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THESIS SUMMARY

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Key of Success in Shopping Centers

Composing Elements of Shopping Centers and their Strategic Fit

Ph.D. dissertation

Dissertation Supervisor:

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Marketing Department

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I. INTRODUCTION

The central point of my dissertation are construed of shopping centers, "cathedrals of consumption" (Sikos and Hoffmann, 2004). These commercial facilities in the modern sense have a track record of only 20-30 years both in Hungary and in whole Central & Eastern Europe. As a result, very few scientific researches have dealt with this topic. This dissertation tries to fill in this gap.

The pulling force of practice on scientific research is well-known in this field (Brown, 1992), thus, practice merely relying on intuition is not surprising at all. However, I believe it is worth trying to reverse this process. The financial and real estate crisis underlying in the global economic downturn that started in September 2008 pointed out the need for this. This is why I decided that, in this dissertation, I would try to bring closer practice and scientific research of shopping center development and management. According to this, information from scientific researches carried out so far and information from my scientific observations on practice are alternating in the dissertation. Finally, the presented general shopping center model approaching from the PRODUCT paradigm attempts to put in one unified theoretical framework the results of scientific researches and personal observations. I test the pertinence of this theoretical framework with the help of SEM (structural equation modeling) on a sample of 75 mostly Central-East European shopping centers.

The value of the dissertation lies in the theoretical framework provided by the general shopping center model. This provides an adequate framework for the interpretation of theories and researches regarding shopping centers, and in the same time an useful guide for practitioners, so they understand better the components of shopping centers and their strategic fit and co-evolving.

I. 1. Motives on the choice of topic

The relevance of the topic is given by the evolution of retailing and the very rapid and wide-spread shopping center development wave that occurred in Central and Eastern Europe before 2008. Later, the slowing and decline of development generated by the global economic crisis contributed to this. As an effect of the crisis, the rate of vacant sales areas increased worldwide, many shopping centers were frozen in the stage of planning or construction, the opening of new shopping centers was postponed (e.g. Tiago Mall, Oradea), or were closed in the first six months after opening (Armonia, Braila). Later, these were sold during bankruptcy proceedings, in the majority of cases, for a fraction of the invested capital. But bankruptcy proceedings did not avoid neither shopping centers in operation. For instance, City Mall, located in central Bucharest, was auctioned for the third time on May 16, 2011. The shopping center, which was opened in 2005, was bought by the APN European Retail Trust for 103.5 million Euros in the fall of 2006, expanding their portfolio comprising 35 shopping centers. The center was declared insolvent in 2010, because, even though it was operating with an occupancy rate of ca. 90%, it could not repay the loan of almost 41 million Euros that was taken on the center. Finally the center found its new owner in October 2011 for ca. 17.3 million Euros and is still in operation, though some newspapers wrote about its transformation into a hospital. Thus, in the case of City Mall, we could observe in less than 5 years a decrease in value of more than 80%. 86.2 million Euros "just vanished in the system", they were written off as loss. This is not a single isolated case: Peter Blackbird and Brian Florence keep count of nearly one hundred "dead" American shopping centers on their deadmalls.com website. It is obvious that it should be a common goal of practitioners and researchers to prevent and eliminate cases like these. In order to achieve this, it is absolutely necessary to pursue scientific observation and analysis of these phenomena and the whole industry, as well as the formulation of generalized theses and theories describing and explaining these. *Until this theory based on science is missing or is not able to sufficiently explain these phenomena, these failures are inevitable. Exactly this is the reason why there is a burning need for the*

formulation of a comprehensive and general shopping center theory. The present dissertation advocates for this and attempts to undertake this by approaching from a new, Product view.

I. 2. The aim of research

The motives behind choosing this topic indicate that *the aim of the dissertation is to facilitate the development and management of successful shopping centers by formulating a comprehensive and general shopping center theory.* These are accompanied by personal, practical and scientific objectives. In order to achieve this objective, a **SHIFT OF PARADIGM** is necessary in shopping center theory. Shopping centers are seen in scientific circles and by practicing professionals as a planned **PLACE**, where customer demand meets retailer supply. I would like to change this approach by introducing a new paradigm, which views shopping centers as **PRODUCTS**. The shopping center is the result of activities carried out by developers and is maintained by facility and property managers. Its composing elements are: Location, Customer Mix and Tenant Mix. The synergies arising from the strategic fit of the composing elements contribute greatly to the maintaining and increasing of shopping center success. The personal, practical and scientific objectives of the thesis converge towards the same basic goal, namely to the formulation of a general theoretical framework, which can provide an adequate base for the facilitation of shopping center success. For the understanding and acceptance of this comprehensive theoretical framework, a paradigm shift is necessary, by which shopping centers stop meaning only a Place and become analyzed as Products.

I. 3. The notion of shopping center

In my view, the shopping centers are none others than **PRODUCTS** of the real estate industry. As such, this product is conceived and developed by developers using those investors' capital who see profit and gains in the realization of the respective shopping center. Developers and investors working in the real estate industry pursue the maximization of gains and achieving profit. For this purpose, they develop, according to the given conditions of the market, office buildings, residential real estates, industrial sites, touristic and entertainment facilities or shopping centers, depending on which promises more profit. From all these real estate products, shopping centers pose the biggest challenge, because their proper development seeks commercial knowledge as well. Therefore, they represent a distinct field in the real estate industry, where professionals are also prone to handle shopping centers as the meeting place of the final demand and supply. If, however, we combine the real estate industry's product phenomenon with the product definition used in marketing, it becomes obvious that shopping centers are none others than a products of the real estate industry. Though one of the main functions of the shopping center is to provide scene for the meeting of customers and retailers, it would lead to myopia if we would consider shopping centers only as a place. Especially, since its primary functions include also the preservation of value and achieving profits. I could say that shopping center is a platform, which is formed by tenants, customers and facility managers altogether through using its spatial, physical characteristics; but I won't. Developers and facility managers represent an exterior force, which have the means to shape the physical characteristics and tenant mix of shopping centers, and also to attract the desired target customers. Thus, they represent the creating and shaping exterior force, while the composing elements are given, and so are the interactions between them.

Thus, the shopping center is not a Place, nor a Platform; it is a Product of the real estate industry. This product is created by developers through strategically aligning the three components (Location, Customer Mix and Tenant Mix), and is later maintained by facility managers through the coevolving of the components. The proper utilization and increase of synergies generated by the strategic fit of the composing elements can make a shopping center really successful; such synergies are for instance, the shopping center image, patronage or retail demand externalities.

According to marketing view, the product is a combination of physical, aesthetic and symbolic characteristics, which is designed to meet consumer needs. As much as we would think that the consumers of the shopping center are the tenants – retailers and the customers – shoppers, we would be wrong. They are only the users of the shopping center. In exchange for the use, they either pay directly rent, or pay indirectly through purchases. The real consumers of shopping centers are their investors and owners, whose primary need is value conservation, accruing interests and maximizing profits. Shopping centers, if they are successful, satisfy primarily this consumer need. Developers and property managers perform the tasks of producing and maintaining this product. If the center is successful, they all are beneficiaries, along with the community.

I. 4. The structure of the thesis

Regarding its structure, the thesis is composed from eight, clearly separable chapters. The first introductory chapter deals mainly with the reasoning on the choice of topic. The second chapter provides insight into the world of shopping centers starting from the various shopping center definitions and types till the related theories. The third chapter gives a detailed description of the literature dealing with location, customer mix and tenant mix. The presentation of these, provide a sufficient base for the formulation and detailed explanation of the general shopping center model proposed in the fourth chapter. Practically, this chapter forms the backbone of the thesis. The fifth chapter summarizes very briefly the results of the previously conducted preliminary studies. In the sixth chapter, I describe the concrete research steps, formulated propositions and hypotheses, the sample and the chosen methodology. The presentation of the results and the analysis of model fit can be summarized in chapter seven. The eighth chapter draws the conclusions from the present research, enlists some limitations and discusses the future research directions. Last but not least, it summarizes the scientific and practical contribution of the dissertation to the field of shopping centers. However in the present thesis summary, I discuss rather briefly the theoretical summary mentioning only the scientific background of shopping center theory, the need for a new paradigm shift and the general shopping center theory. Afterwards, I follow the structure of the thesis.

II. LITERATURE SUMMARY AND THEORETICAL BACKGROUND

II. 1. Placing shopping center theory in the field of science

The formulation of a new comprehensive and general shopping center theory requires first the placement of shopping center theory in the field of science. *Shopping center theory is developed by the melting of several fields of science and is still under development today.* Accordingly, definitions, notions and terms are in constant change, and though some principles and general rules have been already fixed, there are still many questions to be answered. Unfortunately, in most of the cases researchers analyze only a small part of shopping center theory. The practice-following behavior of shopping center theory is very probably due to this lack of a holistic approach and to the complexity of the topic. Thus naturally, in the focal point of shopping center theory we find normative questions, such as how much gross leasable area should a regional center have?, how many anchor tenants should be included?, should there be a cinema or other entertainment facility?, how to achieve higher incomes: by fixed rents or percentage rents? etc. As a result of this, we can observe a kind of *reverse pulling process starting from normative questions toward positive questions*, even though "the goal is clearly to formulate normative proposals based on a very rich descriptive theory." (Bauer and Berács, 2006) *There is a great need for a comprehensive, positive description of the shopping center*, for the clarification and pinpointing of various terms. This is the only way to create a solid base for answering different normative questions.

