



## CONSUMER'S PERCEPTION OF RETAIL FORMATS – CASE OF POLAND

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### ABSTRACT

**Purpose:** Purpose of this paper is to compare perceived characteristics of different physical and virtual retail formats by consumers in Poland. There is proposed that physical and virtual retail channel are not only substituting themselves but also there is complementary each other. Analysis of changes over time is also important goal of the authors.

**Design/methodology/approach:** Paper uses mainly quantitative approach. Main data source is CAWI questionnaire administered nationwide in 2012. Supplementary data are coming from study made in 2009. Representative to the population of Internet users in Poland samples of 1100 persons in both cases were obtained. There are also results from focus groups (FGIs) performed in 2012 and 2009 presented. Quantitative (from multidimensional scaling - MDS) and projective (from FGIs) perception maps are presented.

**Findings:** For both time points MDS perception maps revealed similarity and differences patterns. Two dimensional solutions are fitting the data very well and allow to describe compared formats in following dimensions: 1) perceived level of personal interactions with the salesperson in particular retail format, and 2) perceived total cost for consumer. Virtual channel formats are forming distinct group – signaling feeling of depersonalization of contact with customer. Standard forms of internet sales (online stores and auctions) are similarly perceived – as still having high perceived cost to the customer, despite lower perceived price level – this suggest that delivery time, necessity to return or sent to repair, are perceived as important drawbacks of such purchasing. Over the time visible is substantial change in discount stores perception – they become accessible for consumers even from small towns, and because of frequent location within/close to residential areas, they are substituting traditional local stores.

**Originality/value:** Paper presents wide range of comparisons – up to 15 retail formats compared over two time periods. Authors are establishing method for further studies.

**Keywords:** consumer behaviour, perception of retail formats, perception maps, Poland

## INTRODUCTION

Preferences for retail channel and format choice within particular channel depend on factors external to the consumer and internal ones. Those preferences are subject to adaptive change when important factors occur.

External factors on macro level are influencing consumer preferences on general level, sometimes with prolonged lag. For instance cycles in economy, including crises or slowdowns are resulting in changes in consumers income, to which consumers should adapt changing spendings and structure of consumption. Another important factors are trends in retail industry, e.g. development of new sales channels and/or store formats, when they become visible to consumers. Since about last 20 years influence of technological change, mostly through information and communication technologies (ICTs), substantially increased. ICT is treated nowadays as general purpose technology (GPT) and its impact on economy (for both supply and demand sides is overwhelming (Basu and Fernald, 2007). For consumers this means to adopt ICT related devices and tools and get skills to operate them, to buy over the Internet or cope with self-service cash registers. For retailers it will need to follow technology change to be in touch with consumer needs and competitors – this can lead for instance to utilize virtual sales channel and become multi-channel retailer.

External factors on micro-level include among others: perceived price level (for the format, and particular retail outlet), physical effort to buy (including commuting), amount of time needed to fulfill shopping task (Peter and Olson, 2002). Most of micro-level external factor are creating perceived total cost of buying for the consumer, considered currently by growing numbers of consumers during their decision processes.

Among internal factors there are i.e.: consumer demographics, and consumer personality manifesting in decision-making styles and perceived level of cognitive and emotional effort connected with shopping. Although consumer personality issues are not considered in this paper directly, they are connected with emotions, lead to beliefs and attitudes. Such factors create emotional and rational perception of retail channels and formats mostly in terms of emotional attitude toward them, as well as in terms of perceived risk and trust for retail channel, format or particular outlet.

## PREFERENCES FOR RETAIL CHANNEL AND FORMAT CHOICE

Studying store choice factors and issues has a long tradition from at least 70's of the 20th century. In earlier studies (Monroe and Gultinan, 1975; Arnold *et al.*, 1978; Arnold *et al.*, 1983; Mason *et al.*, 1983; Keng and Ehrenberg, 1984; Louviere and Gaeth, 1987; Spiggle and Sewall, 1987; Dawson *et al.*, 1990; Burke *et al.*, 1992; Arnold *et al.*, 1996) – store choice task has been rationalized using different approaches regarding external and internal factors to the consumer. For instance the store attributes and situational factors were studied, shoppers and their households demographics, shopping patterns, attitudes toward stores, implied importance weights of factors like price level, store attractiveness or commuting distance etc. In more recent research studies were examined also other things i.e. the impact of task definition on store choice (Kenhove *et al.*, 1999), but most of mentioned store choice studies have been restricted to the same format, i.e., supermarkets or discount stores. There also exist some studies examining the influence of retail pricing formats on shopping behavior (Bell *et*

*al.*,1998), often assuming that one store format has in general higher prices than the other one. Bhatnagar and Ratchford (2004) represent interesting approach (limited to non-durable goods) to explore fixed and variable costs of shopping. Under assumption about consumers preferring to shop at minimum total cost, and different price levels between formats, they found conditions in which the store format choice would be optimal.

