



CORVINUS UNIVERSITY OF BUDAPEST
DOCTORAL SCHOOL OF BUSINESS ADMINISTRATION

The Key of Success in Shopping Centers.
Composing Elements of Shopping Centers and their Strategic Fit.

Ph.D. dissertation

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Budapest, 2012

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Dedication and Acknowledgements

*„And if I have a prophet's power,
And have knowledge of all secret things;
And if I have all faith, by which mountains
may be moved from their place
but have not love, I am nothing.”
(1 Corinthians 13:2)*

I dedicate this writing to those who are hungry and thirsty for knowledge, especially related to the „cathedrals of consumption”. Let them use its content with love!

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CONCEPTS, DEFINITIONS

TERMS EXPRESSIONS	HUNGARIAN EQUIVALENT	DEFINITION
Anchor Tenant	Horgonybérlő	A tenant, who possesses a big sales area, pays a low rent, but in the same time draws in a large number of visitors to the shopping center.
Buyer	Konkrét vásárló	Those customers, who actually purchase something in the shopping center during their shopping trip.
Catchment Area	Vonzáskörzet	The geographically definable area, in which the shopping center is located in and from which it attracts customers.
Central Place	Központi hely	It's tied to Christaller (1935) and analyzes the central place function of cities.
Coevolving	Együttfejlődés	It refers to the strategic fitting and coevolving of the main components of the shopping center (Location, Tenant Mix and Customer Mix) for the sake of the center's success.
Community	Közösség	It comprises the population living in the geographical environment of the shopping center, institutions and authorities which regulate their development and functioning.
Common Area	Köztér	It comprises the shopping center's common areas, the walking corridors between the tenants as well as the common area of the food court, atriums and streets.
Comparison shopping	Összehasonlító vásárlás	The kind of shopping in the course of which the customer compares several products until he finds the one suitable for him.
Convenience shopping	Kényelmi vásárlás	A form of shopping, in the course of which the convenience aspects prevail for the customer.
Coopetition	Együttversengés	The tenants of the shopping center cooperate and compete in the same time. They cooperate, so that the customer chooses the given shopping center as the place where to shop, and then, depending on their profile, they compete or cooperate within the center.
Customer Traffic	Forgalom	The number of the visitors, customers

		in the shopping center.
Customer / Shopper	Vásárlók	They make up the demand of the shopping center, who are motivated both by the shopping center and by the tenants to visit the shopping center and purchase products and services there.
Customer/Shopping Values	Vásárlási értékek	From the customer's personal life values we can deduce their shopping values. We distinguish between two main groups: hedonistic and utilitarian shopping values.
Customer mix	Vevő mix	The second component of the shopping centers. The composition of the customers, which consists of visitors and shoppers. The clientele from the catchment area as well as the clientele targeted by the shopping center.
Customer value	Vevő érték	The value of a customer for the shopping center, which does not only consist of the spending resulting from one shopping trip, but the tangible (spent income) and intangible (word-of-mouth advertising) value brought about throughout the life cycle of the shopping center.
Developer	Fejlesztő	They engage in the construction, development of the shopping center.
Developing	Kivitelezés	The shopping center life cycle's third stage, in the course of which the construction and leasing of the shopping center takes place.
Drawing Power	Vonzerő	The power of the shopping center through which it draws the customers in.
Externality	Externália	Gains or loss, which is realized not at the originating unit, but at other units. It is in the same time an involuntarily risen opportunity, source which can generate synergy when utilized deliberately.
Facility / Property Manager	Üzemeltető	They attend to the routine-like, so-called "janitor characteristic" tasks related to the daily course of business in case of existing shopping centers.
Facility/Property Management	Üzemeltetés	These include, tasks related to security, cleanness, the surveillance of the parking lot, the collecting of rentals as well as marketing activities

		oriented towards the promotion of the shopping center.
Fill-Up Tenant	Úrtöltő bérlő	Tenant type, which possesses a very small sales area, but pays a high rent. It includes different kiosks in the common area, but also a few of the in-line tenants.
Food Court	Étető (étkezési csarnok)	The part of the shopping center, where different food service facilities are to be found clustered, and to which the common area, where the customers can consume their food, belongs, too.
Geomarketing	Geomarketing	"the analytical method structured on the bases of the geographical information system, and which evolved within the borders of marketing geography" (Sikos T. and Hoffmann, 2004)
Hedonic	Hedonikus	Pleasure-related. Personal life value, that defines the customer's approach and behavior. Shopping = Fun
Investor	Befektető	They provide the capital needed to found the shopping center, in return they expect profit, return. They can be private investors, enterprises, sometimes banks or investment funds.
Impulse shopping	Impulzus vásárlás	One of the forms of unplanned shopping, when the decision to purchase comes on the spot, as the result of a stimulus.
Location	Lokáció	The shopping center's first component, which comprises the characteristics which arise from the center's site, as well as the center's other physical factors.
Loyalty	Lojalitás	It denotes the loyalty to the shopping center, as the result of which the customers practically almost always choose the given center as the place for their shopping.
Multipurpose Shopping	Több célú vásárlás	The kind of shopping trip, in the course of which the customers set out to purchase several products simultaneously.
One Purpose Shopping	Egy célú vásárlás	Shopping trip, in the course of which the goal is to purchase one single product or service.
Other physical	Egyéb fizikai tényezők	This comprises the physical

characteristics		characteristics of the shopping center (except the site), for instance: architectural appearance, functional building structure, signs, lights etc.
Patronage	Patronálás	The manifestation form of the loyalty to the shopping center. It has two dimensions: the choosing of the shopping center and the frequency of visiting.
Planning	Tervezés	The second stage of the shopping center life cycle, in the course of which the developers plan the respective center and procure the permits needed for the development.
Preferential Tenant	Kiemelt bérlő	The tenant type, on which the shopping center's tenant mix's core is built. Usually they possess medium-sized sales areas and, in accordance to this, they pay medium-rate rents. From the point of view of their brand values, they shape mostly the shopping center's brand value and image.
Repositioning	Újrapozícionálás	The last stage of the shopping center life cycle, in the course of which the renovation, expansion etc. of the shopping center that has already reached maturity is in the central point, in order to extend the shopping center's life cycle.
Retail agglomeration	Kereskedelmi agglomeráció	It denotes the clustering of retailers.
Retail externalities between Tenants	Bérlők közötti externália	Since the tenants are located within a shopping center, it comes naturally that voluntary and involuntary interactions take place between them. These involuntary interactions, externalities can have positive and negative consequences on the sales of the other tenants.
Sales Area, Gross Leasable Area (GLA)	Eladófelület	The leasable area of the shopping center, practically equal to the sum of sales areas of the tenants.
Searching	Keresés	The first stage of the shopping center life cycle, during which the emphasis is on choosing the appropriate site, location.
Shopping Types	Vásárlási típusok	Depending on the object of shopping, we distinguish between four types: impulse, convenience, comparison and specialty shopping.

Shopping Trips	Vásárlási utak	Also depending on the object(s) of shopping, we can talk about one purpose and multipurpose shopping trips.
Shopping Center	Bevásárlóközpont	A product of the real estate industry. Developers envision and develop it in order to obtain profit. Its users are tenants and shoppers. According to other views, it is only a place where the supply meets the demand.
Shopping Center Life Cycle	Bevásárlóközpont életciklus	Like all products, the shopping center has a life cycle, too. Its micro level stages are: Search, Planning, Development, Facility Management and Repositioning.
Shopping Center Image	Bevásárlóközpont imázs	The assessment of the shopping center from the point of view of shoppers, tenants and the environment. This image can be shaped by the developers and the facility managers.
Shopping Center Valuation	Bevásárlóközpont értékelés	The process of determining the shopping center's value, which takes into consideration both tangible (customer traffic, total sales, rentals, the building, asset value) and intangible (shopping center image, patronage, positive externalities) factors.
Shopping Center Type	Bevásárlóközpont típus	There are several types of shopping centers, depending on whether they are indoor or outdoor centers. Many organizations or countries have elaborated their own lists with own definitions. The most widely used specification is the one used by the ICSC (2004).
Site	Telephely	The place where the shopping center is to be built.
Specialty shopping	Szakosodott vásárlás	It denotes the kind of shopping, in the course of which the customer searches for a special product, which can usually be purchased from specialized stores.
Synergy	Szinergia	Positive energy, which can arise at the meeting point of two or more elements and which can be increased by the adequate fitting for the support of an effect or process.
Tenant	Bérlő	They make up the supply of the given

		shopping center; they rent spaces in the center and comprise the retailers as well as the service providers and entertainment providers.
Tenant brand value	Bérlői márkaérték	Value derived from the tenant's brand name and brand appearance.
Tenant Type	Bérlő típus	I distinguish between three types of tenants: anchor tenants (whose definition is widely known and used), preferential tenants (new concept) and fill-up tenants (new concept).
Tenant Profile	Bérlő profil	There are several tenant profiles, depending on their offerings. Primarily, we distinguish between three big category groups: retailers, service providers and entertainment units. There is a burning need for the unification and standardization of the tenant profile.
Tenant Mix	Bérlő mix	The third component of the shopping center. The tenant mix of a shopping center covers the selection and the placement of the different tenant types and profiles within the center.
Tenant value	Bérlő érték	A new concept, the customer value's equivalent from the tenant side. The tenant value comprises the income from the respective tenant, the brand value of the tenant and the positive or negative external effects on the other tenants' sales.
Tenant Space Allocation	Bérlő elhelyezés	This topic deals with how much space should be allocated to a tenant, and where they should be located within the shopping center.
Tenant Selection	Bérlő kiválasztás	The type and profile of its tenants have an important influence on the future of a shopping center. The tenant selection deals with determining these.
Turnover / Total Sales	Összeladás	It means the total sales of the shopping center's tenants.
Utilitarian	Utilitárius	Utility-related. Personal life value, that defines the customer's approach and behavior. Shopping = task
Visitor	Látogató	A customer, who does not buy anything during the shopping trip in the center.

I. Introduction

The central point of my dissertation is 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 studies have dealt with this topic. This dissertation tries to fill in this gap.

During my five-year real estate career, I had the opportunity to observe how shopping center development and management work. Unfortunately, I found that, in most cases, practitioners rely only on their own intuition and previous experience when making decisions. 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, in the present dissertation, information from scientific researches carried out so far and information from my scientific observations on practice are alternating. The information originating from the scientific observation of practice is displayed in frames, and they may be found, for instance, in the micro-level shopping center life cycle model formulated by me, the presentation of market actors involved in shopping center development and of the institutional background, the definition and classification of tenant types and profiles. Though, these information reflects the results of my own personal observation, I discuss them during the presentation of the literature in order to ensure the complete introduction general shopping center model, which is presented at the end. This is the model which, approaching from the new PRODUCT paradigm, attempts to synthesize in one unified theoretical framework the results of scientific researches and personal observations.

The general shopping center model approaches shopping centers from the developers’ and managers’ point of view, and considers it a Product. For the realization of this Product, three composing elements are needed: Location, Customer Mix and Tenant Mix. And between these elements, many interactions occur. The most important fields to be mentioned are those in which all three elements meet, overlap with each other. This is the case of, for instance, shopping center image, drawing power and patronage and the retail demand externalities occurring between tenants. In these fields, synergies occur between the composing elements

and these synergies greatly contribute to shopping center success. We could say that the better a shopping center utilizes the synergies between its composing elements, the more successful it gets.

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 it is a useful guide for practitioners, so they understand better the components of shopping centers and the need for their strategic fit and co-evolving. The definition of synergy facilitating fields sheds light on the applicability of this theoretical framework, both from a practical and a scientific point of view. Reason why I hope that the information and results presented in this dissertation will be used both by practitioners and researchers.

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 widespread 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. Beside this, many other negative effects could be observed: 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. As a result, when the auctions were scheduled for the third occasion on 16 May 2011, the opening price was pre-determined just at 26.2 million Euros. 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.

Unfortunately, it is obvious today that Vámos's remark (1997, p.27.), according to which "*the risk of investment, due to the nature of the shopping center, is moderate both for the retailers who own the store and for the investors*" is not correct. The example above makes it very clear that, practically, any shopping center can go bankrupt and, by this, cause important losses for the investors, creditors and the whole economy. This is not a single isolated case: Peter Blackbird and Brian Florence keep a record 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. Failures in practice are avoidable only when, instead of the trial & error methods and intuition used so far, theories based on scientific evidence support the work of professionals. *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 center 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 aspect of the objective arises not only from my interest in the topic and professional background, but also from the fact that I am one of the active customers of shopping centers and member of a community in whose direct vicinity shopping centers are operating, or have not been opened for years or are facing bankruptcy. Accordingly, from the point of view of developer, customer and community member, my goal is to develop this field; if for no other reason, then in order to diminish and eliminate the negative effects arising from unsuccessful developments, not only the level of investors and retailers, but also on the level of customers and community.

The practical objective of the research attempts to find a solution for the needs of practitioners: developers, facility and center managers, investors, creditors. The unsuccessful shopping center developments mentioned above drew attention to the fact that, in order to eliminate these flaws, it is not enough to rely only on intuition and previous experience; ***there is a need for a normative theoretical framework*** which can provide guidance regarding the normative decisions about development and center management. We can consider this normative theoretical framework as a guideline. I try to formulate this in the followings with the help of the general shopping center model.

The lack of this comprehensive framework is observable not only in practice, but also in *scientific* research. This is not surprising since, in this field, due to the characteristics of the industry, it is quite difficult to carry out scientific research. In the existing scientific studies, many terms are mixed or used inaccurately, not to mention the fact that different authors use different definitions and classifications for answering the same set of questions. As a result, the validity, comparability and generalizing of these studies is questionable. Thus, here too, ***there is a need for a comprehensive theoretical framework***, which is unfortunately not accomplished by Eppli and Benjamin's (1994) shopping center research classification or Yiu's (2007) Ecomallogy theory. I try to fill in this gap in the present thesis, and I hope that the Product paradigm will greatly contribute to it; this is why I recommend the use of the general shopping center model. However, this model, besides classifying the studies carried out so far, also provides the opportunity for the identification of new research fields, like tenant equity. For the introduction of this term into scientific research, first there is a need for more detailed analysis of retail demand externalities between the tenants. This same model presents the achievable synergy sources, which are created between the composing elements

of shopping centers, and which greatly contribute to the increase and preservation of shopping center sales and performance, and by this, lay the basis for shopping center success.

Based on the above, it can be said *that 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 provides 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, 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 products of the real estate industry. Although 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 their primary functions include also the preservation of value and achieving profits. I could say that the shopping center is a platform, which is formed by tenants, customers, facility and center managers altogether through using its spatial, physical characteristics; but I won't. Developers and center 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 center 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. The levels of the products are: the generic product, the expected product, the augmented product and the potential product (Levitt, 1980). In order to determine the levels and composing elements of a shopping center as Product, we first have to determine who are the consumers of the shopping center and what needs are satisfied by their purchase. As much as we would think that the consumers of shopping centers 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 pay either directly rent or 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 these consumer needs of investors. Developers and center managers perform the tasks of producing and maintaining this product. If the center is successful, they all are beneficiaries, along with the community. Therefore, there is no doubt that the generic level of the shopping center as Product is comprised of the shopping center's site and building itself, of the other physical characteristics (Location), which preserves value as an asset. The expected product includes the composition of tenants (Tenant Mix), which make from the building the shopping center itself, and allow the gaining of profit through the generated sales and paid rents. For the definition of the augmented product, we have to take into consideration the brand value and image associated with the shopping center, which provide intangible added value for the investing owners. The potential product, in my opinion, beside the above and the potential future developments, includes the customers of the shopping center (Customer Mix), through the spending of whom, by the maximization of percentage rents, the potential maximum profit can be achieved. The representation of product levels and the composing elements related to them through traditional concentric circles is not recommended here, because in the case of

shopping centers, these elements (Location, Tenant Mix and Customer Mix) are in constant interaction and they co-shape the shopping center itself. In the followings, the composing elements and the interactions and synergies between them will be presented in more detail during the discussion of the general shopping center theory. Here, I confine myself only to the definition of it.

I. 4. The structure of the thesis

The structure of the thesis is composed from eight, clearly separable chapters. The first introductory chapter deals mainly with the reasoning on the choice of topic. Beside this, it presents the personal, practical and scientific objectives that are pursued in the thesis. Accordingly, it introduces the general shopping center model that is described in the followings, the composing elements of shopping centers and the interactions, synergies between them (e.g. positive retail demand externalities).

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 theoretical framework, on which the research is based, is formulated here. After a short historical overview, I talk about the situation of shopping centers in Hungary. For the preparation of the general shopping center theory, a separate subchapter deals with the most important terms related to shopping centers. Thus, after presenting the different shopping center definitions and classifications, I discuss the topic of shopping center development and operation in detail. Within this, I present the most important processes, the actors and the institutional background. As a kind of conclusion to this topic, the micro-level shopping center life cycle model is presented. Lowry's (1997) macro-level life cycle model, i.e. on the level of the industry, is closely related to this. After these, the existing shopping center theory and classifications used so far in research are presented through: Ghosh (1991), Eppli and Benjamin (1994), Carter (2009) and Yiu (2007). But these frameworks have many shortcomings, reason why I propose later on the substitution of these with the newly introduced general shopping center theory. However, to be able to elaborate the adequate theoretical framework, first there is a need for the placing of shopping center theory within the field of science. From this scientific systematization we can conclude, that all the so far existing shopping center theories approach them from the Place paradigm and almost completely disregard the fact that shopping centers are, in fact, real estate Products. Based on

this new Product paradigm, I introduce the literature summarizing the composing elements of shopping centers and present the new general shopping center theory.

Thus, the third chapter gives a detailed description of the literature dealing with location, customer mix and tenant mix. In some places, this is complemented by the results of my observations. In the end, I talk about the literature dealing with shopping center evaluation. The presentation of the above provides a sufficient basis for the formulation of the general shopping center model proposed by me.

The detailed presentation of the general shopping center is described in the fourth chapter. Here, in addition to the composing elements of shopping centers, I draw attention to their connection points or melting areas, to their strategic fit and to the fields where synergetic effects arise, which lay the basis for shopping center success. Practically, this chapter forms the backbone of the thesis. This new theory, general theoretical framework, which approaches from the Product paradigm, defines the shopping center as the combination of three composing elements (Location, Customer Mix and Tenant Mix). The whole literature deals with the detailed presentation of these elements, and in the followings the research tests this theory.

The fifth chapter summarizes very briefly the results of the previously conducted preliminary studies. In the preparation stage of the thesis, I conducted two qualitative interviews in order to explore the developer, center manager viewpoint. After this, I've conducted a quantitative research among the students of the Corvinus University of Budapest in order to explore their shopping habits. The results regarding multi-purpose shopping trips are in accordance with results presented in the literature review.

In the sixth chapter, I describe the concrete research steps, formulated propositions and hypotheses, the sample and the chosen methodology. I prepare, simplify the general shopping center model, formulated in the research, for testing. The primary statistics related to the sample are presented also here. The results and the validity and reliability analysis of the model are summarized in chapter seven. Also here, hypotheses are accepted or rejected.

The eighth and final chapter draws the conclusions from the present research, enlists some limitations and discusses the future research directions and the anticipated effect of the results on shopping center practice. Last but not least, it summarizes the scientific and practical contribution of the dissertation to the field of shopping centers.

II. Shopping Center Theories

In this chapter, we'll review the existing shopping center literature and the theoretical frameworks already in use, which all approach the topics from the paradigm of shopping center as a Place. Following to this, the Product paradigm will be introduced. Regarding its structure, the chapter consists of four distinct subchapters.

The first subchapter approaches the topic of shopping centers from a scientific point of view. It discloses a short historical review on the development and evolution of this retail form; then it takes a closer look on its Hungarian development history. After this, the most important shopping center-related concepts will be clarified; several definitions and characteristics as well as the most well-known shopping center typologies will be presented: for instance, (i) the typology used by Dawson (1983, in. Sikos T. et al. 2004), (ii) the currently used typology by the International Council of Shopping Centers (ICSC, 2004) or (iii) those disclosed by Levy and Weitz (2008). In the second subchapter, basic processes, like the development and management of shopping centers, will be presented, with a special view on its institutional background and actors; and the shopping center life cycle model, both on micro and macro level will be described in detail.

After these, in the third subchapter we can step forward to literature review on shopping center research and theory. Thus, through the lenses of Ghosh (1991), Eppli and Benjamin (1994), Carter (2009) and Yiu (2007), we'll become familiar with shopping center research surrounding theoretical approaches. The focal point of the next subchapter is the placement of shopping center theory within the fields of sciences, which in the same time reveals my own scientific approach to the topic and lays the foundation to the new Product paradigm. The described shopping center development and management processes as well as the related actors, provide an adequate introduction for a paradigm shift regarding shopping centers, through which they'll denote not only a *Place*, but also a *Product*. Thus, a completely new era may commence in shopping center theory and research, in which marketing, as dominant scientific field, plays an important role. Beside this, of course, for the foundation of an exhaustive shopping center theory, the contribution of other social and natural scientific fields, like Economics, Geography, Architecture etc. are indispensable; the subchapter closes with the scientific field-classification of the literature accumulated so far on shopping centers.

II. 1. Introduction into the World of Shopping Centers

This subchapter deals with the basic theoretical questions surrounding shopping centers as a kind of introduction into the world of shopping centers. As Eppli and Benjamin (1994) remarked too, the literature on shopping centers and the related theoretical schools follow the activities of practicing professionals, rather than opening up new perspectives. This is probably one of the reasons, why there is no stable theoretical system to precisely describe the world of shopping centers. In accordance with this, very frequently even the most widely used concepts and terms are not clearly defined or are given new and new meanings every time they are used. Accordingly, this subchapter pays attention to clarifying such basic concepts as the definition and types of shopping centers, the actors and life cycle of shopping centers.

II. 1. 1. A Historical Overview of the Development of Shopping Centers

There are several different viewpoints regarding the first emergence of shopping centers. For instance, the *Al-Hamidiyah Souq* in Damascus or the *Grand Bazaar* of Istanbul is seen as the medieval predecessors of shopping centers.

The *Gostiny Dvor* built in 1785 at Saint Petersburg housing 100 stores on 53.000 square meters can be seen as the first planned shopping center predecessor. Following this, the *Burlington Arcade* was built in London, while the *Árcade* was built in Rhode Island, in the United States of America.

In Europe, many see the *Galleria Vittorio Emanuele II*, built in 1870 in Milan, as the first shopping center.

In parallel with the appearance of automobiles, the first shopping centers at the outskirts of cities were built in the United States of America, for instance, *Market Square*, in the city of Lake Forest, Illinois, in 1916, or the *Country Club Plaza* in Kansas City, Missouri, in 1922 (Feinberg and Meoli, 1991).

The first open-air suburb shopping center named *Northgate Mall* opened its doors to visitors in 1950, in Seattle, Washington, housing 80 stores and one anchor tenant.



Figure 1- Figure 2: Grand Bazaar, Istanbul (own snapshots)

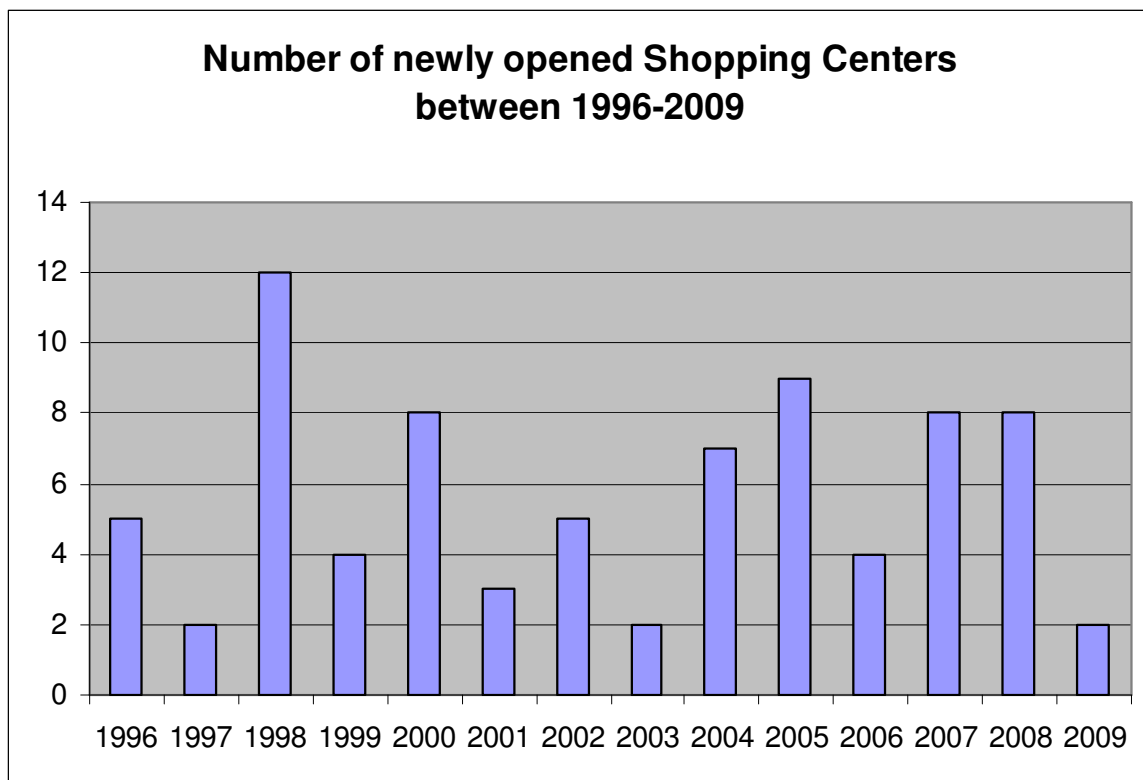
In spite of all these, the most generally acknowledged and cited milestone of shopping center development is the *Southdale Center*, which opened in 1956, in Twin Cities, Minnesota. This is the first, completely closed, regional-sized shopping center, which was built according to the plans of the Austrian-born Victor Gruen. This mall type of shopping center proved to be so successful in the United States that other enclosed malls followed in line: *Harundale Mall* – Maryland, *Big Town Mall* – Texas, *Chris-Town Mall* – Arizona, *Randhurst Center* – Illinois. In the following decades, more and more shopping centers opened in the United States, and by 1992 the U.S. Census Bureau counted already 38.000 shopping centers, with a sales area of 4,586 billion square feet and a turnover of 717 billion dollars.

II. 1. 1. 1. The Emergence of Shopping Centers in Hungary

Hoffmann (2007) deals in detail with the emergence and development of shopping centers in Hungary. She sees the department stores of Budapest, like Flórián, opened in 1976 in Óbuda, or the Skála as first predecessors of these facilities. Following these, the Sugár opened in 1980, which housed on 30,000 square meters 35 stores and which is still in operation at Örs Vezér Square. This facility is the most similar to an enclosed mall due to its architecture and functionality. Sikos T. and Hoffmann (2005) view this period as the era of the first-generation shopping centers, while they enlist Skála Metro, Árpád, Hegyvidéki and Budagyöngye shopping centers, all built between 1980-1994, in the category of second-generation shopping centers. The third-generation shopping centers built afterwards represent the emergence of shopping centers or malls in the modern sense. The pioneering Duna Plaza opened in 1996 in

the XIII. District. This center, currently under the care of Ségécé-Klépierre, houses 190 stores on 47,000 square meters and has a parking lot with more than 1000 parking spots. Pólus Center, in the XV. District, developed by Trigránit, opened also in 1996. In terms of its size, today it houses 300 stores on 56,000 square meters and the one-storey building is surrounded by a parking lot with about 2500 parking spaces. After this, the largest shopping center development boom began in Hungary and in 1998 twelve shopping centers opened all around the country, one of which was a strip mall in Törökbálint, four shopping centers in Budapest (Eleven Center, Lurdy Ház, Mammut, Rózsakert) and the rest in other cities. A second development boom similar to that of 1998, but smaller in scale, was to be felt in 2000, when eight shopping centers opened. These development booms are represented in Figure 3, which shows the changes in number of newly-opened shopping centers between 1996 and 2009.

Figure 3: The change in numbers of newly-opened shopping centers between 1996 - 2009 in Hungary



Source: Own collection of data

Other significant shopping centers in Budapest are: *WestEnd City Center*, which opened in 1999 at the Western Railway Station, *Árkád*, which opened in 2002, thanks to the development by ECE Projektmanagement; *Aréna Pláza* (2008), *Allee* (2009) and *Corvin Promenade* (2010) belonging to the newer developments. Table 1 contains the non-exhaustive list of the shopping centers in Budapest, their main characteristics and parameters.

Table 1: List of Budapest's shopping centers

No.	Name	City	District	Opened in	Sales area	Number of stores	Parking spaces
1	Allee	Budapest	XI	2009	47,000	N/A	1,280
2	Aréna Plaza	Budapest	VIII	2008	N/A	200	2,800
3	Árkád	Budapest	X	2002	45,000	170	1,300
4	Árpád üzletház	Budapest	IV	1988	N/A	N/A	N/A
5	Ázsia Center	Budapest	XV	2003	40,000	110	2,200
6	Budagyöngye shopping center	Budapest	II	1994	N/A	N/A	N/A
7	Campona	Budapest	XXII	1999	40,000	160	1,800
8	Csepel Plaza	Budapest	XXI	1997	13,654	69	450
9	Csillagvár shopping center	Budapest	III	N/A	N/A	40	200
10	Corvin Promenade	Budapest	VIII	2010	N/A	N/A	N/A
11	Duna Plaza	Budapest	XIII	1996	47,000	190	1,311
12	Eleven Center	Budapest	XI	1998	10,000	N/A	250
13	Eurocenter	Budapest	III	2000	N/A	50	1,000
14	Europark	Budapest	XIX	1997	24,700	65	1,000
15	Flórián Áruház	Budapest	III	1976	N/A	56	N/A
16	Home Center	Budapest	XVII	2002	N/A	N/A	N/A
17	Lőrinc center	Budapest	XVII	1996	N/A	N/A	N/A
18	Lurdy Ház	Budapest	IX	1998	N/A	N/A	1,000
19	Mammut	Budapest	II	1998	57,000	320	1,200
20	Material Center	Budapest	XIII	2005	40,000	40	N/A
21	MOM Park	Budapest	XII	2001	30,000	70	1,540
22	Pólus Center	Budapest	XV	1996	56,000	300	2,500
23	Récsei Center	Budapest	XIV	2004	18,000	N/A	N/A
24	Rózsakert	Budapest	II	1998	7,500	82	230
25	Rózsadomb center	Budapest	II	2000	N/A	N/A	N/A
26	Savoya Park	Budapest	XI	2004	N/A	75	1,500
27	Stop.Shop	Budapest	II	2002	7,000	NA	280
28	Stop.Shop	Budapest	III	2003	14,000	16	400
29	Stop.Shop	Budapest	IV	2004	8,000	26	280
30	Süba shopping center	Budapest	III	1996	NA	NA	NA
31	Sugár Üzletközpont	Budapest	XIV	1980	22,000	120	400
32	Új Udvar	Budapest	III	2010	16,000	NA	NA
33	WestEnd City Center	Budapest	VI	1999	44,800	412	1,400

NA = not available

Source: own collection of data

According to the Central Statistical Office’s data from 2008, the number of Hungarian shopping centers reached 103 and contained almost 6,000 retail stores, which represented 4% of all retail stores (KSH, 2009). Table 2 contains the regional distribution of shopping centers. Hoffmann (2007) states that, on the base of international norms, the Hungarian market of shopping centers reached the so-called optimal saturation, because there is a shopping center for every 100,000 residents. Therefore, instead of new developments, emphasis should be put on operating and managing the already existing shopping centers as optimally as possible, for instance, by the optimal utilization of sales area, the shaping of an adequate tenant mix, drawing and retaining more and more clients, economic and environmental friendly operating.