Shopping center theory is not a stand-alone field of science, it is more of a blend of several fields of science. But it provides an interesting ground for scientific research, which is undoubtedly needed. Scientific field-wise, it is drawn from

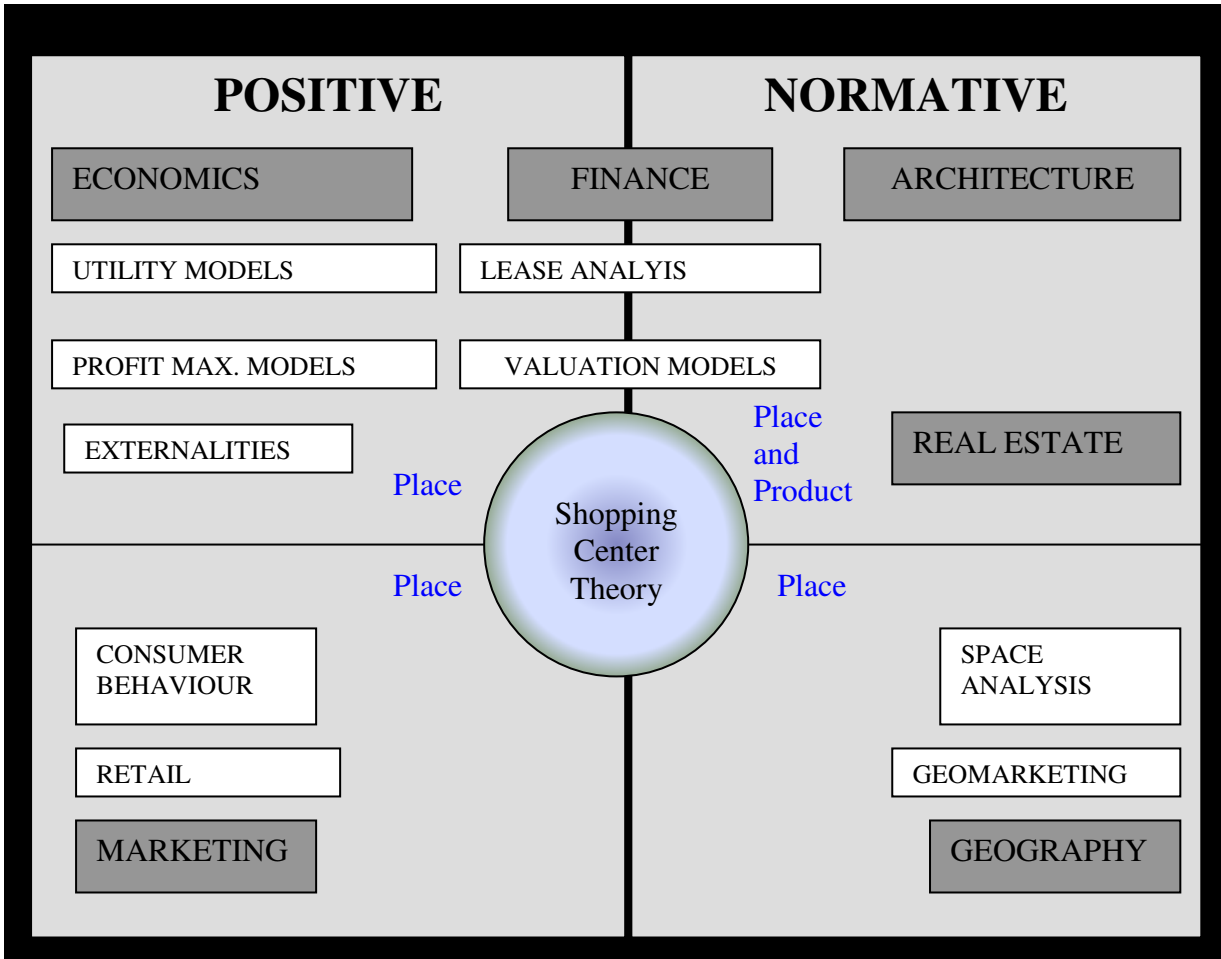
several different social and natural sciences like Economics, Marketing and Finance and from applied fields of sciences: Finance, Architecture and Geography. As shown in Figure 1, the shopping center theory is connected to several fields of science through a number of strands. Therefore, it is obvious that it's very complex field. Scientific field-wise at the beginning, and in practice even nowadays, its main pulling field, due to its very close relation, is said to be Architecture and within this Real Estate (Eppli and Benjamin, 1994; Carter, 2009). If we think about the fact that the pulling force of shopping center theory development lies in the normative questions formulated by practitioners, it is quite understandable why many view Architecture and Real Estate developed within Engineering, as its defining fields of science. However, within the real estate industry, shopping centers were regarded as particular cases, since other theories of the real estate industry, principles applied in a general sense (office centers, industrial centers, hotels and tourist centers), were inapplicable in their cases. The main reason behind lies in the retailing function of a shopping center, bringing demand and supply *under one roof*, which is missing from other products of the real estate industry, and which from all the other fields of science is undoubtedly most related to Marketing. Perhaps, another reason for the dominance of real estate field in shopping center theory, is the very little attention that has been paid to customer behavior, or the complete ignoring of it, which was already highlighted by Feinberg and Meoli (1991). The hierarchical model of shopping center research by Eppli and Benjamin (1994) also shows, that customer behavior based theories appear only at the bottom of the model, and even there just from a micro-economic approach emphasizing consumer utility maximization. Furthermore, these customer principles are completely missing from Carter's (2009) shopping center theory. Fortunately, in the past years, researches have given more attention to this question (Chebat et al, 2006, 2009). Hopefully, this trend will continue in the future and more and more marketing researchers will examine shopping centers closely, approaching from both retail and consumer behavior sides. But all these efforts will barely contribute to future ground-breaking results, if the researchers from various fields of science do not work together along related topics.

The classification literature explains that *shopping center literature is built around four central topics: site selection – location, customer mix, tenant mix and shopping center valuation*. These four central topics are the main composing elements of shopping center theory. The first three topics are the main composing elements of the shopping center, as Product, and the fourth one is directed towards the valuation of this product. The first one of these central topics is site selection and location analysis, which is the starting point of shopping centers and which was first dealt with by Economics. Afterwards, it spread to the fields of Geography, Real Estate and Marketing. The same wave of spreading can be seen in the case of tenant mix related literature, except for Geography. The literature regarding customer mix and shopping center valuation is rather new, it started to spread in the early 1990s, and it's mainly built on the field of Marketing, however we can find references also to Finance and Real Estate. Customer Mix forms the second main component of shopping center literature and works as a link between Location and Tenant Mix. The absence of a comprehensive and general shopping center theory is maybe also due to this new literature, to the late discovery of this link.

The presentation of shopping center literature clearly defines that the development of shopping center theory requires the melting and meeting of several fields of science. From the related fields of science (architecture, real estate, finance, economic geography, economics, commerce, marketing), only one: Marketing can integrate all the related notions, terms and phenomena into a unified theory. It would be useless to wait for architecture-real estate or finance to take into consideration the studies regarding consumer behavior, retailing or vice ad versa. Marketing itself was created from the interweaving of several fields of science, thus it is a natural process in this field to integrate results from different researches and fields of science. This is why the dominance of Marketing in shopping center theory would be very important. Taking into consideration the institutional background of shopping centers, the knowledge about their development and property management, we can undoubtedly view them as real estate Products. Through this lens, the

concepts and phenomena used in marketing become instantly applicable in the field of shopping centers: starting from product levels, through product life cycle and product development. Exactly this is the reason why, in my opinion, there is a need for paradigm shift in the further development of shopping center theory.

Figure 1.: Shopping center theory's references to fields of science



Source: based on my own observation

II. 2. Paradigm shift in shopping center theory

The shopping center theories developed so far, are all tuned on the shopping center as **PLACE paradigm**. This is also supported by the fact that, according to some authors (Agárdi, 2010), the central place theory, the theory of retail agglomerations, the theory of multi-purpose shopping or the theory of retail leases presented by Eppli and Benjamin (1994), can only be seen as theories explaining site selection. Even if I rely only on my own analysis, I must admit that, according to most of the definitions the shopping center is not more than a Place: a retail agglomeration (Ghosh and McLafferty, 1991; Eppli and Benjamin, 1994; ICSC, 2004; Carter, 2009), which revolutionized retail, an ecosystem for the co-existence of predators-retailers and preys-customers (Yiu, 2006) or an utopian marketplace (Maclaran and Brown, 2005). According to the studies so far, *shopping centers have been and are viewed as a Place, which provides space for the main element of marketing: exchange and retail*. Therefore, the dominant position of marketing science in shopping center theory is necessary for the further development of this theory on an adequate base. We could state that *in shopping center theory the first paradigm looks at the shopping center as a Place, which functions comply in the same time with the functions of a market place(sales area) and a public square(common area)* (Marton, 2007). The shopping center is

none other than a *sales area*, it is meant to gather demand and supply under one roof and thus provides space for retail. In the same time the shopping center is *common area* giving opportunity to satisfy social needs, through taking on functions performed by city centers provides space for social interaction.

But this is only one side of the coin, as shopping centers don't mean only a PLACE, but they represent by themselves PRODUCTS. Therefore, there is a need for paradigm shift in shopping center theory. The definition and determination of shopping center as product is closely related to shopping center development; we could say, practically that the shopping center is the product of development activities. A product, whose final users are tenants, retailers and customers and whose consumers are investors and owners. Here, the primary function of shopping center is value conservation and creation from invested capital and gaining profit. This paradigm seems to be justified by the subchapter dealing with shopping center development and management, which presents its institutional background. This ***Product paradigm describes shopping center based on its main composing elements: Location, Customer Mix and Tenant Mix.*** The same Product approach offers the opportunity to analyze and optimize these composing elements, to constantly develop them, thus enabling the increase of shopping center's value. The researches carried out so far completely lack this Product approach, only in analyses dealing with tenant mix and rents there is a slight trace of a presumption viewing shopping center as an asset for creating expected returns and profit for investors. While the Place paradigm of shopping center theory relies on its retail facilitating function, the Product paradigm gives the opportunity to analyze the shopping center itself, regardless of the functions it has to perform. This is even more important because not all products work, function as intended. In order for a product to function properly, first we need to ensure that the respective product has got indeed the right combination of composing elements. Without the analysis of the shopping center's composing elements we can hardly talk about a comprehensive and general shopping center theory.