Although non-store retail has long tradition in some countries, with mail order popular in the past in Great Britain, Australia or Germany, this sales channel has been used by consumers mostly as addition to typical retail, not replacing directly (when possible) visits at stores. But situation changed since e-commerce began play important role in retail industry. Consumers are choosing not only store format but also channel of buying. Recent studies about channel choice and change (Gensler et al., 2012; Joo and Park, 2008; Mokhtarian and Tang, 2011; Schoenbachler and Gordon, 2002) are focused on the influence of consumer characteristics or perceived channel characteristics on channel choice at different stages of consumer decision-making process, mainly at information search and transaction (Maçik, 2012).

This paper focuses on perception of retail formats from both physical and virtual channel, on the base of declarations about shopping frequency and emotional attitudes toward them – from both quantitative and qualitative point of view. This approach with direct comparison of retail formats seems to be interesting and valid under circumstances of multichannel shopping behavior being nearly a norm or very common practice. So we do not assume, that channel is chosen first, and choice of store format is the next step in buying process. Qualitative investigation proved that channel choice is often situation driven, especially when there are no strong preferences to use particular channel. Also when seeking information is treated separately from actual buying, channel changes in both ways are occurring very often.

## **METHOD**

Data presented in this paper are coming from two large nationwide samples, about 1100 subjects each. Data were collected by CAWI questionnaire in 2009 for first sample and at the end of 2012 for the second one. Quantitative data are representative for population of Internet users in Poland regarding gender and age (between 18 and about 65 years old). Additional data used are coming from focus groups (FGIs) – performed in January 2013 to deepen knowledge gathered from second quantitative study. FGI participants (n=30) were differing in age (between 20 and 67yo) and gender. Some background data from previous studies and statistics of retail sector in Poland were also provided.

Used measures include among others declared frequency of using particular formats within both channels (15 formats for 2012 and 12 formats for 2009) as well as emotional attitudes toward them.

Data analysis relies on descriptive statistics and graphs. Multidimensional scaling procedures (MDS) to produce perception maps were used. Also projective perception maps provided by FGIs participants were aggregated and discussed. There should be noted that presented analysis has an exploratory character. No exact hypotheses have been settled and tested in this case.

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### RETAIL SECTOR IN POLAND

Economic transition in Poland starting at 1989 involved substantial changes in Polish retail sector. It is worth to note, that even before 1989 in Poland existed in noticeable numbers private-owned shops, but economic system changes led in early 90's of 20<sup>th</sup> century to very quick growth of the number of retail outlets, mostly independent and family owned. Foreign capital store chains entered the market right after introducing hypermarket and supermarket formats into larger Polish cities first. About 2000 there was also discount store format introduced. Since 2005 there is visible concentration of sales volumes in mentioned store formats, and after 2009 systematic decrease of number of independent, small stores. Some statistics about retail outlet numbers are shown on Figure 1.