Table 2: Regional distribution of shopping centers in Hungary.

Shopping centers			Region
2002	2007	2008	
25	42	43	Central Hungary
24	35	35	from which Budapest
1	5	8	Central Transdanubia
5	10	16	Western Transdanubia
3	4	6	Southern Transdanubia
34	61	73	Transdanubia
2	5	8	Northern Hungary
4	6	11	Northern Great Plain
5	9	11	Southern Great Plain
11	20	30	Great Plain and North
45	81	103	Total

Source: KSH – Statisztikai tükör 2009

Seres (1998) analyzed the development trends of Hungarian shopping centers. He derived their success from the combined shopping, service, catering and entertainment functions applied under the principle of "everything in one place". In accordance with the Western European development trends, he emphasized concentration and centralization as pulling power in the spreading of shopping centers. In his view, this concentration and centralization mainly affects the capital city. If we analyze the regional distribution of shopping centers, Seres’s (1998) view seems to be true, since in 2008 out of the 103 shopping centers almost

half of them, 43 were in Central Hungary. In my opinion, this trend of concentration and centralization will continue in the near future, as related to their location, as well as related to their developers, owners and managers. This will be detailed during the description of shopping center development and management.

II. 1. 2. The Definition and Typology of Shopping Centers

Parallel with the emergence and development of shopping centers, professional associations and the scientific circles started to pay attention to them. Thus, as a first step, their definition became the center of attention. Before we enter deep in the presentation of the shopping center literature, I see it necessary to clarify and fix some of these basic concepts. Therefore, some definitions used by the practicing industry and the scientific circles will be presented in the followings. There are many classifications in use for defining shopping center typologies. I will touch upon the most important ones.

II. 1. 2. 1. The Definition of Shopping Centers

As mentioned earlier, there are still many imperfections in the use of concepts from the field of shopping centers, the most frequent being the different interpretation, the different meanings given to the same notions and the variety of their definitions. This is the case of the definition of the shopping center as well. Therefore, only a few of the most widely known definitions will be presented.

Firstly, I'll present the definitions formulated by the industry's two most recognized organizations, namely the International Council of Shopping Centers and Urban Land Institute.

- According to the **International Council of Shopping Centers** (ICSC, 2004, p.1.), the shopping center is

„a group of retail and other commercial establishments that is planned, developed, owned and managed as a single property, with on-site parking provided. The center's size and orientation are generally determined by the market characteristics of the trade area served by the center. The three main physical configurations of shopping centers are malls, open-air centers, and hybrid centers.”

The constant development and progress of the industry and concepts are also reflected in the fact, that in 1999 they've only distinguished between two main categories of shopping centers: the closed malls and the open-air strip centers.

- According to the **Urban Land Institute's** (ULI, in. Kramer et. al, 2008, p.4.) 1947 general definition, the **shopping center** is

„ a group of architecturally unified commercial establishments built on a site that is planned, developed, owned, and managed as an operating unit related by its location, size, and type of shops to the trade area that it serves. The unit provides on-site parking in definite relationship to the types and total size of the stores.”

Kramer et. al (2008) considers that well-planned shopping centers are defined most clearly by their characteristics, thus, they are described by the following eight characteristics:

- coordinated architectural ensemble, which can consist of differently shaped and different type of buildings, but which are planned in concordance
- a uniform area, which results in a center that befits the market requirements in terms of type, size and functionality
- a site that is within easy reach of the local residents, travelers in transit, pedestrians and those who use different means of transport
- ensures a sufficient number of parking spots
- various services available to customers (e.g. home delivery)
- creates an attractive and secure shopping environment
- offers adequate tenant and retail mix to the commercial area and creates synergy by the assortment of different stores
- provides a convenient and comfortable space both for shopping and other related activities, creating by this a strong sense of identity and place consciousness

Although this list exhausts the main characteristics of shopping centers, it still cannot be considered complete, especially since through the years many different shopping center types were created and several various classifications were elaborated.

From the representatives of the Hungarian literature, it is worth mentioning **the definition proposed by Sikos T. (2001, p. 31.):** *”the shopping center is an architecturally uniform complex, designed and developed for commercial use, jointly operated, the integral unity of different types and sizes of stores and service facilities which address the demand of a given catchment area. Shopping centers' significant part of turnover is built on shopping by car, the size of their parking area depends on the related store-types and on their sales area.”*

In the view of another Hungarian author (Agárdi, 2010, p. 92.), shopping centers can be seen as a form of partnership or co-operation, because *”they contain many types of stores (specialized stores, department stores, supermarkets, perhaps hypermarkets and outlets), so, they cannot be viewed as a single retail establishment. However, they cannot really be interpreted as retail agglomerations, because most of the centers don’t emerge spontaneously, but are built as the result of deliberate investments of real estate development companies, and are managed after their inauguration by the center management.”*

In the words of Juhász et al (2008, p. 22.), these complex shopping, service and entertainment centers are such kind of economic entities, which *”are not retail stores, nor retail businesses (they do not engage in retail activities), but ensure operating conditions for commercial activities. The company developing the real estate leases the stores, or sells them to businesses engaged in retail activities, [...]. In this case, it must be considered, that not only the store retail activity is present, but they are also complex shopping, service and entertainment centers on one hand, and multi-functional facilities (culture, sport, leisure, community meeting place etc.) on the other hand. That is why it is hard to examine them from one sector approach, because there are cross-sector interactions between their functions and business activities (for instance entertainment, shopping, food service).”*

It is worth observing, that all these definitions mentioned above view shopping centers as a Place – a center where retailers cluster -, or only as a special Agglomeration of retail, service and entertainment facilities. Even though the Product-nature (“real estate”, “complex”) of shopping centers seems to appear inherently in the definitions, this does not really get to the surface. In my view, shopping centers are real estate Products, which are developed by the combination of Location, Customer Mix and Tenant Mix, and are maintained with the co-development and co-evolving of these by center managers. Their consumers are none others than their owners and investors. I am convinced, that only this approach can really explain their fast development and spreading. And this can also explain why so many kinds of product types have appeared. I have already detailed the shopping center definition proposed by me in the Introduction, therefore I will not recall it again, instead I will move on with the review of different shopping center types, different Product versions.

II. 1. 2. 2. Shopping Center Types

One of the classical shopping center typologies, is the six-type one developed by **Dawson** (1983, in. Sikos T. et al, 2004), which distinguishes between the following shopping center types:

- 1. *General-purpose stand-alone shopping centers*
 - o Community
 - o Neighborhood
 - o Regional
- 2. *General-purpose centers in traditional trade areas, renovated centers*
 - o Infill
 - o Extension
 - o Developed as Part of a City Center Restoration
- 3. *Multi-use centers*
- 4. *Ancillary centers*
- 5. *Specialized centers*
- 6. *Focused centers*

The most important characteristics of these center types, for instance total area, number of storey's, control of tenant composition, optimal site etc., are summarized in Table 3.

Another classical classification is prepared by Guy (1994, in. Sikos T. et al, 2004), which distinguishes between the following six types, according to their appearances: (1) focused center or neighborhood center, (2) retail park, (3) shopping mall, (4) regional shopping center, (5) factory outlet center and (6) specialized centers. The specific characteristic of the latter two types is that they do not have a so-called anchor tenant. It is worth to take a look at the following table, which contains the possible geographical occurrences of these different types.

Table 3: Characteristics of shopping centers according to Dawson's typology.

Characteristics	Strip	Community	Neighborhood	Regional	Super-regional	Infill	Extension	City Center Restoring	Multi-use	Ancillary	Specialized	Focused
Total area (sq.m)	1,500	5,000	20,000	50,000	100,000	2,500	15,000	40,000	40,000	3,000	6,000	10,000
Number of storeys	Only one	Usually only one	Usually only one	One or more	Usually only one	Usually only one	Usually more	Several	Several	Usually only one	One or more	Usually only one
Open-air/closed	Open-air	Usually open-air	Both	Usually closed	Closed	Usually open-air	Usually closed	Closed	Usually closed	Both	Both	Both
On-site center management	No	No	Sometimes	Mostly	Yes	No	Sometimes	Yes	Yes	Sometimes	Sometimes	Sometimes
Association of tenants	No	Mostly	Mostly	Yes	Yes	No	Mostly	Yes	Mostly	No	Mostly	Rarely
Possibility for the settling of independent retailers	Yes	Some	Little	No	No	Yes	Some	Little	Little	Yes	Some	Little
Anchor tenant	No	Supermarket	Mixed store	Department store	Department store	No	Variable	Department store	Department store	No	Often no	Big company
Control of the tenant composition	Weak	Weak	Medium	Significant	Significant	Weak	Medium	Significant	Significant	No	Significant	Significant
Optimal site	Near a regional center	Local road network intersection	City road network intersection	City road network and intercity highway intersection	Within the conurbation between cities	Highest-prestige retail neighborhood	Near city center restoration	Traditional city center	New settlement	Big office building	High-earning neighborhood	City road network intersection
Significance as growth pole	No	No	Limited	Some	Some	No	No	Significant	Significant	No	Limited	Limited

Source: Dawson (1983) id. Sikos et al. (2004), p. 116.

Table 4: The frequency of occurrence of the different shopping center types

Type of shopping center	City Center	Edge of the city center	Other retail areas	Other city areas	Residential area	City outskirts
Stand-alone store		X		X	X	X
Focused center			X		X	X
Retail park				X		X
Shopping mall	X			X		X
Regional center				X		X
Specialized center	X	X		X		
Transit outlet center				X		X

X denotes the frequent occurrence of the given type of shopping center in the marked places.

Source: Sikos T. et al (2004)

According to the industry’s practice the accepted classification defined by the **International Council of Shopping Centers (ICSC, 2004)** is used most frequently. According to this, and to their architecture and design, shopping centers are classified into three groups. Within this, nine shopping center types are defined:

1. ***mall or shopping mall*** – closed shopping center, with shopping streets and alleys that have controlled air-conditioning and lights.

a. ***Regional center*** – it has a general retail range; fashion apparel and services are present in a bigger proportion. Its main attractiveness lies in the combination of anchor tenants and in the mix of fashion apparel stores.



Figure 4: WestEnd City Center, Budapest

b. *Superregional center* – very similar to the regional center, just bigger. Thus, it has more anchor tenants and the store range is wider, and it's often a multi-storey building.



Figure 5: Alstertal, Hamburg

2. *open-air center* – in which the store-strips follow each other; they have common parking lots located in front of the stores, but do not have closed streets. Their most common formats are: L-, U- and Z-shaped, while the simple I-shape is used in residential areas and community centers. These were formerly known as strip centers, but this name was used mainly because of the I-shaped linear center.

a. *Neighborhood center* – shopping centers which facilitate convenience shopping of products that satisfy everyday needs and which are developed in residential areas. In more than half of these facilities the anchor tenant is a supermarket and in most of the cases they are I-shaped.



Figure 6: STOP.SHOP., Budapest

b. *Community center* – these have a wider range of products, especially when it comes to fashion apparel. Their typical anchor tenants are the same as those of the neighborhood centers, but here and there a dominant big-box retailer can be found, with products such as clothing, home improvement, toys, electronics or sports equipment. Shape-wise, they can



Figure 7: Family Center, Győr

have an I-, L- or U-format. These are the most diversified among the shopping center types.

c. *Power centers* – they are characterized by many anchor tenants, from which the discount stores, warehouse stores or category-killer retailers should be underlined. Building-wise, these can be separate big boxes with few small-sized specialized stores.



Figure 8: Market Central Ferihegy, Vecsés

d. *Theme / festival center* – these are developed on a common theme both in terms of architecture and product, retail offerings. Entertainment is an important element for these centers, that is why they usually attract tourists, but local residents also visit them.



Figure 9: Kanyon, Istanbul

e. *Outlet center* – these house mostly manufacturers' and retailers' outlet stores, thus, they provide good quality and well branded products at discount prices. They usually do not have an anchor tenant, but some brand stores have a strong attractive power. Shape-wise, they are usually open-air strips or village-like, but they can also be closed.



Figure 10: Parndorf, Austria

f. *Lifestyle center* – in most of the cases they are built around high-earning residential areas, and they try to combine the shopping and lifestyle needs of the catchment areas' residents. They house higher-priced specialized stores, and in the spirit of multi-purpose recreation they provide restaurants, entertainment and pleasant, city center-like environment (fountain, benches, park etc.) for visitors. Their anchor tenants are usually fashion-oriented specialized stores.



Figure 11: Istinye Park, Istanbul

3. *hybrid centers* – these centers are created practically by the combination of the latter two groups, take for instance the case of value-oriented mega-malls, where the same establishment houses a mall, a power center and even an outlet.



Figure 12: Istinye Park, Istanbul – hybrid center

Table 5: Classification of shopping centers according to the International Council of Shopping Center's definitions

Type	Basic concept	Gross leasable area (sq.m)	Total area (ha)	Number of anchors	Typical anchor tenants		
					Type	Percentage of anchor tenants*	Primary catchment area**
MALLS							
Regional	General merchandise, fashion (mall – character)	37,200 – 74,400	4 – 10 ha	2 or more	Full-line department store, mass merchant, discount store, fashion apparel	50 – 70 %	8 – 25 km
Superregional	Similar to regional center, but with more variety and assortment	Over 74.400	6 – 12 ha	3 or more	Full line department store, mass merchant, discount store, fashion apparel	50 – 70 %	8 – 40 km
OPEN –AIR CENTERS							
Neighborhood	Convenience	2,790 – 13,950	0,3 – 1,5 ha	1 or more	Supermarket	30 – 50 %	5 km
Community	General merchandise, convenience	9,300 – 32,550	1 – 4 ha	2 or more	Discount department store, supermarket, home decor, discount apparel	40 – 60 %	5 – 10 km
Lifestyle center	Upscale specialized stores, dining and outdoor entertainment	13,950 – 46,500 Can be smaller and bigger	1 – 4 ha	0-2	Usually does not have an anchor in the traditional way, but may include book store, specialized store, cinema or department store	0 – 50 %	12 –20 km
Power center	Category-dominant anchor tenant, few smaller tenants	23,250 – 55,800	2,5 – 8 ha	3 or more	Category killer, discount specialized store, warehouse club, off-price	75 – 90%	8 – 15 km
Festival	Entertainment, tourist-oriented, retail and service	7,440 – 23,250	0,5 – 2 ha	N/A	Restaurants, entertainment	N/A	N/A
Outlet	Manufacturers' outlet stores	4,650 – 37,200	1 – 5 ha	N/A	Manufacturers' outlet stores	N/A	40 – 120 km

* The share of the anchor tenants of the Gross Leasable Area (GLA)

Source: ICSC, 2004

** The area that generates 60 – 80% of the center's sales.

Levy and Weitz's (2008) classification is closer to our days; they use the already mentioned nine types. Because of its novelty and relevance, I present this classification of shopping centers, too:

- *1. neighborhood / community center* – they are also known as strip shopping centers, usually they describe a connected strip of stores, which are jointly operated. These stores offer parking spaces. Their anchor tenants are usually supermarkets or discount food stores and they urge daily shopping trips.
- *2. power center* – these usually cluster the so-called big-box retailers, like bigger discount stores, off-price retailers and category killers. In the majority of cases they choose their site in the vicinity of a closed shopping center.
- *3. shopping mall* – closed building with controlled temperature and lights, in which the shops aligned on two sides are separated by closed streets and alleys.
- *4. lifestyle center* – this type of centers are very popular nowadays, and they usually denote the aggregation of various specialized stores (mostly fashion apparel), entertainment facilities and restaurants. They usually have a well-maintained open-air common square and main street character.
- *5. fashion / specialty center* – denotes shopping centers in which mostly higher-priced fashion apparel stores, boutiques and gift stores are incorporated, where higher prices mean better quality and brand value.
- *6. outlet center* – these line up mostly manufacturers' brand stores and retail outlets, from product assortment point of view they mostly offer fashion apparel with strong brand value, accessories and home furnishings.
- *7. theme / festival center* – these centers are defined by a certain theme, and the building design and stores are chosen accordingly. It has a tourist attraction character, often a kind of entertainment center is its main anchor tenant, in other cases it attempts to copy a historical place or event.
- *8. omnicenter* – denotes a new type of shopping center and often combines several of the already described types, for instance, shopping mall, lifestyle center or power center. Due to their various characters, provide opportunity for cross-shopping in a single place.
- *9. mixed use development (MXD)* - these centers operate within a multi-function building complex, thus, besides a shopping center, there could be an office building,

hotel or perhaps a residential building, cultural center etc. Retailers like it very much, because it attracts more customers to the center than a simple retail center.

It can be said, that there is no unitary position regarding shopping center typology, and most of the times geographical location, architecture, shopping type or tenant, retailer type decide in which group a shopping center will be included. Table 6 compares these classification possibilities according to the used classification criteria.

Table 6: Criteria for classifying shopping center types

Author	Basic theory	Classification criteria	Shopping center types
Dawson (1983)	Central Place Theory	Geographical location Architecture	- general-purpose stand-alone shopping centers Community Neighborhood Regional - general-purpose restored centers Infill Extension Developed as part of a city center restoration - multi-use centers - ancillary centers - specialized centers - focused centers
Guy (1994)	Central Place Theory Customer behavior	Geographical location Shopping types	(1) focused center or neighborhood center (2) retail park (3) shopping mall, closed shopping center (4) regional shopping center (5) factory outlet center and (6) specialized centers.
ICSC (2004)	Shopping center image Offerings, retail mix	Architecture Tenant type	1. mall or shopping mall - Regional center - Superregional center 2. open-air center - Neighborhood center - Community center - Power centers - Theme/festival center - Outlet center - Lifestyle center 3. hybrid centers
Levy and Weitz (2008)	Shopping center image Offer, retail mix	Architecture Tenant type and function	1. neighborhood / community center 2. power center 3. shopping mall 4. lifestyle center 5. fashion / specialty center 6. outlet center 7. theme / festival center 8. omnicenter 9. mixed use development MXD

Source: based on my own observation

Deriving from the definitions and classifications presented so far, we can conclude, that there are many definitions currently in parallel use, and practically every professional association or scientific colleague dealing with the topic tries to come up with newer own definitions. Truth to be told, I find it impractical. This only complicates even more and muddles the field of shopping centers when there would be a burning need for the standardization and uniformization of concepts and definitions. The most striking lack of this standardization hits perhaps by reading Abrudan's (2011) conference article: after going through 10 different definitions and classifications (I. North America: i) ICSC, ii) NCREIF and NAREIT, iii) Appraisal Institute and iv) National Research Bureau, II. Australia: v) SCCA and UrbisJHD, vi) Property Council, vii) Shopping Center News magazine, III. Europe: viii) ICSC Europe, ix) French and x) Scandinavian), she attempts to come up with an eleventh one, considering the Romanian particularities, arguing that "none of the international classifications covers the complex typology of Romanian centers" (p. 17.). There is no doubt, that in every country and distinct geographical region we can find shopping centers, whose classification poses challenges, and since they are under constant development, there will always be new centers, which are differentiated from the ones before them. Nevertheless, this cannot contradict the creation of a standardized and uniform classification system, from which the differentiated centers could be derived. But until several definitions and classification systems are used in parallel, this prevents the creation of a "common professional language", and it leads to misunderstandings, muddles the whole topic, the consequence of this being that the results of scientific and practical researches are incomparable and lack forward thinking. All these make progress in the field impossible. That is why, I would like to urge the creation of a unified classification system, which could rely on the definitions given by, for instance, the ICSC or Levy and Weitz (2008) and would provide a proper ground for the deriving of subsequent differentiated centers.

After familiarizing the most important and wide-spread types of shopping centers, in the following I will present the most important processes of developing and operating shopping centers, the main actors of the industry and the different stages of the shopping center life cycle.

II. 2. Shopping Center Development and Management

As Feinberg and Meoli (1991, p. 426) also noted, "shopping malls didn't just happen, [...] the mall was originally conceived of as a community center where people would converge for shopping, cultural activity, and social interaction." In their rapid development factors such as i) decentralization of the population and of incomes in the suburbs and districts, ii) lack of retailers in these new and growing residential areas, iii) diverse local fiscal systems and iv) capital available for developments, all played a role (Ghosh and McLafferty, 1991). Even though the mostly highlighted driving forces of shopping center development and spread are: changing consumer behavior, urbanization and different associations and concentration of retail units; I believe that they are primarily the results of the available capital and financing. This approach is represented by Benjamin et al. (1994), who describe the development of shopping centers as a function of their potential total sales, the cost of the capital needed for their development and taxes. In the new development focused researches (Kuruvilla and Ganguli, 2008; Singh et al, 2009), the central position is taken by the financing of shopping centers, which strongly impacts their success. In the course of the shopping center developments in India three financing sources have been identified: (i) self-financing, (ii) external sources (the foreign capital of investors) or (iii) incomes from pre-sales. In case of the latter, the developers sell parts of the shopping center as stores even before the completion of the shopping center, which are mostly bought by local investors and speculators. All these make the unified, harmonious and controlled center management impossible, and lead in the end to high vacancy rates and high operating costs. Approaching from shopping center as a Product paradigm, it is reasonable that if the resources (financing) needed for development (production) are available, these will spread very quickly. Often spread even too quickly, without any reason: for instance, when the surrounding catchment area's purchasing power can not support the center (like the case of Armonia in Braila or Tiago Mall in Oradea, presented in the introduction). In these cases we can not talk about unsatisfied consumer needs, nor can we talk about it as serving the expansion pursuits of retailers. Here, the new development is almost exclusively the result of the available capital from investors and of their future profit expectations. On the contrary, it can occur, that in a given region, where unsatisfied consumer needs are truly present and where retailers would gladly expand, that we will not find shopping centers, because the financial resources are missing. In the light of these, in the followings we'll present: the processes of shopping center development and

management, the actors involved in these processes, the related institutional background and the shopping center's life cycle.

II. 2. 1. The Processes of Shopping Center Development and Facility Management

Regarding the shopping center life span, we can identify two separate stages. The first **(1)** and most determining stage takes place **during the shopping center development**, while the second **(2)** stage takes place **during the operation of the shopping center**.

(1) We can undoubtedly regard the first stage as the most important one, which, directly after choosing the site, leads the way to the success or failure of the given shopping center. In this stage, the shopping center developers, beside the conceptual and architectural planning and **development** of the center, try to win over tenants whose profile and quality of products is in accordance with the customer mix and center image that is to be built. Accordingly, in this stage the selection of tenants takes place at the same time as the development of the shopping center, because in many cases the tenants have special requirements regarding the interior design and finishing of their store. This is the stage in which the shopping center as Product is realized as the end product, result of a conscious development process that lasts for a few years. This development process consists of the harmonization of activities, such as planning (conceptual, functional and architectural), permitting, construction, leasing and tenant management. During the execution of all these activities, the followings are crucial: the usage of appropriate legal and marketing services and ensuring the necessary financial background.

From the point of view of leasing and tenant management, it is also very important to determine where the individual tenants should be placed. According to the type (anchor, preferential and fill-up tenant) and profile (food, fashion apparel, shoes, furniture, etc.) of the tenant, the location within the shopping center must be carefully selected, so that it will produce positive effects for the tenants, center manager and customers. After the tenants were placed in accordance with their special requirements and the interior common areas were formed, there are few possibilities to change tenant types and profiles later on. Obviously, leasing contracts are concluded mostly for the long term (between 3-10 years).

(2) In the second stage of the shopping center life span, the created Product is duly put in **operation**. Now the emphasis is on center and facility management and maintenance. Of course, emphasis is put here also on supporting activities, such as legal and marketing

activity, and ensuring the adequate financial background. By now, the costs related to investment (especially development) have ended, thus, the aim is to return the invested capital, which can mean both the repayment of loans and the activities drawing on return of own invested capital.

From the tenant mix's point of view and judging from the concluded lease periods, the center management is not forced in a constant daily battle for the attraction, win over and selection of new tenants. At this time only *filling up* takes place from the point of view of tenant mix selection. Only when a vacancy occurs, in order to maximize the utilization of the shopping center, they will search for a new tenant, whose type, profile and level of quality shall fit the image of the shopping center and match the already existing tenant mix. But this does not mean that there is no need to care of the relationship between center management and current and potential tenants. This is necessary because the long term leases also expire one day, and because consumer behavior also changes in time, the population living in the direct catchment area of the shopping center might change, which require the center managers to reposition the center.

In case of **repositioning**, the importance and extent of tasks related to the selection of an appropriate tenant mix is almost the same as in case of the tasks that appear during shopping center development (1). These can be accompanied by the major overhaul or expansion of the center, thus, repositioning can be very costly in some cases, especially when the special requirements of new tenants do not meet the requirements thought of by the investor/developer during development. Therefore, it can occur that due to these additional costs, the new tenants won't be accommodated in the center, because the investor recons that these modifications are unprofitable, or because the tenant does not accept to pay the costs and instead, the tenant chooses another shopping center. Because of this, just as it is crucial during development and facility management, in repositioning too, there is great emphasis on supporting activities: legal and marketing activities and financing activities.

II. 2. 2. The Actors of Shopping Center Development and Facility Management

Those involved in the development and management of shopping centers, are also known as the actors of the shopping center industry and are grouped into six different categories:

1. **investors** – they provide the capital needed to fund the shopping center and according to their invested capital, they expect profit, return from the given project. They can be

private investors, enterprises, sometimes banks or investment funds.

2. **developers** – they engage in the development, construction of the shopping center. Their tasks include: choosing the location, the site, obtaining the permits needed for the project, the architectural and commercial planning of the shopping center, carrying out/ supervising/ coordinating the construction, the first stage of leasing etc.
3. **facility managers** – parallel to the opening of the shopping center, the development tasks decrease and their place are taken over by routine-like, so-called "janitor kind" of tasks related to the ensuring of the daily course of business, which are carried out by the facility managers. These kind of routine-like tasks are: the tasks related to security, cleanliness, the supervision of the parking area, the collection of rents and the marketing activities directed to promote the shopping center.

Many regard the above mentioned three categories of actors as one. Indeed these three have to cooperate very closely in order to achieve the success of a shopping center, and in some cases, by some shopping centers it can happen that all three categories of actors, or better said all these three categories of functions are carried out by the same company. In spite of this, I consider that it is very important to distinguish between these three groups actors because of their different goals and functions. In the majority of cases, these three functions are carried out by distinct companies.

4. **tenants** – they form the supply within the given shopping center, comprising the retailers, service and entertainment providers. They are a very important group of actors, because they represent the income source of a shopping center, on one hand, and they attract the customers, on the other hand. I distinguish between three types of tenants: anchor tenants, preferential tenants and fill-up tenants. Anchor tenants occupy large retail areas for a small rent, but they generate most of the customer traffic and often carry out independent marketing activities. Preferential tenants are situated in the middle, from all points of view, and often represent brand names, around which the shopping center builds its own image and adjusts the standards of its offerings. The fill-up type of tenants operate on small trade areas, pay high rents and generate little customer traffic. Beside the tenant type, another classification criterion is based on the tenant's profile, the domain they operate in, what kind of products or services do they offer for sale: food, fashion apparel, electrical appliances, sportswear etc.
5. **customers** – they are the most strict critics of the shopping center. They are the ones

who are prompted by the shopping center, and tenants, to visit the shopping center and purchase products and services there. They are the direct income sources of tenants, and the indirect income sources for the shopping center. Usually 60% of a shopping center's customers base comes from the direct catchment area of the respective center, thus, they can be regarded as a spatial characteristic fixed from the moment of site selection. Of course, this does not mean that these customers purchase only in the given catchment area, because we can encounter cross-shopping (purchases outside the catchment area) quite often. It is common practice for shopping centers to pursue to win over, to target a certain customer group, regardless of the catchment area; this customer group is called target audience.

6. **community** – a group of the actors, which includes the inhabitants living in the geographical environment of the shopping center, and the institutions and authorities which regulate the development and functioning of the centers. For them, the shopping center mean workplaces, which brings economic progress, in the best case without any harmful effects on the environment; it means new shopping/ entertainment/ leisure facilities, which, if used properly, can help both the economic, cultural and spiritual development of the community. Nowadays companies pay more and more attention to social responsibility. Shopping centers are no exception from this rule and they try to take part in community-developing activities, too.

These six groups of actors define and accompany the shopping center throughout its life cycle. They are the creators, beneficiaries, consumers and users of the shopping centers.

II. 2. 3. The Institutional Background of Shopping Center Development and Management – Agency Theory Approach

Considering the relationships between the actors of shopping center development, we could say that the most simple and traditional relations are presented by the community's approach and between the customers and tenants. The relations are more nuanced and complex however, in case of tenants, facility managers, developers and investors. Very often, we can find between them phenomena and conflicts of interest noted by the agency theory. The contracting problems of the principal-agent theory (Eisenhardt, 1989) are characteristic especially for the relationships between facility managers, developers and investors.

In case of shopping centers, the focal point of agency theory related problems is **ownership**. The occurrence and deepening of the agency theory related problems depends on who owns the respective shopping center and on what kind of relationship exists between the center owner and these three actors. The other almost equally important factor in the evolution of agency theory related problems is the **invested capital**, i.e. from whose capital will the shopping center be developed.

Shopping center investors are banks, various investment funds or private investors. The developers create the shopping center using the capital of these investors, thus, practically the developers should act in accordance with the interests of investors even if it means against their own interests. The situation is the same in case of facility managers, as they should operate the respective shopping center as it were their own and should apply the most profitable and cost-effective measures in order to achieve the expected returns for the investors.

In order to avoid conflicts of interest, the optimal case is when the role of the investor, developer and facility manager is played by a single corporate group and when the required costs are financed entirely by own capital. But cases like this are very rare, they happen "once in a blue moon", therefore, in the majority of cases the following variations occur:

a. the role of the investor, developer and facility manager is played by one single corporate group, but for financing the shopping center foreign capital from various banks or other credit institutions are used to a great degree in the form of long term loans. The ownership is in the hand of the corporate group, but mortgage is given on the land and on the center that is to be built or is already developed, as collateral in favor of the Lender. Often, other guarantees are also needed, for instance, preferential rights over the shopping center's income, over the purchase of the center or over the shares of the owning company. Accordingly, even though a single corporate group owns the shopping center and plays simultaneously the role of the investor, developer and facility manager, *there still is a co-investor, credit institution, bringing a large amount of foreign capital, in the background*. The market of these corporate groups (which simultaneously play the role of investor, developer and facility manager) is considerably concentrated, since we are talking about a very capital intensive market.

Table 7: Distribution of main activities and agency theory problems when a single corporation (group) plays the role of investor, developer and facility manager.