II. 3. New, general shopping center theory

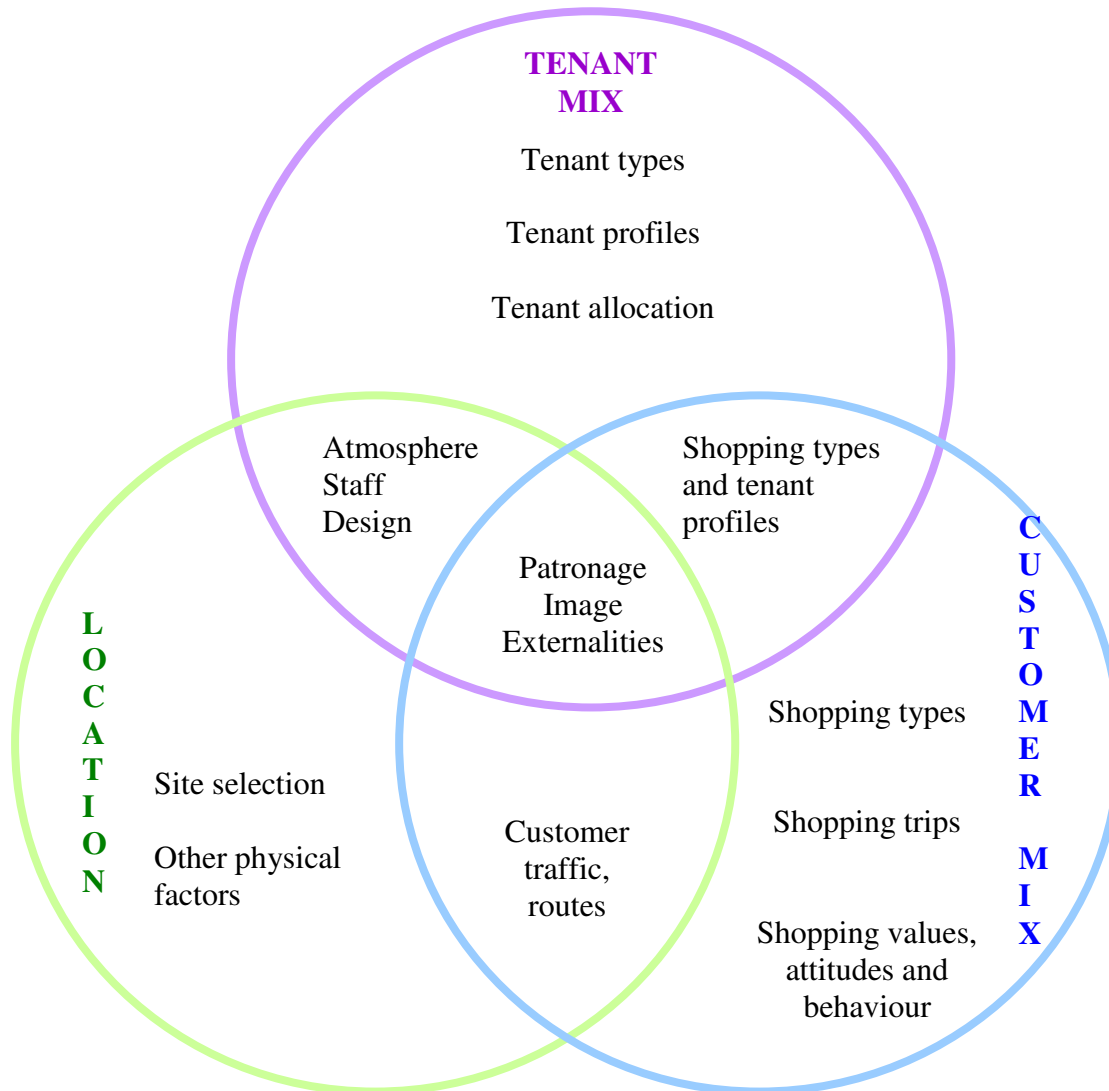
The present dissertation's essence is that ***it aims to elaborate a comprehensive and general shopping center theory approaching from the science of Marketing and the newly introduced PRODUCT paradigm.*** It is doing so on the level of individual shopping centers, taking into consideration their main composing elements, the connections and interactions between these and the evaluation of their functioning. Therefore, we could also say that the present dissertation deals with the micro-economic approach of shopping centers, analyzing their main component parts and their joint functioning.

According to the general shopping center theory the composing elements of the shopping center are: Location, Customer Mix and Tenant Mix. From the combination of these three elements the shopping center is developed, and the success or failure of the shopping center is determined by the utilization and optimization of synergy sources created through the strategic fit and dynamic coevolving of these composing elements. These elements define the shopping center itself, these make it what it is and these establish its "product" type. These three main composing elements correspond with the first three main topics described during the presentation of shopping center theory, while the fourth central topic, the valuation of shopping center operation and its success, deals with the strategic fit of these.

According to the traditional approach the main determining element of a shopping center's success is its site or location. Even though location plays a very important role, it does not offer a solution to everything. A shopping center becomes successful if selects its tenant and profile mix and utilizes its physical characteristics in accordance with the core of its customer mix resulted from the location; and it becomes unsuccessful if ignores these relations and doesn't correlate its retail supply with customer demand within the available space. Thus, these main composing elements not only influence each other in chain, but are also interacting and in best cases are coevolving. In the followings I summarize the researches results regarding the aforementioned three components, and offer insights into the relations and interactions between them and into the synergy sources resulting by their proper overlapping. These synergy sources contribute greatly to the success of shopping centers, or in case they are missing, to their failure. According to the definition, synergy is a "concept

incidental to positive consequences, supporting some kind of an effect and dissolving negative consequences” (Tóth, 2004, p. 15), which is regarded as a related term to *value creation* in the science of management. Beside Chatterjee’s (1986) financial, operational-administrative and market force based synergy types, Tóth (2004) considers the source-based dynamic analysis of synergies very important. This is in accordance with Eisenhardt and Galunic’s (2000) coevolving concept. In their opinion, the companies that provide opportunities for the symbiotic coevolving of the company’s departments have a better chance in developing and keeping synergetic effects.

Figure 2.: General shopping center model



Source: own compilation

Kaplan and Norton (2005) state the same saying that for a company to achieve synergy effects, the organizational assembling of its components is necessary. In case of shopping centers, this means that *the value increase and profit maximization of shopping centers require the adequate fit of their components, their dynamic coevolving and the utilization of the resulting synergy*. It is important to notice that this model based on Location, Customer Mix and Tenant Mix is dynamic and as the interior structure of a composing element changes, so must the factors of the other two components be fitted. *In this dynamic model, what matters is the coordinated cooperation and coevolving of composing elements*. As the *general shopping center theory also shows, these three components (Location, Customer Mix and Tenant Mix)* contain a number of factors which define not only the respective component, but also influence the two other

components, and the factors within them. *Areas that contain synergy sources within them are born from the overlapping of these elements.* This is the case of the area between Location and Tenant Mix, which defines the design of the shopping mall and the whole atmosphere. The meeting of Location and Customer Mix determines customer traffic within the center and shopping routes, while the meeting of Tenant Mix and Customer Mix influence correlations between shopping types and the different tenant profiles. *Beside these, there is a narrow field where the synergy source is generated from the overlapping of all three components in the same time. Here belong the image and patronage of the shopping center and the retail demand externalities.* These are the main areas which could greatly contribute to the success of the shopping center by the optimal utilization of the respective synergy sources. It is important that the applied activities take into consideration these three key factors and the synergies resulted from their overlapping. I hereby test this general shopping center model in my simplified research version. This means that through the testing of the model I only examine the composing elements, the interactions between them and their shopping center type defining effects. The analysis of the synergy sources did not fit into the limits of the present dissertation, reason why their theoretical presentation will be more detailed.

II. 3. 1. Critical summary of shopping center's composing elements

In this subchapter constructs such as Location, Customer and Tenant Mix will be described. As I already underlined, these form the main composing elements of the general shopping center model. In other words, the shopping center as product, is none other than a given combination of Location, Customer Mix and Tenant Mix. Here I will only mention them briefly, from a critical approach.

II. 3. 1. 1. Location

The first main composing element of the shopping center as Product is Location, which comprise beside the site of the center also all the other physical characteristics which define the center's physical environment, building etc. Starting from the first appearance of shopping centers, **site selection** has played an important role. Christaller's (1935) central place theory, Reilly's (1931, id. Huff, 1964) gravitation theory and Hotelling's (1929) retail agglomeration theory is linked to this as well. Christaller's (1935) theory started spreading mainly in the circle of geographical space analysis, while Reilly's (1931, id. Huff, 1964) gravitation theory was applied mainly for the selection of the adequate site, because this proved to be the right method for the analysis of the sites' customer drawing power. Many variations of the original model appeared, one of the most famous is related to Huff (1964), who laid the base for the probability-calculation of drawing power. Hotelling's (1929) theory became popular with economics and played a major role especially in the development of retail demand externalities. The **other physical characteristics** receive a role in researches only if they influence shopping center patronage (Teller and Reutterer, 2008; Pan and Zinkhan, 2006; Inman et al., 2004; Wakefield and Baker, 1998) or image (Finn and Louviere, 1996; Kupke, 2004; Chebat et al., 2006; Chebat et al., 2009). In future researches these should get a more important role, complementing the concept of Location.

II. 3. 1. 2. Customer Mix

With this, we have arrived to the second composing element of shopping centers, **Customer Mix**. Roughly simultaneously with site selection, the core of customers mix is determined. An in depth knowledge about this customer mix is essential for the development and operating of a successful shopping center. In attempts of getting to know the Customer Mix, the most researched areas are of shopping values, motives, attitudes and behavior (Wagner and Rudolph, 2010; Shim and Eastlick, 1998; Babin et al., 1994; Holbrook and Hirschman, 1982; Jackson et al., 2010; Diep and Sweeney, 2008). Here, researchers took into consideration especially the effects of hedonic and utilitarian values on purchasing in shopping centers. Another popular research topic is the customer attitudes related to shopping and their effects on shopping center patronage, loyalty and shopping center valuation. This research field is followed by the analysis of shopping trips (Arentze and Timmermans, 2001; Popkowski and Timmermans, 2001; Arentze et al., 2005; Oppewal and Holyoake, 2004). A

special field of shopping trip analysis is the analysis of customer traffic, customer routes (Chebat et al, 2009) within the shopping center, but this has received little attention so far. Even less attention was received by the analysis of shopping types, especially regarding tenant type and profile mix, although behavior analysis regarding shopping types could lead to a very interesting insights on retail demand externalities.