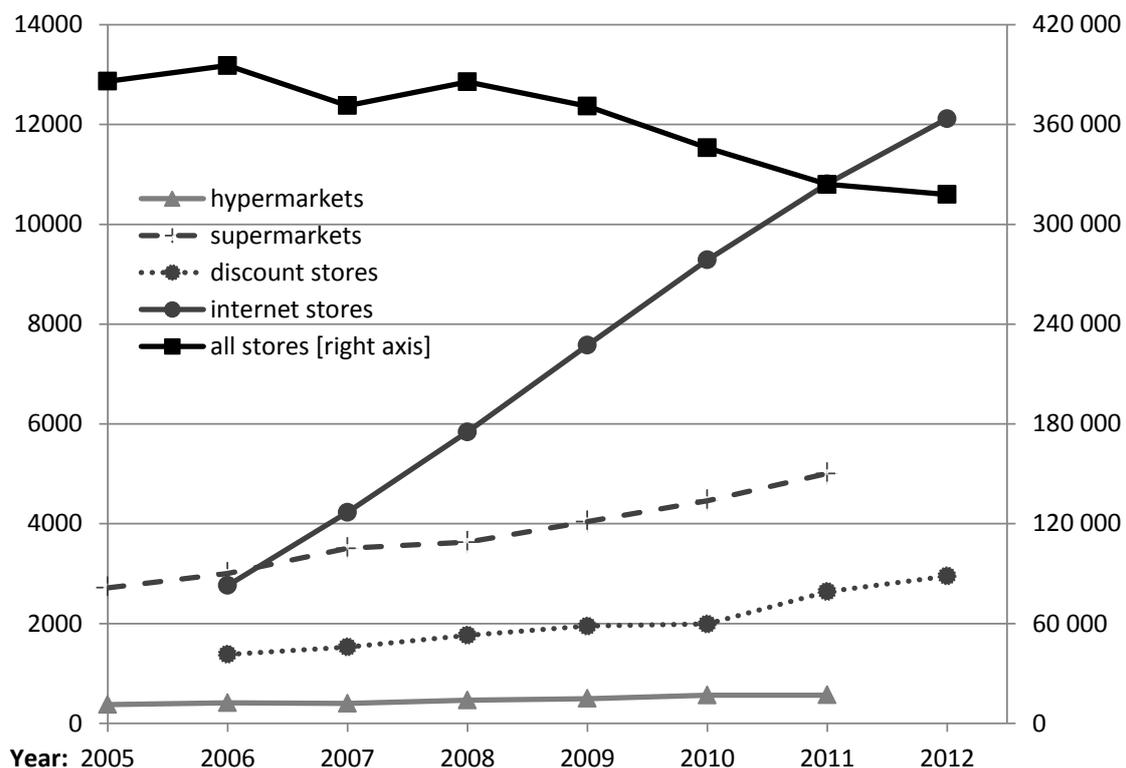


Figure 1. Changes in numbers of selected formats of retail outlets in Poland (2005-2012)

Note: All stores number is depicted on right axis, numbers for particular formats – on left one.

Source: Polish Central Statistical Office (GUS), GfK Polonia, Nielsen, Sklepy24.pl

During the time hypermarket format lost their leadership in driving changes of retail sector in Poland – its share in total sales according to Nielsen data decreased from 15 to about 13% (between 2006 and 2011), when number of hypermarkets increased by ca. 38%. Limited number of larger cities in Poland and aversion to drive longer for shopping led to growth of supermarket format first and discount format later. Such stores were located with time with

smaller towns, and were successfully competing on local markets with more traditional FMCG stores, despite entering to store-chains and remodeling into convenience format. Between 2006 and 2011 share in total retail sales through supermarkets increased by about 2 percentage points to 17%. For discounts growth was more dynamic – 7 percentage points (to 20% share in 2011). Main discount chains in Poland (Biedronka, Lidl and Netto) are employed rather soft discounter strategies after 2010, and are growing in terms of store numbers very quickly. Biedronka (“ladybug” in Polish) is unquestioned market leader for this format with about 2000 local stores under this brand.

Virtual channel in Poland is dominated since many years by one auction platform – Allegro.pl. Despite this, number of active internet shops increases rather quickly with growth of e-commerce sector (between 2006 and 2011 number of internet stores increased from 2800 to about 12100, and its share in total retail grown from about 1% to circa 3-4% according to various sources (Chodak et al., 2012). Most of internet shops are small firms – about a half of them employs no more than two persons. As mentioned auction platform Allegro.pl generates about half of total Polish B2C e-commerce turnover, about of 20% of internet stores in Poland is generated through this platform. Also about half of internet stores are multi-channel sellers, having at least one physical store (Chodak et al., 2012).

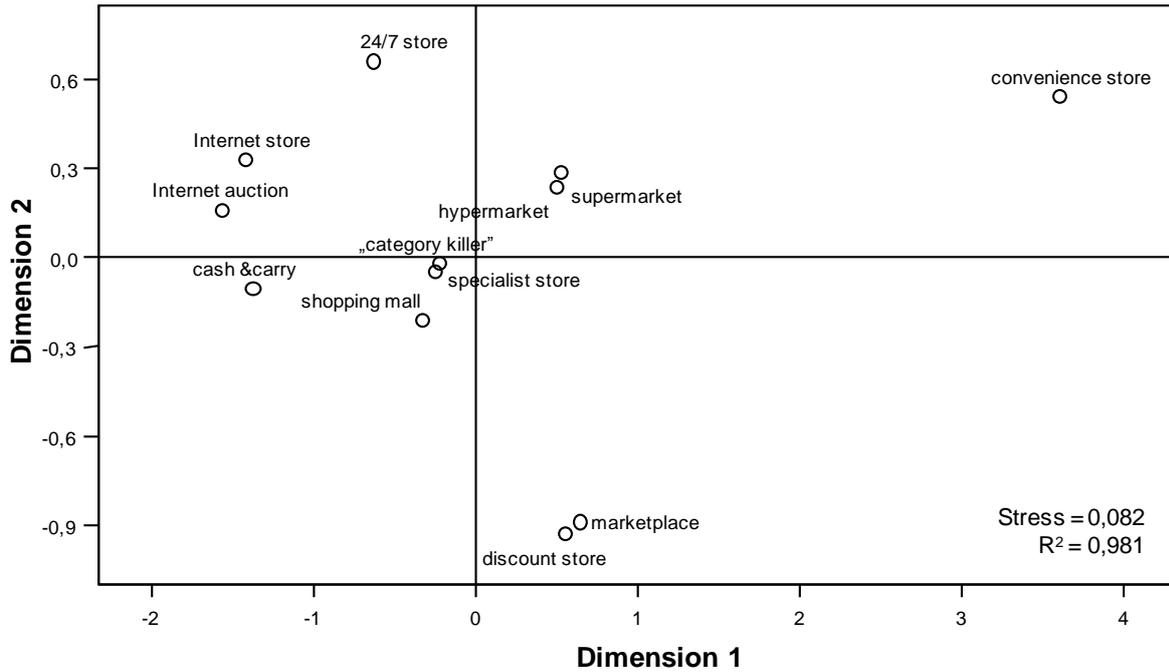
### **PERCEPTION OF STORE FORMATS BY POLISH CONSUMERS – QUANTITATIVE APPROACH**

For visual interpretation of perceived attributes of analyzed retail formats, ALSCAL procedure – one from typical algorithms for multidimensional scaling – has been performed. Figure 2 contains graphical representation of two main dimensions revealed from 2009 and 2012 samples respectively.