Market Actors	Ownership	Financing	Development	Lease	Facility Management	Risk	Information	Control
Investors	X	X				X		
Developers	X	X	X	X	X	X	X	X
Facility Managers	X	X		X	X	X	X	X

Source: own observation

b. distinct corporations (groups) play the role of investors, developers and facility managers. In these cases the ownership is in the hand of the investing company, who finance the required costs from their own capital, sometimes together with a co-investor. But, because their main activity is investment, and usually we are talking about open, stock exchange-listed or closed private equity funds, they use foreign capital or co-investors more rarely. If so, then the co-investor is a minority co-owner in the person of the developer. The development and facility management activities are carried out by corporations (groups) on the basis of an agency contract, from which they gain their primary income. The developers use the amounts allocated for investment and develop the shopping center. The first lease out of the shopping center falls also on them, and so does the conclusion of income generating lease contracts. Therefore, the success or failure of the investment depends mainly on them. Later on, facility managers have only limited opportunities to optimize incomes, and their main effort is to control the operating costs. In the light of these, it's obvious that it has a positive effect on the profitability of a shopping center if the developer is in the same time also a co-investor, perhaps a co-owner, too. The higher their contribution to the investment, the more prone they are to take up the long term-investor approach.

Table 8: Distribution of main activities and agency theory problems when distinct corporations (groups) play the role of investor, developer and facility manager.

Market actors	Ownership	Financing	Development	Lease	Facility Management	Risk	Information	Control
Investors	X	X				X		
Developers			X	X			X	X
Facility Managers				X	X		X	X

Source: own observation

c. separate corporations (groups) carry out the development activity and facility management activity, while both play the role of investors. The characteristic of this structure is that ownership changes hands on short and medium-term. In the beginnings, during the development of the shopping center, the ownership is in the hand of the developer, who plays also the role of the investor, in most cases with the help of external co-investors. After the development activities were carried out, and they are replaced by facility management activities, the shopping center is completed and it just needs to be operated, the ownership changes hands. The shopping center becomes the property of another investor who is willing to manage it and invest in it on the long term, keeping it in its own portfolio. The facility management tasks are either accomplished by the long term investor itself or are outsources on the basis of an agency contract. The external co-investor may remain in the background or may be replaced by a completely new main investor (owner) or other external co-investor.

Table 9: Distribution of main activities and agency theory problems when separate corporations (groups) play the role of developer and facility manager, while both play the role of investors.

Market Actors	Ownership	Financing	Development	Lease	Facility Management	Risk	Information	Control
Investors		X			X	X		
Developers	X	X	X	X		X	X	X
Facility Managers				X	X		X	

Source: own observation

Beside these three basic relational structures, there are other relational, institutional variations as well, but these are the ones that occur the most. In these cases, we encounter different risk distribution ways, different occurrence of information asymmetry and different exercise of control. Most of the market information reaches the developers, due to which they are capable of taking more efficient decisions, bearing in mind their own interests or those of the investors and therefore have more possibilities to exercise control. In contrast, risks are mostly assumed by the investors, regardless of whether the ownership is in their hands or they are just co-investors in the background. At a first glance, most of the risk is born by that market actor who has the ownership, but this does not always correspond to reality. If the owner cannot provide an asset (shopping center) with an adequate value as collateral, or if the respective asset is overrated, then the risk and loss of the co-investors in the background can be a lot bigger than that of the owner. In cases like this, loss is written off gradually on long term, or,

in case of insolvency, it is not rare to re-sell and reposition the shopping center on the market during bankruptcy proceedings, or perhaps closing it. To avoid this, it is advisable to facilitate the long term investor view for developers, an instrument in achieving this can be the ownership and/or capital input of the developers in the given shopping center. This is highly recommended since developers lay down the base for the profitability of the shopping center by concluding the first lease contracts. These lease contracts assure, or not, that the invested capital returns and the expected yields are achieved. Concluding the lease contracts is definitely the developer's task, and the lease details are negotiated by the developer and the tenants, occasionally mediated including outside advisors, real estate agents. Investors have a little role in approving and supervising this process, but they have limited access to accurate market information in order to adequately exercise control. After the completion of the center, facility managers execute only fill-up tasks regarding leasing, they only lease the occasionally vacant stores. It is obvious therefore, that developers play a key role in the development of shopping centers, in their conceptual creation, in the selection of the appropriate tenant mix and have a long lasting effect on the future management of the center. The know-how of the developers is crucial in achieving a successful shopping center and impacts the respective center's whole life cycle.

II. 2. 4. The Shopping Center Life Cycle Model

The analysis of shopping center life cycle rises naturally from the shopping center as Product approach. Accordingly, in the followings, two life cycle models will be presented. The first model, formulated by myself, describes the stages of a shopping center's life on a micro level, i.e. on the level of individual shopping centers. The second life cycle model is formulated by Lowry (1997), and it describes the shopping center life cycle on a macro level, i.e. on the level of the whole industry, the life cycles of the various types of shopping centers.

II. 2. 4. 1. The Micro Level Shopping Center Life Cycle Model

The micro level shopping center life cycle, on the level of individual shopping centers, reflects the processes and activities related to shopping center development and management. This model is most accurately described by Figure 13. According to this, we distinguish between five stages in the shopping center life cycle:

- 1. **Searching** – in this stage, developers look for potential sites and analyze them. In case of a shopping center, this stage starts with receiving an offer to buy a potential site. This is when the thorough analysis of the site begins starting from commercial, legal (ownership), geotechnical and architectural points of view, alike. The commercial analysis is crucial for determining the suitable type of a shopping center that would fit the catchment area (taking into consideration the competitors too) and estimating the sales that could be realized on the respective site. The conceptual and commercial plans of the shopping center are based on this commercial analysis. The legal analysis of ownership is also very important especially from the point of view of obtaining financing, as for the required collateral (mortgage) required by a creditor, a clear ownership status is essential. The geotechnical and architectural analyses are needed for the planning, permitting and construction of the center, as the site's characteristics can have a significant impact on planning and development costs. Considering all these analyzes and the asking price, the developers decide whether to buy or reject the site. If they decide to reject the site, the costs and time spent on searching and analyzing should be called "dead costs". And if they decide to buy the site, then with the moment of acquisition we reached the first milestone and move on to the next stage of the shopping center life cycle.

- 2. **Planning** – with the acquisition of the site a more serious and detailed architectural and commercial planning begins, which can comprise several phases. Beside the planning activities carried out to obtain the permits, this is when the conceptual and commercial plans of the shopping center are completed. Associated with this, the attraction of potential tenants and their space allocation within the shopping center begins already in this stage. This is especially true for anchor tenants, with whom the lease contracts are usually concluded before obtaining the final building permit, which represents the second milestone.

- 3. **Development** – this stage of the shopping center life cycle starts with the obtaining of the building permit. After reaching this milestone, increased attention is given to the attraction of more tenants and to the conclusion of a large number of lease contracts. The presence of a sufficient number of tenants provides adequate support to obtain the financing, bank loans needed for development. In parallel, potential contractors compete and the most suitable ones are selected. After this, construction can begin. This stage ends with the completion and opening of the shopping center.

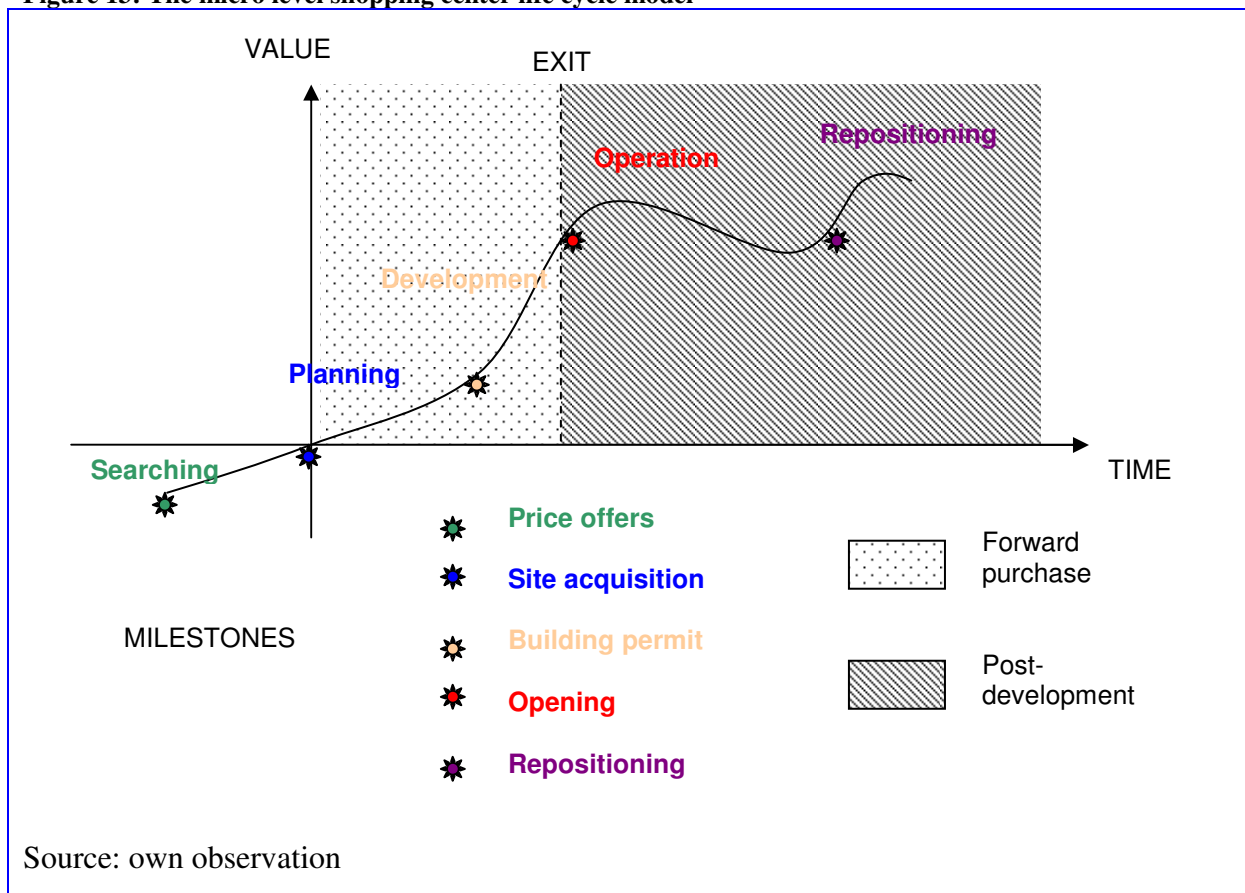
- 4. **Operation** – this stage starts with the opening of the shopping center, even though the preparation for this stage begins months before the shopping center actually opens. This is especially true because the opening of the shopping center is one of the most important

milestones in its life, the preparation of which is very important and a large marketing plan is established long before. The daily operation and maintenance of the shopping center starts after the opening of the center. By this time, almost all of the stores are occupied and have found their tenants. From the point of view of customer traffic, the notoriety of the center starts to grow and more and more customers visit the shopping center. The main task of facility managers is rent collection in order to pass them on to owners and investors and to manage the shopping center at minimal expense. As time goes by, the shopping center grows old, new competitors appear and customer traffic starts to decline. If the shopping center owners do not revitalize the center, it will die and will be closed. But if they are willing to invest again, and they see a chance to make returns, then they can step into the stage of repositioning.

- 5. **Repositioning** – as already mentioned, unfortunately not all shopping centers reach this stage. But the shopping centers that are lucky enough to undergo revitalization, are renewed both from a technical and a commercial aspect. These repositioning are usually scheduled in accordance with the expiration of long term lease contracts, thus, the opportunity arises both to renovate the building from the technical and design point of view and but also to renew the tenant mix. Sometimes repositioning only means an extension of the shopping center. But in this stage the activities and processes related to the planning and development stages, rise again.

The figure 13 shows the micro level life cycle model of shopping centers and the area delimited by the positive axes of the coordinate system is split into two. This division is due to delimitation by the opening of the shopping center. The opening marks an important moment from the point of view of selling the shopping center, the so-called “exit” of the initial owner (usually developer), and by the division establishes two forms of sale. One of the exit forms is the so-called forward purchase, when an agreement regarding the selling of the shopping center is reached before the actual completion and opening of the center. Although this is very rare, but in cases of real estate investment funds, who are beside co-investors also co-owners, this comes as no surprise. Another form of exit for the developed is by selling the shopping center, change of ownership after completion, which is encountered more often.

Figure 13: The micro level shopping center life cycle model



II. 2. 4. 2. The Macro Level Shopping Center Life Cycle Model

The macro level shopping center life cycle model, which approaches the topic of shopping center life cycle on the level of the whole industry, is tied to the name of Lowry (1997). Through this, Lowry tries to explain the development, transformation and the potential decline of the various shopping center types. In accordance with the Product life cycle model, he distinguishes between four stages: innovation or early stage of development, accelerated growth / development, maturity and decline. For the distinction of these stages he uses criteria such as: market factors, developer strategies and retailer-tenant strategies (Table 10).

1. Innovation stage:

- *market factors* – only a few shopping centers of the given new type are in operation, that is why there is little competition between them and the environment generates a rapidly growing customer traffic. These successes are discovered by other developers as well and more and more shopping centers of this type are built.

- *developer strategies* – are focused on creating the most adequate retail mix in the new shopping center, they are involved closely in daily management and extensive advertising and promotional activities are carried out in order to tie the retailers to the center by signing long term contracts with high rents.

- *retailer strategies* – their main goal is to make the consumers aware of them and generate heavy customer traffic, this is why they advertise a lot and they offer products and assortment fitted to the needs of customers.

Table 10: The macro level shopping center life cycle model

	<i>Important Considerations</i>	<i>Innovation</i>	<i>Accelerated Development</i>	<i>Maturity</i>	<i>Decline</i>
<i>Market factors</i>	Number of competing centers	Very few	Rapid growth	Many of the same type of center	Many same and newer types
	Amount of shopper traffic generated	Increases rapidly	Steadily increases	Stable amount	Steadily decreases
	Rate of sales growth	Very rapid	Rapid	Moderate to slow	Slow or negative
	Vacancy rate	Low	Very low	Moderate	High
	Control exerted by developers	Extensive	Moderate	Extensive	Moderate
<i>Shopping center developer strategies</i>	Advertising and promotional activities	Extensive	Moderate	Extensive	Moderate
	Renovation of facilities	None	Minor modifications	Maintenance of existing facilities	Neglect or extensive reformatting
	Efforts to attract new retail tenants	Extensive	Moderate	Moderate	Extensive
	Rental rates	High	High	Competitive	Low
	Length of lease	Long	Long	Moderate	Short
<i>Retailer-tenant strategies</i>	Advertising and promotional activities	Extensive, to create awareness	Moderate, to draw greater interest	Extensive, to compete on price	Moderate, to remind of sale price
	Special sales and price discounts	Few	Moderate	Extensive	Extensive
	Merchandise offerings	Preplanned variety and assortment	Variety and assortment to the market	Stable variety and assortment	Reduced variety and assortment
	Store size and layout	Prototype model	Adjusted to meet market demand	Stable size	Scaled down
	Type of store	Entrepreneurial	Aggressive	Professional	Caretaker

Source: Lowry (1997)

2. Accelerated growth stage:

- *market factors* – more and more shopping centers of the same type are built, customer traffic increases and so does the sales volume, thus, more and more retailers fill the

vacant stores in the shopping center.

- *developer strategies* – after the shopping center is completed and has been operating for a while, the developers exercise moderate control on facility management and the amounts spent on advertising and promotional activities slowly decrease, the majority of stores found tenants, the occupancy rate is high, the customers accept the center, thus, opportunity arises to maximize rents and to set them on long term.

- *retailer strategies* - their advertising and promotional activities are directed towards raising interest and often shows a tendency to decrease, due to the increase in customer traffic we find few price discounts, although in the case of competing shopping centers this is common. In this stage merchandise offerings adjusted to the customers are fixed and the efficiency and profitability of the given stores are measured (per square meter or employee) and depending on this the nature, size etc. of the store is adjusted.

3. Maturity stage:

- *market factors* – there are many shopping centers of the given type, and they are often situated in the same catchment area, thus, competition between them increases, the sales volume becomes stable, or decreases. Due to expiring lease contracts, some retailers leave the mall or move to another mall, and as a result the number of vacant stores increases. But, with the help of renovations and changes, a shopping center can remain in the stage of maturity on long term.

- *developer strategies* – developers exercise again more strict control on the facility management of the shopping center, more emphasis is put again on promotional activities, advertising and sales, and on keeping the tenants or attracting new ones, rental rates decrease, the building undergoes small renovations.

- *retailer strategies* – the costs allocated to advertising and promotional activities increase, sales and discounts become common, the variety and assortment of their products is stable and their store has got the adequate parameters.

4. Decline stage:

- *market factors* – due to strong competition, the customer traffic and the sales volume decrease, the population living in the catchment area is replaced, the demographic and psychographic characteristics change, thus, the offerings of the retailers fit less and less the needs of customers. Because of this, retailers close their stores causing high vacancy rates and

causing serious problems to the developers.

- *developer strategies* – developers direct their attention to other more profitable malls, knowing, that the results are not those that would be expected, thus, they decrease the costs allocated to advertising and promotional activities. They seek to sell the center or transform it into another type of shopping center. They try to keep the tenants and attract new ones, but with little success; rental rates are also low.

- *retailer strategies* – retailers are usually waiting for their lease contracts to expire, they use sales to attract price-sensitive customers, reduce the variety and assortment of their product range and perhaps the store area, too.

Lowry's (1997) shopping center life cycle model exactly describes the changes that occur during the life span of the shopping center types. This approach is especially useful because it describes them through three main factors: market factors – competitors and customers –, developers and retailers. But he does not distinguish between the above mentioned roles of investor, developer and facility manager; he uses them in a collective group called developers, even though these have different functions and roles. Thinking about it, we could say that the development of a shopping center coincides with the innovation stage, while all the other stages occur during operation, depending on the life span of the given shopping center. Another deficiency of this life cycle model is that it does not speak about *repositioning*. As I already mentioned, the expiring rents, the replacement of the population living in the catchment area, the renovations and extensions allow and contribute to the repositioning of shopping centers, and these can enter again the stage of innovation or accelerated growth, depending on the scale of changes that are made.

II. 3. Shopping Center Theories Formulated So Far

In the followings I'll present the theories regarding shopping centers already described by the shopping center literature. Thus, firstly we'll discuss the theories regarding their appearance, followed by the classical, traditional shopping center theories. After these, I'll present the main ideas of two new emerging shopping center theories (ecomallogy and utopian marketplace). In the end, the literature regarding shopping centers will be structured and

systematized in order to place shopping center theory within the scientific fields. From here, our way leads us directly to the formulation of a new general shopping center theory.

II. 3. 1. Theories Regarding the Appearance of Shopping Centers

Shopping centers are the greatest invention of retailing after World War II, which made its way into the Top 50 list that revolutionized the life of customers (Consumer Reports, 1986, in. Feinberg and Meoli, 1991). From the same customer approach, Dommermuth and Cundiff (1967) try to find arguments for the existence of shopping centers, which facilitate the search process that precedes the purchase: decreases search time and the travel costs; as a consequence, new sales channels, sites and sale-encouraging strategies are needed, which are observable in the agglomeration efforts of retailers.

Examining the structure of post-World War II Retailing, Ghosh and McLafferty (1991) define three main processes: (i) the expansion of retailers from city centers into residential areas, (ii) fast spreading of shopping centers and (iii) the concentration of retailers and the formation of retail chains. In their view, both the physical shift of shopping centers and their turning into chains are due to the rapid spread of shopping centers. This is exactly why their main goal is to explain the birth of shopping centers. Like many before them, they look at this new phenomenon from the structure of retailing, which, after the appearance of department stores and supermarkets, proves to be such a new innovative retail channel, whose „sole function of these complexes was to facilitate shopping in a self-contained environment”. (Ghosh and McLafferty, 1991, p. 254). In their opinion, the development of shopping centers was shaped by sociological, economic and political forces, such as: (i) the suburban population’s need for shopping, (ii) the retailers’ ambitions to expand, (iii) tax systems of local governments and (iv) available funding. It must be admitted that, even though they examine the shopping centers only through the lenses of established retail theories, they precisely describe all those financial market processes taking which made the rapid spread and diversification of shopping centers possible in the United States of America, reconstructing after World War II. They see it clearly: how easily available funds reduced the risks for developers and thus, developing ever newer shopping centers became possible; or how the owners of these investment products became the direct or indirect owners of various pension and investment funds through Real Estate Investment Trusts (REIT). Although their observations lack real estate knowledge, the detection of connections to the financial markets is of pivotal

importance. The development of shopping centers was also influenced by alliances between developers and big retail chains; they facilitated the concentration of retail, on one hand, and lightened the financing conditions, on the other hand. But one thing cannot be denied, the rapid development and spread of shopping centers is the consequence of real estate investment activities.

This rapid spreading of shopping centers in the United States surpassed by the 1980s the evolution and demand of the consumer society, thus there was an oversupply of sales areas, developers went bankrupt and the stability of some financial institutions wavered. We could observe the same process as the effect of the 2008 global financial crisis, which this time, was preceded not by commercial real estate oversupply, but by the oversupply of residential real estate. This is why it is important to mention the pursuit of Benjamin et al (1994) to create an optimal shopping center investment model. Taking into consideration the macroeconomic investment literature, they define the ideal size of the sales area, the new developments as depending on the achievable retail sales, costs of financing and local taxes. The practical application of this model and others like it, could lead the development of shopping centers towards the right direction, or rather the right pace. Unfortunately, in this field, the practice influenced the shopping center theory development (Feinberg and Meoli, 1991; Brown, 1992) and not the other way around. This explains also why in the focus of shopping center scientific research instead of creating a general, explanatory shopping center theory, there are questions such as site analysis, retail agglomerations and externalities etc.

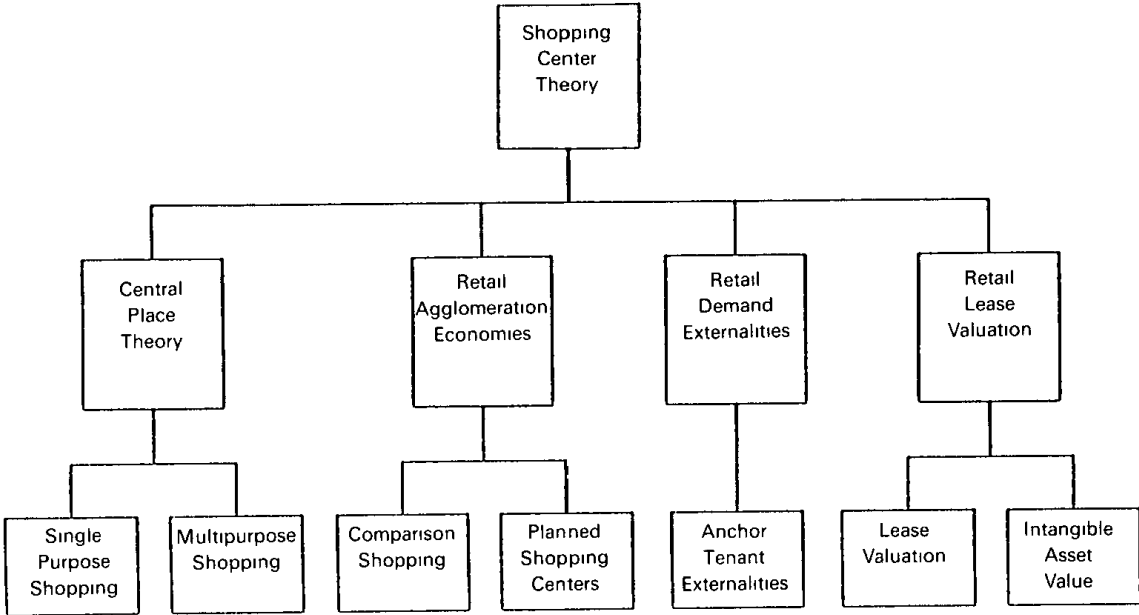
II. 3. 2. Classical Shopping Center Theories

For the description of the results and theses of shopping center theories that can be deemed classical, I rely on two very important articles: those of Eppli and Benjamin (1994) and Carter (2009). The former sums up, practically, the most important research subjects and results from the beginnings up to the early 1990s, and serves as a historical overview for the monitoring and evolution of shopping center research. Carter's (2009) article rather groups the newest research results by the subjects considered most important, only referring to the contemporary financial and real estate articles. Although both articles systematize very well the presented researches and results, they do not go beyond the given framework and do not draw attention to the void that takes the place of consumer behavior, commerce and marketing.

II. 3. 2. 1. The Hierarchical Structure of Shopping Center Research (Eppli and Benjamin, 1994)

Eppli and Benjamin (1994) conducted a comprehensive research study on the development of shopping centers from the beginnings up to the 1990s. This subchapter details the curiosities of this study. The beginning of shopping center research can be set approximately to the 1920s-1930s, when the first studies regarding site selection were conducted in parallel with the development of retailing and shopping centers. In the almost 60 year-long history of shopping center research, they separated four theories: central place theory, retail agglomeration economies, retail demand externalities and retail lease valuation. Figure 14. contains the hierarchical structure of these theories.

Figure 14.: The hierarchical structure of shopping center research



Source: Eppli and Benjamin (1994)

II. 3. 2. 1. 1. Central Place Theory

In their perception, the early stage of shopping center research is defined by the development of **central place theory**, which is up to this day one of the most important site selection models. Christaller’s (1935) theory is built on the commercial relations between cities. Following this, Berry (1967, id. Eppli and Benjamin, 1994) examined the models of single

purpose shopping – nearest shopping center shopping trips. The model went through further development with the appearance of multipurpose shopping habits and due to the "just noticeable distance" theory, researchers (Devletoglou, 1965; Rushton, 1969; O'Kelly, 1981) reached the conclusion that customers do not always choose the nearest shopping center as a place to shop.

O'Kelly's (1981) research in Canada found that in the case of food shopping, 63% of these are multipurpose shopping trips, while the same is true for 74% of non-food shopping. Eaton and Lipsey (1982) and Ghosh and McLafferty (1984) further developed this multipurpose shopping model, involving variables, such as traveling and storage costs.

Though Eppli and Benjamin (1994) do not mention Reilly's (1931, in. Huff, 1964) gravitation theory, I consider that this would be the place for it. This model tries to describe the drawing power of shopping centers depending on the size of the centers and on the distance between the home of the customers and the center. Huff (1964) further developed this model, taking into consideration the probability factors, too. Later on, Ghosh (1986) tried to lead central place theory towards retail agglomeration theory. For this, he took into account the frequency of shopping and multipurpose shopping trip theories.

II. 3. 2. 1. 2. Retail Agglomeration Economies

The heterogeneous and homogeneous **retail agglomeration** theory is developed from central place theory and minimal differential theory. Hotelling's (1929) study about the homogeneous cluster of retailers contributed mostly to this theory, and the minimal differential theory, which also gained attention for comparison shopping theory. In the background of this theory lays the concept of customer utility maximization. According to this, not just retailers having a heterogeneous product range can benefit from clustering, choosing one site, but also retailers offering a homogeneous product range, provided that these are noticeably differentiated. Eaton and Lipsey (1979), on the basis of comparison shopping, demonstrated that these homogeneous clusters have positive effects on retailers who offer homogeneous products. Webber (1972, in. Benjamin and Eppli, 1994) developed further Hotelling's model by bringing a risk variable into it, and demonstrated that customers, in order to reduce the insecurity of finding the product they are searching for, prefer groups of retailers brought together in one place. As comparison shopping theory gained ground, many studies, researches placed more and more emphasis on customer habits (Bucklin, 1967) or on the variety and assortment of products (Nevin and Houston, 1980). Nevin and Houston (1980) demonstrated that the product

range counts for more than 50% in the changes of shopping center sales. They demonstrated also that the presence of secondary competitors within a shopping center has a positive and significant relationship with the incomes of the given shopping center and its return on asset. All these results are consistent with Hirschmann's (1978) model, who, by examining the structure of retail industry, reached the conclusion that competition is primarily concentrated between the stores on the same level, therefore stores operating on different levels do not compete with each other, but actually reinforce each other through symbiosis. Further developing this line of thought, Miller, Reardon et al. (1999) took into consideration retail structure and distinguished inter store type, intra store type and inter store categories competition, depending on whether we analyze competition between specialized stores with narrow or wide product ranges or general retailers. The effects of competition are examined through the viewpoints of two theoretical schools: the symbiotic (mutually good) and the Darwinist (survival of the fittest). In the end, they reached the conclusion that the inter type and inter category competition can have beneficial effects, i.e. smaller specialized stores stay alive and operate successfully next to big general retailers. They only associate Darwinist, negative effects to intra type competition, which they describe as a zero-sum game. According to West et. al (1985), a well-planned shopping center, with an adequate retail mix, may have positive agglomeration effects for non-anchor retailers. Eaton and Lipsey (1982) draw attention to the developers' price-competition avoiding behavior by limiting the entry of low-level retailers into the shopping center in favor of high-level homogeneous retailers, and facilitating comparison shopping in doing so.

II. 3. 2. 1. 3. Retail Demand Externalities

The theory of **retail demand externalities** developed from the main idea of retail agglomerations. According to this, lower-level / non-anchor retailers are positively influenced by customer traffic generated from higher-level / anchor retailers. As an effect of these tenant mix based retail demand externalities, customers are willing to travel to greater distances. While in case of the previously presented homogeneous retail agglomerations we talk about a two-way beneficial effect, here we deal with a one-way positive effect from anchor tenants to non-anchor tenants, which is strongly influenced by the image of the given anchor tenant. Many researchers dealt with this subject, e.g. Stanley and Sewall (1976), who developed further Huff's gravitation model by adding an image variable, or Nevin and Houston (1980), who, beside shopping center image, added also the retail / tenant mix to the model. Based on

their results, tenant mix is a very important variable in enjoying a complete shopping center experience. Eppli (1991, in. Eppli and Benjamin, 1994), Eppli and Shilling (1993, in. Eppli and Benjamin, 1994) examined the effect of anchor tenants' size and image on non-anchor tenants, and respectively on their retail type. Mejia (2000) examined the evolution of the sales of shopping center's non-anchor tenants depending on the image of anchor tenants and on the non-physical elements of the respective center. Brueckner (1993) elaborated a theoretical model for the optimal allocation of anchor and non-anchor tenants in a shopping center such as to maximize positive externalities between stores. Benjamin et. al (1992) reached the conclusion that both anchor and non-anchor tenants, who generate positive externalities and significant customer traffic, can reckon lower rental rates.

