selling processes, development of new own brand products as well as non-technological innovation – marketing and organisational ones. Many of them could be considered as radical innovation as they have dramatically changed the market structure and become standards.

The twenty-first century started as the era of Internet which stimulated the development of e-commerce and development of networks. It has been creating new rules of competition, which challenges the old structures based on physical assets with new ones rich with knowledge – virtual networks, logistics and selling processes as well as marketing activities. The prevailing trend is virtualisation of all retail activities. The question arises how it could change the retail market?

Sometimes product development into other industries is viewed as innovation for the company due to the fact that there is quite a new activity and there is some risk connected with implementing such a strategy. Retailers innovate in this way where they start to offer financial, catering or other services as it was e.g. the case of M&S company.

The ways of operating business, which are well known in well developed countries, could be innovation in the less developed ones. A good example is Poland, where since the mid of the nineties foreign companies have developed new forms which had not been present in the Polish market like discount stores, hypermarkets, category killer, concept stores, direct selling as well as new forms of retail organisation: chains, shopping centres; new marketing tools: loss leaders, loyalty programmes, odd pricing. They have changed the market structure destroying the former system and creating the new one with the new rules of competition. Yet the new retail structure does not completely reflect the retail system in well developed countries because it has been developed in quite different circumstances.

The competitive implication of retail innovations. The case of Poland

For the analysing the competitive implication of retail innovations the concept presented by W.J. Abernathy and K.B. Clark has been adopted and proposed by them division into four groups: architectural, niche phase, regular, and revolutionary innovations.

Good examples of architectural innovations in retailing are new forms, which implement new ways of selling goods as well as new ways of supplying them e. g. discount stores and supermarkets discussed before. To be successful they have to be visible in the market and their existence depends on consumer preferences. They have been very durable – some of the department stores still exist, mainly in U.S.. due to the fact that they have reacted

to changes in consumer behaviour, implementing new marketing tools and technologies. Architectural innovations change consumer behaviour as well as the whole market structure.

It was visible in Poland when retailers (mostly foreign companies) started to develop chains of hypermarkets, discount stores, supermarkets, category killers in the mid of the nineties. They have changed:

- consumer behaviour (shopping during week-ends, expectations of sales promotions and price reductions);
- market position of wholesalers who have started to develop franchise systems to survive;
- market position of small shops – some of them have tried to implement the techniques used by big competitors like e.g. self-service, some have gone bankrupt, some have joined franchise systems, others have been looking for market niches;
- market position of suppliers who have had to negotiate contracts and often have turned not to be very satisfactory for them.

Thus new retail forms being the architectural innovations in retailing have changed radically the retail market in Poland. The niche phase innovation in retailing is, for example, introducing new assortment for new market segments – like clothing for overweight people, by using the same technology. The other example could be the assortment of organic products – offering such kind of assortment is stimulated by the growing trend for a healthy life style. Organic food is offered not only in the specialty stores but also hypermarket chains such as Carrefour and Tesco which have decided to widen their assortment. This decision was supported by a set of promotional activities which are necessary to reach a market niche. In 2007, Carrefour signed a contract with the producers (affiliated by the Association of Polish Ecology) to supply food without chemicals; the range of products bearing the Carrefour Quality label. Tesco's own brand 'Organic' products have typical packaging features and labels so that customers can easily recognise them. The sign of organic farming is displayed on labels.

Niche creation as well as architectural innovations should be visible to the customers, whereas other kinds of innovations (revolutionary and regular) are almost invisible although it could have an important effect on product costs and performance. The examples of regular innovation in retail include the changes, which take place in the interior of the stores, technology enhancement, introducing innovations in assortment and other marketing tools to stay competitive and strengthen the linkages to the market. They are often easy to be copied so they cannot assure long-term competitiveness and must be continuously refreshed. They fit the retailer's policy so they are not very visible to consumers, yet without them the company could lose the market position. Due to the intensive competition in the Polish retail market, companies operating here are forced to introduce such innovations.

The revolutionary innovation increases economies of scale and raises productivity. New technologies like scanning when applied to retailing improved logistics processes as well as the processes of consumer services. They do rather not affect the existing consumer preferences but companies needed new competencies (technical competencies) to apply the systems based on this technology into practice. There was also the need for capital and econo-

mies of scale when the retailer wanted to develop new technologies based on scanning like EDI, QR, and ECR. So these new technologies affected the way the companies operated and competed, but not directly, consumer preferences. Although EDI was first implemented by Wal-Mart to cooperate with Procter and Gamble long time ago and still companies operated in Poland use this technology in spite of its drawbacks. The examples include foreign retailers as well as Polish retailers like Topaz, the chain of FMCG which introduced it in 2012 (INFINITE).