Dimension 1 – horizontal one on Figure 2 – can be interpreted as perceived level of personal interactions with the salespersons in particular retail format – (with alternative explanation of representing consumer familiarity with particular format). While dimension 2 – vertical one on Figure 2– represents perceived total cost for consumer in sense described by Peter & Olson (2002, p. 459-461).

Provided interpretation is more clear for 2009 data, and for new data set should be used more carefully, although there are no direct suggestions indicating that such approach is not appropriate.

a) 2009 data



b) 2012 data

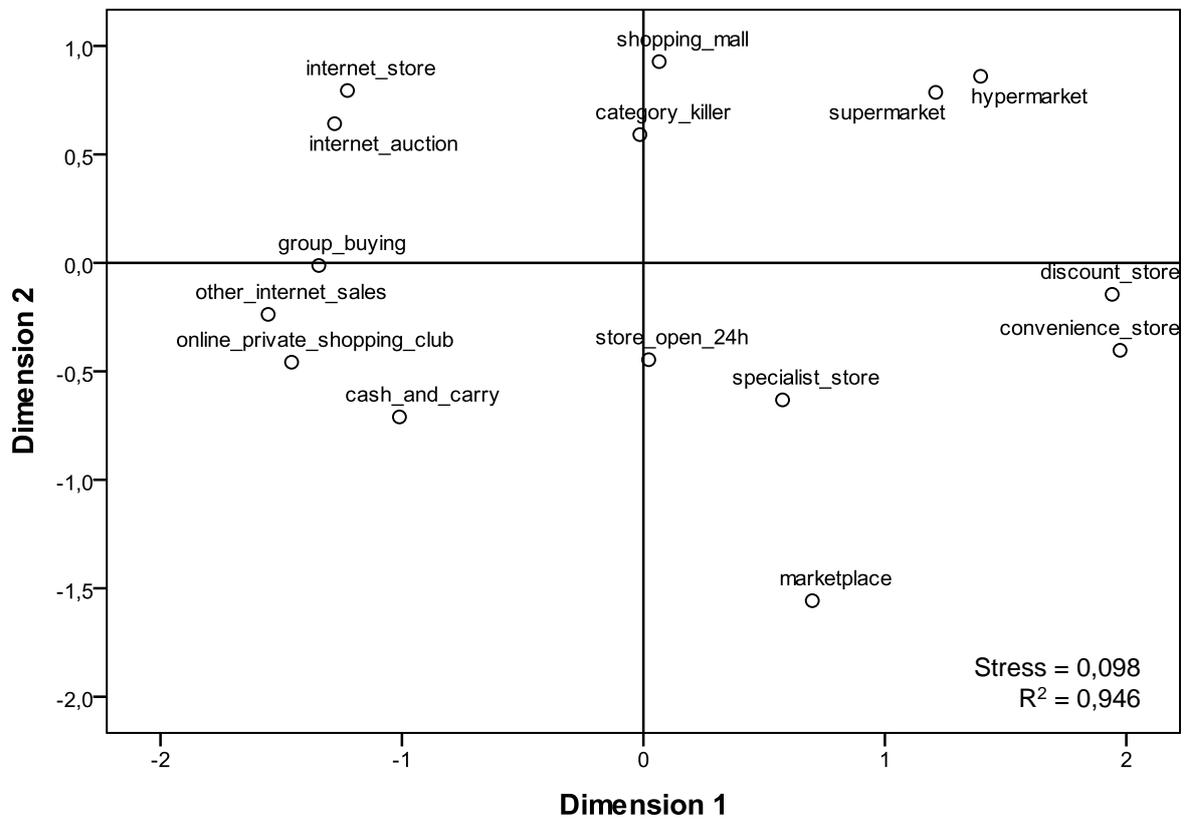


Figure 2. Perception maps of retail formats on the base of declared shopping frequency – multidimensional scaling approach (ALSCAL procedure, Euclidean distances)  
Source: own research



Two-dimensional solution for both cases fits the data very well. Also Stress value is better or close than acceptable 0,1, and  $R^2$  statistic is very high, exceeding minimum of 0,6 (Borg & Gronen 2005, p. 48).