II. 3. 2. 1. 4. Shopping Center Valuation

The literature dealing with **shopping center valuation** developed from the financial analysis of rents. The valuation of shopping centers, in the classical sense, is examining the current and future incomes from current and future lease contracts, more precisely the cash flow. Thus, beside the fixed rents, percentage rents and occasionally operating costs were taken into consideration. Financial specialists and researchers dealt mostly with this field, exploring the topic of present value calculation, and trying to find the answer to the question which is more rewarding: leasing or buying? This was the born of McConnell and Schallheim's (1983) equilibrium lease payments (ELP) model. Miceli et. al. (1998) link the theory of inter stores retail demand externalities with the analysis of rents and point out that by combining base rents and overage rents we can reach the internalization of externalities between tenants. They see the leasing of shopping centers as a kind of agency problem, where several tenants coordinate their behavior through a common agent / owner. The rent analyses of Benjamin et. al (1990, 1992) examined the trade-off between base and overage rents and price discrimination during leasing. They observed that base rents are negatively linked to overage rents, but positively linked to sales thresholds, thus proving the rents used in practice, where high (low) base rents are paired with low (high) overage rents. Sirmans and Guidry (1993) examined the changes of shopping center rents depending on leased store size, shopping center life span, architectural characteristics, site, anchor tenant type and general economic data. Lately, the determination of the shopping center's business enterprise value, influenced by the intangible assets' value, gained more and more attention. During the analysis of inter store externalities, they found that the shopping center's profit can be maximized by the optimization and internalization of inter

store externalities. Mejia (2000) also found evidence that the anchor tenant's image and the shopping center's non-physical factors have a positive and significant effect on the sales of the respective center. This confirms that the professionalism and know-how of shopping center management has an additional effect to the value of shopping centers.

II. 3. 2. 2. The Main Topics of Shopping Center Research

It is worth to highlight Carter's (2009) article summing up the results of shopping center research. In this he presents the latest results from the financial and real estate fields, although the shopping center's greatest merit lies in reforming retail. He does not deny the contributions of retailing, marketing and geography to the empirical real estate research, but he believes that the shopping center operation literature relies mostly on financial and real estate research. In the center of the article, as in the center of shopping center success is the optimal utilization of retail externalities. On this basis, he mentions eight main topics, and presents the new research results linked to them. The topics are: (i) lease fees and price discrimination, (ii) determinants of rents, (iii) space allocation, (iv) agency theory aspects, (v) store location, (vi) spatial autocorrelation, (vii) juxtaposition of different non-anchor store types and (viii) business enterprise value. The first topic deals with base versus overage rents and the tradeoff between them. The second deals with the factors determining rents, such as drawing power (customer traffic), architectural design features, site, purchasing power, the age of the center and market factors. If so far rental prices were in focus, then in the third topic store allocation of different tenant types is examined through Brueckner's (1993) study. In the moment developers appear in the equation alongside tenants, we should take into consideration agency theory aspects as well, where the goal of developers is to maximize shopping center profits from the sales of individual tenants and through their positive externality effects on other tenants. Developers, acting as common agents, moderate and control the activities related to tenants. After the determination of the space to be leased, the next topic is undoubtedly space allocation and juxtaposition, with special regard on the shape of shopping center and the tenant type (anchor or non-anchor tenant). Turning this around, we may determine interesting tenant characteristics depending on where they are located (spatial autocorrelation); and from here we are just one step away from the analysis of non-anchor tenants clustered or dispersed juxtaposition, which is the seventh topic. The business enterprise value of shopping centers is without doubt a topic which deserves special attention both from the financial and real estate field. The maximization of business enterprise value is

achievable through the adequate utilization and optimal internalization of retail demand externalities. Though these topics play a really important role in shopping center research and theory, it would lead to severe short sightedness to limit ourselves just to them. If we observe more closely these topics, except the business enterprise value, all other topics deal only with the tenants of the shopping center, i.e. they only discuss the questions related to Tenant Mix. This is exactly why this approach can hardly lead to a comprehensive, general shopping center theory.

II. 3. 3. Ecomallogy

A very interesting and attention-worthy shopping center theory is that of Yiu (2007), to whose name the term Ecomallogy is related. This is practically the combination of Mall theory and Ecology. In my opinion, this theoretical approach, among all theories enlisted so far in the literature, is the most suitable, capable of providing an understandable and comprehensive framework for shopping center theory. Although concepts and theories taken from ecology are very well applicable in this field, Yiu's (2007) interpretation is still not completely correct or exact, as it lacks basic retailing and real estate concepts and phenomena. The starting point of his theory is the view of shopping centers as ecosystems, platforms, where predators (retailers) and preys (customers) coexist and co-evolve. Developing this idea further, retailers are carnivores, returning customers – herbivores, customers – decomposers and the facility managers – producers. Later, Yiu (2007) views shopping centers as independent beings, which have their own "shopping mall DNA" (Underhill, 2004, p. 143 id. Yiu, 2007). This DNA is composed of elements such as the six success factors, facilitating strategic positioning, as defined by Yiu and Yau (2006) and which are presented in Figure 15. These factors are: site location, architectural design, promotional activity, property management, leasing strategy and terms of tenancy.

In the light of all these, we must ask the question: is the shopping center an ecosystem (platform) or a living being? Whichever it may be, it can be admitted that it must be composed of organic elements, such as Tenants AND Customers. And here I would like to draw attention especially to the Customers, who should have an important place not only in the ecosystem, but also in the DNA, the genes of the shopping center. On the other hand, it is not useful to see them as preys, because, if they do not find a tenant worthy of it, they will not purchase from them, and the tenant will eventually die out. Moreover, we could even say that

the situation is quite the opposite, as shopping centers are natural habitats for Tenants, retailers, they do not hunt Customers, rather Customers hunt Tenants and they decide where they spend their money. Reason why I think, that not only Tenants, retailers can make up species, but customers too. The survival and coevolving of the ecosystem depends on the symbiosis of all these species. Developers and center managers are researchers working in a laboratory, trying to influence the respective gene pool and evolution. Nevertheless, theories regarding species distribution, optimal colonization and extinction make Tenant Mix research (Yiu and Xu, 2012) a bit more interesting, after all, we can consider the shopping center, as ecosystem, to be an island, where the optimal distribution of species fighting for survival can be studied.

Figure 15.: Determinants of a successful mall positioning strategy



Source: Yiu and Yau (2006)

If we are able to abstract from the view represented by Yiu (2007), we have to admit that Yiu and Yau’s (2006) strategic positioning model is pioneering, as it draws attention to the fact that the analysis of shopping center success is a special and very complex field. The strategic positioning of shopping centers is a multidimensional task, which requires the strategic fit of the factors influencing their success. Furthermore, they practically unconsciously contribute to the developing of the shopping center as Product framework, since we can’t speak about the strategic positioning of a living being or ecosystem, this only poses a challenge in case of companies, brands or products on a given market. Accordingly, Yiu and Yau (2006) mention two markets: the market of retailers and customers, on which the positioning should be carried out in parallel; and they ignore the interests of owners / developers / investors, or

which the shopping center is a real estate product, finished good, which they offer for sale to various investors. Péntzes (2007) approaches the question of shopping center positioning from the functions of shopping centers and she also reaches the conclusion that the task of these is to satisfy the needs of (i) customers, (ii) tenants and (iii) investors. In spite of this, when examining the market positioning of shopping centers, she only distinguishes between two markets: the consumer market, where they are positioned for the customers, and the organizational market, where they are positioned for retailers and investors alike. I do not find this classification appropriate. The successful positioning of a shopping center has at least three dimensions: the dimension of customer, retailer and investor markets. Of course, there are interactions between these dimensions, just as there are interactions between the factors facilitating strategic positioning. These should be used in a coordinated manner.

Going back to Yiu's (2007) Ecomallogy theory, although we are not talking about the most appropriate theory, this is still the first note-worthy attempt of defining the shopping center as a whole, and not only dealing with one specific aspect of it. On the other hand, the concepts and phenomena derived from ecology give an interesting flair to the results of shopping center research so far, e.g. Yiu and Xu's (2012) article about Tenant mix.

II. 3. 4. Shopping Center as Utopia

Maclaran and Brown's (2005) Utopia theory was also born from the paradigm of shopping center as Place. They tried to combine the Utopia literature with their shopping center knowledge and conducted an ethnographic study of an Irish Festival Center's customers. In the center of their theory stands a PLACE, a special place that is Utopia. For defining this, they go as far back as Saint Thomas More, who coined the term in 1516 from the Greek "outopia"(nowhere) and "eutopia" (good place) and which means nowhere a good place. Starting from this place and space theory, the festival center is a utopian marketplace, which is consumed by retailers and customers through the following activities: sensing displace (being anywhere), creating playspace (buying uniformity) and performing arts-cape (betraying culture). Thus, postmodern consumer culture intertwines with contemporary utopianism in festival center-type of shopping malls. With a bit of abstraction, their theory is applicable to shopping centers in general. The shopping center as an artificially created space does indeed differ from spaces created naturally, and no matter how many shopping center advertisements or promotional materials we see, they all try to provide the feeling that this is a good place

(sometimes unbelievably good). Space displacement must be sensed by customers and they have to act accordingly. In this utopian space, both playspace and games are delimited: we can buy goods, consume services or let be entertained, but we can also engage in social games. Performing arts-cape versus betraying culture is the eternal dilemma of conceiving the architectural design of the center and of shaping it further. These utopian marketplaces "are not only meaningful, they are metamorphic" (Maclaran and Brown, 2005, p. 314), as it goes through continuous transformation between those who create the space and those who consume and experience space.

Maclaran and Brown's (2005) shopping center theory represents undoubtedly a very postmodern and truly unique approach. Considering its psychological aspects, it can be linked with Yiu and Yau's (2006) idea of positioning the shopping mall on the customer market, because here everything is decided in the customers' heads. (Ries and Trout, 2011). Its major drawback is that it redirects shopping center theory towards philosophy instead of practical sciences.

II. 4. New Shopping Center Theory – Paradigm Shift

This subchapter is a brief introduction to the new general shopping center theory. In order to define this, first we need to place the already presented shopping center theories within the fields of sciences. This will allow the shift from the PLACE paradigm, which has been dominant up till now, towards the new PRODUCT paradigm. This paves the way for the initial presentation of the new general shopping center theory.

II. 4. 1. Placing shopping center theory within the field of science

The formulation of a new comprehensive and general shopping center theory requires first the placement of shopping center theory within the fields of sciences. From the research results presented so far, we can conclude that the *shopping center theory is developed by the melting of several fields of sciences and is still under development today*.

Unfortunately, in most of the cases researchers analyze only a small part, aspect 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. Accordingly, definitions,

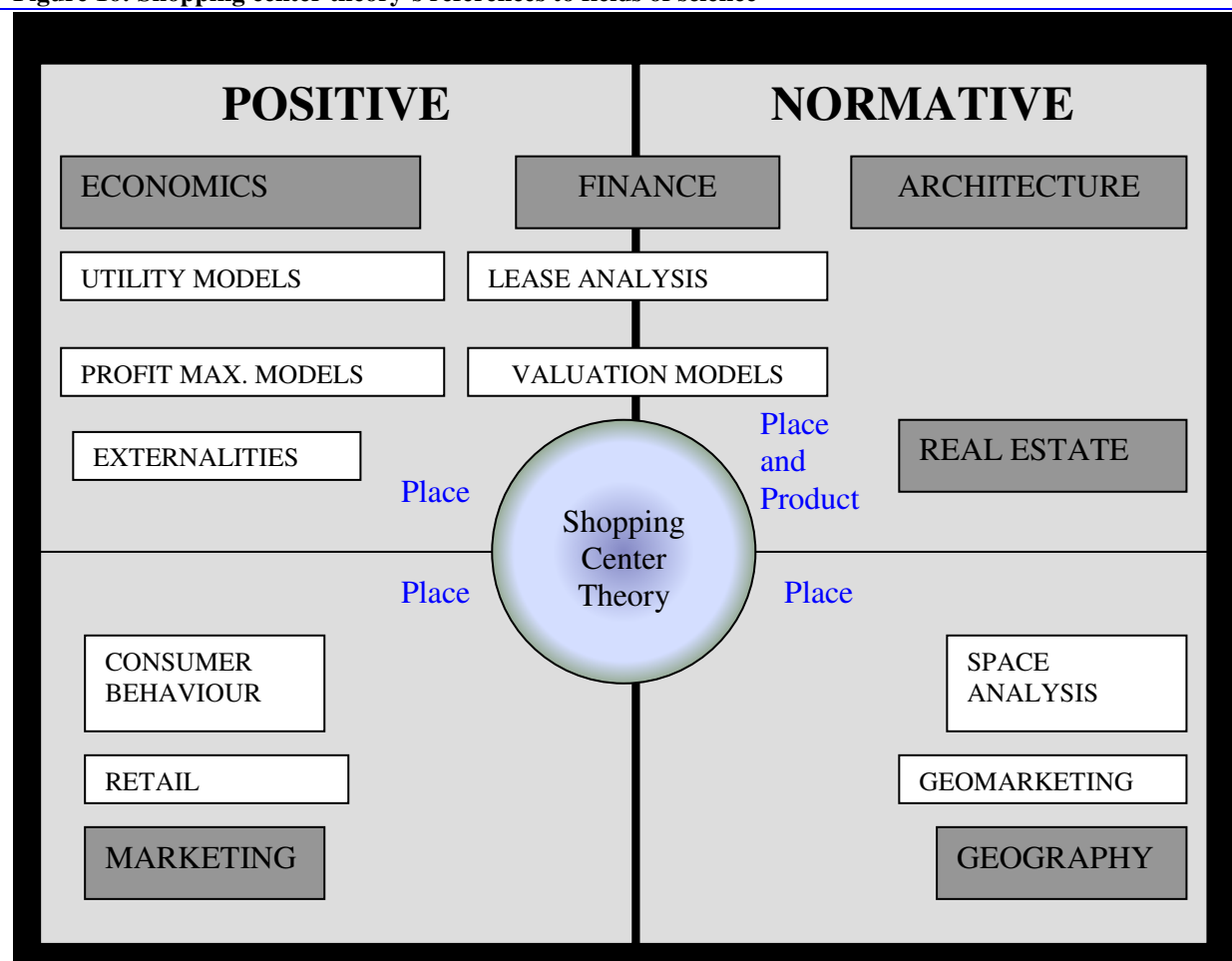
notions and terms are in constant change, and though some principles and general rules have been already fixed, there are still many questions to be answered. Another reason for the practice-following behavior of shopping center theory is its narrow field of applicability. Therefore, only professionals of the real estate industry are interested in the questions regarding shopping centers, to the extent that they have decision support functions. 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 16, the shopping center theory is connected to several fields of science through a number of strands. Therefore, it is obvious that it's a 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 this is 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 oriented 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 retailing 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.

Figure 16: Shopping center theory's references to fields of science



Source: based on my own observation

Table 11 summarizes these topics, which represent also the topics of the new general shopping center theory and of the present dissertation. The literature classification 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.

Table 11: The central topics of dissertation and related literature

Central topic	Field of science	Approach	Journals	Authors
Site selection, Location	Economics	Customer utility, risk / insecurity	Journal of Marketing, European Retail Digest, Journal of Real Estate Research, Expert systems	Christaller (1935, id. Eppli & Benjamin, 1994), Huff (1964), Berry (1967, in. Eppli és Benjamin (1994), Oruc (2005), Benyon et al. (2002)
	Geography	Spatial analysis	Journal of Targeting, Measurement and Analysis of Marketing, Ivey Business Journal	Thompson és Walker (2005), Jones és Pearce (1999)
	Real Estate	Site analysis	Real Estate Issues, Journal of Property Management	Meyer (1988), Williams (1994)
	Marketing	Competition	International Review of Retail, Distribution and Consumer Research, Journal of Marketing, Journal of Retailing	Hotelling (1929), Hirschmann (1978), O'Kelly et al. (1993), Miller, Reardon et al. (1999),
		Geomarketing	Marketing Intelligence & Planning, Journal of Marketing	O'Malley et al. (1995), Inman et al. (2004)
Customer mix	Marketing	Customer values, attitudes and behavior	Journal of Retailing and Consumer Services, Journal of Retailing, Journal of Consumer Research	Wagner és Rudolph (2010), Shim és Eastlick (1998), Babin et al. (1994), Holbrook és Hirschman (1982), Jackson et al. (2010), Diep and Sweeney (2008)
		Shopping types, trips and strategies	Journal of Retailing and Consumer Services, Journal of Retailing, Journal of Marketing Research, Journal of Business Research, Marketing Science, Journal of Consumer Research,	Arentze és Timmermans (2001) Popowski és Timmermans (2001), Arentze et al. (2005), Oppewal és Holyoake (2004), Wesley et al. (2006), Manchanda et al. (1999), Brooks et al. (2004), Suarez et al. (2004)
Tenant, retailer mix	Marketing	Tenant selection, mix	Interfaces, Computers, Environment and Urban System, The Service Industries Journal, International Journal of Retail &	Bean et al. (1988), Borgers et al. (2010), Brown (1992), Kirkup és Rafiq (1994), Bruwer (1997), Yiu és Xu (2012), Vitorino (2012)

			Distribution, Property Management, European Journal of Marketing, Journal of Marketing Research	
	Real Estates	Tenant space allocation and juxtaposition	The Service Industries Journal, Journal of Real Estate Research, ICSC Research Quarterly, Journal of Retail & Leisure Property	Brown (1992), Miceli et al (1998), Carter és Vandell (2005), Brueckner (1993), Baker (1999), Rosiers et al (2005), Yiu et al (2008)
	Economics	Retail externalities	Journal of Real Estate Finance and Economics, The Journal of Real Estate Research	Brueckner (1993), Miceli és Sirmans (1992), Miceli et al (1998) Benjamin et. al (1990, 1992), Eppli és Shilling (1993), Mejia és Eppli (2003)
Shopping Center valuation	Marketing	Shopping center image	Journal of Business Research, Journal of Property Investment & Finance	Finn és Louviere (1996), Kupke (2004), Chebat et al. (2006), Chebat et al. (2009)
		Drawing power, patronage	Journal of Retailing and Consumer Services, Journal of Retailing, Journal of Marketing, Journal of Business Research	Teller és Reutterer (2008), Pan és Zinkhan (2006), Inman et al. (2004), Wakefield és Baker (1998), Babin és Darden (1996), Jackson et al. (2010), Massicotte et al. (2010)
		Customer value, tenant value	Journal of Retailing and Consumer Services, Journal of Business Research	Chebat et al. (2009), Hedhli és Chebat (2009), Yiu és Cheong Ng (2010)
	Finance	Rental income analysis	The Journal of Real Estate Research, Journal of Real Estate Finance and Economics	Gerbich (1998), Miceli et al (1998), Brueckner (1993), Chun et al. (2001), Rosiers et al (2005)
	Real Estate, Marketing and Finance	Sales analysis	Journal of Real Estate Literature, Journal of Real Estate Finance and Economics, The Journal of Real Estate Research, European Journal of Operational Research	Mejia és Benjamin (2002), Brueckner (1993), Chun et al. (2001), Pauler et al (2009)

Source: own compilation

II. 4. 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 (island) 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 still 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 solid grounds. 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 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 also a *common area* giving opportunity to satisfy social needs, by 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. 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. 4. 3. New 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 components and their joint functioning.

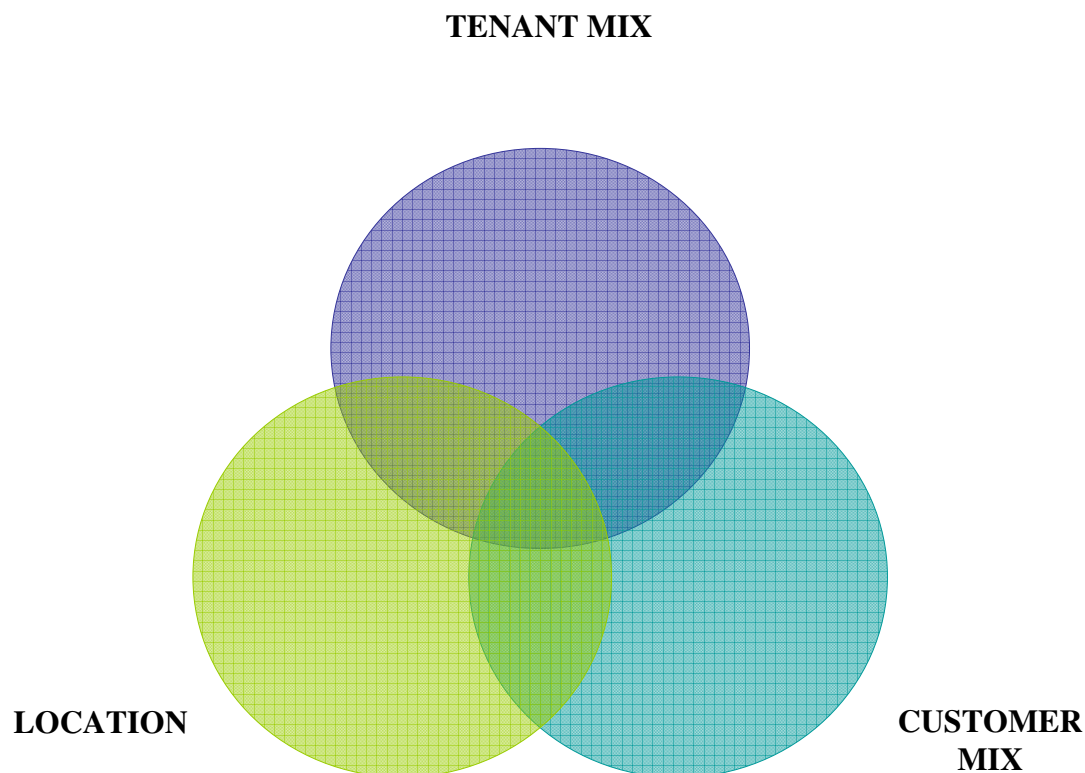
According to the general shopping center theory the composing elements of the shopping center are: Location, Customer Mix and Tenant Mix. From the combination of these three elements the shopping center is developed, and the success or failure of the shopping center is depending on the utilization and 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 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. Hence, it is recommended to select tenants according to these. This is also a reason why customer mix analysis is important, which, beside the traditional demographic, socio-economic analysis, only recently got attention in the literature. Thus, it can be observed that these main composing elements not only influence each other in chain, but are also interacting and in best cases are coevolving.

Figure 17: The shopping center's composing elements.



Source: own compilation

In the next chapter, I shall present the relevant literature dealing with the composing elements of shopping centers and the valuation of their functioning, in order to describe in detail the new, general shopping center theory and highlight its main correlations.

III. The Composing elements and evaluation of the Shopping Center as Product

In this chapter, shopping center literature will be presented along the four central subjects featured in the placing of shopping center theory within the fields of sciences. Accordingly, the four subchapters will be: Location, Customer Mix, Tenant Mix and Shopping Center Valuation.

III. 1. Location, Location, Location

The repetition above is not a mistake. This is a commonly used expression in the real estate industry, which is linked to William T. Dillard, the founder of Dillard's department store chain. The precise quote goes like this: „There are three secrets to real estate: Location, location, location.” (Pockell and Avila, 2004, pg.7) Unlike the traditional approach, I use Location, instead of site, as hypernym, which beside site selection and related topics, includes other physical factors, such as building, architectural solution, parking space etc. and the related intangible characteristics, for instance, atmosphere.

III. 1. 1. Site Selection, Site Analysis

Firstly, it is worth distinguishing between site selection and site analysis. Meyer's (1988) *real estate* approach provides a good basis for this; he distinguishes between the concepts of site selection and site analysis and draws attention to the fact that, in many cases, site analysis is the more important one for practitioners.

Table 12.: Site selection vs. Site analysis

Criterion	Site Selection	Site Analysis
Focal Point	The analysis of a whole area or every possible site	The analysis of the given site
Aim	To find out how many stores can survive on a given area and how they should be placed	To find out whether a store will be successful on the given site

Main Objective	The maximization of the profitability of all stores	The forecast of sales that can be attained by a store on the given site
Detail	Uses averages to analyze the strong and weak points of similar sites	Analyzes the strong and weak points of a given site.

Source: Meyer (1988)

We distinguish between three main analysis directions in **site selection** (O'Malley et al 1995). One of these is (1) based on mathematical models, mostly done with the help of regression analysis and of gravitation models, for instance models based on Economics and consumer utility. Beside this, we distinguish between (2) checklist and (3) analogue lines of site selection. In both cases, geomarketing plays a major role.

(1) site selection based on mathematical models

From the mathematical models of analyses originating from Economics, regarding site selection, we mention Reilly's (1931, in. Huff, 1964) retail gravitation model and Christaller's (1935) central place theory. Reilly (1931, in. Huff, 1964) tried to measure the number of purchases between two big cities by looking at the size of their populations and the distance between the cities and has found the breaking-point where retail between to the cities splits into two. Berry (1967, in. Eppli and Benjamin, 1994) further developed this model to define retail zones, areas. Finally, with the contribution of Huff (1964) was born the model, which is still used by many to determine the catchment area of a given shopping center.

Figure 18: Huff's drawing power model

$$P_{ij} = \frac{S_j / T_{ij}^\lambda}{n \sum_{i=1} S_j / T_{ij}^\lambda}$$

Where:

P_{ij} = the probability that a customer from i retail area will purchase from j site

S_j = the size of the shopping center found on site j

T_{ij} = the travel time needed for the customer from i retail area to reach the shopping center on site j

n = the number of shopping centers, sites

λ = an estimated parameter, it measures the effect of travel time on different shopping trips

In practice, usually a three-level catchment area is determined: primary, secondary and tertiary catchment area (Levy and Weitz, 2008). The majority, i.e. 50-70% of the shopping centers customers come from the primary catchment area, only 10-20% come from the secondary catchment area, while the tertiary catchment area is so broadly defined that the remaining percentage of customers is attributed to it.

Another popular model measuring attraction is the multiplicative competitive interaction model developed by Nakanishi and Cooper (1974), and by Ghosh and Craig (1983), the peculiarity of which is that it measures at the same time, the drawing power of several competing shopping centers operating in the same area. Mejia (2000) and Oruc (2005) use this model, too. In terms of **marketing and competition**, O'Kelly et al. (1993) also sees site selection as a simplified version, and instead recommends broader analysis, in which the center's location analysis or site selection is not done only taking into consideration own stores, but also the stores of competitors. Thus, not only the own cannibalistic effects can be filtered out, but the effect of competitors on own sales can be measured as well. Accordingly, they also develop their own competitive impact models (CIM) based on gravitation models.

A relatively new site selection model, again based on a mathematical formula, is the destination choice model by Benyon et al (2002), which was named DST after Dempster (1967, 1968, in. Benyon et. al, 2002) and Shafer (1976, id. Benyon et. al, 2002), whose theories were used in developing it. In this model, individuals choose a destination from a given stock of retail units, depending on variables as distance and other sociological factors.

(2. and 3.) checklist and analogue site selection

As I already mentioned, geomarketing and marketing geography play an important role in checklist and analogue site selection. In the words of Sikos T. and Hoffmann (2004) **geomarketing** „is an analysis method based on geographical information system and formed within the limits of marketing geography.” It evolved practically from the combined use of the Geographical Information System (GIS) and Marketing Information System (MIS), making it possible by this, among others, to display various marketing information on geographical maps.

Jones and Pierce (1999) see the development of Geographical Information System as deriving from four basic truths of **marketing geography**:

- *demand changes in space* – these changes can be measured along factors such as: income, number of households, spending habits, lifestyle
- *supply changes in space* – this is mostly interesting in the case of analyzing competitors and calls for the measuring of variables such as: price, service, product availability, product range etc.
- *demand and supply points naturally do not intersect in space* – this is why it is important for retailers to surmount spatial and distance barriers, which, by understanding travel habits and the functioning of retail areas, can be used in logistics and in the supply chain
- *most of the business activities need space, which is costly* – thus, it is not only important to own or lease real estate, but also to utilize it optimally .

Thompson and Walker (2005) analyzed the applicability of the geographical information system in building business, commercial networks and drew attention to the fact, that the use of this provides the given company competitive advantages.

For practitioners of the real estate industry, the three fields that are important for **site analysis** were already mentioned at the Search stage of the shopping center life cycle. These include the commercial, legal, geotechnical and urbanistic analyses of the potential site. The commercial analysis itself includes the models that were already mentioned during site selection. From the legal point of view, the ownership of the respective site is thoroughly examined, and beside this, the ancillary etc. rights are analyzed and the related risks examined. From the geotechnical point of view, the characteristics of the soil of the site are analyzed, because this can have important effects on the costs of construction. The same is true for the urbanistic analysis; which can mean some limitations or additional costs from an architectural point of view.

But in the case of shopping malls, Location means more than site selection or site analysis. It also contains the other physical factors related to shopping centers, such as the building itself, parking lots etc. These will be presented in the next subchapter.

III. 1. 2. Other Physical Factors

The success of shopping centers is greatly influenced by other physical factors beside site selection. These other factors mostly refer to the architectural and design features of the mall that is to be built on the respective site. With the appearance of newer shopping center types, such as life style centers or hybrid centers, these other factors gain more and more attention and the extent of their effect is said by many to be at least equal to that of the site. Thus, a poor architectural solution is only moderately compensated by a great site, while a poor site can be greatly improved by an interesting and useful architectural solution. Because these are quite difficult to measure, and often only lead to the typifying of the shopping centers (Sikos T. and Hoffman, 2004) or to the categorization based on anchor tenants (Mejia, 2000), the literature deals very little with this issue. Since the other physical factors determine greatly the atmosphere of shopping centers and the evaluation of shopping centers by customers, I see it necessary to discuss these factors, too.

Kramer et al (2008) gives us a clear presentation of these factors. Accordingly, after site selection, the most important is the structural analysis of the area in terms of *accessibility and visibility*. Thus, in terms of *spatial planning*, the most important issues are:

- 1. *adequate traffic planning* – connections to main roads, planning of side roads, in terms of car and pedestrian traffic and public transport.
- 2. *planning of the parking area* - because this is the first and last meeting point of most customers with the respective mall, the parking should be made as pleasant as possible in terms of the number, the size and allocation of parking spaces and in terms of planning of the interior traffic.
- 3. *planning of the green area* – usually, creating green belts is part of the official regulations; the more attractively they are conceived and maintained, the more likely that customer perceptions of the shopping center are improving.

In terms of the building itself, we distinguish between exterior physical factors and interior factors relating to architectural structure as well as the common factors. Within these, there are many other factors to pay attention to:

- 1. ***exterior physical factors:***
 - o *building materials* – the more expensive materials (glass – steel, brick, wood etc.) are used, the more highly can the shopping center be positioned, in comparison to traditional metal structure.

- *entrances* – the recommendations for these differ, of course, depending on the type of the shopping center (open-air or closed), but these also have an aesthetic role, not just a functional one.
 - *canopy* – it is especially important in the case of open-air shopping centers, they facilitate the better utilization of store fronts and shield the customers from bad weather.
- **2. interior, structural factors:**
- *The structural design of the shopping center* – the most common form is the strip (I-, L- and U-shaped), the enclosed "mall" type, which has many forms and can be cluster- or city-like.
 - *Retailer, tenant areas* – areas made for tenants, retailers, which have to have store fronts of the appropriate size.
 - *Shopping streets, common areas* – their design should serve the comfort and entertainment of the customers.
 - *One vs. multi-level* – this is quite an important question, as unfortunately, in most cases, it is not economically feasible to plan and develop a one-level shopping center, while in case of multi-level shopping centers the challenge is to get customers to visit the upper levels.
 - *Foodcourt* – it is a special area in shopping malls, which besides accommodating fast-food restaurants, is also a special form of common area, in which tables, benches and chairs are placed where customers can serve food, talk and socialize. These are usually placed in central places or upstairs. In terms of drawing power, their combined power is equal to that of an anchor tenant.
- **3. common factors:**
- *Legends, signs* – these have a double function, besides giving an opportunity to advertise; they provide basic orientation information and ensure adequate traffic in the shopping center.
 - *Lighting* – this is particularly important due to the impact on customers. In case of closed centers too, natural day lighting is preferred, while in open-air centers night-lighting has come to have a greater role.