Final remarks

In the paper, different aspects of retail innovations are presented. It has been found that the theory of innovations, although developed for the production sector, could also be applied to retailing. The process of introducing important innovations, which have decided in its nowadays structure, started in the mid of the 19th century by introducing the department store. It was followed by other new forms as well as some incremental innovations (scrambling merchandising, promotional techniques). In retailing it is also possible to distinguish technological (new product, ITC) and non-technological (marketing and organisational) innovations. New technologies since the 1960s have played an important or very important role in raising productivity, but also marketing innovations have become very popular tools for encourage clients to make purchases and keep them as loyal customers. As far as the visibility for consumers and the need for new competences are concerned, four groups of innovations could be identified. Revolutionary and regular innovations could not be very visible. Revolutionary ones affect the internal processes of the retailers like supply chain management and new competencies are needed, whereas regular innovations could affect internal as well external processes and there is no need for new competencies because they involve small changes. The niche phase and architectural innovations are visible for the consumers. The niche phase, like for example developing assortment for a new, small market segment, does not need new competencies. Contrary is in the case of architectural innovations, like development of new forms which did not exist in the market before.

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Bibliography

- Abernathy W.J., Clark K.B. (1985), *Innovation: Mapping the winds of creative destruction*, "Research Policy", No 14.
- Baranowska-Skimina A. (2015), *Największe sieci handlowe na świecie 2014*, <http://www.egospodarka.pl/art/galeria/105096,Najwiece-sieci-handlowe-na-swiecie-2014,4,39,1.html> [access: 21.04.2015].

- BCG Names of 50 Most Innovative Companies (2013), 26 September, <https://www.bcg.com/media/PressReleaseDetails.aspx?id=tcm:12-145313> [access: 21.04.2015].
- Bostaph S. (2014), *Driving the Market Process: "Alertness" versus Innovation and "Creative Destruction"*, "Quarterly Journal of Austrian Economics", 21 August.
- INFINITE (2015), *Sieć Topaz wdraża elektroniczną wymianę danych (EDI)*, <http://www.erp24.pl/rynek-it/siec-topaz-wdraza-elektroniczna-wymiane-danych-edi.html> [access: 21.04.2015].
- Kucharska B. (2014), *Innowacje w handlu detalicznym w kreowaniu wartości dla klienta*, Prace Naukowe/Uniwersytet Ekonomiczny w Katowicach, Katowice.
- Schumpeter J. (1939), *Business Cycles*, Vol. 1, McGraw-Hill, New York.
- Schumpeter J. (1960), *Teoria rozwoju gospodarczego* [Theorie der wirtschaftlichen Entwicklung; The Theory of Economic Development], PWN, Warszawa.
- Schumpeter J. (1947), *Capitalism, Socialism and Democracy*, Iss. 2, Harper and Brothers, New York.
- Sweezy Paul M. (1943), *Professor Schumpeter's theory of innovation*, "The Review of Economic Statistics", No. 93-96.
- Tallman G.B., Blomstrom B. (1962), *Retail innovations challenge manufacturers*, "Harvard Business Review", September, October.

Innowacje w sektorze handlu detalicznego i ich wpływ na rynek

Streszczenie

W artykule przedstawiono główne punkty poglądu Schumpetera na innowacje, jak również jego rozwinięcie przedstawione przez W.J. Abernathy i K.B. Clarka w ich artykule *Innovation: Mapping the Winds of Creative Destruction*. Następnie zaproponowano ideę innowacji w handlu detalicznym i ich klasyfikację. W ten sposób wraz z innowacjami destrukcyjnymi oraz zarówno innowacjami technologicznymi i nie technologicznymi w handlu detalicznym zidentyfikowano innowacje architektoniczne, tworzące nisze, regularne i rewolucyjne i ich wpływ na rynek – ukazano ukształtowany system produkcji i marketingu. Przy takim podejściu teorię J. Schumpetera rozszerza się i wdraża w sektorze handlu detalicznego. Główną uwagę zwrócono na zmiany w handlu detalicznym na poziomie mezo.

Słowa kluczowe: innowacje, handel detaliczny, poziom mezo, konkurencyjność.

Kody JEL: O31

Иновации в секторе розничной торговли и их влияние на рынок

Резюме

В статье представили основные пункты взглядов Шумпетера на инновации, а также их развитие, представленное У. Дж. Абернати (W. J. Abernathy) и К. Б. Кларком (K. B. Clark) в их статье *Innovation: Mapping the Winds of Creative Destruction* [«Иновации: Мапирование ветров креативного раз-

рушения»]. Затем предлагается идея инноваций в розничной торговле и их классификация. Таким образом, наряду с подрывными инновациями, а также технологическими и нетехнологическими инновациями в розничной торговле выявляются архитектурные, создающие ниши, регулярные и революционные инновации и указывается их влияние на рынок (установленная система производства и маркетинга). При таком подходе теория Шумпетера расширяется и внедряется в сектор розничной торговли. Внимание сосредотачивается на изменениях в розничной торговле на мезоуровне.

Ключевые слова: инновации, розничная торговля, мезоуровень, конкурентоспособность.

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