In both cases virtual channel formats are forming group on the left side of dimension 1 – signaling feeling of depersonalization of contact with customer. Also standard forms of internet shopping (online stores and online auctions) are similarly perceived – still having high perceived total cost to the customer, despite lower than in physical retail perceived price level – this suggest that time of delivery, possible need to return (i.e. clothing) or sent to repair (i.e. consumer electronics), are seen as important drawbacks of such purchasing. For other formats of internet sales included in 2012 study, perception of substantially lower price creates climate of “good deal” (in qualitative study this has been explained by younger participants in the context of group purchasing via Groupon or similar places as “real” price to the value, “affordable” price – in most cases persons using such offers declared not buying things or services different way (good example is expensive SPA package bought via Groupon by young student – catalogue price was in this case far beyond payment possibilities of this person). Group purchasing and private online shopping clubs by creating limited time offers are successfully exploiting hedonic motives of consumption and tendency for impulsive buying – this was not seen by consumers.

Comparing map from 2009 research with new one, very visible is dramatic change in discount stores perception among consumers – during the time between both measurements they become accessible by most consumers even in small towns, and because of location policy, within or close to residential areas, they are substituting larger independent convenience stores. It is worth to note that stores described as discounts became between two measurements rather soft discounters – two main chains in Poland – mentioned “Biedronka” and “Lidl” – are not focused only on low prices (but still communicating them in ads), instead they introduced many premium products (mostly under own labels) to their assortment, and consumers are perceiving them as at least not worse quality comparing main national brands.

The second important change is differentiation between classical specialist stores and so called “category killers” – mass merchandisers with deep product assortment within specialized product categories (like consumer electronics, home and garden ect.). In qualitative study (using FGIs) this difference has been explained as follows: classical specialist stores are perceived as trustworthy, so consumers often are using them to get more specific information about products, than to buy – they want to buy in such stores (have positive attitudes toward them), but at the same time higher prices are driving them out of this format. In “category killer” stores consumers are instead more prone to perform so called “showrooming” – looking at/experiencing product in-store with clear intention to buy it cheaper online.

Perception of stores open 24/7 also changed significantly during last years – previously they were referred mostly as small shops existing in little numbers selling mainly alcoholic beverages (with prices surcharged for “availability”, and not easily accessible in terms of time to get in). Now they are perceived in most cases more similarly to smaller convenience stores with very limited assortment of FMCG merchandise – mostly snacks and beverages – as well as simple bistro-type gastronomy. This format nowadays is connected with gas

stations facilities, and total cost to the customer is perceived as lower than previously, as they are easier available.

Most isolated format in 2009 study was convenience store – differing significantly from other formats in both dimensions, in 2012 research isolated is marketplace – perceived as a sales format with lowest cost to the consumer. Similarities in perception between hypermarkets and supermarkets still persists, and today more often than previously the same store brands are operating simultaneously in both formats – good example of such strategy is Tesco, having older hypermarkets in large cities, and supermarkets in smaller towns. Also shopping malls and “category killers” are still similarly perceived

### EMOTIONAL ATTITUDE TOWARD RETAIL FORMAT AND SHOPING FREQUENCY

Declared shopping frequency should be connected with emotional attitude toward particular store format. Mentioned variables are plotted Figure 3 confirming this relationship – they are highly correlated – Pearson correlation coefficient  $r$  equals  $+0,845$  ( $p=0,000$ ), suggesting very strong positive correlation. This is reasonable because consumers are buying more frequently at places they like – on the level of format as a whole and particular store location. Buying at places not preferred emotionally involves perception of taking greater risk – which should be rewarded by substantially lower price or other bonus having value for the consumer.