- *Music* – in most cases music can be heard inside the shopping center and on the parking area too, this contributes greatly to the creation of the shopping center's atmosphere.

All these other physical factors have a great effect on the choosing of a shopping center, because shopping centers are evaluated and perceived based on these factors and because these very often have an effect on shopping trips and also on the situational dimension of shopping.

III. 2. Customer Mix

Customer mix is the second basic component of the shopping center as Product, and represents the second central topic of the general shopping center theory. Though in the traditional approach, the role of customers is exhausted only in visiting shopping centers and purchasing from the retailers situated in the centers. But this is a rather narrow mindset. It is worthier to look at customers in terms of value creation, or even second generation (web 2.0) e-business models. Based on these models, customers and users play quite an active role in the value creation process (Hakansson and Snehota, 1995) and take part in creating the value itself. Starting from this, there is no doubt that the customer mix is very important in the creation of the shopping center as Product. Even if, they take part only indirectly in the process of shopping center development, this situation changes in the stage of operation and center management, when they play a very active role. But in order to utilize and internalize optimally this role of the customers during center management, it is necessary to view the Customer mix as an important component already in the development stage. This is exactly why, in the next subchapter, beside the general shopping characteristics, I'll present other characteristics and phenomena, relevant for shopping centers, such as various shopping types, shopping motives and shopping trips. Knowing these is essential for creating shopping center patronage and a shopping facilitating atmosphere. While general shopping characteristics play a role mostly in shopping center site selection, shopping habits have a greater effect on the other physical characteristics of shopping centers and the creation of its Tenant mix.

III. 2. 1. General Shopping Characteristics

The general shopping characteristics comprise those basic variables according to which shoppers can be categorized in certain homogeneous groups, in other words, those which are used for market segmentation. These basic variables can be of regional, demographic, social and economic origin. Nowadays, behavioral, psychographic and life style characteristics are also taken into consideration in market segmentation, because these describe the customers' value system, attitudes and motives more accurately. But retrieving the data regarding these variables is much harder than retrieving the already mentioned regional, demographic, socio-economic etc. characteristics. This is why these demographic, socio-economic characteristics are easily systematized by marketing information systems, the combination of which with geographical information systems provide basis for geomarketing. Thus, they have a very valuable information source in order to provide a proper foundation for the already presented site selection analysis. Their significance is, without doubt, very important for the commercial analysis of a potential site. Table 13. presents these basic variables and their sub-variables.

Table 13.: General shopping characteristics

Regional	Demographic	Socio-economic	Behavioral
Type of residence	Age	Profession	Use of product
Region	Gender	Level of education	Brand loyalty
Size of the settlement	Family size	Income	Personality traits
	Family life cycle	Life style	
	Nationality		
	Religion		

Source: Bauer and Berács (2006, p. 53)

Unfortunately, the effect of these characteristics on shopping center patronage is minimal. According to the results of Inman et al. (2004), geodemographic factors explain only 2% of the patronage of various commercial channels. In contrast, the customer associations and perceptions related to commercial channels accounted for 43%. This explains the importance of other physical factors within Location, and reveals why it is very important to know customer shopping habits and other characteristics that influence the image and evaluation perceptions about shopping centers.

III. 2. 2. Shopping Values, Attitudes and Behavior

Understanding shopping values, attitudes and behavior has a positive effect both on the planning of the other physical factors of the shopping center and on the creation of the right Tenant Mix. The customers' shopping values highly influence their attitudes related to shopping and the place of shopping, and, in turn, these effect on the shopping behavior of customers. This is why, in the followings, relevant researches dealing with shopping values, attitudes and behavior will be presented, which provide important information related to shopping center theory.

The utilitarian and hedonic values delimited by Babin et al. (1994) greatly affect the utilitarian and hedonic values related to products or shopping trips as perceived by the customers. These have an effect on attitudes towards shopping centers (Jackson, 2010; Allard et. al, 2009). This is why, depending on what value systems the core customers, target audience of the shopping center have, the other physical factors of the center should be fitted to the utilitarian and / or hedonic values. For instance, it can be seen form Allard et. al (2009) results, that if mainly higher-income customers live in the catchment area of the shopping center, then the center should emphasize utilitarian values and vice versa. Shopping values also influence customer behavior on spending or regarding shopping center patronage (Babin and Darden, 1996), the evaluation of tenants and the activities carried out within the shopping center (Shim and Eastlick, 1998), as well as the time spent in the shopping center (Brown, 1992) and even the path-finding processes (Chebat, 2005). All these results carry valuable information from the point of view of shopping center planning and development, which include architectural and design planning of the shopping center as well as its commercial planning and Tenant Mix selection.

III. 2. 2. 1. Shopping values

Holbrook and Hirschman (1982) dealt with the analysis of shopping values, attitudes and behavior. They emphasized the need for the explanation of irrational shopping, instead of the classical rational shopping, because the fantasies, feelings and entertainment related to the "shopping experience" are very significant.

Babin et al.'s (1994) definition of shopping values also relies on Holbrook and Hirschman's (1982) line of thought. Accordingly, in the generally accepted definition, we can distinguish between two different dimensions of shopping values:

1. utilitarian or utility-based – in this case shopping is a purposeful activity, product-oriented shopping, and the shopping value is created by succeeding in the act of purchasing the desired product. Thus, this is, in fact, the rational dimension of shopping.

2. hedonic or pleasure-based - in this case the goal is not the purchase of a certain product, but the shopping itself and the feelings, joy, pleasure resulted from the shopping experience constitute the shopping value. Accordingly, this is the emotional dimension of shopping. In case of impulse shopping, for example, the need is rather shopping itself than the purchased product; therefore, in their case the hedonic shopping values will be on a higher level than utilitarian shopping values.

According to Babin et al. (1994), both dimensions can be found during shopping, but these shopping values are present in different degrees. There are some special cases, exceptions, where both dimensions have an equally high value, this is the case, for instance, of bargain purchasing. In cases like this, the utilitarian value is present in the purchasing of the desired product and the hedonic value comes from the bargain nature of shopping, because this creates "smart shopper feelings".

Diep and Sweeney (2008) examined the relation between *the value of shopping trips, product value and store value*. In case of all three values, they distinguish between the utilitarian and hedonic dimensions. Practically, they examined to what extent the utilitarian (hedonic) product and store value explains the utilitarian (hedonic) value of shopping trips. Their results proved that the effects of utilitarian or hedonic values of stores surpassed by far the effects of utilitarian or hedonic values of products. During further research, they observed that utilitarian value related to product performance reached a higher level in men, while for women the utilitarian value of stores proved to be more important. In case of shopping values hedonic dimension counts more for women, than for men. Their results highlight important connections regarding shopping center evaluation and patronage.

These utilitarian and hedonic shopping values also influence shopping motivation. As it can be seen from Wagner and Rudolph's (2010) hierarchical shopping motivation theory, customers are influenced by:

1. Purpose-specific motives: task performing (utilitarian) and recreational, entertainment (hedonic)
2. Activity-specific motives: efficient shopping (utilitarian), sense stimulation, inspiration, reward, gift shopping, socialization and special offer-shopping (hedonic)

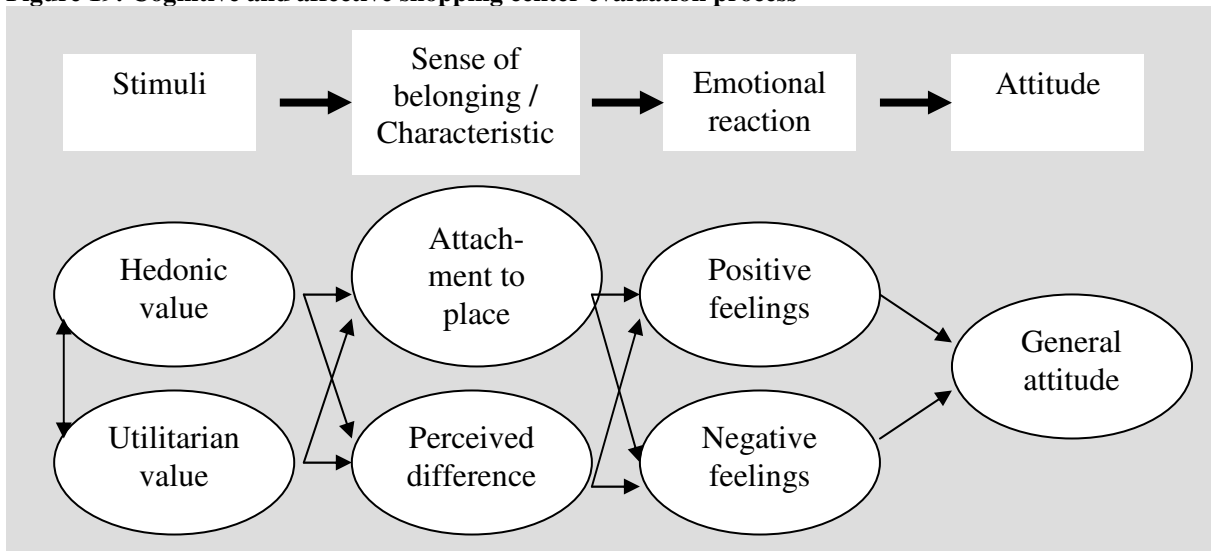
3. Retail-specific motives: service convenience, store atmosphere, product assortment innovation, product assortment uniqueness, staff friendliness (hedonic) and price levels (utilitarian).

These purpose- and activity-specific motives, as well as shopping values, mainly influence shopping attitudes and behavior and direct attention towards the object of shopping. Retail-specific motives play an important role in the selection of the place to shop and this is why we come across these factors in the analysis of shopping center drawing power and patronage.

III. 2. 2. 2. Shopping attitudes

Jackson et al. (2010) analyzed the attitudes regarding shopping centers according to their characteristics and their utilitarian and hedonic values. During the attitude analysis of shopping center characteristics, they defined three main factors: hygiene factors, convenience factors and entertainment. They used age and gender as moderating variables. Based on their results, we can say that there is no difference in the valuation of shopping centers by different age groups. Regarding gender, they observed, just like Diep and Sweeney (2008), that hedonic shopping values are higher in women, therefore, hygiene and entertainment factors also have higher values for women.

Figure 19: Cognitive and affective shopping center evaluation process



Source: Allard et al. (2009)

Allard et al. (2009) examined the general evaluation, perception of shopping centers, the attitudes related to them depending on utilitarian and hedonic values. According to their

results, the shopping centers' hedonic values are reinforced by cinemas, restaurants, decorations and other sensing-experience providing characteristics, while utilitarian values can be achieved if they facilitate the purchase of various products, thus pay special attention to tenant and profile mix. They used income as moderating variable. Their results drew attention to the fact that between the perceived differences, attachment to place and general attitude there is a direct, positive and significant relation. As previous results had also shown, they proved as well that low-income customers prefer the hedonic values of shopping centers, while utilitarian values are more important to higher-income customers. Therefore, in the later case the emphasis is on the adequate tenant and profile mix within the shopping center. This is perhaps also due to the fact that they have higher income and are able to spend more on entertainment (hedonic values) in other environments, too.

III. 2. 2. 3. Shopping behavior

Babin and Darden (1996) examined the effect of customers' negative and positive moods on the amounts spent during shopping and on their satisfaction related to the respective shopping center. They found that positive mood has a strong, significant and one-way effect on spending: one unit of mood improvement resulted in a 12% increase in spending. Negative mood does not influence spending while shopping. Spending, as a mediating variable in measuring satisfaction related to shopping centers, did not prove to be significant, but negative mood decreases patronage in a much higher degree, than positive mood increases it.

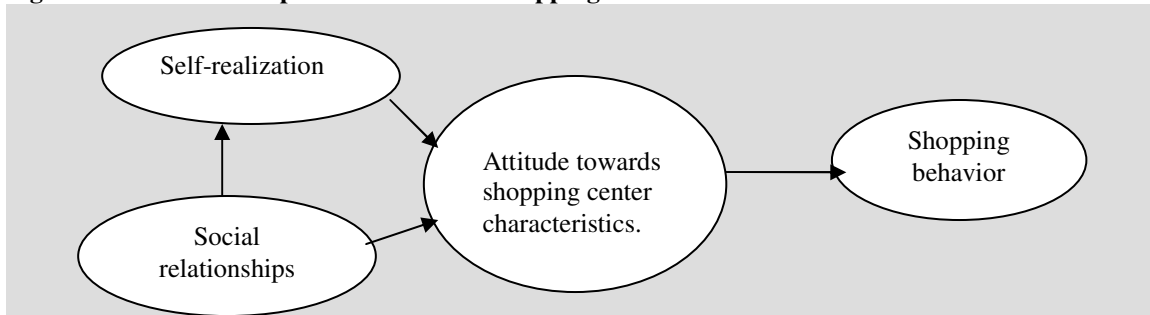
Table 14.: The effect of the customers' mood swings

Mood increase	SPENDING	SATISFACTION
POSITIVE	Is accompanied by increasing spending	Is accompanied by high customer satisfaction
NEGATIVE	Has little effect	Has the most effect on customer satisfaction

Source: Babin and Darden (1996)

Shim and Eastlick (1998) examined the effect of personal values on attitudes and behavior towards shopping centers. Figure 20 presents their theoretical model.

Figure 20: The effect of personal values on shopping behavior



Source: After Shim and Eastlick (1998)

They tested their theory on a regional shopping mall. Based on the results, we can conclude that both personal values have a significant impact in creating a favorable attitude, which, in turn, influences shopping behavior in the shopping center. According to this, shopping behavior is influenced depending on how much the characteristics of the shopping center promote or are in accordance with the personal values of customers. In case of customers with a high value of social relationships, there is more emphasis on the social interaction-facilitating function of shopping centers. Thus, they value the food court, restaurants, common areas, the cinema and other entertainment facilities more highly. In contrast, customers with a higher value of self-realization are more focused on tenant and profile mix which is in concordance with their self-image.

Chebat et al. (2005) analyzed the path-searching processes of customers depending on shopping values, gender and prior knowledge. The path-searching processes of customers are, undoubtedly, an interesting and important field for shopping centers. By knowing this, customer traffic can be better planned within the shopping center and it can also have a significant effect on tenant allocation. As regards of shopping values, the representatives of the utilitarian values are supporters of problem-solving, therefore, in their path-searching processes, they use various signs and ask people more often. In contrast, the representatives of hedonic values go with the tide and enjoy the experiences provided by the shopping area. In spite of this, they find that passive path-searchers, who rely mostly on signs and prior information, move around less and have lower hedonic values, while active searchers have higher hedonic values. Brown's (1992) results provide some interesting additional information, according to which, from the average of 50 minutes spent in shopping centers,

customers spend about 20 minutes on getting around in the shopping center, with social interactions, greeting friends and window shopping.

III. 2. 3. Shopping habits

Shopping habits, just like shopping values, attitudes and behavior, have important information content both for the physical planning of the shopping center and for the selection of the center's Tenant Mix. Still, they have a greater impact on the latter. The understanding of shopping habits is pivotal for the creation of an adequate Tenant Mix, as it has a very important effect on tenant type and profile selection and space allocation. The utilization and internalization of synergy effects between different types and profiles of tenants, of positive retail demand externalities, is inconceivable without the understanding of shopping habits related to customers living in the catchment area of the respective shopping center. In order to select the right tenants, and for their adequate juxtaposition within the shopping center, it is necessary to know the answers to questions, such as: what kind of products do customers buy together?, how frequently do they buy certain products?, in case of which products do they engage in comparison, specialized etc. shopping? etc. Therefore, by preparing for the subchapter dealing with Tenant Mix, regarding shopping habits I present two main categories: shopping types and shopping strategies / shopping trips.

III. 2. 3. 1. Shopping types

Regarding customer habits, Levy and Weitz (2008) describe three shopping types: convenience shopping, comparison shopping and specialized shopping. Kramer et al. (2008) project these terms on product types and add the fourth category of impulse products to them. Naturally, between the different product types and the shopping types there is a close relation, therefore I consider that it is more appropriate to categorize shopping types according to this, and not products. The fact is that the classification by Levy and Weitz (2008) is complete by adding the impulse shopping type.

1. *convenience shopping* – in this case, the main goal of customers is on minimizing shopping related efforts. They are primarily product-, rather than brand-oriented and less price-sensitive. Here we can talk about buying products which satisfy primary, daily needs or which customers need quickly and often. An important aspect is that they usually choose the

closest shopping center as the place for shopping. Many attribute this as the reason behind the development of neighborhood and community centers.

2. *comparison shopping* – in this case customers are very interested in the outcome of shopping, they have a general concept about the type of product or service they would like, but they do not have a concrete idea about the brand. They search for more information and are willing to make an effort for planning the purchase and to decide which product to buy. This is typical of furniture, electronics, clothing and fashion wear etc. purchases. In order to facilitate this shopping type, retailers selling these product categories are placed, clustered next to each other, in order to attract more customer traffic. Hotelling's (1929) retail agglomeration theory also lies on this idea. As a result, customers choose those shopping centers as the place of shopping, which accommodate more retailers selling the respective product category, thus reducing the risk related to finding the desired product (Webber, 1972, id. Eppli and Benjamin, 1994), even if this demands a significant effort (travel cost, time) from the customer. This explains also how the catchment area expands.
3. *specialized shopping* – in this case customers know exactly what product they want and do not accept any replacements, this is when they are the most interested in the outcome of shopping. Usually, they are loyal to the brand and retailer and are willing to make a great effort for the given product. Thus, they patronize the respective store or shopping center, even if getting there is inconvenient. In cases like this, the commercial catchment area is blurred completely, because customers are willing to go as far as necessary to buy the respective product. But the ratio of this shopping type is far lower than comparison shopping.
4. *impulse shopping* – these shopping types rarely come as independent shopping, rather, they occur beside the former three shopping types. In these cases customers buy products that they are not seeking actively or consciously. Products like these are placed next to entrances or exits, or near products related to comparison shopping. In a shopping center, this is the case of jewelry stores or stores selling snacks, which are placed where they benefit from the customer traffic, generated by convenience, comparison and specialized shopping types alike.

These shopping types will not only have significance from the point of view of various tenant types and profiles, but also from the point of view of space allocation for these within the shopping center.

III. 2. 3. 2. Shopping trips

From the point of view of shopping strategies, shopping trips, we distinguish between two different shopping strategies:

- *single purpose shopping trip* – during which the customer's goal is to purchase a single given product.
- *multipurpose shopping trip* – in this case, shoppers buy several products and services at one time.

These shopping strategies developed from the theory of consumer utility maximization, according to which, shoppers save travel costs and time by buying several products at the same time. Retailers selling different products were placed next to each other in accordance with Hotelling's (1929) retail agglomeration theory. In addition to this, in the approach of Manchanda et al (1999), the occurrence of the multi-category shopping carts, multipurpose shopping trips, is influenced by factors such as complementarities (the complementary nature of products), co-occurrence and pure chance. In case of co-occurrence, there are heterogeneous shopping groups in the background, the particularities of which induce the simultaneous purchase of several, apparently independent products. The occurrence of random multi-product shopping carts is the result of non-observable factors.

O'Kelly (1981) found in his research in Canada that in case of food shopping, 63% of these are multipurpose shopping trips, while in case of non-food shopping, this is characteristic for 74% of shopping trips. This result leads back to Manchanda et al (1999) idea about heterogeneous shopping groups. Eaton and Lipsey (1979), as well as Ghosh and McLafferty (1984) further develop the multipurpose shopping model, involving variables such as travel and storage costs. Brooks et al (2004) analyze one stop vs. multi-stop shopping trips approaching from the theory of transaction utility maximization. Thus, they assume that customers try to reduce travel costs and maximize the time saved on travel.

Arentze and Timmermans (2001) conducted researches also on this field. They make a clear distinction between the concepts of single vs. multipurpose and one stop vs. multi-stop

shopping trips. Arentze and Timmermans (2001) compared single purpose shopping trips related to everyday products and single purpose shopping trips related to non-everyday products with multipurpose shopping trips. They found that the model is suitable for the analysis of sales performance, too. Popkowski and Timmermans (2001) compared by conjoint analysis the competitiveness or coexistence of different shopping trips, strategies based on consumer opinions. They found that specialized multi-stop or convenience shopping trips are the most popular, they are directly followed by hybrid and specialized shopping. The least popular form of shopping was one stop single purpose shopping.

Arentze et al. (2005) analyzed the effects of shopping center characteristics on single purpose and multipurpose shopping trips as regards with what purpose (what) and in what place (where) customers shop. From the characteristics of shopping centers, they incorporated in their model the size of the sales area reserved for different product categories (profile mix) and travel time; thus, they could measure the individual, co- and cross-effects of stores and drawing powers between them. The result was surprising, the cross-effects between stores were stronger and more significant than the co-drawing power effects of stores. This is also in accordance with the theories regarding retail demand externalities (Brueckner, 1993). Regardless, the combined drawing power of different store types was also positive and significant, thus different store types jointly contribute to the overall drawing power of shopping centers, even those stores in which no shopping is planned. Based on all these results, they reach the conclusion that multipurpose shopping models estimate more precisely the market performance and market share of shopping centers. This is why it is worth examining the object of these multipurpose shopping trips.

III. 3. Tenant mix

The third and last composing element of shopping centers is the Tenant Mix. With this third element, the already described Location and Customer Mix become complete; the combination of these three forms the shopping center itself as Product. This element is connected in many ways to the previous two composing elements.

In this subchapter, first I will define the different tenant types and profiles, paying special attention to their classification. Unfortunately, a generally accepted tenant type and retail profile classification has not been yet developed. This is not surprising, taking into

consideration that there is a blurring of different terms in almost all fields of shopping center theory. In order to enable the born of substantial scientific theories in the future, the conscious determining of terms is necessary. Accordingly, after enlisting the classification forms used so far in the literature, I shall present the tenant type and retail profile classification developed and proposed by me. This advocates the application of 3 different tenant types and 18 different retail profile groups.

After clearing these concepts, I shall move on to topics such as tenant selection, tenant space allocation and juxtaposition. We can practically correspond these topics with retailers' category management and seek the answer to questions such as: what tenant types and profiles of should be selected for the commercial plan of the shopping center?, in what percentage should retailers, service providers and entertainment units be present?, how large sales areas should they get? And where should they be placed within the shopping center? We are talking about seemingly simple questions, but by answering them correctly, we can significantly contribute to shopping center selection and patronage (Chen et al, 1999). Many researchers dealt with these questions, their results will be presented in the following. Though their explanatory power is questionable, because the analysis, in most cases, were carried out only on a single shopping center, their results still have interesting information to offer. The results of Bean et. al (1988), for instance, seem to support the tenant type and retailer profile classification proposed by me: they also propose three tenant types (large, medium and small) and 20 retailer profiles. In contrast, Kirkup and Rafiq (1994) draw attention to the differences between stores belonging to retail chains and local, individual retailers, and recommend that, for a stable, long lasting tenant mix, more attention should be paid to retail chains. While Bruwer (1997) developed a theoretical index of tenant mix through surveying the preferences of customers living in the catchment area of a planned shopping center, Brown (1992) carried out observations in an already existing shopping center.

At the end of the subchapter, I shall highlight some special fields, such as positive tenant externalities or retail demand externalities. By presentation the relevant literature and researches on this topic, I'll make reference to Brueckner's (1993) theoretical approach, Mejia and Eppli's (2003) research conducted on 41 shopping centers and Carter and Vandell's (2005) bid rent model. The externalities between tenants is such an important topic that I shall return to detail it later on. Here, we can observe the synergy between the tenants of the shopping center as mentioned by Kramer et. al (2008), and these synergetic effects are measureable in the form of positive retail externalities.

III. 3. 1. Tenant and profile types

So far, in shopping center research, little attention was paid to the definition, clarification and classification of different tenant types and profile categories. Accordingly, we can come across many classifications, which make impossible the comparison of research results and thus their validity is questionable. In the following, I try to respond to these deficiencies. Thus, beside presenting the tenant type and profile classification used so far in the literature so far, I'll define an own concept of tenant type and profile classification. This tenant type classification was born based on the qualitative in-depth interviews carried out during my preliminary studies, while the tenant profile classification is the result of an explorative preliminary study conducted on a longer term. For the definition of this classification, the tenant mix of 15 shopping centers in Budapest was thoroughly observed and I've studied the classifications recommended by the Urban Land Institute and the International Council of Shopping Centers. Finally, the Principal Business Activity Codes used by the Hungarian Central Statistical Office were analyzed. At the end of this summarizing process, 18 different tenant profile types were determined, which will be presented in the following. For the appropriate interpretation of tenant selection, space allocation, juxtaposition and of demand externalities between tenants, the definition and clarification of this classification is necessary.

III. 3. 1. 1. Tenant types

As I already mentioned, unfortunately a generally accepted tenant typology has not yet been developed. In spite of this, the different tenant types are generally defined according to criteria such as the size of leased area and the place allocation of the tenant within the shopping center. The most commonly used tenant classification, both in the literature and in practice, only differentiates between anchor and other tenants.

Mejia (2000) groups the tenant types in two main categories: (1) anchor tenants and (2) non-anchor tenants. He divides the latter category in three sub-types:

- 1. *in line tenants* – their name comes from the fact that they are placed in line next to each other, or around the parking lot of an open-air center or on the two sides of the streets of a shopping mall.
- 2. *foodcourt tenants* – these are usually fast food stores placed in the area dedicated for the foodcourt.

- 3. *kiosk* – these stores are individual units in places with heavy customer traffic such as the streets or other common areas.

Kramer et al. (2008) according with the recommendation of the Urban Land Institute, distinguishes between four tenant types:

- 1. *anchor tenant* – which are defined by their customer drawing power due to their own marketing budget and ability to generate customer traffic. They can be traditional department stores, supermarkets, discount stores, restaurants, book stores etc. Their definition develops according to their various functions, thus, not only retail anchor tenants but also sports arenas, cultural centers occur frequently among them. Their space allocation must be pre-planned.
- 2. *in line tenant*– they are known for their store fronts forming a line, but nowadays they deviate from the standard rules, placing more and more emphasis on the originality of the store front and the forefront of the store.
- 3. *food, dining* – due to the new trends, traditional restaurants, with their tables covered with white tablecloths gain more and more ground. In case of open-air centers, these can also mean separate buildings. In case of shopping malls, lately more emphasis is put on healthy dining in the foodcourt; thus, hot dog and hamburger sellers are replaced by sushi and other special restaurants.
- 4. *stand-alone tenants* – we can usually meet them in the case of open-air and hybrid centers. They appear as separate buildings on a given plot, for instance, a hypermarket with its own retail gallery. Even though it occurs rarely that customers shop at the same time in the hypermarket as well as in the shopping center next to it, their combined site placement is accredited to result in increased drawing power.

Since there are such different classifications, ***I consider it necessary to develop a standard tenant type classification. Therefore, I propose the following classification and use it in the following:***

- 1. ***anchor tenants "cash cows"*** – According to definition, these tenants form that group of the Tenant mix, which independently from the shopping center generate high customer traffic, large number of visitor on their own. Anchor tenants are usually part of a retail chain, which conducts its own marketing activity and practically could operate as a completely independent store. Some anchor tenants carry positive externalities with them, the appropriate integration of which contributes greatly to the shopping center's income maximization. Due to the fact,

that they generate large number of visitor, the sales areas next to anchor tenants significantly increase in value and, accordingly, might be leased at a much higher price. This in an indirect way increases the incomes from rents. The developers and center managers offer to anchor tenants very favorable conditions, often they are given a monopoly-like position in some shopping centers. They are that type of tenants which pay the lowest rents. This is also due to the size of the leased area (it is common practice that the amount of rent decreases proportionately with the increase of leased area), and to the strategic importance they represent. Anchor tenants like these are, for example, cinemas or other large entertainment facilities, hypermarkets (especially in regional and community centers), electronics retailers etc.

A special case is that of the *foodcourt*, because this qualifies as an anchor tenant per total; the characteristics of anchor tenants apply to it. But the stores, independent units that make it up are still considered to be fill-up tenants.

- 2. *preferential tenants, "stars"* – those tenants whose target audience/market coincides with the core of the customer mix for the respective shopping center. These usually sell high quality, branded products (fashion wear in the majority of cases), which are in accordance with the image of the shopping center. From the point of view of rents, they are a much more profitable tenant type than anchor tenants and are usually placed (next to these) in medium-sized stores with the busiest customer traffic. It should be emphasized that, in spite of this, this tenant type is not guaranteed a monopole-like position in the shopping center, the creation of a kind of natural competition, or at least oligopoly, is pursued.

- 3. *fill-up tenants, "dogs"* and *"question marks"* – they usually lease stores with smaller sales area, and proportionately to this, they pay higher rents per square meter. They operate in perfectly competitive market conditions. From product quality and brand name point of view they differ depending on whether it is a new brand and product awaiting a possibly bright future or a product in the stage of late maturity / decline.

The image of shopping centers and tenant brand equity

From the point of view of brand and image, it is interesting to analyze the relationship of the shopping center itself and the various tenant types. While anchor tenants have a completely independent brand equity and image in comparison with the shopping center, in some cases

they even strengthen the image of the respective shopping center; preferential tenants have brand names and images almost on the same level as the shopping center itself, thus, they strengthen each other mutually, especially in the case of regional and neighborhood centers. The fill-up tenants are the ones who profit the most from the image of the shopping center: if they are young brands, then the strong image of the shopping center contributes to the development of the respective brand – this gives the opportunity for center managers to force tenants to pay for this brand-strengthening effect by paying higher rents. But if these are brands in the stage of late maturity, decline, then they can get support, last lift from the image of the shopping center, however they cannot expect future return for the marketing cost paid in the rent, it must be amortized at the given moment.

Table 15: Characteristics of tenant types

Tenant type	Leased area (m2)	Rent (HUF/m2)	Customer traffic drawing power	Brand and image equity
Anchor tenant	Big	Low	High	High
Preferential tenant	Medium	Medium	Medium	Medium
Fill-up tenant	Small	High	Low	Low

Source: based on my own observation

III. 3. 1. 2. Tenant profiles, retailer categories

Tenant profiles should be determined by referring to the products and services the respective stores are selling. Regarding tenant profile, we could define three main groups: retailers (selling products), service and entertainment units. We can use the term retailer as a collective noun for them, because all of them sell something, even if not a concrete product, but an intangible service. But it is worth distinguishing between these three groups, because they also cover the main functions of the shopping center. In several researches very often, entertainment appears as the second most important function beside retail, while the presence of services is just a subsidiary necessity. Within these categories we can define several sub-categories, especially in case of product retailers. Unfortunately, the incertitude already seen in case of tenant type classifications is also characteristic for the use of profile categories. Thus, in researches several different classifications are used, this is why I consider it

necessary to elaborate a standard tenant profile classification which would help comparing research results on tenant mix. Table 16 presents a few classifications used in different studies.