II. 3. 1. 3. Tenant Mix

The Tenant Mix, which is the third composing element of the general shopping center model, should be chosen such as to fit with the core of customer mix. If we look at the literature from the **Tenant side**, we can say that the theories related to retail demand externalities are the most wide-spread, which are mainly related to the name of Brueckner (1993). But the connections between tenant types and profiles were examined without in the absence of a standardized and precise classification of tenant types and profiles. Therefore, it is quite difficult, almost impossible to compare the results of these studies. Reason why I call for the elaboration of a standardized system and propose a classification of tenant types and profiles elaborated by myself. Furthermore, in most of these researches important factors, such as shopping behavior: shopping trips or shopping habits are not included. In contrast, these models approach the topic of retail demand externalities from the viewpoint of rents and shopping center's sales maximization, and take into account only the interests of owners and investors (Miceli et al, 1998; Benjamin et. al, 1990, 1992; Mejia and Eppli, 2003). Some studies discuss tenant selection and tenant space allocation - clustered or scattered (Bean et al., 1988; Borgers et al., 2010; Brown, 1992; Kirkup and Rafiq, 1994; Bruwer, 1997; Carter and Vandell, 2005; Baker, 1999; Des Rosiers et al, 2005; Yiu et al, 2008 and Yiu and Xu, 2012), which also have an important and significant role in determining Tenant Mix. Thus researches upon tenant mix are basically exhausted; the meagerness of this field is commonly accepted (Brown, 1992). But due to the nature of the industry and the very difficult data collection, this is completely understandable. Future researches should focus on topics such as tenant value.

II. 3. 2. Critical summary of shopping center's synergy sources

In the followings we'll discuss topics such as patronage and image of shopping centers and retail demand externalities. These are the areas where the meeting of shopping center components could evolve into synergy sources through their adequate combination. In other words, the success, value of a shopping center can increase if shopping center developers and managers, concentrate on these components (Location, Customer and Tenant Mix), and apply, fit and coordinate them jointly. Thus, they have the opportunity to reach such synergy sources, which internalization and utilization increase the success and value of the shopping center. Therefore, synergy sources are very important for the general shopping center theory and future researches should focus on these topics in accordance with their complexity.

II. 3. 2. 1. Shopping center image

One of the synergy sources that demands the strategic fit of components is **the image of shopping centers**. This field does not necessarily have to be treated separately from shopping center patronage, since it can be seen as an influencing factor of patronage. Still, here it worth describing on its own due to its importance and due its poor and narrow interpretation in studies carried out so far. In most of the cases, shopping center image is seen as a special compilation of patronage influencing factors, and is described with factors, such as: the quality of stores and products, product range, level of prices, price discounts, sales area, parking, convenience, staff, opening hours etc. (Nevin Houston, 1980; Kupke, 2004), in which the emphasis is on the *other physical characteristics* related to location. In newer studies shopping center image is analyzed from the point of view of shopping behavior and customers perception (Chebat et al, 2006; Chebat et al, 2009; Massicotte et al, 2010). Very few studies deal with the *interactions between shopping center image and the image of its tenants*, or with the interactions between the shopping center's brand value and the brand value of its tenants. But the existence and importance of these interactions is unquestionable (Shine et al, 2007). Only Chebat et al. (2006) analyzes the effects of shopping center image on tenants' image, and as mediating effect they use customers' own self-image

congruence. However, in analyzing opposite relations, only the effect of anchor tenant's image on shopping center valuation is examined (Finn and Louviere, 1996; Mejia, 2000; Mejia and Benjamin, 2002). This proves to be quite a narrow approach, especially if we consider that the image of shopping centers is influenced mostly by the preferential tenants, the Tenant Mix's second type of tenant. In case of shopping center image researches, it would be advisable to analyze it as a combination of other physical characteristics, customer perceptions, behavior and tenant image.

II. 3. 2. 2. Shopping center patronage

The next area providing synergy sources is **shopping center patronage**. The concept of patronage is defined by the choice of shopping place and the frequency of purchases in that place. Many factors influence the way customers chose, patronize a shopping center. According to the most simple drawing power model, the choosing of stores is positively influenced by the size of sales area, and negatively influenced by the distance in km or in time between the shopping center and the customer's residence (Meyer, 1988; Pan and Zinkhan, 2006). In the newer applications, the size of the assortment is also taken into consideration in the model. This is especially recommended in case of analyzing shopping center drawing power, as these enable customer benefits like saving travel time and costs (Messinger and Narasimhan, 1997; Ghosh, 1986 id. Oppewal and Holyoake, 2004), decreasing risks and uncertainty of search (Berman and Evans, 1986, id. Kelly et al., 1993; Brown, 1989, id. Oppewal and Holyoake, 2004) as the result of comparison shopping. Pan and Zinkhan (2006) did a meta-analysis on factors influencing shopping center patronage, and they grouped these factors into three categories: *product factors, market related factors and personal factors*. I agree with Pan and Zinkhan (2006), that shopping center patronage is determined by three main categories, but I would name them as follows: (i) factors related to products are factors related to Tenant Mix, which show the object of shopping; (ii) factors related to the market are the equivalents of the factors of Location; while (iii) personal factors are factors regarding Customer Mix. Factors of Location and Tenant Mix are very frequently analyzed as factors influencing shopping center patronage. Although Pan and Zinkhan (2006) stated that assortment size influences the most the choice of stores, still very few distinctive researches, such as those of Oppewal and Koelemeijer (2005) or Van Herpen and Pieters (2002), have been conducted on the breadth or depth of assortment. Even fewer studies paid attention to the fact these factors lead customers to a specific shopping center by filtering them through his / her own personal traits and perceptions (Suárez et al., 2004; Kandikó, 2007). Therefore, here we must consider besides demographic and social characteristics of customers also their psychographic characteristics. It is worth configuring the Location's other physical characteristics and selecting Tenant Mix according to these traits of customers. Through the combined handling of these and assurance of their strategic fit, shopping center patronage, visitor's traffic and shopping frequency can be increased.

II. 3. 2. 3. Retail demand externalities

Retail demand externalities prove to be the area where interactions between composing elements can manifest in the synergy sources, which determine in the greatest manner and have the most advantages on the value and success of shopping centers. A shopping center can really maximize its value and incomes if it optimally internalizes the benefits provided by retail demand externalities (Bureckner, 1993). In spite of this, in studies conducted so far, only factors related to Tenant Mix and Location (e.g. the size of the shopping center) were incorporated into retail demand externalities models. But, at this point, factors related to Customer Mix should also be taken into consideration, since by the combined application of these three composing elements the advantages of retail demand externalities, synergy sources could be increased. This is undoubted, especially if beside tenant selection we consider also tenant placement: were should be the different or same type of tenants placed within the center; the anchor tenants generating heavy customer traffic and different profile tenants should be placed in accordance with comparison, multi-purpose or impulse shopping forms (Carter and Vandell, 2005). In order to respond to these, it is necessary to analyze different shopping types and shopping trips. Popkowski and Timmermans (2001) distinguish between two main shopping strategies: one stop and multi-stop

shopping trip strategies. Another classification of shopping trips regarding their purpose is single-purpose or multipurpose shopping. Multipurpose shopping trip is the most frequent among purchases (Brown, 1992), which is facilitated by clustering of retail units and shopping centers. Arentze et al. (2005) analyzed the effect of retail supply, i.e. the number and type of stores within the shopping center on multipurpose shopping. They found that the purpose-specific (utility) stores within the shopping center have a combined drawing power. They also observed that store types different from the purpose of shopping, have a cross-drawing power on shopping center selection, even if nothing is purchased from these stores. A more in depth analysis and integration of various shopping types (Levy és Weitz, 2008; Kramer et al, 2008) and of shopping carts (Manchanda et al, 1999) could give more explanation and insight to these phenomena. Thus, acknowledging the lacks in the aforementioned researches, I'd like to draw attention to a more detailed analysis of retail externalities through a multidimensional examination of externality effects within the shopping center, in which the components influencing the success of the shopping center (Location, Customer Miix, Tenant Mix) all have their place. The internalization and optimal utilization of Tenant Mix related retail externalities have always been in the center of shopping center research, because „it is the synergy (the simultaneous action of separate agencies) created by the right grouping of tenants, which together have a greater effect than the sum of their individual effects” (Alexander and Muhlebach, 1990, p. 292. id. Yiu and Xu, 2012, p. 528.). This also explains why the number of researches focusing on retail demand externalities surpasses the number of researches on more simple Tenant Mix-related topics. In future researches, it would be recommended to analyze retail demand externalities from the viewpoint of co-opetition (Brandenburger and Nalebuff, 1996).

III. RESEARCH

The general shopping center theory described above, is based on the Product paradigm and considers marketing as its dominant field of science. This theoretical framework is just now formulated, thus, it is in the phase of theory building and development. At the beginning, two in-depth interviews with shopping center facility managers followed by a customer-oriented survey conducted on a student sample helped the process of theory formulation. The propositions and hypotheses under analysis are formulated from the theoretical framework construed from these results. The aim of the research is to test, refine and further develop this general shopping center theory. The question is whether it is suitable and provides the right theoretical framework both for shopping center literature and practice. According to Bacharach (1989, p. 498.) „researchers can define theory as a statement of relationships between units observed or approximated in the empirical world”. The approximated units are directly not measurable latent constructs, while the observed units are directly measurable operationalized variables. The primary goal of theory is to give response to questions like how, when and why. In other words “ theory may be viewed as a system of constructs and variables in which the constructs are related to each other by propositions and the variables are related to each other by hypotheses ”(Bacharach, 1989, p. 498.). During the present research I analyze the propositions, hypotheses, constructs and variables of the general shopping center theory. It must be mentioned that only one part of this general shopping center theory will be examined in this dissertation, as during data collection I couldn't gather data regarding the whole theory. According to the particularities of the industry, the data regarding shopping centers are handled very confidential, thus my self-administered questionnaire-based data collection attempt involving ca. 100 shopping centers lacked success. This is why, data regarding shopping center success-facilitators like image, patronage and retail externalities, as well as data regarding shopping center success-performance like customer traffic, total sales and incomes from rents are missing. I don't consider appropriate the substitution of these variables with proxies such as occupancy rate or top lists of real estate agencies. Just remember the case of City Mall, presented in the introduction, which was declared bankrupt though having a 90% occupancy rate, and which lost more than 80 million Euros from its market value in 5 years. Thus, in the present research, I perform the analysis based only on data gathered

from secondary sources and from observation. I've gathered data from 75 merely Central–Eastern European shopping center through own observation on the type of center, Location and Tenant Mix. The data regarding Customer Mix were collected from secondary data sources. As a result of this, only a narrowed or simplified version of the general shopping center theory will be tested in the dissertation. Nevertheless, the present research contributes greatly to the formulation and clarification of shopping center theory, which was set as a goal, and offers directions for future researches.