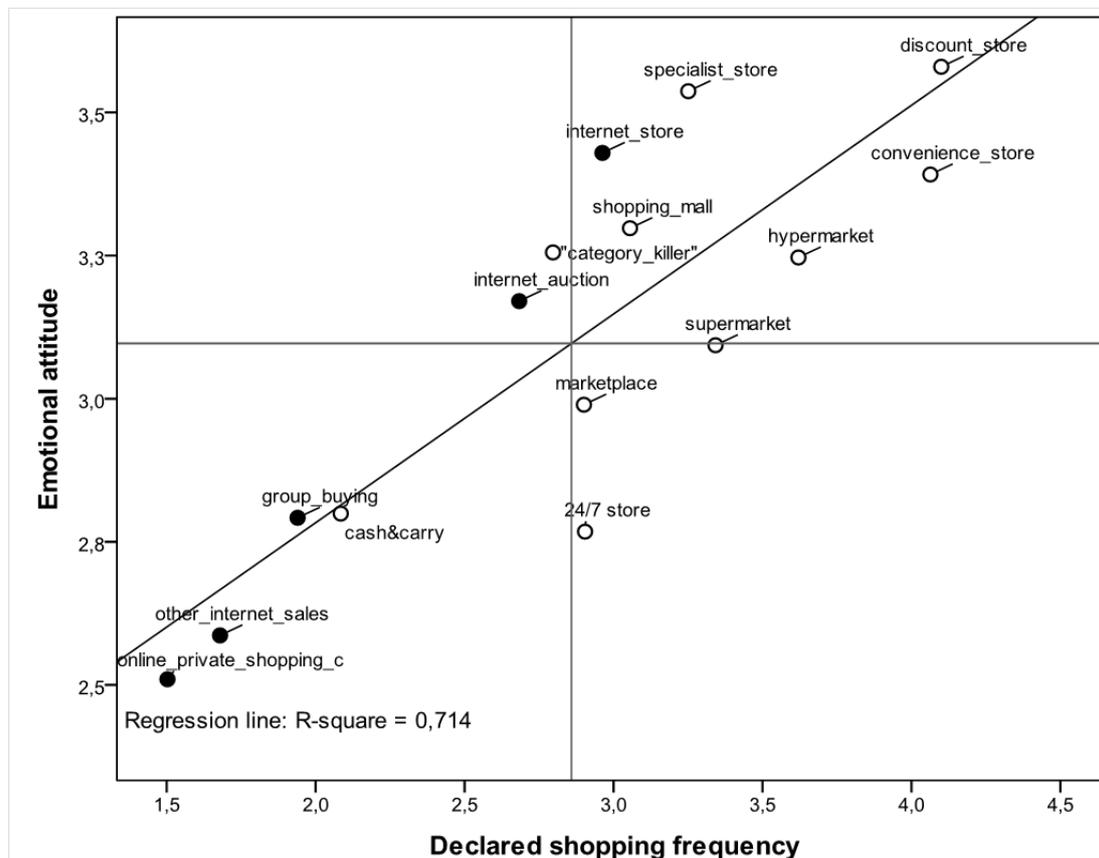


Figure 3. Declared shopping frequency vs. emotional attitude toward retail format (2012)  
 Source: own research

Regression line plotted on figure 3 allows easily find formats for which declared shopping frequency differs much from emotional attitude. Highest positive difference is for internet stores and specialist stores (both perceived better emotionally than used frequently), and greatest negative distance (suggesting disliking) is for 24/7 stores.

Most positive attitudes are connected with discount stores – people feel “smart” buying at discounts – it saves money and time, gives access to interesting products perceived as having good value. Most negative attitudes (disliking) are for two relatively new internet sales formats: online private shopping clubs and informal internet sales (mostly C2C – not using auction platforms but rather social media tools). This comes from little knowledge about those forms – from cognitive perspective it is hard to like the unknown. More often used group buying is connected with more positive attitudes.

Positive attitude toward internet stores leads to conclusion that consumers want to buy more often in them, than do this in reality. Positive attitude comes in this case from availability of products not easily accessible in physical retail, and from ease to perform comparison shopping – as expressed by focus group participants, while main force prohibiting the consumers to buy at internet stores is still a risk, perceived mainly as possible delay with shipping and logistics, hidden costs or future problems after purchase. Consumers also like specialist stores – they trust the salespersons, appreciate their professional knowledge and advice, but think that price level is too high for them to made transaction. As common market practice in Polish specialist stores is having many products available on order, which consumers dislike (they must wait instead getting products immediately – and immediate availability is perceived as one from main advantages of physical retail), in effect many purchases are done outside this format, mainly over the Internet or through large store chains.

Not liking, but quite often buying in 24/7 stores is obviously connected by respondents with shopping by the way of fuel purchasing – this is sometimes perceived as overspending or with necessity to buy some FMCG products (including alcoholic beverages) beyond typical open hours. It is worth to note that in Poland there are very little restrictions of open days/hours for retail (most of shops must be closed on 12 National or Christian holidays in year only), but limited demand causes that only in large cities exist larger stores open 24/7 (for instance in Lublin having about 350 thousand inhabitants only one Tesco hypermarket is open 24/7).

### **PERCEPTION OF STORE FORMATS BY POLISH CONSUMERS – QUALITATIVE APPROACH**

Because CAWI questionnaire to be effective must be as short as possible, authors incorporated topic of store formats perception to qualitative parts of both research. There was in both cases technique called projective perception map utilized, where FGI participants using response cards with empty perception map should as quickly as possible locate positions of objects from given list on two-dimensional space according to personal perception. One map with dimensions labeled: “unsafe” vs. “safe” (horizontal one), and “inexpensive” vs. “expensive” (vertical one) has been used in 2009 study. In recent research two such maps were provided to participants: first exactly the same as in 2009, and second labeled: “inconvenient” vs. “convenient” (horizontal dimension), and “I dislike” vs. “I like” (vertical one). The task was to locate positions of 5 main formats in 2009 (3 physical and 2

virtual), changed to locate up to 15 formats in early 2013 (10 physical and 5 virtual). Example of filled response cards from early 2013 are shown on Figure 4. Time between main CAWI study at the end of 2012 and FGIs from early 2013 not exceeded two months.

Individual responses were aggregated by coding positions for each format on the map. Next step was to find centroid of individual responses (with extreme outliers eliminated from analysis). Figure 5 contains aggregated map from 2009 – at this time formats asked were perceived consistently regardless of age and gender – so only one map is provided. Findings from early 2013 are shown on 8 separate perception maps (two maps for each from four age groups) – Figure 6.