Table 16: Applied retail profile classifications

ULI & ICSC (2008)	Miceli et al. (1998)	Borgers et al. (2010)	Yiu and Xu (2012)
General Merchandise	General Merchandise		Specialized stores
Food	Food	Food	Food
		Supermarket	Everyday Item Retailers
Food Service	Food Service	Restaurants and Café	Food and Drink
Clothing and Accessories	Women's Apparel	Clothing and Accessories	Clothing, Shoes and Accessories
	Men's Apparel		
Shoes	Shoes	Shoes	
Home Furnishings		Home Furnishings	Home Furnishings and Household Goods
		Household Goods	Household Goods
Home Appliances / Music	Home Appliances	Electronics and Telecommunication	Electronics and Electrical Appliances
	Music	Books, Audio and Video	Books, Toys and Gifts
Building Materials / Garden			
Automotive			Specialized Stores
Hobby / Special Interest		Sport and toys	Books, Toys and Gifts
Gift / Specialty	Book store		Books, Toys and Gifts
Jewelry	Jewelry	Personal Service	Watches, Jewelry and Other Fine Collectibles
Liquor			
Drugs		Personal Service	Health and Beauty

Other Retail			
Personal Service	Eyewear Store	Personal Service	Personal Service
Entertainment / Community			Entertainment, Institutions, Community
Financial			Financial Service
Offices (Other Than Financial)			
Other (vacant, storage)			
		Services	
			Real Estate
			Household Service
			Travel
			Education
			Health Service
			Tailor and Shoe Repair

Source: own compilation

Unfortunately, I do not consider any of the above mentioned classification systems adequately applicable, *therefore, during the observation of 15 shopping centers' tenant mix from Budapest, I elaborated a classification of 18 different profile types*. I assigned to these the respective classifications from the Urban Land Institute and the International Council of Shopping Centers, as well as the classification proposed by the Hungarian Central Statistical Office, their equivalents from the Principal Business Activity Codes (PBAC). Table 17 summarizes this classification and I'll apply this in the future.

The definition and classification of different tenant types and profiles is an extremely important task. Without this, the results of studies related to tenant mix cannot be compared, and by this, important studies dealing with synergetic effects, retail demand externalities between tenants often become un-interpretable. This is why I consider it important firstly to clarify these terms and classifications. Hopefully, we will meet these definitions and classifications in future researches, and by this the recording of the results in a standard system will become more achievable.

Table 17: Proposed retail profile classification

RETAIL PROFILE CLASSIFICATION

	Own Classification	ULI Classification	Central Statistical Office	PBAC
1	Children's Wear	Clothing and Accessories	Textile, clothing and footwear specialized store	Retail sale of clothing
2	Fashion wear	Clothing and Accessories	Textile, clothing and footwear specialized store	Retail sale of clothing
3	Shoes	Shoes	Textile, clothing and footwear specialized store	Retail sale of footwear and leather goods
4	Health - Beauty	Drugs, Personal Service	Perfume and cosmetics store, Human and animal pharmaceutical goods store	Dispensing chemists, Retail sale of medical and orthopaedic goods, Retail sale of cosmetic and toilet articles
5	Pet and Pet Food	Other Retail	Perfume and cosmetics store, Human and animal pharmaceutical goods store	Retail sale of flowers and plants, of grain, seeds and animal feeds
6	Sportswear	Hobby, Special Interest	Book, newspaper and stationery specialized store	Retail sale of sports equipment
7	Books, Gifts	Gifts, Hobby, Special Interest	Book, newspaper and stationery specialized store	Retail sale of books, newspapers and stationery
8	Jewelry-Accessories	Jewelry		Retail sale of watches and jewelry
9	Hypermarket	Food	Grocery store and department store	Retail sale in grocery stores
10	Foodcourt and Other Food	Food Service, Food	Grocery store and department store ,Restaurants	Retail sale in grocery stores
11	Supermarket	Food	Grocery store and department store	Retail sale in grocery stores
12	Furniture	Home Furnishings	Furniture, electrical appliances and hardware store	Retail sale of furniture, lighting equipment, household articles
13	Home Appliances	Home Appliances - Music	Furniture, electrical appliances and hardware store	Retail sale of electrical household appliances
14	Showroom	Automotive	Motor vehicle and motor vehicle parts specialized store	
15	Hardware Store	Building Materials - Garden		
16	Home Furnishings	Home Furnishings	Furniture, electrical appliances and hardware store	Textile-retail, Retail sale of hardware, paints and glass
17	Services	Personal Service, Other Retail, Financial, Offices		
18	Entertainment	Entertainment, Community		

Source: own compilation

III. 3. 2. Tenant Selection

After defining the different tenant types and retail profiles, we can move on to the topic of tenant mix selection. Tenant selection practically seeks to answer two questions:

- 1. What tenant profiles should be included in the shopping center ? and
- 2. How much space should these tenants, retailers get ? or, in other words, what type of tenants should the respective tenant profiles be ?

I seek to find the answer to another third question, i.e. where should these tenants be allocated within the center?, in the next subchapter, taking into consideration the externalities between different tenant types and profiles.

Using the data of the International Council of Shopping Centers, Baker (1999) carried out a survey on the shopping center industry's tenant profile trends over the previous five years. He analyzed the industry by looking at two variables: the sales area occupied by the different profiles and the productivity, changes in sales attributed to the respective profiles. Overall, he found that 45% of the area assigned to non-anchor tenants in shopping malls is still occupied by fashion-wear retailers. Within this, the industry moved from women's wear towards retailers selling clothing for the whole family. In spite of the fact that shoe retailers show a tendency to decline, the ratio between them and fashion-wear remained at 1:4. The sales area of home furnishing retailers doubled, while it remained stable in case of home appliances, books, sports equipments, personal services and jewels. In case of food, a change was felt moving from fast food towards specialty food retailers, which is consistent with Kramer et al (2008) observations. In spite of the fact that the productivity of entertainment units decreased, the sales area occupied by them increased from 5.5% to 6.1%. This is probably due to the positive externalities they exert on the productivity of other tenants.

Yiu et al (2012) analyzed from real estate industry point of view the questions regarding tenant selection. Naturally, they approached from the already described Ecomallogy theory and analyzed the relation between the number of different tenant profiles (species) and the size of the shopping center. They used theories taken from biogeography (Species-Territory and Distribution) and the geometric distribution of store sizes. They included in the analysis the Tenant Mixes of 18 multi-level (at least 7 storeys) shopping centers from Hong Kong. In their perception, the size of the shopping center as a zero-sum game defines the optimal number of tenant profiles (species) that can be placed in the center. Even though the logic,

rationale behind would supports their model, during testing they only achieved an explanatory power of 24% (adjusted $R^2 = 0.240$), the acceptance of which, in my opinion, is questionable. The explanatory power of their model on tenant profile (species) distribution is far higher at 88% (adjusted $R^2 = 0.884$). Accordingly, the size of the tenants follows a given pattern: the largest tenants occupies approx. 25-35% of the shopping center's sales area, the next one would only occupy 20-30% and so on. Generally, it can be said that shopping centers have several tenants with smaller sales area, which are accompanied by a few mega-stores, anchor tenants. But they do not take into consideration in their model that most of the tenants are practically part of retail chains, therefore, the size of their sales areas is some kind of a requirement, prerequisite for the developer, which is only slightly modifiable – as a result of this rather their numbers, than their size is influenced. Another big drawback of their study is that they only take into consideration tenant profiles and ignore tenant types. This is partly due to the lack of precise definition in the shopping center literature. In future it would be recommended to complete their model analyzing the distribution of tenant profiles, with the analysis of tenant types as well.

III. 3. 2. 1 Studies from the point of view of the developer

From the viewpoint of tenant selection, it is worth mentioning the article of Bean et al. (1988), who rely mostly on Seagle (1967, id. Bean et al, 1988) and Jensen (1980, id. Bean et al, 1988) doctoral dissertations; and they note that the literature dealing with retail tenant mix is rather scarce. In their approach, the tenant mix has to be suitable for the maximal utilization, optimal internalization of interactions between tenants, thus, there should be a sufficient number of tenants of all profiles and types, but not too many. In their article, they describe a mathematical model, which helps in a more efficient tenant mix selection, and, thus, an increase of 10-26% in shopping center present value might be achieved. They transplanted this mathematical model into an *IT software, which they tested on three shopping centers opened not so long ago*. The model made it possible to define the number and size of the adequate profile of tenants: 20 tenant profiles and 3 tenant types (large, medium and small). The drawback of their model is that, according to the developers viewpoint, they analyzed the tenant mix only on base rents and ignored overage rents or the total sales of tenants.

Kirkup and Rafiq (1994) analyzed the tenant mix of *one shopping center* in its early stage, in the first three years from opening. They elaborated a *case study*, in which they analyzed the evolution of the shopping center's Tenant Mix, depending on the occupancy and vacancy rate. In the first 15 months, a stable increase could be noted, which was followed by a rather unstable occupancy period; thus, by the end of the third year, only 24% of the original tenants remained in the center. While book and audio retailers and entertainment units almost doubled, the sales area for hobby, sports equipment, children's products, gifts and jewelry retailers decreased. Some profiles, for example, beauty salon and sportswear completely disappeared from the center and some new appeared (flower shop). They observed generally that the stores of retail chains meant stable tenant mix, while the higher fluctuations could be observed in case of smaller, independent, local stores. The respective shopping center underwent strong competitive effects and its site fell outside of the traditional retail area of the respective city. Kirkup and Rafiq (1994) explained the high fluctuations in the tenant mix of the shopping center mainly by this outer site and drew attention to the importance of property management. In the same time, in case of retail shortage of the kind they recommend the conclusion of short term lease contracts as an appropriate solution to decrease vacancy rates.

III. 3. 2. 1 Studies from the customer's point of view

Brown (1992) analyzed the topic of tenant mix from the viewpoint of the customer. He focused his observations on *a single shopping center*, namely Abbey Center in Northern Ireland, which is a shopping mall. The behavior of *250 customer groups* was observed in the shopping center throughout a week, and resulted in *217 observations* conducted on 436 people, in general couples. They spent, on average 50 minutes in the shopping center, and the time spent in the shopping center grew proportionately with the number of persons in the customer group. He created two rankings for the analysis of shopping behavior in respect of Tenant Mix: (a) what stores they visited and (b) what stores they shopped in.

(a) By analyzing the frequency of store visiting, he found that more than 40% of the shopping groups visited at least one of the anchor tenants. On average, customers went into 5 stores. The least frequently visited were the service units, for instance, bank, insurance, travel agent, beauty salon etc., none of these achieved at least a 5% visiting rate.

(b) When analyzing the frequency of shopping, the ranking changed completely. While stores selling products that require comparison shopping had higher number of visitor, stores selling convenience products had more shoppers. On average, customers purchased from 2.6 of the stores visited. If we look at the visitor-shopper rate, we see that it is 80% in the case of stores selling convenience products, while in the case of stores selling products that require comparison shopping it is only 29%; and in the case of services it is 90%.

In the majority of cases he observed multi-purpose shopping trips, single purpose shopping trips only made up 26%; 16% of customers purchased from stores selling convenience products, 7% from stores selling products that require comparison shopping, while 3% from service providers.

In spite of the fact that Brown (1992) only analyzed the behavior of customers in a single shopping center, his results are very important, because they give insights into customer behavior based on real observation.

Bruwer (1997), just like Brown (1992), approached the question of the "ideal" tenant mix from the point of view of the customer, but contrary to him, he chose the method of surveying not observing. He chose the respondents from the *primary, secondary and tertiary catchment area of a shopping center under development, in a proportion of 69-31-10%*, who were approached by interviewers. For the determination of the "ideal" tenant mix, he chose a multi-stage ranking, indexing method, which he called composite tenant index. The index itself was composed of three elements: (1) favored tenant, retailer, (2) rank and (3) probability of shopping. With the help of this index, he managed to determine the recommended profile mix of the shopping center. The drawback of the method is that it does not give any clue about the space allocation of the respective tenants or about measuring the interactions between tenants.

Borgers et al (2010) didn't consider the use of the traditional surveying method adequate for the analysis of customer behavior related to shopping center tenants. This is why *they enlist with the help of software the virtual presentation of a shopping center*, and they ask customers to choose tenants from a pre-given list of profiles and allocate them within the shopping center. The tested shopping center is a Dutch neighborhood center with 26 stores and a gross leasable area of 5,500 square meters. In the software, they offer for the customers 72 stores to choose from, which are categorized in 11 retail profiles. The testing took place in the existing shopping center, where throughout a week customers created their desired tenant mix on four computers. From the 192 respondents, the tenant mix analysis was conducted on a sample of

100 people. The most frequently chosen tenant profile was that of food retailers (without supermarket), which made up almost 20% of the chosen stores. These were followed by services with 17.4% and personal services with 12.5%. These results contradict Brown's (1992) results of customer behavior observation, but we have to consider that the studies were conducted on different types of shopping centers (neighborhood vs. Regional center). The least frequently chosen stores were shoe stores with 2.2%. Restaurants and cafés with 8.4%, and clothing stores with 7.7%, were placed in the middle. The results of tenant allocation will be discussed in the next subchapter. Though this method is more suitable for the mirroring of reality, as it better represents a shopping center than a questionnaire, but it provides few explanations regarding shopping behavior.

III. 3. 3. Tenant Allocation

Where should the selected tenants be allocated, placed within the shopping center?— at first sight, the answer to this question seems very easy, but it is surprising how much the optimal tenant allocation counts in facilitating customer traffic within the shopping center. We also encounter here some golden rules used in practice, for instance placing anchor tenants at the ends of the shopping center, or the central placement of foodcourt. But in the case of other tenants, the question is not so easy to answer. The situation just gets more complicated when the center is distributed on multi-levels. It is common knowledge that customer traffic is much dense on the ground floor than on the higher or lower levels. Depending on this, tenant allocation is never random; it is based on a previous, clearly defined concept, in order to internalize the synergetic effects between stores functioning as cooperative – coepetitive units.

Brown (1992) analyzed customer traffic as well, in the observed shopping center. His results are important regarding the valuation of different shopping center zones and regarding tenant allocation. Surprisingly, he has found that only 11% of the customers walked through the whole shopping center and a third of the customers walked through less than half of the center. He divided the shopping center into eight different zones and observed the ratio of passing, store visiting and buying. According to this, 90% of the buying took place in maximum three zones of the shopping center. In spite of the fact that the least people passed in front of the stores placed next to the anchor tenants, most of the buying took place here. He

found the exact opposite of this in two other zones, where the poor tenant range probably contributed to this result. It is important to draw attention to the compatibility tables proposed by him, these are meant to measure the distances between tenants belonging to different tenant profiles. He drew four compatibility tables: (i) for all retailers, (ii) for convenience products retailers, (iii) for comparison products retailers and (iv) for service providers. His results suggest that it is most advisable to cluster retailers selling convenience products. Clustering is also more advisable in case of stores selling comparison products. Compared with the general assumption, according to which in case of comparison shopping clustering is much more important than in case of convenience products, this is definitely a surprising result. In case of services, it is advisable to be place them dispersed, next to different tenant profiles. These results will be important in the analysis of externalities between different tenant types and profiles.

Carter and Vandell (2005), unlike previous studies, tried to find a solution to tenant allocation by using the bid rent theory model. This model is also based on the profit maximization theory of shopping center developers. But, in contrast to previous models, they tried to define not only the size of different store profiles, but also where these should be placed. Thus, it examines the relation between the distance from the central point of the shopping mall, the stores profile and size, the rental fees and sales. They tested their two hypotheses on the *689 leases of eight regional and superregional shopping centers*:

H1. The anchor tenants' rental fees and sales per square meter decrease as the distance from the central point of the shopping center increases; the rate of decrease differs depending on the tenant profile.

H2. The size of non-anchor tenant stores increases as the distance from the central point of the shopping center increases; in general, the growth rate is the same in case of tenants from the same profile.

$$RENT_{ji} = f(DISTANCE_j, TENANT_j, LEASE_j, LOCATION_j)$$

$$RENT_{ji} = f(DISTANCE_j, TENANT_j, LEASE_j, LOCATION_j)$$

Where j is the shopping center and i stands for time.

The obtained results confirmed the model. However, they noticed that tenants from the same profile are not clustered in the respective shopping centers. The same can be said of the allocation of retailers who sell products that require comparison shopping.

Yiu et al (2008) analyzed tenant allocation regarding the 569 leases in *three multi-level* (at least 7 storeys) *shopping centers* in Hong Kong. They found that as a tenant is allocated on a higher level, so increases its sales area, and that retailers facilitating impulse shopping are more likely to be placed on lower levels. Although their results are in concordance with the generally observed golden rules in the industry, the explanatory power of their regression model is rather weak ($R^2 = 0.252$). In order for their model to adequately support the pursuits directed towards customer traffic flow within the shopping center, it would have been worth to take into consideration data regarding the sales of these stores or regarding effective customer traffic.

Borgers et al (2010) divided the virtual shopping center into five zones. Customers placed stores selling food next to each other, the distance between these decreased also due to the fact that they made up the most frequently chosen tenant profile. This result is in accordance with those found by Brown (1992). These were then followed by the clustering of household goods, fashionwear retailers and restaurants and cafés, while the biggest distances were observed in the case of sports equipment and toys and services. The validity of these results is weakened by the fact that customers could only choose from a previously determined profile and store list and by the fact that, in more than half of the selected stores, a third or two thirds of the respondents placed the store where it was located in reality. All these point to the fact that the previous knowledge and habits of customers greatly influenced the validity of the answers.

However, tenant allocation remains a very important question in elaborating the optimal tenant mix, commercial map of a shopping center. The space allocation of different tenant types and profiles within the shopping center contributes greatly to achieving and internalizing the positive externalities potential between tenants.

III. 3. 4. Externalities between tenants

According to definition, the *externality between tenants* is such an effect between tenants, where the sales of a tenant increase due to the presence, customer traffic-increasing effect of another tenant. Accordingly, in order to maximize the profits of a shopping center, there is a need for the integration and optimization of these externality effects.

The theoretical introduction of retail demand externalities between tenants is linked to Brueckner (1993). His theory comes from the following presumptions:

- (1) the developer of the shopping center seeks to maximize profits
- (2) the profit of a shopping center equals the rental fees minus the costs
- (3) rents depend on the sales of the tenants – overage rents
- (4) the volume of sales of a tenant depends on the leased area and on the other leased areas
- (5) the sales of a tenant increase as the size of the other stores increases, because they generate more traffic.

Brueckner's (1993) model does not deal with the creation of the optimal tenant mix, he just attempts to determine the optimal tenant size, thus his general model is:

$$R_i = R_i(S_1, S_2, \dots, S_n), \quad \frac{\partial R_i}{\partial S_i} > 0 \text{ and } \frac{\partial R_i}{\partial S_j} \geq 0, \quad j \neq i$$

Where:

S_i – the sales area of store i

R_i - the volume of sales achieved by store i

i – the number of stores from 1 to n

In the following, he develops the model in three directions, according to the following assumptions:

- 1. *The developer acts as a discriminating monopolist* – in this case, the developer determines a certain rental fee per square meter for all tenants, and reserves an area for each of the stores as it is required depending on the determined rental price. This model is based on the price elasticity of demand, where the developers provide leasable area until the marginal

income from these is higher than the marginal costs related to them. But here overage rents were not taken into consideration.

- 2. *The developer acts as a perfectly discriminating monopolist* – in this case, the developer asks a determined total rental fee from the respective store for the sales area that he offers. The new store occupies an optimal area if the demand for the sales area is equal to the marginal costs minus the volume of sales increase of other stores.

- 3. *Perfect discrimination depending on the efforts of the stores* – in this model, not only the leasable area is a variable, but also the efforts of stores, which can be measured in product assortment, employees etc. According to this, for stores which make more efforts to attract customers and increase customer traffic, developers use overage rents more often.

This third, more complex model was later tested by many researchers, for instance, Miceli et al (1998). They modeled the optimal leasing of *an existing shopping center's* vacant store, taking into consideration the different tenant profiles and the substitutive and complementary effects. While Brueckner (1993) approached this topic from the point of view of stores selling complementary products, Miceli et al. (1998) analyzed the externalities between stores that have competing profiles. Accordingly, they searched for the optimum point, where the lower rental fees of competing stores could be balanced by the sales surplus generated due to increased customer traffic in stores with other profiles. They reached the conclusion that more sales area should be allocated to a given store profile until the marginal sales achieved by it equals the marginal cost of the sales area minus the surplus sales achieved by the other store profiles.

Vitorino (2012), similarly to Miceli et al (1998), analyzed the entry decisions of stores, approaching from game theory and economics, taking into consideration the different external (spillover) effects. She elaborated an "entry game with complementary effects", for the testing she chose 561 shopping centers from the United States. His mathematical model made it possible to reach several optimum points and analyze the combined entry of several anchor tenants, depending on, inter alia, the expected effects of externalities. Based on her results, the mid-range department stores carry the biggest complementary, positive externality effects, while the presence of discount or mid-range department stores has a positive effect on high-end department stores. Her article is definitely worth mentioning from a methodological point of view, but something is not entirely right in the definition of anchor tenants due to the lack of standard definition, and the achievable externality effects of existing tenants is not

taken into consideration. Because of these, although her model highlights some interesting correlations, the model does not fit well the reality.

Mejia and Eppli (2003), as well as Mejia (2000), analyzed the externality effects of anchor tenants' size and image on in-line tenants and also between shopping centers. They conducted their studies on *41 shopping centers*, and collected the data from three sources: (i) a database received from the developer about more than 4,000 tenants from the 41 shopping centers, (ii) a demographic and economic database on shopping centers (iii) and they used a questionnaire of their own for the valuation of the anchor tenants' image. Surprisingly, they have not found significant externalities between shopping centers, therefore, we could say that shopping centers rather compete with each other, or complement each other, because customers do not substitute high or low image shopping centers between each other. But they valued the image of shopping centers only by using the image of anchor tenants and ignored the image valuation by customers. In spite of this, they draw attention to important correlations within shopping centers, and they found that both anchor tenant's size and image have a significant and positive impact on the volume of sales of other tenant types.

It could be interesting to incorporate Miller, Reardon et al's (1999) intra type, inter type and inter profile (category) competition theory in the externality models presented so far, it would certainly lead to more nuanced findings. Another interesting model could result from incorporating the distance variable used by Carter and Vandell (2005) into the externality models, because these effects are the results of spatial allocation of different tenant types and profiles. This model could then be further developed by incorporating the customer traffic movements and behaviors observed by Brown (1992).

III. 4. Shopping Center's Success Valuation

The fourth and last topic of the shopping center literature deals with shopping center valuation. This is the topic reflecting on the successful or unsuccessful operation and center management of shopping centers. However, from the results of shopping center valuation, we can draw conclusions about the effectiveness of the work carried out by developers, how much they took into consideration the recommendations regarding the composing elements of

shopping centers. In other words, *this chapter deals with the pricing of the shopping center as Product*. With this help we can determine the value, equity, price of shopping centers, which plays a pivotal role in selling it on its institutional market.

As it is generally accepted in valuation models, we distinguish between tangible or physical influencing factors and intangible or non-physical influencing factors here, too. Eppli (1998) drew attention to the importance of distinguishing between these. In my opinion, the physical, tangible factors influencing mall equity are practically the rental fees and the total sales generated by the shopping center. As intangible influencing factors of mall equity, I shall present the drawing power and shopping center patronage, the image of the shopping center and shopper and tenant equity. The understanding of customer shopping habits is necessary for optimal shopping center valuation, because these influence both the sales of the shopping center and the achieved rental fees. Accordingly, both factors (physical and non-physical) are equally important. In the following subchapter I try to summarize the studies related to shopping center valuation influencing factors. Beside these, for the overall valuation of a shopping center, one must consider also the value of the real estate asset, of the land plot and of the building, construction. These will not be detailed in the present dissertation, but Carter (2009) discusses about these so-called traditional valuation methods, which determine the value of the shopping center for taxation purposes as well.

III. 4. 1. The physical factors influencing mall equity

From the physical factors that influence mall equity, we could mention the value of the real estate asset, the total sales generated by the shopping center or the shopping center's incomes from rents. The value of the real estate includes the value of both the land plot and the building itself, the measuring of which is very important for the practitioners of the real estate industry. Since this practical field is not closely tied to theoretical research, I'll not pay much attention to them here. The rental fees and total sales of the shopping centers are a very important topics for scientific research. In these studies, the development of sales and rents are discussed in parallel having a sound financial approach. This is not surprising at all, because in the majority of cases, the rental fees include, beside a fixed rent, an overage component, too. Accordingly, I attempt to summarize these studies in the following.

III. 4. 1. 1. Rent analysis

One of the tangible, essential points of shopping center valuation is the analysis of rents. Approaching from the traditional financial perspective, the valuation of shopping center or other real estate is based on the discounted present value calculation of the respective center's/ real estate's future incomes (cash flows) (Damodaran, 2006). This is important mainly for practitioners, and they very often determine the market value of a shopping center according to this method. In contrast, from a theoretical perspective, rent analysis deals with the variation in time of base, fixed rents and percentage or overage rents. This is exactly why, in the majority of rent analyses, this is analyzed as depending on the sales of the shopping center in accordance with the different tenant types and profiles.

Carter and Vandell (2005) analyzed the development of shopping center base rents depending on the tenant's type and their distance from the central point of the shopping center. They found that rents decrease as the distance from the central point of the shopping center increases, while the size of the leased area increases proportionately as this distance increases. Since the anchor tenants are usually placed at the ends of the shopping centers, therefore, this confirms the fact that they operate on large areas and pay low rents. Carter and Vandell's (2005) article is the only one that examines the rents independently from the sales of tenants. All the other studies in this field of rental fees, analyze the variation of rents mainly depending on the total sales of the tenants and of the shopping center.

One of these studies was conducted by Gerbich (1998) on the *293 leases of eight shopping centers in New Zealand*. But, because there was no precise data available about the tenant's sales, he substituted them with two proxy variables: the total sales of tenant groups and of the shopping center. He examined the development of the rents of three tenant groups (anchor tenants, food court tenants and other tenants) with the method of regression analysis. Based on the results, we can conclude that as the size of the leased area increased, the rent indeed decreased. The same is true for anchor tenants' rents, which pay a much lower rent than other tenants, and even lower than food court tenants. This result confirms the tenant type classification proposed by me, according to which the tenants of the food court are included in the fill-up tenant type, even though, when combined, they have the characteristics of an anchor tenant.

Chun et al (2001) analyzed the variation of rents also as depending on shopping center sales. Firstly, they observed the co-variation in time of sales and rents in case of regional centers in the USA for the time period of 1961-1997. Then, they analyzed their model on a cross-sectional data set. They noted that the variation of sales did not proportionately affect the variation of rents, this is especially true for changes over time. The increase of sales increases the rents over time, but in the long term, the increase of sales has a bigger effect on rents than the decrease of sales has. They examined the cases of base and overage rents separately, and found that, when they are used together, tenants usually do not reach that milestone in sales above which they should also pay overage rents. The interval of overage rent the analyzed fell between 6.05-6.40% based on the analyzed data. Another interesting and important result is that rents do not react immediately to changes in sales, thus, we can talk about a kind of delayed effect. One reason is that since the overage rents are rarely used, the base rents are fixed for a number of years according to the contracted lease period, therefore, they adjust to sales only in the long term.

Rosiers et al. (2005) analyzed the effects of non-physical factors on the rents of shopping centers. They examined the variation of *the 1,007 leases of eight shopping centers* in Canada. The novelty of their model is that they incorporated the following two variables in their model: the Economic Potential Index – EPI and the Center Attraction Index – CAI. In the model presented by them, they analyzed the effects resulting from the physical location of the respective shopping center, on one hand, and the effects resulting from the image of the shopping center, on the other hand. The economic potential index is composed from the combination of the center's visitors and its sales, while the center attraction index is Reilly's (1931, id. Huff, 1964) gravitation model adjusted by the population of the surrounding area. To determine the economic potential index, they used the data of a questionnaire survey in order to use the correct number of visitors. Surprisingly, only 69% of shopping center visits started from the customers homes. This result nuances the generalizing character of gravitation models so far.

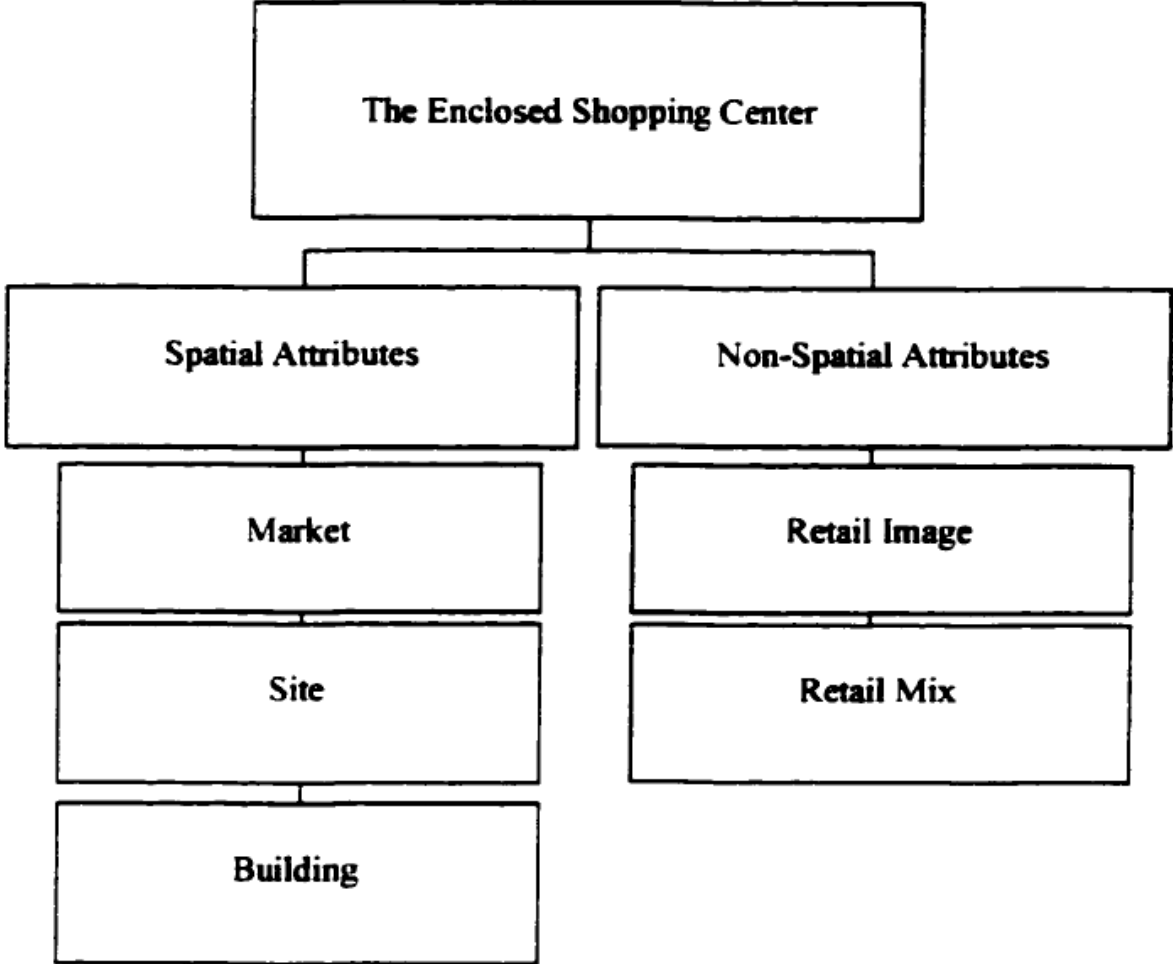
III. 4. 1. 2. Sales Analysis

Regarding shopping center valuation, the literature concentrates also on performance-oriented sales volume analysis. Naturally, a direct tenant-based and measurable approach of shopping

center efficiency is relying on the analysis of the total sales of retail, service and entertainment units that operate within the center. This is why, it worth discussing the performance of individual retailers, tenants before the analysis of the aggregated sales and only then to move on to the level of shopping centers. Pauler et. al (2009) offer a few models forecasting the sales of individual retailers by taking into consideration the blurring of catchment areas and cross- and out-shopping effects.