III. 1. Theses and hypotheses

We can define three main propositions from the general shopping center theory. The hypotheses tested in research are derived from these propositions. In the present research, only the hypotheses related to the first two propositions will be examined closely. The testing of the hypotheses regarding the third proposition cannot be done due to missing data.

Proposition 1.: **The first thesis of the general shopping center theory states that the shopping center is such a Product, which is developed and maintained through the fitting of three composing elements: Location, Customer Mix and Tenant Mix. The combination of these three elements defines the shopping center itself and its type.**

From this proposition many hypotheses are formulated. I present them in the followings:

H₀: Location, Customer Mix and Tenant Mix has a positive effect on the shopping centers' type.

According to the general shopping center theory, within the construct of Location we can distinguish between two major elements: the site and the other physical characteristics. The site of a shopping center is only interesting to the extent of which it determines the core of customers living in the primary catchment area, ca. 50-60% of the shopping centers customers. This is the biggest contribution of Location in determining the shopping center's type. Besides this, Location through its other physical characteristics (e.g. design, architectural traits etc.) influences the Tenant Mix, as the shopping space itself is created together with the Tenants.

H₁: Location has a positive effect primarily on the Customer Mix of the shopping center.

H₂: Secondly, Location has a positive effect on the Tenant Mix of the shopping center.

For the right selection of the shopping center's Tenant Mix, we should align it to the Customer Mix of the center, thus assuring that demand meets supply in the same space and time. In order to achieve this, besides knowing the general characteristics of the customers we should take into account their shopping habits, values, attitudes and behavior also. Accordingly, the Customer Mix influences, beside tenant type and profile selection, their placement within the shopping center as well.

H₃: Customer Mix has a positive effect on the Tenant Mix of the shopping center.

It has been already formulate in the shopping center literature that the success of a shopping center lies in the optimal internalization of retail externalities arising between tenants (Brueckner, 1993; Carter, 2009). However, according to practitioners, the successful managing of a shopping center relies on preferential tenants, which constitute the backbone of Tenant Mix. According to this, it is obvious that Tenant Mix has to play a major role in defining the shopping center and its type.

H₄: The Tenant Mix has a much stronger positive effect on the type of the shopping center than Location or Customer Mix.

The bigger the city where the shopping center is located, the more appropriate its Location is; while the farther is placed from the city center, the more inappropriate its Location is. This presumption is in accordance with the central place theory formulated previously (Christaller 1935; Eppli and Benjamin, 1994). The other physical characteristics of shopping centers like number of entrances, visibility and accessibility etc. positively influence the Location of the shopping center.

H₅: The land area related to the city of the shopping center has a positive effect on its Location.

H₆: The distance between the shopping center's site and the city center has a negative effect on Location.

H₇: The other physical characteristics have a positive effect on Location of the shopping center.

The Customer Mix is influenced beside the general socio-demographical characteristics of customers, also by the value system, attitude and shopping behavior of customers and their shopping habits. The general characteristics like the size of population living in the catchment area, their income level, the number of the unemployed etc., have an effect on the selection of tenants, while shopping habits influence tenant space allocation and placement.

H₈: The general customer characteristics like the size of population and the average income per capita has a positive impact on Customer Mix, while the number of the unemployed has a negative effect.

H₉: The hedonic and utilitarian shopping values, attitudes and behavior all have a positive impact on Customer Mix.

H₁₀: Multipurpose shopping trips and the different shopping types have a positive effect on Customer Mix.

Beside the selection of various tenant types and profiles, the Tenant Mix is also influenced by the clustered or dispersed placement of tenants and by retail externality effects arisen between tenants.

H₁₁: The various tenant types and profiles have a positive impact on the Tenant Mix of shopping center.

H₁₂: Space allocation, placement of tenants and retail externalities originating from these have a positive effect on Tenant Mix.

Proposition 2.: A shopping center as Product can be defined mostly by its type. The type of the shopping center is manifesting in the size of the gross leasable area (GLA), in the number of tenants included and in the number of levels the respective shopping center has.

One of the key elements in defining the shopping centers' type, according to the International Council of Shopping Centers (2004), is the gross leasable area of the respective center, followed by the number and sales area of the anchor tenants. In my opinion, it would be more appropriate to look at the total number of tenants, instead of limiting only to the anchor tenants; while instead of distinguishing between enclosed, open-air or hybrid centers, I rather take into account the number of levels the shopping centers has.

H₁₃: The type of the shopping center has a positive effect on the gross leasable area, the number of tenants and levels of the shopping center.

Proposition 3.: The success of the shopping center lies not in the individual composing elements, but in their strategic fit and coevolving. The aligning and strategic fit of composing elements enables synergy sources like shopping center image, patronage and retail externalities. The better a shopping center utilizes and internalizes these synergy sources, the more successful it becomes.

As I've previously mentioned by the detailed description of the general shopping center theory, the success of the shopping center doesn't manifest itself on the level of individual composing elements, but in the adequate combination and dynamic coevolving of these elements. The strategic fit of components enables synergy sources, which can arise at the melting or overlapping of two or all three elements. The highest positive effects are achievable in areas where all three composing elements meet; this is the case of shopping center image, patronage and retail externalities. The optimal utilization and internalization of these synergy sources leads to the success of a shopping center. This can be measured with indicators like the total sales of the center or the incomes from rents. The number of visitors is only a proxy indicator.

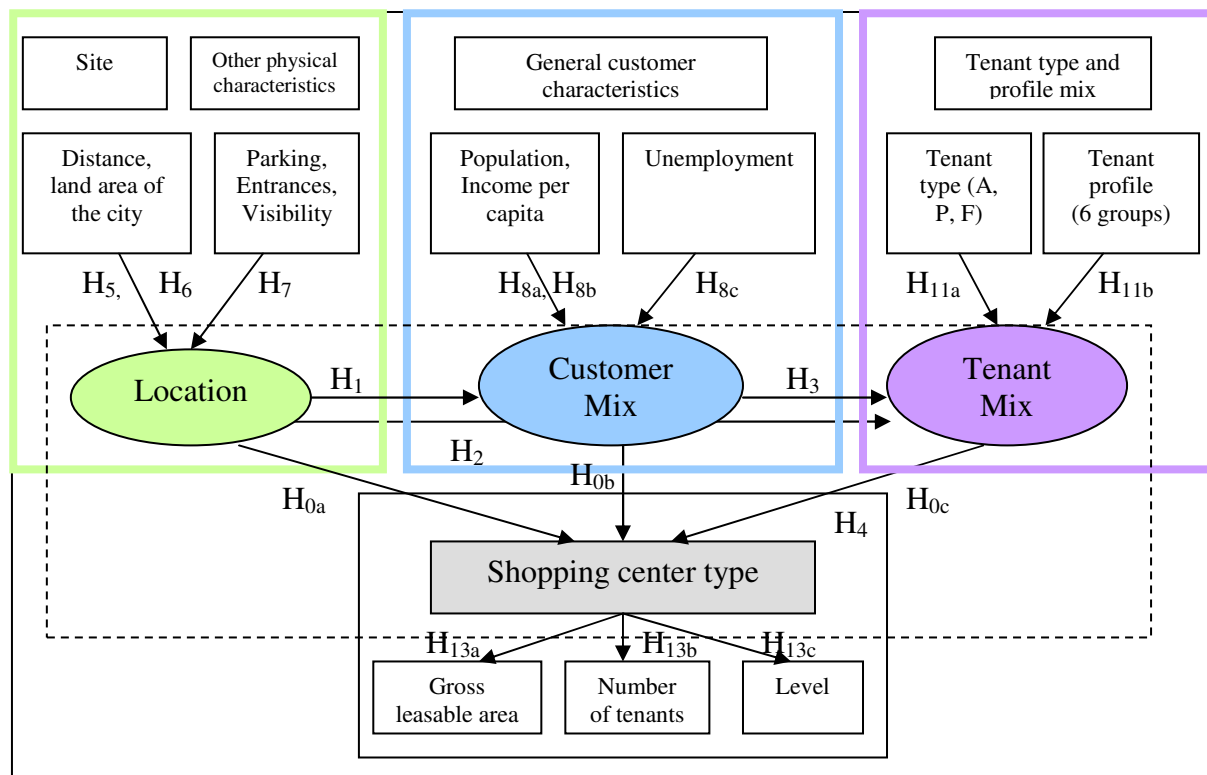
H₁₄: The strategic fit of Location, Customer Mix and Tenant Mix has a positive impact on the creation of synergy sources like shopping center image, patronage and retail externalities.

H₁₅: The shopping center's image, patronage and retail demand externalities within the center have a positive effect on the success of a shopping center.

H₁₆: The success of the shopping center has a positive effect on the total sales of the shopping center, the incomes from rents and the number of visitors.

Thus, the propositions and hypotheses of the general shopping center theory have been formulated. As mentioned previously, the present dissertation tests only a simplified model of this theory. Therefore, only the first two propositions out of three and only 11 hypotheses out of 17 will be tested. The testing of hypotheses H₉, H₁₀, H₁₂, H₁₄, H₁₅ and H₁₆ can not be performed due to missing data. Figure 3 shows the graphical presentation of the analyzed hypotheses. The first five hypotheses are related to the structural model of the Latent Variable Path Analysis, i.e. to the constructs, while the other hypotheses are related to the measurement models, to the measured variables.