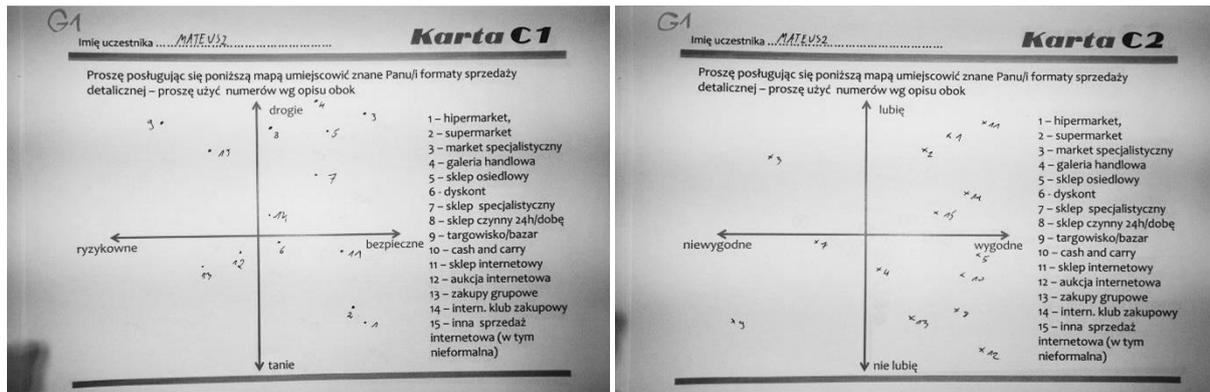


Figure 4. Examples of individual perception map from early 2013 study

Source: own research

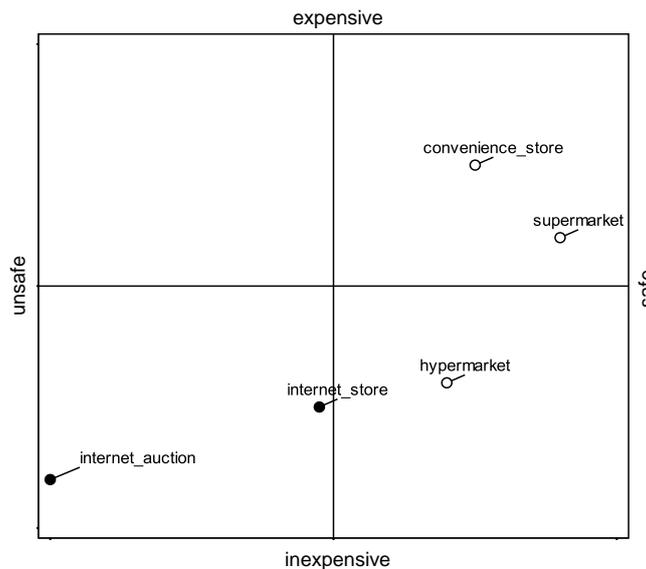


Figure 5. Projective perception map of retail formats – aggregation of all groups (2009)

Source: own research

Simple conclusion from 2009 map is that virtual channel formats were perceived less expensive than main formats from physical channel, and less safe (particularly Internet auctions). Lower price was expected compensation for lower safety of purchasing. Other costs than listed price were probably neglected by consumers participating in this research.