Mejia and Benjamin (2002) conducted a comprehensive study about the factors that determine the total sales of shopping centers. They found that, beside the traditional, physical, spatial factors, the non-physical factors, such as retail image and tenant profile mix, are also very relevant. Figure 21 summarizes these influencing factors.

Figure 21: Factors that affect shopping center sales performance



Source: Mejia and Benjamin (2002)

In their view, these five factors determine mostly the sales of the shopping center. Here, the market is the primary trade area, which makes up 60-70% from the shopping center's customers. The site is a fixed point in this trade area, which provides the place for the building of the shopping center. When it comes to the non-physical factors, the retail image is seen as the customer's perception of stores characteristics, while the retail mix is the combination of the different tenant profiles within the center.

Mejia's (2000) analysis of shopping center sales in his Ph.D. dissertation is based on this approach and he also uses Nakanishi and Cooper's (1974), as well as Ghosh and Craig's (1983) multiplicative competitive interaction models. Surprisingly, he does not find significant and strong competitive effects between shopping centers from the same trade area. But he found enough results to show that non-physical factors (retailer image and retail mix) positively and strongly influence the sales of the shopping center.

Chun et al. (2001) used the analysis of shopping center sales for interpreting the variation of rents and by this they chose an investor approach for the analysis of shopping centers' success. While they analyzed mainly the effect of shopping center sales influencing base and overage rents, Rosiers et al. (2005) analyzed also the effect of physical and non-physical factors in the determination of shopping center rents. But in contrast to Mejia (2000), they incorporated the Economic Potential Index (EPI) and Center Attraction Index (CAI) into the model. The combined application of these can estimate the overall sales of the shopping center as well. Gerbich (1998) used the total turnover of the shopping center to estimate the sales of the different tenant profiles.

In the literature, many studies analyze jointly the variation of shopping center sales and rents. This is reasonable, as there is a close link between these two, even if overage rents are rarely used (Chun et al, 2001). In newer models, variables such as tenant mix or shopping center image are also incorporated, but the effects of tenant's promotion activities or price levels were not taken into consideration so far in sales analysis. Hopefully, future researches will take into consideration these factors as well in the analysis of shopping center sales.

III. 4. 2. The non-physical factors influencing mall equity

From the non-physical, intangible influencing factors of shopping center valuation, firstly I present the studies regarding shopping center image, even more so, as this factor influences the next intangible factor, i.e. shopping center drawing power and patronage. Moving on, both shopping center image and shopping center patronage influence shopper equity. In my opinion, it would be worth discussing tenant equity, too alongside customer equity. This is a new concept, which in my interpretation does not put an equal sign between the income from rents and tenant equity, but interprets it more broadly, by considering intangible factors such as tenant brand equity, traffic generating power and the added value related to positive externalities resulting from the synergetic effects created together with the other tenants of the shopping center.

III. 4. 2. 1. Shopping center image

In the analysis of the shopping center's success, another dimension is related to the valuation of shopping center image. Nevin and Houston (1980) analyze for the first time the image of shopping centers as their drawing power. They've further developed Huff's (1964) gravitation drawing power model by adding the shopping center image and drawing power variables. Finn and Louviere (1996) analyzed the effects of anchor tenants on shopping center image and they defined a linear system of relations: between (1) the physical characteristics of the shopping center, (2) customer perceptions and beliefs related to the center (3) and between the attributes of the center and the total shopping center valuation. The physical characteristics of the shopping center, such as site, size and tenant mix, have an effect on shopping center image, which then affects the shopping center selection dimension of patronage. Kupke (2004) uses a multidimensional scale for measuring shopping center image by using variables such as: (1) the stores product assortment, (2) price level, (3) atmosphere, (4) fast food restaurants, food court, (5) parking spaces, (6) services and (7) opening hours. Similarly to Finn and Luviere (1996), Chebat et. al (2009) analyze the effect of shopping center image on the attitude, patronage and word of mouth related to shopping centers. But, regarding shopping center image, they use factors such as accessibility, atmosphere, price level, discounts, promotions, as well as assortment within and between categories. Chebat et al. (2006), in another approach, reflect the effect of shopping center image on stores located within the center, using customer self-identity as the mediating variable. In my view,

however, there is a two-way process between shopping center image and the image of tenants located in the center. These reinforce each other mutually through the self-identity perception of customers, although this self-image is distorted upwards in the majority of customers. These images then contribute to the upholding of the shopping center's drawing power.

III. 4. 2. 2. Shopping center drawing power and patronage

The theory of shopping center drawing power is mainly related to Reilly (1931, in. Huff, 1964) and Huff (1964). In their rudimentary model, the drawing power of the shopping center was directly proportioned to its own size and inversely proportioned to the distance between the shopping center and the home of the customers.

This model inspired many researchers, thus over the decades it was further developed and refined. One of the fresh new models is that of Teller and Reutterer (2008). They divide the shopping center drawing power influencing factors into three groups:

1. *site-related factors*
 - a. accessibility
 - b. parking spaces
2. *tenant-related factors*
 - a. retail tenant mix
 - b. retail value
 - c. non-retailer tenant mix
3. *environmental factors*
 - a. orientation
 - b. environment
 - c. atmosphere

They find that these factors influence not only the total drawing power of the shopping center, but also its sustainable and situational dimensions. It is not surprising that the total or general drawing power is mostly influenced by the atmosphere and the retail tenant mix of the shopping center. It is however interesting, that the situational drawing power is influenced by factors such as distance and shopping interest.

Kandikó's (2007) flow-dynamic view represents a completely new approach, from the point of view of drawing power analysis. He took the term *flow* from natural sciences, which he

applied to the drawing power of shopping centers and described it as a social phenomenon, in which the drift in customers leading to the shopping center is very significant. Accordingly, he recommends for analysis not the external factors affecting drawing power, but on the contrary the processes happening in customers, which internally influence the drawing power of the shopping center. Similarly to him, Suárez et. al (2004) analyze shopping center drawing power by taking into consideration the interior characteristics of customers. Since the customers of a shopping center have very different characteristics and make heterogeneous groups, they recommend the pre-segmentation of customers along criteria such as travel time sensibility, image change, first visit etc. This kind of customer segmentation can facilitate the optimal support and enhancement of shopping center drawing power, providing useful information to the developers.

The topic of shopping center patronage has been developed from the above mentioned drawing power theory. According to Pan and Zinkhan (2006), it has two dimensions: shopping center selection and the frequency of shopping center visits. Many researchers call shopping center selection as patronage (pl. Gautschi, 1981), however, I consider the approach of Pan and Zinkhan (2006) more appropriate. In their meta-analysis, they highlighted the following shopping center patronage influencing factors:

1. *shopping center selection*

- convenient parking spaces
- friendly sales staff
- quality of service
- low prices
- good quality
- atmosphere
- quick check out
- wide assortment
- convenient location
- convenient shop hours

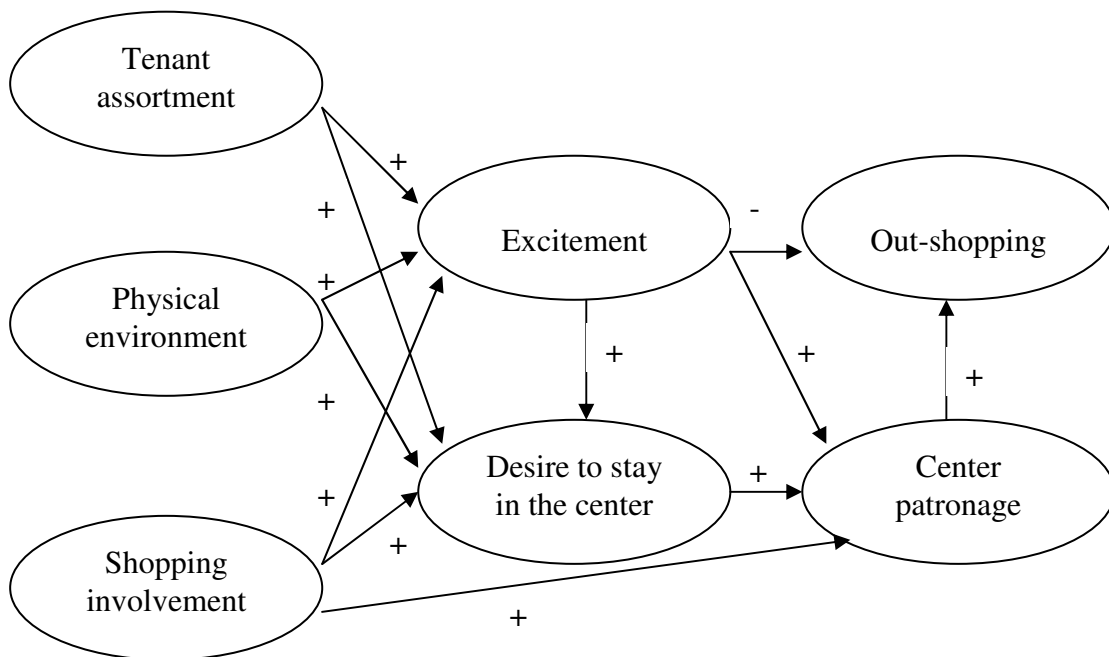
2. *frequency of shopping center visits*

- age
- attitude related to the center
- shopping center image
- gender

- income

In accordance with Pan and Zinkhan (2006), Inman et al (2004) analyzed the effects of geo-demographic factors and retail channel associations on patronage. They found that channel associations influence channel selection in a proportion of 72%, 43% of which comes from the interaction with the respective retail channel. In accordance with this, Wakefield and Baker (1998) analyzed shopping center patronage, frequency of visits and out-shopping based on the emotional dimensions related to shopping.

Figure 22: Shopping center patronage model



Source: Wakefield and Baker (1998)

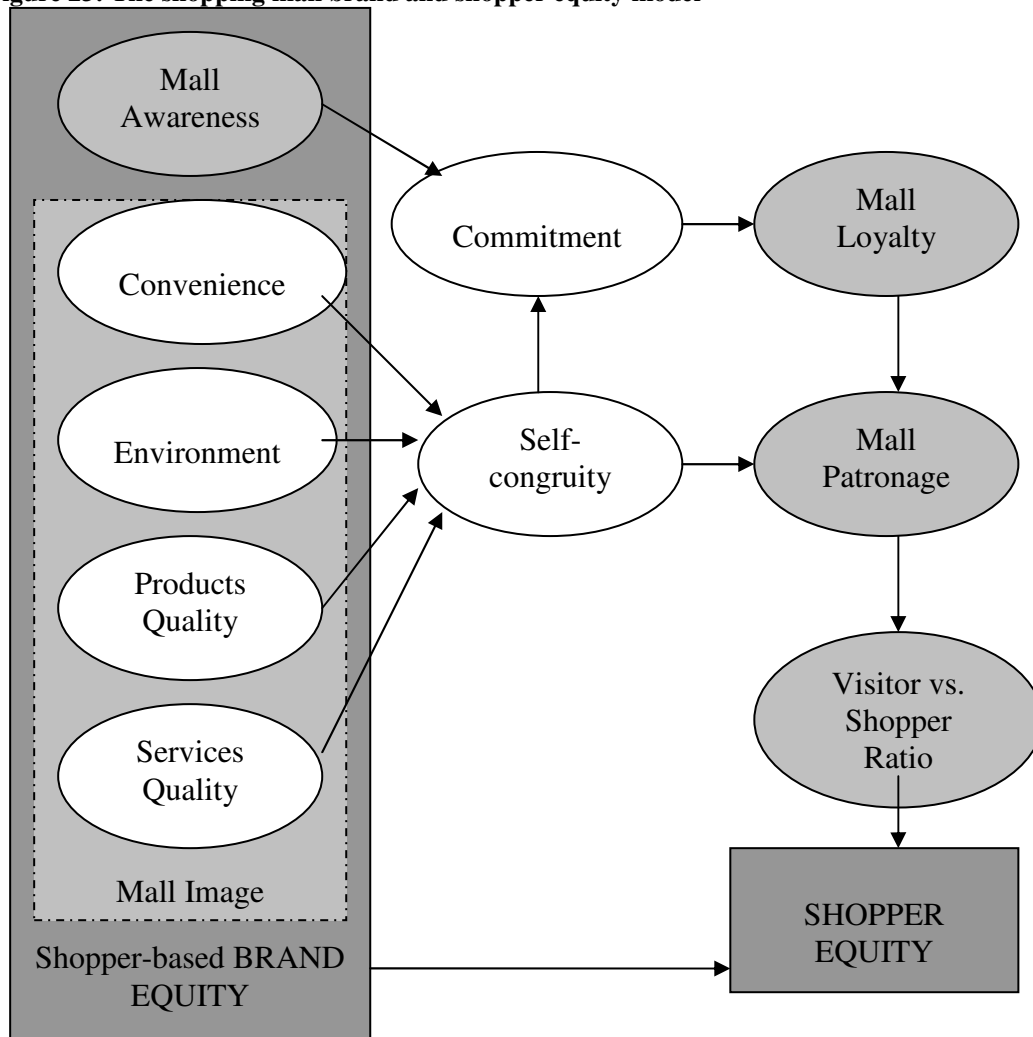
Based on their results, it can be said that tenant range, assortment influences mainly the desire to stay in the shopping center, while the excitement related to the center encourages patronage. Therefore, the less interesting or the more boring a certain shopping center is, the more likely that its customers are going to shop in another center. There is no doubt that the customers of a shopping center represent a very valuable asset, and that center managers and tenant should strive to continuously attract and keep them. This is why, researchers started to take notice of shopper equity and attempted to determine mall equity with its help.

III. 4. 2. 3. Shopper equity and tenant equity

Shopper equity analysis is still a very fresh, novel topic in shopping center research and the term itself is linked to the Canadian researchers Chebat and Hedhli (2009). They introduce for the first time the concept of shopper based mall equity (SBME), which they describe as depending on mall awareness and image. Their model was inspired by Keller's (1993) shopper-based brand equity model and Hartman and Spiro's (2005) shopper-based business equity model. Shopper based mall equity represents the differentiated effects of shopping mall knowledge on shopper responses given to the shopping mall's marketing activity. Later, they use this same shopper-based shopping mall equity to explain shopping mall loyalty. Though their approach is pioneering in shopping center research, it can not be seen completely refined yet, since the action dimension staying for patronage, or most of all shopping is missing from it. If we would talk only about shopper-based mall brand equity, the model would be completely correct. But since this is not the case, Figure 23 shows the corrected version of it. Yiu and Cheong Ng's (2010) article is very important; they make a clear distinction between visitor numbers and shopper numbers and direct attention to the fact that the actual exchange rate between the two is much lower than the usual values resulting from questionnaires. Thus, in case of clothing store visitors, only 26% purchase products, in the case of electrical appliances, 16.3% buy, while in the case of drug stores and health stores 55% of the visitors shop in the respective stores. They've got these results from concrete observation and compared them to results from self-administered questionnaires, which unfortunately distort upwards; therefore, they do not ensure a sound basis for measuring actual shopper rate. This suggests that only mall loyalty, patronage and brand equity are not enough for the determination of shopper equity.

From the point of view of **tenant equity** analysis, the simple rent fee based approach is generally accepted. In spite of this, according to the positive demand externality effects and other factors, the simple rent fee based approach is not appropriate for the complete analysis of tenant equity. However, for the present moment in the literature we can only encounter the simple rent fee based analysis. In my view, tenant equity should be interpreted more broadly, and intangible factors such as tenant brand equity, customer traffic generating drawing power and the above mentioned added value related to positive externality effects should be taken into consideration.

Figure 23: The shopping mall brand and shopper equity model



Source: own compilation after Chebat et al. (2009)

The developers or investors of the shopping center aim to maximize mall equity and profits. Seen from this approach, the goal of shopping mall developers is to maximize rents, which they achieve by the optimal utilization and internalization of positive externality effects (Brueckner, 1993). For the creation of an optimal tenant mix, it is necessary to know what values the individual tenants represent and contribute to the shopping center value. This value includes, beside direct rents collected from tenants, their brand equity, drawing power and positive externality effects, which increases the other tenants' sales, and for which the other tenants pay a certain % of allowance in the rent. The presence of anchor tenants, for instance, carries positive externalities, such as the increase of customer traffic and the enhancement of mall awareness and the strengthening of shopping center image. Though Rosiers et al (2005) try to incorporate the image variable in rent analysis; they examine its effect regarding the

general rent on the level of shopping mall and not on the level of individual tenants. Mejia and Eppli (2003), and Mejia (2000) analyze exactly these effects on tenant sales, thus the further development of their model to measure tenant equity is just one step away. Unfortunately, this has not happened yet. This is due to that, as I already mentioned, neither practitioners, nor researchers became aware of its importance. In spite of all these, the present dissertation's goal is not to discuss this term in more detail; still this should be an important element in Tenant Mix and mall equity researches in the future.

IV. General Shopping Center Theory

In this chapter, we'll discuss in more detail the general shopping center theory that attempts to merge shopping center literature and practice into a single unified framework. Here, the results, phenomena and concepts of scientific studies and those based on my own observation will find their own place in a unified system. All these are presented approaching from the shopping center as PRODUCT paradigm and from Marketing as a dominant field of science for shopping centers.

The previous chapters presented the results of shopping center literature and own observation with the help of the composing elements (Location, Customer Mix and Tenant Mix), and the studies dealing with shopping center valuation and measuring successful performance. In the followings I'll summarize the researches results related to the three components, and offer insights into the relations and interactions between them and into the synergy sources resulting by their proper overlapping and strategic fit. 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 in the science of management as a related term for *value creation*. 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 for further development and keeping synergetic effects. Kaplan and Norton (2005) state the same saying, that in order for a company to

achieve synergy effects, the organizational fit of its departments 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 and internalization of the resulting synergies.*

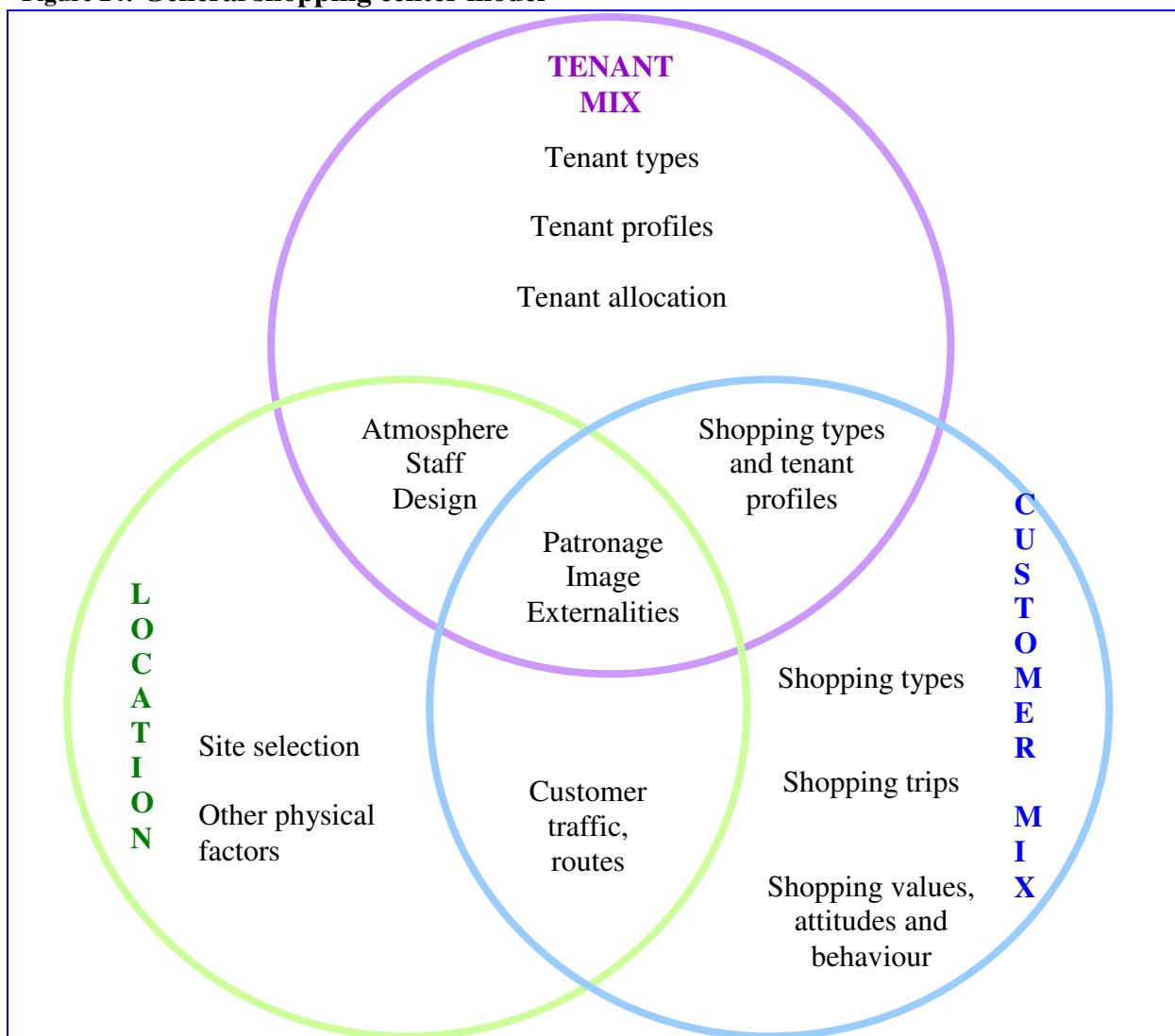
In this chapter, this new shopping center theory, i.e. the general shopping center theory will be presented in detail. Thus, after the brief definition of the composing elements, their strategic fit will be discussed and this is how we reach the topic of synergy sources as defined in case of shopping centers: shopping center patronage, image and retail demand externalities.

IV. 1. General shopping center model

The shopping center as Product is the given combination of its composing elements, namely: Location, Customer Mix and Tenant Mix. These define the shopping center itself and forms its "product" type. But the success of shopping centers lies not in the individual elements, but in their strategic fit and coevolving and in the utilization and internalization of the resulting synergy sources. Accordingly, the success of shopping centers lies not in the Location, Customer Mix or the optimal Tenant Mix, but in the unison of these. As a starting point, the site largely determines the Customer Mix, which affects the other physical factors of Location and determines the Tenant Mix that is to be created. For a long time, Location was seen as the main pillar of shopping centers, but today it is clear that Location, beside accessibility, plays an important role insofar it determines the catchment area of the respective shopping center. From here, everything depends on the coordination of customer demand and tenant supply, and in achieving this, the developer and management abilities and competencies are indispensable. By the adequate combination and strategic fit of these three elements, a solid base is created which can ensure the achievement of investors, owners and developers' goals on the long term. By the utilization and internalization of the interactions between these elements, synergy sources arise, and they determine the success of the shopping center. The management skills of developers and center managers are interesting insofar they are able to recognize the relations, interactions between these factors, they are able to apply them in concordance and enhance their co-evolution. 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.* The role of developers and center managers is of an external tool's through which coordinated action is possible. In the chapters presenting the results of scientific researches, I've already paid detailed attention to each of these composing elements individually, thus I've discussed the research fields related to Location, Customer Mix and Tenant Mix. But little was said about the links between these elements and the synergy sources that can be achieved by coordinating them.

Figure 24: General shopping center model



Source: own compilation

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

IV. 2. Critical summary of the general shopping center theory

In the following, the critical summary and systematization of the literature regarding the general shopping center theory will be resumed focusing separately on the composing elements and on the synergy sources between them. I'll discuss the topic of synergy sources in more detail because they will be presented only here in essence.

IV.2. 1. Critical summary of shopping center's composing elements

In this subchapter I'll describe constructs such as Location, Customer and Tenant Mix. As I've already underlined, these form the main composing elements of the new 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. Since the studies related to these fields were already presented in detail in the previous subchapters, here I will only mention them briefly from a critical approach.

IV. 2. 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, in. Huff, 1964) gravitation theory and Hotelling's (1929) retail agglomeration theory are linked to this as well. Christaller's (1935) theory started spreading mainly in the circle of geographical space analysis, while Reilly's (1931, in. Huff, 1964) gravitation theory was applied mainly for the selection of the adequate retail site, because this proved to be the right method for site analysis based on 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 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** received a role in researches only as long as 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, completing the concept of Location.

IV. 2. 1. 2. Customer mix

Thus, 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 proper development and operation 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 special

consideration the effects of hedonic and utilitarian values on purchasing and spending time in shopping centers. Another popular research topic are customer attitudes related to shopping and their effects on shopping center patronage, loyalty and customer shopping center evaluation. 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 in relationship with tenant type and profile mix; although behavior analysis regarding shopping types could lead to very interesting insights on retail demand externalities.

IV. 2. 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 **Tenant side** literature, we can conclude that the theories related to retail demand externalities are the most wide-spread, which term is mainly related to the name of Brueckner (1993). Unfortunately the connections between tenant types and profiles were examined 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 prepare based on my own observation. Furthermore, in most of these researches important factors, such as shopping behavior: shopping trips or shopping habits are not taken into account. In contrast, these models approach the topic of retail demand externalities from the viewpoint of rents and shopping center's sales maximization, and focuses only on 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, while the meagerness of this field is commonly accepted (Brown, 1992). But due to the shopping center industry's nature and the

very difficult data collection, this is completely understandable. Future researches should focus on topics such as tenant equity.

IV. 2. 2. Critical summary of shopping center's synergy sources

In the followings I'll discuss topics such as shopping center patronage and image and retail demand externalities. These are the areas where the melting of shopping center components create synergy sources through their adequate combination and strategic fit. In other words, the success or value of a shopping center can increase if shopping center developers and managers, concentrate on these components (Location, Customer and Tenant Mix), and jointly apply, strategically fit and coordinate them. They have the opportunity to reach such synergy sources, the internalization and utilization of which 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.

IV. 2. 2. 1. Shopping center image

One of the synergy sources that demands the strategic fit of the three composing elements 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 is 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 or assortment, price levels, discounts and promotions, 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 customer perception (Chebat et al, 2006; Chebat et al, 2009; Massicotte et al, 2010). Still, 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) analyzed

the effects of shopping center image on tenants' image, and as mediating effect they used the customers' own self-image congruence. However, in analyzing relations with opposite direction, 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 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 (Location), customer perceptions and behavior (Customer Mix) and tenant image (Tenant Mix).

IV. 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 select and patronize a shopping center. According to the most simple drawing power model, the selection 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 newer applications of the model, the size of the assortment is also taken into consideration. This is especially recommended in analyzing shopping center drawing power, as the variety of assortment enables customer benefits like saving travel time and costs (Messinger and Narasimhan, 1997; Ghosh, 1986 id. Oppewal and Holyoake, 2004), decreases risks and the uncertainty of search (Berman and Evans, 1986, id. Kelly et al., 1993; Brown, 1989, id. Oppewal and Holyoake, 2004) as the result of supporting 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 refer to the object of shopping; (ii) factors related to the market are the equivalents of the factors of Location; while (iii) personal factors are factors related to 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 store selection, 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 that these factors lead customers to a specific shopping center by filtering them through their 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 psychographic traits of customers. Through the coordinated handling of these and assurance of their strategic fit, shopping center patronage, growing customer traffic and shopping frequency is achievable.

IV. 2. 2. 3. Retail demand externalities

Retail demand externalities prove to be the area where interactions between the three composing elements manifest in a synergy source, which has the greatest impact and carries the most advantages on shopping center value enhancement and success. A shopping center can really maximize its value and incomes if it optimally internalizes the benefits provided by retail demand externalities (Brueckner, 1993). In spite of this, studies conducted so far, only focused on factors related to Tenant Mix and Location (e.g. the size of the shopping center). 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 enhanced and internalized. This is undoubted, especially if beside tenant selection we consider also tenant placement: where should be different or the same type of tenants, anchor tenants generating heavy customer traffic or tenants with different profiles should be placed within the center in accordance with comparison, multi-purpose or impulse shopping types (Carter and Vandell, 2005). In order to respond to these challenges, it is necessary to analyze the 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 or object of shopping is single-purpose or multipurpose shopping. Multipurpose shopping trip is the most frequent among purchases (Brown, 1992), this is facilitated by clustering 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 purpose-specific stores (utilities) within the shopping center have a combined, joint drawing power. They also observed that store types

differing 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 and 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 Mix, Tenant Mix) all have their place.

Accordingly, I distinguish between the following dimensions of retail demand externalities occurring within a shopping center:

- **1. Inter type externalities** – this refers mainly to the externality effects between anchor tenants, preferential tenants and fill-up tenants. In studies so far, this dimension of externalities was analyzed practically as externalities between anchor and non-anchor tenants. (Mejia, 2000; Mejia and Eppli, 2003)
- **2. Inter profile externalities** – it is the dimension of externalities which occurs between tenant selling products, services or entertainment of different categories, especially in the case of complementary products, due to multi-purpose shopping. (Arentze et al, 2005; Cater and Vandell, 2005)
- **3. Intra profile externalities** – in this case, customer traffic increases due to placing together, clustering retailers that sell products of the same category, service providers or entertainment units. (Miceli et al, 1998; Oppewal and Holyoake, 2004).
- **4. Intra type externalities** – externality occurring within the same tenant type. In case of shopping centers, it is uncommon to have several anchor tenants of the same profile, therefore, in their case, we talk about tenants of different profiles, and tenant profile proves to have a stronger impact than tenant type. Externalities within the same profile and type only occur in case of preferential and fill-up tenants, but here, too, the profile effects play a more important role than the effects of tenant type. Therefore, I consider this dimension of externalities to be relevant.

These different dimensions of externalities are facilitated and enhanced by the optimal combination of Tenant Mix, Customer Mix and Location (other physical factors). Table 18 contains the factors of these different externality dimensions, synergy sources.