Figure 3.: The connection of the shopping center type to the general model's composing elements



Source: own compilation

III. 2. Methodology

In order to test the above presented shopping center model and the related propositions and hypotheses, in my opinion, among the available structural equation models (SEM), the Latent Variable Path Analysis with Partial Least-Squares Estimation (LVPLS) is the most suitable. This second generation multivariable model (Gefen et al 2000), makes possible the simultaneous, parallel and comprehensive analysis of many independent and dependent variables in several equations. Albers (2010) recommends the usage of PLS-based SEM models in success factor researches, both in marketing and other fields. In his opinion, the use of Churchill's (1979) Cronbach α or LISREL models (Linear Structural Relationships by the Method of Maximum Likelihood) are not appropriate, instead he highly recommends PLS, which is more appropriate

mainly from content validity point of view in defining of success factors. Accordingly, I use this methodology in the present research.

III. 3. Data collection

Regardless from the time span of data collection, I consider appropriate the use of cross-sectional data, especially as in the lifecycle of shopping centers these four years (2008-2012) of data collection doesn't mean a long-term for a substantial change. I collected the data through the method of personal observation (Malhotra, 2005), as it follows:

- I gathered and coded the data related to tenant mix, shopping center type and other physical characteristics from the official websites of shopping centers on one hand, and from the retail plan-information leaflets available in the shopping centers on the other hand;
- I measured the distance between the shopping center and the city center with the help of Google Earth;
- for the collection of data regarding the size of cities and customer mix, I used beside the data provided by the World Bank's database, mainly the data provided by Eurostat's database and the public records of the National Statistical Institutes of People's Republic of China and Turkey.

Unfortunately, the databases contained only aggregated data on the level of the respective cities or countries (in the case of Croatia, People's Republic of China and Turkey) instead of data on the level of the respective catchment areas of shopping centers. Therefore, these data only approximate the values needed to be measured. In spite of these, due to the fact that shopping center research is a very difficult field when it comes to data collection, I think the collected data will be adequate for the primary testing and development of the general shopping center theory.

III. 4. The sample

In order to conduct an appropriate testing of the general shopping center theory, a sample of a rather large number of shopping centers is needed. Compared to other research fields, in case of shopping centers, data collection is a very difficult task, thus most of the researches confine themselves only to a few centers, even in the best researches only 18 shopping centers (Yiu and Xu, 2012) or 41 shopping centers (Mejia, 2000) were involved. Reason why I chose **75, mainly Central and Eastern European shopping centers**, from countries like: Austria (7), Czech Republic (7), Croatia (6), Poland (6), Hungary (18), Romania (12) and Slovakia (4). They are joined by some outlier centers from the People's Republic of China (5), Germany (4) and Turkey (5), as well as one from Italy. Generally the shopping centers present in the sample on average have a gross leasable area of approx. 54,000 m² and approx. 150 tenants, out of whom 5 are anchor tenants.

IV. RESULTS – The results from the LVPLS-SEM analysis of the general shopping center model

In order to test the general shopping center theory described above, I used the SmartPLS 2.0 software pack. In valuing and interpreting the results and assessing the reliability and validity of the model, I use the rules of thumb gathered by Hair et al (2011 a, p. 145.), which applied to this model is summarized in Table 1 below.

Table 1: Reliability and validity criteria of the model

Variable / Criteria	Reflective measurement model			
	Internal consistency > 0.70	Outer loadings > 0.70	Convergent validity AVE > 0.50	Discriminant validity
Shopping center type	0.7993	-	0.5801	-
Gross leasable area		0.771		

Number of levels		0.551		
Number of tenants		0.918		
Variable / Criteria	Formative measurement models			
	Variable weight	Outer loadings	Significance level (t value)	Multicollinearity (VIF < 5)
Distance	- 0.0938	- 0.0406	0.9572	1.178
Other physical charact.	0.5614	0.3869	3.0446*	1.033
Land area	0.9263	0.8410	6.9374*	1.212
Population	0.9505	0.9845	5.0177*	2.388
Income	0.1454	-0.0836	0.6971	1.077
Unemployed	0.0998	0.7652	0.6053	2.411
Tenant type	0.3091	0.8525	1.9300***	3.285
Tenant profile 1	0.6635	0.8945	4.6929*	2.838
Tenant profile 2	- 0.1948	- 0.2165	1.7440***	1.016
Tenant profile 3	- 0.0907	- 0.1382	1.1046	1.078
Tenant profile 4	0.2225	0.2842	2.0124**	1.131
Tenant profile 5	0.1757	0.1193	1.9724**	1.110
Tenant profile 6	0.0410	0.0979	0.7089	1.112
Variable / Criteria	Structural model			
	Target variable	R² values	Predictive value Q² > 0	Path coefficients Significance level (t value)
Location		0.000	0.000	-
Location	Customer mix	-	-	7.2958*
Location	Tenant mix	-	-	4.6508*
Location	Shopping center type	-	-	5.0620*
Customer mix		0.5567	0.519	-
Customer mix	Tenant mix	-	-	0.4278
Customer mix	Shopping center type	-	-	0.2931
Tenant mix		0.2598	0.233	-
Tenant mix	Shopping center type	-	-	8.0966*
Shopping center type		0.7376	0.581	-

* p=0.001, ** p=0.05, *** p=0.10 significance level

IV. 1. External reflective measurement model

According to Henseler et al (2009), in analyzing the fit of the *external reflective measurement model*, the reliability and validity of the model must be taken into consideration. In case of formative models it is important to examine only the validity. In the present case, regarding the reliability of the external reflective model we can state that the value of the composite measuring internal consistency (0,7993) surpasses the threshold value of 0.6 (Henseler et al, 2009) or 0.7 (Hair et al, 2011 a). In further analyzing reliability, the external variables outer loading must be taken into consideration, which also has to exceed the value of 0.7, or has to have a value of at least 0.4 in order to don't be eliminated from the model. In

case of the number of tenants (0.918) and gross leasable area (0.771), the resulting values surpass the expected values; and since the loading of levels (0.551) did not drop under 0.4, I keep it in the model, although it doesn't show the most appropriate connection. Analyzing convergent validity, the AVE (average variance extracted) indicator must be taken into consideration, the critical value of which is 0.5. In the present case this value is 0.5801, therefore we can state that the reflective measurement model is valid. In the case of discriminant validity, the Fornier-Larcker (1981) criterion is not met, as the correlation between the type of the shopping center and the Tenant Mix (0.8065) exceeds the AVE value. The cross-loadings between the variables and constructs are also not the most adequate. But if we change the configuration of the model, taking these into consideration, we get far weaker reliability and convergent validity values. This is why, in spite of the lack of discriminant validity, I accept the reflective measurement model like this.

IV. 2. External formative measurement model

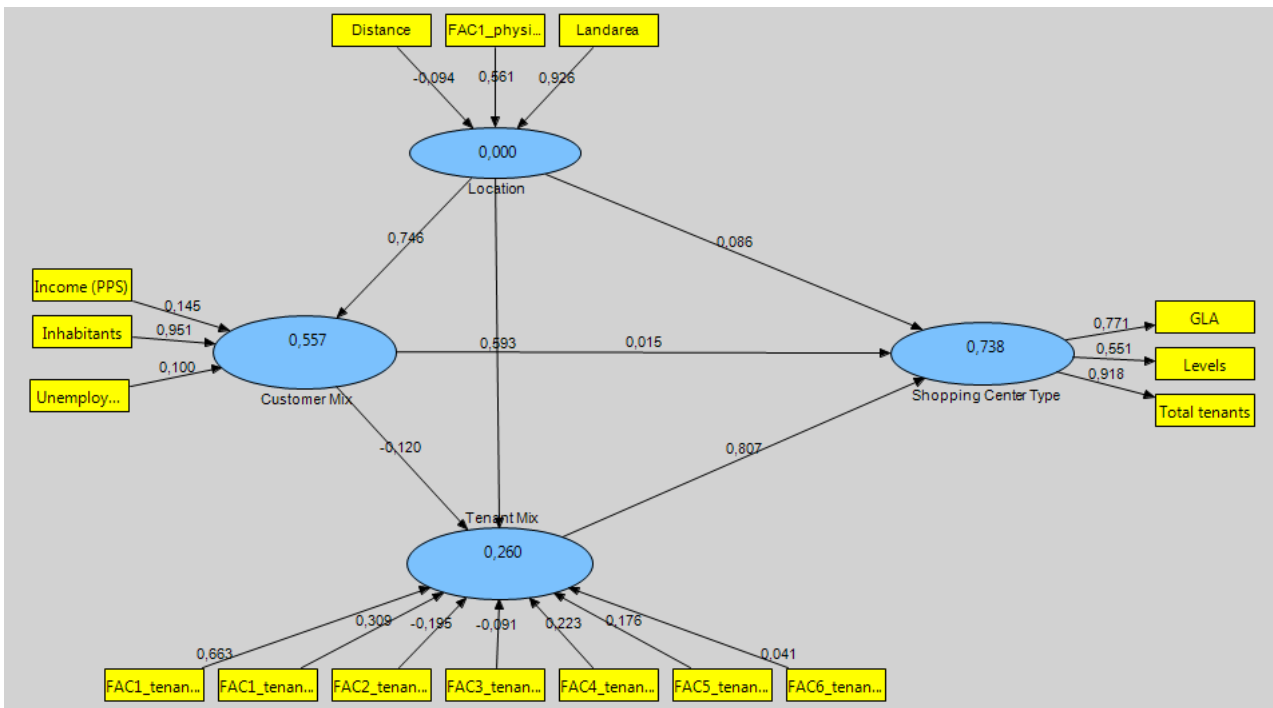
In the case of the *external formative models*, the resulted weights and loads of the variables must be examined together with their significance. Based on the extent to which the variables explain the respective constructs, we can talk about content and external validity. From the values presented in the table above, it can be observed that except the distance, income, the number of the unemployed, tenant profile, tenant profile 3 and 6, the resulting weights and loads are all signaling moderate or strong relations. During the significance analysis, the *t* values resulted from bootstrapping, indicate that the effects of the very same variables are not significant even on a $p=0.1$ level. In spite of this, I keep them in the model, because content-wise they are very important for measured constructs. The effects of all the other variables are moderate or strong and in the same time also significant. The strongest and most significant ($p=0.001$) relations can be observed in the case of the cities land area, the other physical characteristics, the population size and tenant profile 1. In case of the variables used in the formative measurement models, I've also conducted a multicollinearity analysis with the help of the PASW 18 software pack. The resulted VIF (variance inflation factor) values are far below the threshold value 5, according to the rule of thumb by Hair et al (2011a). Therefore, the multicollinearity between variables is still in the acceptable range.