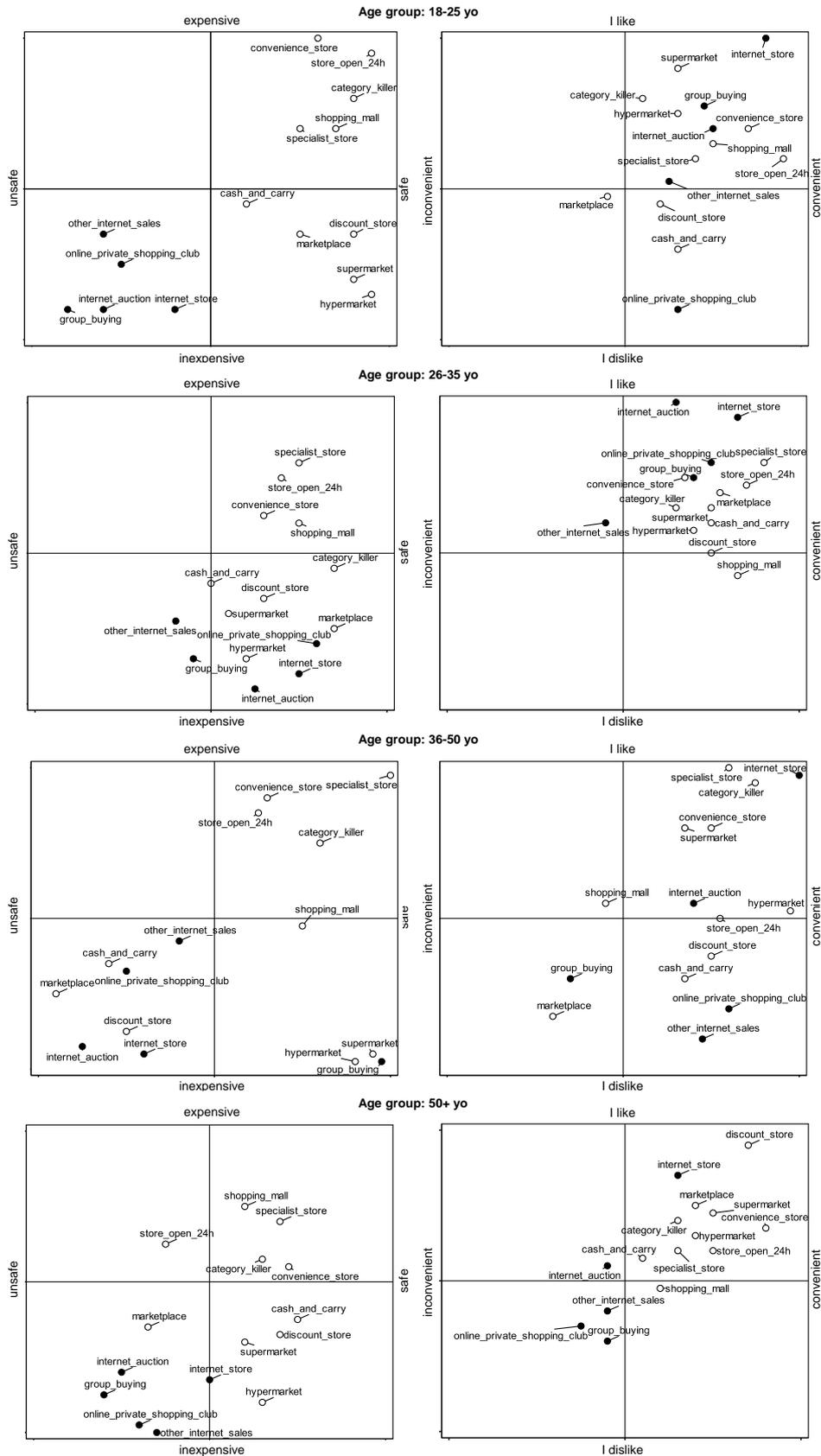


Figure 6. Projective perception maps of store formats by age groups (2012)  
 Source: own research.



As results from 2009 were very general, for next study more detailed approach has been used. Results shown on Figure 6 for separate age groups and two set of descriptors for each group allow to compare influence of age on perception of store formats, particularly those utilizing the Internet, which was harder to find on quantitative level (although UNIANOVA results – not presented in this paper – are consistent with qualitative findings).

Virtual retail formats are perceived as different than most formats of physical retail in terms of perceived price level and safety of purchase – they are perceived as having low listed price level and less safe comparing to physical stores. For youngest group three clusters are visible – mentioned virtual retail formats together are forming first group (inexpensive and unsafe), second group is perceives as inexpensive and safe (mostly grouping so called modern physical formats), and the third group consists of more traditional formats with shopping malls and category killers as replacements of their traditional counterparts. Interesting is similar pattern obtained in youngest focus group and group with persons aged 36-50 – in both groups perception of Internet retail is very similar (cheap and risky), this similarity applies also to perception of some physical formats perceived as safe and expensive (this applies for instance to convenience stores and 24/7 stores). Some similarities exist for mentioned dimensions between groups 26-35yo and 50+ yo (for example specialist stores).

For second set of descriptors interesting is perceiving nearly all store formats as convenient (only for 50+ group virtual retail – excluding internet stores – is rather inconvenient). Both younger groups are liking most of modern retail formats including virtual ones (with exception for discount stores). For both older groups disliking internet retail is more common, although for 36-50yo group disliking them not implies perceiving them as inconvenient. It should be noted that in this age group there was much more disliked formats comparing to other groups.

Discount stores and also cash and carry format were most disliked formats. Internet stores are liked very much and at the same time perceived as very convenient retail format. This not applies to very popular in Poland auction platforms – they are perceived as less convenient and less liked in comparison to internet stores.

Also there is a need to point out less positive perception of discounts in qualitative data – they are perceived as less convenient than other formats and rather disliked, but less expensive, [and what was not measured directly they are close to the consumers].

## **CONCLUSION**

There are quite substantial differences in perception of retail formats. Still virtual retail is perceived as less safe, but also less expensive. For common types of internet sales even older persons have rather positive attitudes (younger ones have such attitudes for all virtual formats). Internet retail is perceived also as convenient.

Comparing results from quantitative part with qualitative ones visible is discrepancy in perception of gaining popularity discount stores – perceived similarly to convenience stores when investigated quantitative way, they show less positive perception in qualitative data – are perceived as less convenient than other formats and rather disliked, but less expensive.

All presented research conducted by authors allowed to build set of research tools and analysis techniques (both quantitative and qualitative) useful to assess perception of different retail formats. Results from different approaches are convergent each other and graphical way of their presentation is easy and useful. Repeating measurements over time allow also to examine changes in perception (when treated as longitudinal data from consumer panel). Lack of strong cultural cues in questions and response cards allows with ease international comparisons.

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