IV. 3. Internal structural model

In case of the *internal structural model*, the R^2 values, the effects between the constructs and their significance levels, as well as their predictive values have to be examined. In the general shopping center model, Location is the exogenous starting variable for which we don't calculate any R^2 value. In case of the other constructs, we shall take into consideration (i) the critical values mentioned by Henseler et al (2009, p. 303): 0.67 – strong, 0.33 – moderate and 0.19 – weak relation, and (ii) the critical values mentioned by Hair et al (2011 a, p. 145): 0.75 – strong, 0.50 – moderate and 0.25 – weak relation. According to this, we could state that the $R^2 = 0.260$ value of Tenant Mix shows a weak relation between the variables and constructs, but we must remember that each of the input variables are extracted factors, i.e. they were compiled from a total of 21 directly observed variables. This is why, here we practically did a double factor analysis for the determination of the construct, and therefore in my opinion the resulting R^2 value is quite acceptable. The $R^2 = 0.557$ value in the case of Customer Mix shows a moderate strength, while the $R^2 = 0.738$ value of the shopping center type is seen as a strong and good value. The significance analysis of the effects between the constructs was performed with bootstrapping on a sample of 5,000, based on which, we can state that, aside from the effects of the Customer Mix, the effects between the other constructs, latent variables are all significant on $p = 0.001$ level. The strongest effects were measured between Tenant Mix → Shopping Center Type (0.807), Location → Customer Mix (0.746) and Location → Tenant Mix (0.593). It is interesting that the effect between Customer Mix → Tenant Mix (-0.120) is a negative value. The predictive Q^2 values were calculated with blindfolding calculation and a distance of $d=5$; since the resulting values are

bigger than zero, the predictive capacity of the exogenous variables on endogenous variables are quite good. Figure 4 shows the graphical presentation of the results of the LVPLS-SEM analysis of the general shopping center model.

Figure 4. : The analyzed general shopping center model



Source: created by SmartPLS 2.0

Based on all these results, we can state that the fit of the model is acceptable on overall; it is not perfect, because we are in the process of elaborating, testing and developing the theory, but as the result of a primary explorative analysis, it is certainly good.

IV. 4. Hypotheses analysis

Accepting the overall fit of the model, we continue with the examination of the above formulated hypotheses, based on which we either accept or reject them. This is summarized in Table 2.

Table 2.: Hypotheses analysis

No.	Hypothesis	Acceptance/ Rejection
H ₀	Location, Customer Mix and Tenant Mix has a positive effect on the shopping centers' type.	Accepted
H ₁	Location has a positive effect primarily on the Customer Mix of the shopping center.	Accepted
H ₂	Secondly, Location has a positive effect on the Tenant Mix of the shopping center.	Accepted
H ₃	Customer Mix has a positive effect on the Tenant Mix of the shopping center.	Rejected
H ₄	The Tenant Mix has a much stronger positive effect on the type of the shopping center than Location or Customer Mix.	Accepted
H ₅	The land area related to the city of the shopping center has a positive effect on its Location.	Accepted
H ₆	The distance between the shopping center's site and the city center has a negative effect on Location.	Rejected
H ₇	The other physical characteristics have a positive effect on Location of the shopping center.	Accepted

H ₈	The general customer characteristics like the size of population and the average income per capita has a positive impact on Customer Mix, while the number of the unemployed has a negative effect.	Partially accepted
H ₉	The hedonic and utilitarian shopping values, attitudes and behavior all have a positive impact on Customer Mix	Was not analyzed
H ₁₀	Multipurpose shopping trips and the different shopping types have a positive effect on Customer Mix.	Was not analyzed
H ₁₁	The various tenant types and profiles have a positive impact on the Tenant Mix of shopping center.	Partially accepted.
H ₁₂	Space allocation, placement of the tenants and retail externalities originating from these have a positive effect on Tenant Mix.	Was not analyzed
H ₁₃	The type of the shopping center has a positive effect on the gross leasable area, the number of tenants and levels of the shopping center.	Accepted
H ₁₄	The strategic fit of Location, Customer Mix and Tenant Mix as a positive impact on the creation of synergy sources like shopping center image, patronage and retail externalities.	Was not analyzed
H ₁₅	The shopping center's image, patronage and retail demand externalities within the center have a positive effect on the success of a shopping center.	Was not analyzed
H ₁₆	The success of the shopping center has a positive effect on the total sales of the shopping center, the incomes from rents and the number of visitors.	Was not analyzed

Source: own compilation

We can accept hypothesis H₀, formulated for the grounding of the general shopping center theory, since it explains the shopping center type rather well. We can state that the Shopping Center as Product indeed can be defined as a combination of its three composing elements: Location, Customer Mix and Tenant Mix. We accept all hypotheses related to the structural model, except hypothesis H₃, which defined the relation between Customer Mix and Tenant Mix and resulted in a reverse, weak and not significant relationship. This is probably due to the fact that, in the analysis the data used for defining Customer Mix were only available on an aggregated level of the cities or countries from where the shopping center originates, and not on the level of the direct catchment areas of the shopping centers. Accordingly, as already mentioned during the operationalization of variables and data collection, these only approximate the input variables that we originally intended to measure. Unfortunately, only these were available. In case of variables determining Location, we accept the hypotheses regarding the land area of the city (H₅) and the other physical characteristics (H₇), while we reject the hypothesis on the distance measured from the city center (H₆) because it did not reach an appropriate significance level. From the general customer characteristics (H₈), only the population size has a significant effect reason why we accept the hypothesis related to it only partially. Similarly, in case of Tenant Mix defining tenant types and profiles, only five factor variables have significant effects and one of these have a negative value; accordingly hypothesis H₁₁ is only partially accepted. The variables related to shopping center type all proved to be significant, therefore we accept hypothesis H₁₃. It is worth mentioning that hypotheses H₉, H₁₀, H₁₂, H₁₄, H₁₅ and H₁₆ unfortunately were not analyzed due to lack of data, this is why we managed to analyze only a narrowed, simplified version of the general shopping center model. On overall, we can state that the values resulting from the analysis explain acceptably the general shopping center theory and the related Product paradigm. Thus, we confirm the pertinence of the first two propositions of the general shopping center theory. Naturally, there is still a need for the further refinement and development of the model and the theory, especially since the third proposition and related hypotheses were not analyzed hereby. Future studies should definitely take these into consideration.

V. CONCLUSIONS

The last chapter summarizes the most important conclusions of the present thesis and the effects of it both on shopping center theory and the practice. Beside these, the limits of the research, prospective future research directions and the dissertation's scientific and practical contribution will be assessed.

In order to examine on overall the formulated shopping center theory I use the criteria system developed by Bacharach (1989) in Table 3. This criteria system analyzes in general the rationale of theories.

Table 3.: The rationale analysis of the general shopping center theory

Elements of the theory / Criteria	FALSIFIABILITY	UTILITY
VARIABLES	Definitions, operationalizing	Variable scope
	The variables are clearly defined. The definition and clarification of some variables (e.g. tenant type and profile) were formulated pioneering.	The field of application for the variables is clearly delimited; are mainly used on the field of shopping centers by practitioners.
	Measurement issues – content validity, reliability	
CONSTRUCTS	The data measured by observation are content-valid and are in accordance with the definitions.	
	Clarity and Parsimony – convergent and discriminant validity	Scope of constructs, latent variables.
RELATIONSHIPS	From the point of view of internal consistence and convergent validity, the values can be accepted. Discriminant validity is not met.	The field of application for constructs is delimited, but is not entirely exclusive, maybe there is a common latent element behind them? Regardless, the constructs are applicable.
	Logical adequacy – the nature of the relations is defined.	Explanatory potential– observed objects, relations and propositions
	In the general shopping center theory the direction and effect of relations are clearly defined.	The explanatory power of variables in the structural model is acceptable (moderate and strong). We accepted the two analyzed propositions and most of hypotheses.
	Empirical adequacy – several observed units or time frame	Predictive adequacy– probabilistic vs. theory-based
	The theory is suitable empirically, it was tested with the help of data on 75 shopping centers.	The predictive values of the structural model are all different from zero and moderate in strength.

Source: own compilation after Bacharach (1989)

Based on all of the above, we can stipulate that the general shopping center model explains acceptably well the phenomena of shopping center as Product and provides a suitable basis for the elaboration of a comprehensive theoretical framework. Evidently, this theoretical framework is only in the stage of initial theory formulation, but the further development of it incorporates advantages for both researchers and practitioners.

V. 1. The main conclusions of the dissertation

The main thesis of the present dissertation is that the shopping center is not just a PLACE, but also a PRODUCT. A real estate product, which is developed by developers, owned by investors and managed by center and facility managers. The tenants and customers are its users. Like every Product, this also has composing elements: Location, Customer Mix and Tenant Mix. The success of the shopping center depends on the aligning and strategic fit of these elements (by means of which they facilitate the rise of synergy sources) and on how these elements are further developed in a

dynamic co-evolution. This new, general shopping center theory provides an interpretational framework offering an adequate classification of shopping center literature and guidance for practitioners for better shopping center development and management.

The results from the analysis of this new theory confirm the general shopping center model: the shopping center indeed can be described as a function of Location, Customer and Tenant Mix. On overall, the relations between the analyzed constructs provide an adequate base for accepting the general shopping center theory. William T. Dillard's (Pockell and Avile, 2004) view emphasizing Location, proves to be true. This is the starting point in the definition of a shopping center, and mainly in the definition of its customer base and Customer Mix. Interestingly, the distance measured between the shopping center's site and the city center have little and insignificant influence on Location. The direction of the effect is in accordance with Christaller's (1935) central place theory, but it proves to be irrelevant for Location. The relation of the city's land area and population size is very strong and significant, as the site determines the general characteristics of customers. Besides the site of shopping center, the other physical characteristics also influence the respective center's Tenant Mix. The effect of Customer Mix on Tenant Mix was the most surprising. This effect proved to be weak, not significant and negative. In my opinion, this surprising result is due to the approximated data used in the analysis. Unfortunately, only aggregated data was available for measuring Customer Mix, instead of data gathered from the direct catchment areas. Nevertheless, I won't consider neither impossible that, as the number of customers, their income and living conditions increase, these have a negative impact on Tenant Mix. Here, I refer back to the article of Allard et al (2009), in which they found that the utilitarian values of customers with higher incomes are more pronounced, thus, they pay less attention to the entertainment and socializing possibilities provided by shopping centers. Unfortunately, the shopping values, attitudes and habits were not analyzed concretely in the present dissertation; therefore this remains only a suspicion. In future researches, this should be assessed as well. From the Tenant Mix's viewpoint, it is interesting to note that the role of different tenant profiles is far greater than that of tenant types. The external loading of the first tenant profile is 0.663, while the loading of the tenant type factor is only 0.309. This emphasizes the role of tenant profiles as a very important factor in measuring retail externalities, especially as the effect of externalities between the different tenant types (anchor tenant – non- anchor tenant as analyzed by Mejia, 2000) is far lower according to the above mentioned loads. Therefore, in my opinion, there is a burning need for the elaboration of an industry level unified and standardized classification of tenant profiles. This would facilitate the comparison and further development of retail externality research results. During the analysis of tenant profile based retail externalities, it is highly recommended to take into consideration the different shopping types: convenience, comparison, specialized and impulse shopping. Taking into account the definition of shopping centers and in accordance with primary presumptions, the Tenant Mix has a very high role, with a path coefficient of 0.807. This is also in accordance with results already formulated in the literature (Brown, 1992; Brueckner, 1993; Bruwer, 1997; Mejia and Eppli, 2003; Carter and Vandell, 2005; Carter, 2009; Yiu et al. 2008, 2012), according to which, the success of the shopping center lies in the optimal internalization of retail externalities arising between different tenants. In my opinion, though Tenant Mix has an important role, the other two composing elements, Location and Customer Mix, also have to be taken into account, especially as their relevance is confirmed by the results presented above. For instance the effect of Location on Tenant Mix contributes greatly to the effect the latter has on shopping center type. Reason why the right fit and coevolving of these three components contribute to the appearance of retail externalities, one of the most valuable synergy sources in a shopping center. The success of the shopping center therefore relies in the optimal utilization of synergies. The shopping center type resulted from the fit of the three components affects the number of tenants, the size of the gross leasable area and the number of levels in the shopping center. Based on the results presented above, we can state that on overall the general shopping center theory passed the test. Though this must be refined with the involvement of other variables, mainly in the case of Customer Mix, or by

testing on a bigger sample etc; but since these results were obtained from a primary explorative research, are by all means acceptable.

This general shopping center theory provides an adequate framework for the systematical organization of shopping center literature and for the merger of research results in a unified theory. It helps placing shopping center theory in the field of sciences and approaching from the **PRODUCT** paradigm draws attention to marketing as its dominant field.

V. 2. Research limitations and future research directions

In the following, both the practical and scientific limitations of the research will be presented. In case of practical limitations we refer to data collection and the lack of their availability, the concentration and centralization of the industry has to be also mentioned; while from scientific point of view we refer to the analysis of a narrow simplified model. Future research should concentrate on analyzing the general shopping center theory on its full complexity.

V. 2. 1. Practical limitations

Research on shopping centers counts not only as a very interesting field, but is also very limited considering the confidential character of the related data, which can be seen as a kind of business secret. Thus, the primary limitation of researches conducted in this field is the lack of available data necessary for precise measurement of indicators; these data are often unobtainable because they are business secrets. Therefore, data collection in this field has heavy limitations, and usually triggers resistance. As a result of this, it is completely understandable that in the majority of researches, studies presented in literature, only a small number of shopping centers were analyzed. The main limitation of the present research is that data regarding the Customer Mix living in the direct catchment area of the analyzed shopping centers were unavailable, thus only aggregated proxy variables could be incorporated into the model. Accordingly, the presumptions and hypotheses regarding Customer Mix did not prove to be true or significant. In future studies, there would be a need for the analysis of Customer Mix data collected from the direct catchment area of the respective shopping centers.

V. 2. 2. Scientific limitations

In order to test the general shopping center model, in the spirit of measurability, I only incorporated variables which could be obtained from secondary sources; however these only give an approximate picture of the model. Therefore, the third proposition of the shopping center theory, regarding the success of shopping centers, could not be analyzed. Furthermore, the variables regarding tenant space allocation, tenant placement and retail externalities were not incorporated into the model, and neither were the variables of customer shopping habits. Thus, the general shopping center theory was analyzed only through a simplified model; therefore the analysis of several hypotheses (H_9 , H_{10} , H_{12} , H_{14} , H_{15} , H_{16}) were skipped. In spite of these, the tested model gave quite good results, compared to the fact that the primary aim was explorative theory building and formulation. Evidently, the model is not perfect, for instance, in case of the external reflective measurement model the rules of thumb determining discriminant validity (Fornier-Larcker, 1981) are not met, or in case of several variables we cannot talk about significant effects and the hypothesis regarding the latent Customer Mix (H_3) doesn't prove to be true. Therefore, in the future, there is a need for the further development and improvement of the general shopping center theory.

V. 3. The scientific and practical contribution of the dissertation

The dissertation has several scientific and practical contributions. In my opinion, the most important contribution is that it introduces a **new general shopping center theory**, according to which, the shopping center is none other than a Product, that is developed and managed through the strategic fit of the three composing elements: Location, Customer Mix and Tenant Mix. This new, general shopping center theory could enable a completely new paradigm shift in shopping center

theory, whereby we can witness a shift from the so far dominant *Place* paradigm towards the new *Product* paradigm. This paradigm shift offers a more precise structure for the shopping center literature along the composing elements of the shopping centers and along the evaluation of shopping center operation. This paradigm shift is useful for shopping center practitioners as well, as this new theoretical framework offers available concrete positive knowledge on shopping centers, instead of intuitions, gut feelings and experience on which practitioners were relying exclusively so far. This new view attempts to reverse the pulling force found in shopping center research (from normative towards the positive) and thus, shopping center theory might positively influence shopping center practice. The new Product paradigm approach emphasizes marketing as the dominant field of science playing a major role in shopping center research.

An undoubtedly remarkable part of the dissertation deals with the institutional background of shopping centers and talks about topics like the processes and actors of shopping center development and management or shopping center life cycle. Another scientifically new element of the thesis is the tenant type and profile classification proposed by me. The standardization of this could facilitate the comparison of results from researches. So far every researcher used a different kind of classification, from which, unfortunately, I don't consider any adequate; therefore I use the proposed classification and emphasize the great need for a similar universal, standardized classification.

The practical significance of the thesis draws attention to the three components of shopping center as Product, and especially to Customer Mix. Developers and managers should pay much more attention to this component, to which they must align their Tenant Mix in order to properly manage the shopping center on the long-term. Another interesting feature of the thesis is that it presents the areas where developers and managers, with the right combination of these three components, can create synergy sources (e.g. shopping center image, patronage and retail demand externalities), and with these they can set the base of shopping center success. As mentioned previously, the success of a shopping center is not to be found in the individual use of composing elements, but in the strategic fit and coevolving of the three components. This seemingly simple general shopping center theory composed of only three elements provides an adequate framework for orientation and guidance in the complex world of shopping centers.

Due to the novelty of the general shopping center model and the Product paradigm, it shows an original framework, which can be assessed only on its own terms. I hope that, with this new approach, begins a new era in shopping center research and development.

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VII. PUBLICATIONS, CONFERENCE PARTICIPATION

Scientific book, bookchapter

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Referred Journal

1. Reikli Melinda [2008]: A bevásárlóközpontok sikerességének meghatározó tényezői: Az optimális bérlői és profil-mix szerepe és jelentősége, *Vezetéstudomány*, 39 évf., 9. szám, 55-63 old.
2. Melinda Reikli [2012]: All shopping centers are the same, aren't they? An empirical analysis on shopping centers tenant mix in Budapest, *International Journal of Sales, Retailing & Marketing*, Vol. 1, No. 2, pp. 51-57

Accepted for publishing

3. Melinda Reikli [2014]: Agency Theory Problems Behind the Fall of Shopping Centers

Other

4. Reikli Melinda – Bauer András [2008]: Értékteremtés és a bevásárlóközpontok optimális profil- és bérlői mixe, MOK XIV, Budapest.
5. Reikli Melinda [2008]: Bevásárlóközpontok optimális profil- és bérlői mixe – marketing vs. számviteli vonatkozások, DOSZ Tavasz Szél Konferencia, Budapest.
6. Reikli Melinda [2009]: Bevásárlóközpontok optimális bérlői -és profil mixe, Vásárló központú megközelítés, Fenntartható fogyasztás – Növekedés határai Konferencia, Gödöllő.
7. Melinda Reikli [2012]: All shopping centers are the same, aren't they? An empirical analysis on shopping centers tenant mix in Budapest. 9th CIRCLE Conference, Santa Eulalia, Ibiza.
8. Melinda Reikli [2012]: Coopetition in Shopping Centers. From Retail Agglomeration and Externalities to Coopetition. 5th Workshop on Coopetition, Katowice.
9. Melinda Reikli [2012]: Success Factors in Shopping Centers. Composing Elements of Shopping Centers and their Strategic Fit. 3rd EMAC Regional Conference, Doctoral Colloquium, Belgrade.