Table 18.: Factors defining different dimension of externalities

Externality/ Factor	Inter Type	Inter Profile	Intra Profile
Location (physical char.)	Sales area (GLA)	Store placement	Store placement
	Size in sq.m.	Dispersed	Cluster
Tenant Mix	Sales of tenant types	Sales of tenant profiles	Sales of tenant profiles
	Anchor, preferential and fill-up tenants sales effects	General merchandise, hobby, services and entertainment sales effects	General merchandise, durable goods, fashion, hobby and entertainment sales effects
Customer mix	Customer traffic	Shopping type	Shopping type
	Distance between types of tenants	Convenience and impulse shopping	Comparison and specialty shopping

Source: own compilation

It is worth to direct attention towards retail structure and competition analysis in order to understand the relations between the different tenant profiles and tenant types. This analysis is put into an entirely unique perspective by the concept of cooptation (Brandenburger and Nalebuff, 1996), that was taken from competition analysis and strategic management, because „what makes mall hopping different from street shopping are the cooperative-competitive (or ‘cooptation’) interactions among retailers within a mall” (Yiu and Yau, 2006, p. 274). It is accepted, since Hotelling’s (1929) retail agglomeration theory and Nelson’s (1958, id. Oppewal - Holyoake, 2004) cumulative attraction theory, that retailers of different profiles benefit from being placed clustered, next to each other. But this clearly contradicts the previous dominant competition theory (Barney, 1986; Porter, 1980), according to which, retail agglomerations lead to intense competition between retailers and, therefore, have negative effects. Kelly et al. (1993) examined the competitive environment of a store with the help of concepts borrowed from ecology. Accordingly, they described four different interactions occurring between stores: competitive, sales generating, neutral and cannibalizing effects. Naturally, placing competing stores next to each other, as well as the cannibalistic effect of placing own stores too close to each other, have negative effects on the profits of stores. But placing sales-generating stores next to each other has mutual positive effects. The only difficulty is posed by determining which stores could these be, since beside stores selling complementary products, the ”competing” stores who offer the same variety of products could have instead of negative effects positive effects on the sales of other stores. Miller,

Reardon et al. (1999) analyzed the competitive effects on intertype, intratype and intercategory retailers individually taking into consideration the multi-levelness of retail structure. They reached the conclusion that intertype and intercategory competition has a positive effect on retailers who live in symbiosis. But they described intratype competition as a zero sum game, in which competition has a selection-effect like that known from Darwinism. In contrast, Oppewal and Holyoake (2004), when analyzing the effect of retail agglomerations on consumers, reached the conclusion that only the stores offering the same size, variety of products can compete with each other when clustered, while smaller stores are driven out by stores with a wider and deeper assortment of products. Reason why, they recommend that only stores offering the same variety of products or stores offering complementary products should be placed next to each other. In my opinion, it would be advisable to analyze the externality effects also with the help of the methods and concepts known from competition analysis, especially in case of inter type, inter profile and intra profile externalities amongst tenants. Therefore, the concepts of retail externalities and coepetition are closely linked; while the former are external environmental factors, the coepetitive interactions are internal forces (Padula and Dagnino, 2007). In other words, while retail externalities, synergy sources, are only environmental conditions that are created by developers and center managers when developing the shopping center as Product; coepetition is the result of active interactions between tenants. But we should bare in mind that developers and center managers greatly affect and moderate these coepetitive interactions and coepetition models through the creation of externality embedded environments. The coepetitive interactions and coepetition models (Chin et al, 2008) are shown below in Table 19.

Table 19.: Dimensions of externalities and related coepetition models

Dimension of externality	Direction of Externality	Coepetition model
Inter types	Positive	Monoplayer (<i>low competition, low cooperation</i>)
Intra types	Negative	Contender (<i>high competition, low cooperation</i>)
Inter profiles	Positive	Partner (<i>low competition, high cooperation</i>)
Intra profiles	Positive / Negative	Adapter (<i>high competition, high cooperation</i>)

Source: own compilation based on Chin et al (2008, p. 439).

The internalization and optimal utilization of Tenant Mix related retail externalities have always been in the focus 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. in. 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 coopetition.

V. Preliminary Studies

Two preliminary studies were carried out to explore the defining factors of shopping center’s composing elements. The first preliminary study is based on in depth-interviews with two industry-leading center managers. Therefore, this presents, mainly, the effects of tenant type and profile mix on the success of shopping centers approaching from the point of view of developers, center managers and investors. The second preliminary study examines customer habits, for which I processed the data of a questionnaire completed by 344 students. The results of this survey provide interesting insights on shopping types and trips.

V. 1. Center Manager Approach – Qualitative In-Depth Interviews

The focal point of this preliminary study carried out in 2007 was the analysis of Tenant Mix as a composing element of the shopping center. The study tried to find out what is the optimal tenant type and profile mix from the point of view of shopping center’s managers, who create the retail supply. Accordingly, the research was conducted with the help of a semi-structured interview (King, 1994), on the following main topics: management objectives, milestones, management decisions related to Tenant Mix, tenant type and profile mix, customer mix, and factors influencing shopping center selection. I’ve interviewed the center managers of two shopping centers from Budapest. Table 20 contains the main data of the shopping centers taking part in my interview-survey. The records of the interview were processed according to the topics mentioned above. It is quite difficult to evaluate the results from the point of view

of reliability and validity, because: (1) only two surveys were conducted, (2) the owner of the two shopping centers is the same. However, I consider that the results provide a good starting point for general theses formulation and for the shopping center theory clarification and refinement. I shall not present these results in this chapter, because I have already used them at literature review for the clarification of existing concepts and for the introduction of new concepts, such as: the processes and actors of shopping center development and operation, the various tenant types and profiles.

Table 20: The main data of the shopping centers included in the qualitative research

Shopping center	Date of opening	Shopping center type	Retail area	Number of stores
WestEnd City Center	1999	Regional	44,800 m ²	389 + 33 mobile 200 fashionwear
Pólus Center	1996	Regional	56,000 m ²	Hyperm.+ 300

Source: own compilation

V. 2. Customer-Centered Approach – Student Survey

The student survey was conducted under organized conditions, during the student survey organized by the Marketing and Media Institute on March 31 and April 1, 2008. A number of 534 third- and fourth-year students took part in the survey. Following the completion of the questionnaire, I processed only the data of 344 respondents. The questionnaire was centered on questions such as:

1. – what kind of product categories create their shopping cart?, how frequently do these shopping carts occur?
2. – which are the factors influencing patronage: what do they consider when selecting a store and how frequently they shop there?

I've offered the following 12 product / tenant categories for the creation of shopping carts: food and household goods, clothing, shoes, leather goods, books, electronic appliances, furniture and home furnishings, watches and jewelry, sports equipment, perfumes and cosmetics, stationery, DIY and building materials.

The gathered data was analyzed with the help of the SPSS software pack. I present hereby only the results of the first question, due to their relevance, in this dissertation. Accordingly, I paid attention to one of the most defining factors of store selection, the object of shopping, taking into account Popowski and Timmermans' (2001) single-purpose and multi-purpose shopping trips typology. In order to find out whether single-purpose or multi-purpose shopping trips are dominant and in case of multi-purpose shopping, what kind of products make up the object of shopping, I've asked the respondents to create shopping carts. I've tested with confirmative methods the presumption that *the majority of shopping strategies are multi-purpose; multi-purpose shopping trips are present in a higher ratio than single-purpose shopping trips*. On the other side, I've tried to find out what kind of products consumers buy together during their multi-purpose shopping trips, for which I've used explorative methods. The respondents had the possibility to create five shopping carts, which they could select from the above mentioned 12 product / tenant categories.

In order to test the above mentioned presumption, I've analyzed the shopping carts in which more than one product / tenant category was selected. In case of the first shopping cart, 73% contained more than one product, in the second shopping cart this ratio was 90.2%, in the third cart it was 73.4%, in the fourth cart it was 63%, while in the fifth 56.8%. *Overall, according to these, 71% of the shopping carts represent multi-purpose shopping trips, while only 29% show single-purpose shopping trips. This result is in accordance with the results obtained by O'Kelly (1981) and Brown (1992)*. Based on this, we can state that *multi-purpose shopping trips occur more frequently than single purpose shopping trips*.

The most important influencing factor of store selection proved to be the *object of shopping*. In the light of multi-purpose shopping, I've tried to determine the product categories that customers buy together during one multi-purpose shopping trip and to determine the product category groups that show resemblance. Therefore, I did several explorative, hierarchical agglomerative cluster analyses per shopping carts with the following methods: average chain method (within and between groups), simple chain method, complete chain method, centroid method, median method and Ward method. The most interpretable results were obtained through the analysis made with the Ward method. Thus, I've examined the overall results of 35 cluster analyses resulting from the five shopping carts. For this purpose, I've selected the product categories that were combined in a cart most frequently. The results are summarized in the followings:

- **a. Durable goods** – one of the most frequently jointly-purchased product categories are furniture, home furnishings (7) and DIY, building materials (12), which were placed in the same group in all cluster analyses; in two thirds of the cases they are accompanied by electrical appliances (6).
- **b. Clothing, fashionwear** – the other very frequently co-occurring two product categories are clothing (2) and shoes (3). In 35 cluster analyses, there were only two cases where they weren't combined.
- **c. Everyday goods** – although it is characterized by far weaker relations, I still consider food, household good (1), perfumes, cosmetics (10), stationery (11) and book (5) product categories in the same shopping cart, which occur frequently in groups of two or three, while all of them occurred together in only one case.
- **d. Gifts, lifestyle and hobby** – finally, the loosest group of product categories bought together is made of leather goods (4), sports equipment (9) and watches, jewelry (8), occasionally added books (5), electrical appliances (6) and perfume, cosmetics (10).
In our case, I've mentioned stationery (11) and books (5) under point "c" as products satisfying everyday needs because the sample was made only of students, in whose case these products fall in this category.

Based on these analyses, I found that the majority of shopping trips (71%) are multi-purpose. The explorative cluster analysis revealed that shopping carts containing several product categories can be grouped in the following way: **everyday goods, clothing and fashion and durable goods containing shopping carts**. Single-purpose shopping trips are oriented towards **lifestyle, hobby** like goods or the purchase of a potential gift. It is interesting to observe that, in the same time, these shopping carts are very closely related to different shopping types: (i) convenience shopping – products satisfying everyday needs, (ii) comparison shopping – clothing and fashion products, (iii) specialized shopping – durable goods and (iv) impulse shopping – lifestyle, hobby products. These results provide clues for center managers about tenant and profile mix selection and space allocation.

I consider that these results provide valuable information through the exploration of shopping carts, and insights into the distribution of different shopping types. The understanding of these shopping habits is necessary for the analysis of different retail externality dimensions, for creating an appropriate Tenant Mix and enhancing shopping center performance.

VI. Research

We have reached the chapter where we'll test the previously formulated new general shopping center theory. This general shopping center theory is based on the Product paradigm and considers marketing as its dominant field of science. This theoretical framework is just now formulated, thus its in the phase of theory building and development. This theory shed light on the composing elements of the shopping center as Product and on the special synergy sources resulting from their strategic fit. The aim of the research is to test, refine and further develop this general shopping center theory. The question is whether this theory is suitable and provides an appropriate and applicable theoretical framework for both shopping center research 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 operational 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.

Nevertheless, during this research I'll examine only a simplified version of this general shopping center theory in order to analyze the effects of shopping center composing elements on determining shopping center product types. The reason for this narrowed analysis is that during data collection I couldn't gather data enabling the test of the whole theory. According to industry particularities, shopping centers data are handled very confidential and considered business secrets. Thus, my attempt of a self-administered questionnaire-based data collection 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 despite having a 90% occupancy rate, and which lost more than 80 million Euros from its market value in 5 years. Therefore, 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 center's type, 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 present dissertation. Nevertheless, the present research greatly contributes to shopping center theory formulation and clarification, which is the goal, and offers directions for future researches. The analysis of the general shopping center model offers the possibility to record a theoretical framework which synthesizes the existing literature and which provides guidance for both future researches and shopping center developments. Thus, during research proposal I formulate research questions such as: can we describe the shopping center as a combination of location, customer mix and tenant mix?, how do these factors influence shopping center type? etc. According to the simplified model of general shopping center theory, the synergies occurring between the composing elements, as well as the success of the shopping center are laying outside the focus of analysis. The complexity of the model, still requires the use of latent variable path analysis (LVPLS), due to its many advantages (Hair et al, 2011a), which is appropriate for this analysis. After the formulation of theses and hypotheses, I'll briefly discuss the advantages of the applied methodology. This will be followed by the definition of variables incorporated into the model, the description of data collection process and the general characteristics of the examined shopping centers (the sample) and the presentation of primary analyses results.

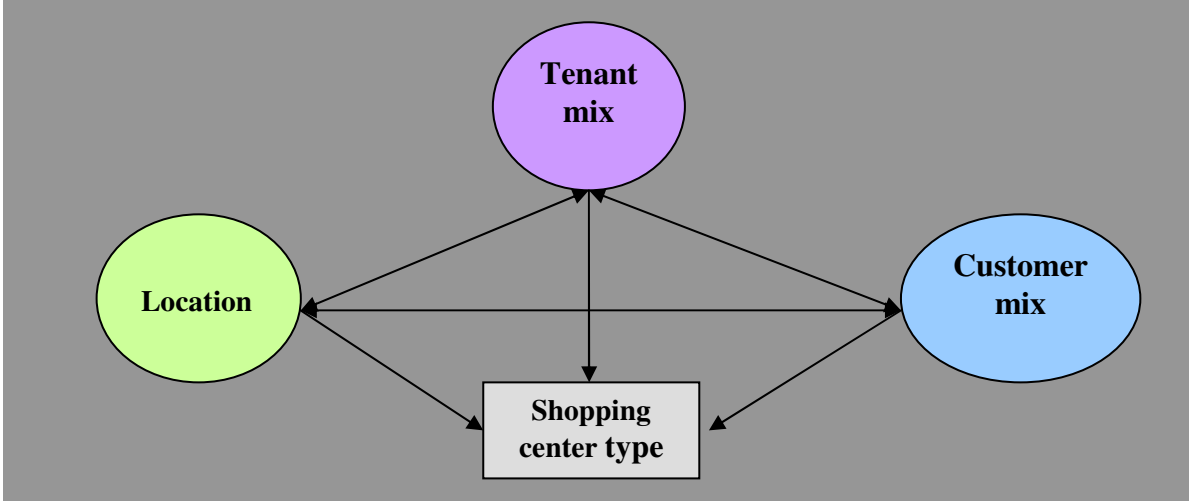
VI. 1 General shopping center model – the simplified model

The newly introduced general shopping center model is the basis of analysis in the present research. Location, Customer Mix and Tenant Mix are the three elements which define both the practice and theory of shopping centers. Every shopping center and all the activities or phenomena related to them are characterized through these three elements. Accordingly, these are the three elements that define the type of the shopping center as Product. The shopping center classifications presented so far (Dawson, 1983; Guy, 1994; ICSC, 2004; Levy and Weitz, 2008), as Table 6 also shows, take into consideration classification criteria such as:

- geographical location
- architectural design
- type and function of tenants
- shopping types.

Following this line of thought, we could use Location (geographical location, architectural design), Customer Mix (shopping types etc.) and Tenant Mix (type and function of tenants) as the classification criteria of shopping centers. Figure 25 shows this simplified general shopping center model, in which the composing elements define the type of the shopping center. The arrows between location, customer mix and tenant mix represent the interactions, the coevolving directions between these elements; while the one-direction arrows originating from them represent their effects, influence on determining shopping center's type.

Figure 25: The effect of the general shopping center model on the shopping center-product types



Source: own compilation

Table 21: The link of shopping center type to the general model

Shopping center type – ICSC (2004)	Location	Customer mix	Tenant mix
Mall	Site	General shopper characteristics	Tenant type and profile mix
Regional center			
Superregional center			
Open air center	Other physical factors	Shopping values, attitudes, behavior	Tenant selection and allocation
Neighborhood center			
Community center			
Power center		Shopping habits	Externalities between tenants
Theme/festival center		Shopping types	
Outlet center		Shopping trips	
Lifestyle center			
Hybrid center			

Source: own compilation

Table 21 summarizes the influencing factors of this simplified model and the different shopping center types according to the definition of the International Council of Shopping Centers (ICSC, 2004). Accordingly, taking Location into consideration, the site and the other physical factors influence the type of the respective shopping center. From the point of view of Customer Mix, the general characteristics of customers living in the catchment area influence the most the shopping center's type; but, within shopping habits, shopping types and trips (Guy, 1994) are also influencing. Approaching from Tenant Mix, the type and profile of tenants seem to be important influencing factors, tenant selection and space allocation, as well as externalities between tenants are contributing actors, even though the latter are harder to measure. Therefore in the followings this model will be further narrowed, in order to enable the its concrete analysis in the light of the theses and hypotheses formulated below. Accordingly, the analysis of tenant allocation and externalities between tenants is left out from the model, and so is the analysis of shopping values and habits. Therefore, during the testing of the simplified general shopping center model, in accordance with the measurable and available data, the analysis will be narrowed on Customer and Tenant Mix. Even though, only a simplified general shopping center model is analyzed, this will provide a sufficient basis for the refinement and further development of the theory.

VI. 2. Theses and Hypotheses

We can define three main propositions from the general shopping center theory. The hypotheses tested in the present research are derived from these propositions. As already mentioned, the present research will test only a simplified version of the general shopping center theory. For this reason, 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 have 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 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 formulated 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 shopping centers.

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 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.

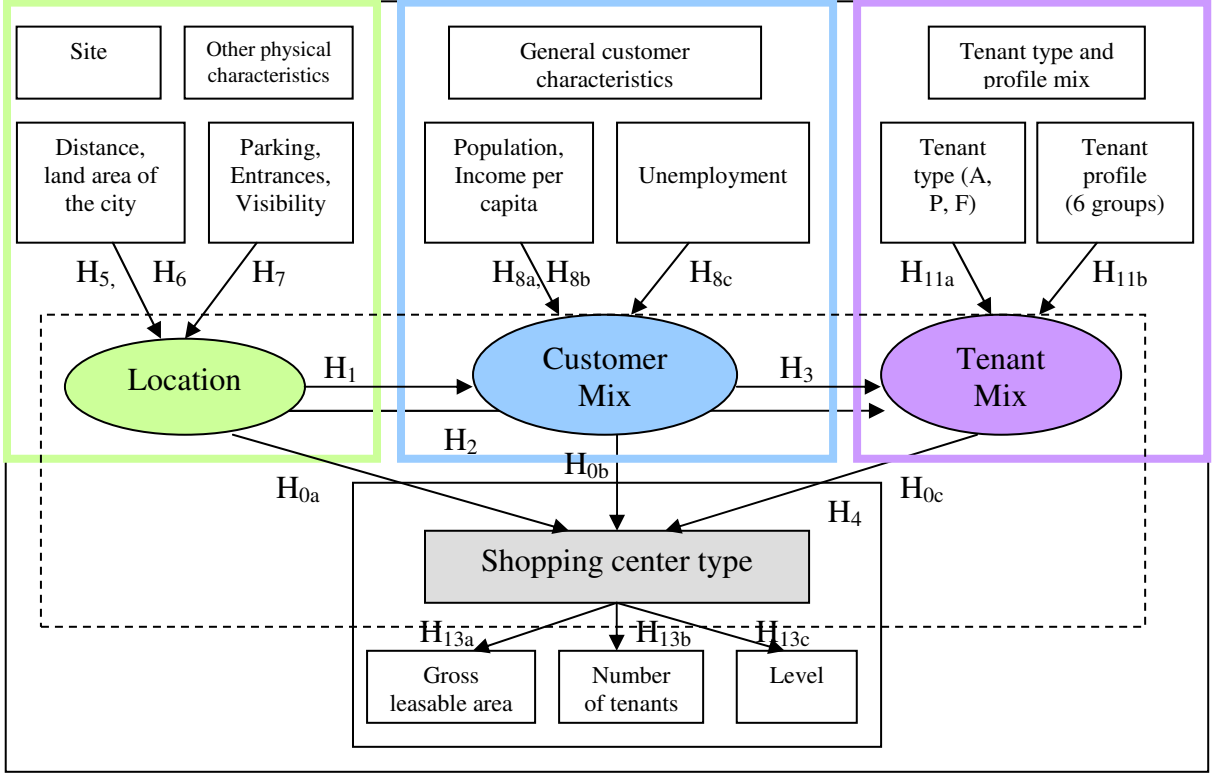
H₁₅: The shopping center's image, patronage and retail demand externalities within the center have a positive effect on the success of a shopping center.

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 26 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 26: The connection of shopping center type to the general model's composing elements



Source: own compilation

VI. 3. Research 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), offers the possibility for the simultaneous, parallel and comprehensive analysis of many independent and dependent variables in several equations. This makes it very different from the first generation multivariable models, such as regression analysis or factor analysis, since the combined analysis of several independent and dependent variables becomes available. Reason why, PLS-SEM is the most appropriate for empirical explorative testing and development of complex theories. 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 success factors. This is even truer, since for the analysis of success factors, the use of formative external models is preferred to reflective models, and these can be analyzed the best by PLS-SEM method. In case of formative external measurement models, the observable external variables determine the latent variables, while in case of reflective external measurement models, the opposite of this occurs. In case of formative models, there is no need for the correlation of variables, thus, the analysis of the critical value of Cronbach α , as classical theoretical test is not necessary. Hair et al (2011 a) recommend the PLS-SEM analysis method in the following cases:

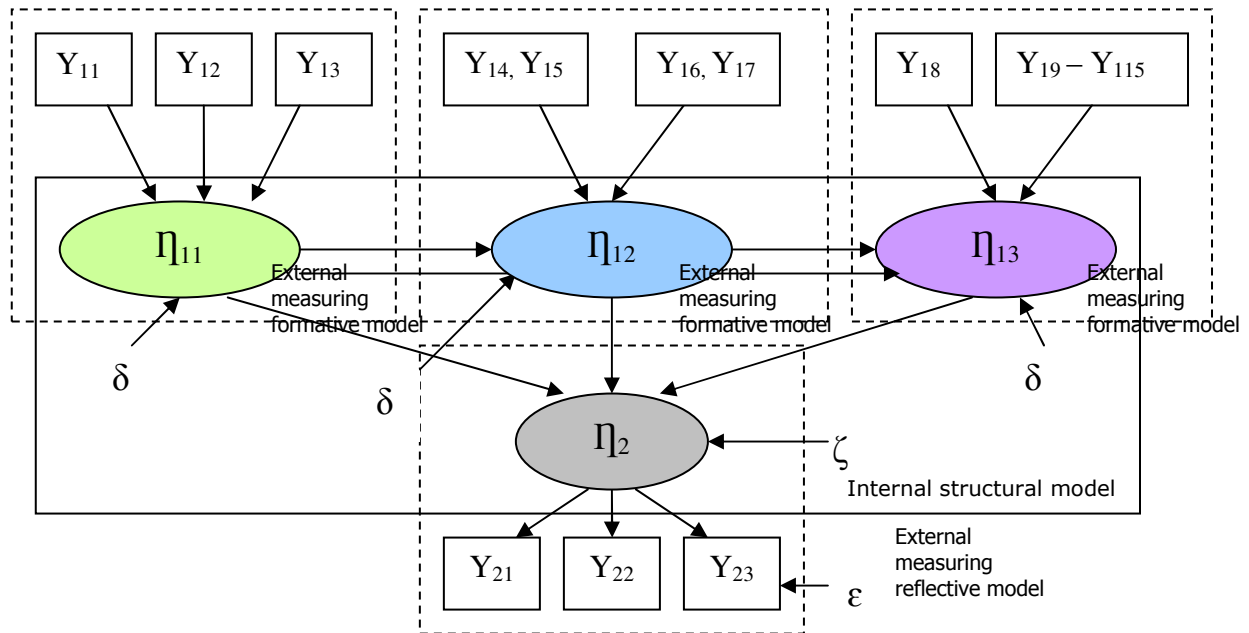
- when the aim of the research is the determination of key success-factors (cause and effect relationships)
- when the emphasis is on the explorative and theory development characteristics of the research
- when the structural model is formative and complex („PLS comes to the fore in larger models, when the importance shifts from individual variables and parameters to packages of variables and aggregate parameters. [...] In large, complex models with latent variables PLS is virtually without competition.”) (Wold, 1985 pp. 589-590, in: Henseler et al, 2009, pg. 294)
- when the sample used in the research is relatively low (according to the rule of thumb the lowest acceptable as equal to: (i) minimum tenfold the maximum number of variables used in the analysis for the measurement of a latent construct or (ii) tenfold the maximum number of paths pointing to the direction of a latent construct used in the inner structural model)
- when the distribution of the data is not normal.

Due to these advantages, the Partial Least Squares – Structural Equation Model (PLS-SEM) spread quite rapidly in marketing researches in the last decades, and in the past 30 years more than 200 researches that are worth mentioning used this analysis method (Hair et al, 2011 b).

Since in case of the present research, the goal is the testing and development of the general shopping center model, and the exploration of the key success factors for shopping centers, the most appropriate method is the application of the PLS-SEM – LVPLS critical path analysis. Transferring the above described general shopping center model and the related theses to the mathematical-statistical field, we get the PLS-SEM model seen in Figure 27,

where Y represents the observable, measured variables, while η represents the estimated latent variables.

Figure 27: The link of shopping center type to the composing elements of the general model– LVPLS analysis



Source: own compilation

The relations, effects between them can be revealed by LVPLS path analysis. The Latent Variables Path Analysis with Partial Least-Squares Estimation model is the most adequate and most frequently applied method for the analysis of the direction and strength of effects between various latent variables (Füstös et al, 2004). It is obvious from the figure, that all of the external measuring models of Location, Customer Mix and Tenant Mix are formative, thus, these are formed as success factors by the different measurable external variables. Regarding the type of the shopping center, a reflective external measurement model is used, since this influences the gross leasable area of the shopping center, the number of its tenants and levels, and not vice ad versa. The internal structural model includes several endogenous variables (Customer Mix, Tenant Mix and shopping center type), therefore, the model is quite complex. Naturally, instead of the individual analysis of the specific endogenous latent variables, the main goal of the present research lies in their combined analysis for the determination of the shopping center type. We can not pass by the fact that, in the present research, only 75 shopping centers are included in the sample, which is a relatively small number for the elements of a sample, but in the case of shopping center researches it is quite

enough. Shopping center research is such a special field that data collection is extremely difficult and cumbersome, data is regarded as business secret, and even in case of the best shopping center researches, the maximum sample size didn't exceeded the number of 41 shopping centers (Mejia, 2000). The sample of 75 elements is just enough for the above mentioned first rule of thumb described by Hair et al (2011 a), because seven variables belong to the construct of Tenant Mix measured from the maximum number of variables; tenfold seven resulting in 70 elements.

Taking all these into consideration, the most appropriate method for the theoretical testing and development of the general shopping center model is PLS-SEM (Partial Least Squares–Structural Equation Models), therefore, I shall use this with the help of the SmartPLS 2.0 software pack.

VI. 4. The definition of variables and data collection

The above presented LVPLS model suggests that both observable, measured variables and latent variables, construct, which can not be directly measured, are used simultaneously. *Observable variables* are related to the latent composing elements used in the general shopping center model: Location, Customer Mix, Tenant Mix and shopping center type. Thus, within Location, from the other physical factors, I incorporate in the model the number of parking spaces and number of entrances and visibility with the help of an aggregated factor. Regarding site, the land area of the respective city and the distance of the shopping center from the city center are included in the model. From the point of view of Customer Mix, the number of inhabitants living in the catchment area, their average income per capita and unemployment are used for measurement. Unfortunately, due to lack of data, the shopping habits and strategies of customers living within the catchment area are not analyzed, even though these would certainly lead to more nuanced results. From the point of view of Tenant Mix, only the type and profile of tenants are included in the model and factors such as tenant allocation and externalities between tenants are not included in the model. Tenant types are merged into a single factor, while in case of tenant profiles six factor variables group the 18 recommended tenant profiles through main component analysis. These merging, aggregation are necessary for the easier handling of the model, and also because the usage of 21 observable variables for the measurement of a latent variable would require a sample of at least 210 elements (Hair et al, 2011 a), which is not feasible in my case. I examine the type of

shopping center through the gross leasable area, the total number of tenants and levels. But these variables, in contrast to the ones above, are not included as input variables in the model, but as output variables, which are influenced by the type of the shopping center.

The composed factor variables were created with the help of the PASW 18 software pack. In case of the other physical factors, the factor variable explains only 48.4% of the original values that were measured, at a significance level of $p = 0.002$ resulted from the Bartlett test, in case of tenant types, this is 62.24% at a significance level of $p = 0.000$. The six factors of tenant profiles created by the merging through main component analysis explain 72.73% of these variables at a significance level of $p = 0.000$. The KMO values resulted from the three factor analyses is 0.492 (other physical factors), 0.575 (tenant types) and 0.773 (tenant profiles); though they do not reach the acceptable value of 0.5 (Sajtos and Mitev, 2007) in all cases, they are accepted due to the constraints of sample size and of the available variables.

From the *latent variables*, we must mention Location, Customer Mix, Tenant Mix and shopping center type. Location counts as an exogenous, external variable, while the other composing elements of the model and the shopping center type play the role of endogenous latent variables. These observable and latent variables, their measuring units and definitions are summarized in Table 22.

Table 22: The observable and latent variables of the model

Variable name	Observable vs. latent variable	Input vs. Output Endogenous vs. Exogenous	U.M.	Definition
Land area	Observable	Input	km ²	The land area of the city belonging to the site of the center.
Distance	Observable	Input	km	The air distance measured between the shopping center and the city center.
FAC1 - other physical characteristics	Observable	Input		Aggregated factor variable of parking spots, the total number of entrances and visibility (at the intersection of how many main roads is the shopping center's site located).
Location	Latent	Exogenous		according the definition found at the beginning of the dissertation
Inhabitants	Observable	Input	pc	The total number of inhabitants of

			(e)	the city related to the center.
Unemployment	Observable	Input	pc (e)	The total number of unemployed in the city related to the center.
Income PPS	Observable	Input	EUR	The average income per capita of the inhabitants according to purchasing power parity.
Customer mix	Latent	Endogenous		according the definition found at the beginning of the dissertation
FAC1 - Tenant type	Observable	Input		Aggregated factor variable of the total of anchor-, preferential- and fill-up tenants.
FAC1 – FAC6_Tenant profile	Observable	Input		6 Factor variables resulted from the aggregation of 18 different tenant profiles.
Tenant mix	Latent	Endogenous		according the definition found at the beginning of the dissertation
Gross Leasable Area (GLA)	Observable	Output	M ²	The gross leasable area of the shopping center
Total number of tenants	Observable	Output	pc	The total number of the shopping center's tenants
Levels	Observable	Output	pc	The number of the shopping center's levels
Shopping Center Type	Latent	Endogenous		according the definition found at the beginning of the dissertation

Source: own compilation

The data collection of observable variables used in the analysis took place continuously between 2008 and 2012. Since the gathered data are cross-sectional, they record the status of shopping centers in a given moment. But this given moment status in case of shopping centers, applies to a fairly longer period of time than in case of other industries, since the characteristics of the center (gross leasable area, number of levels and tenants) often do not change for decades and because the lease contracts are signed for long-term (in the case of anchor tenants, up to 15 years). Within Location, only the other physical factors might change over time, and this is possible only on the occasion of a major renovation, expansion or repositioning. Noticeable variations might arise only in case of Customer Mix related variables measured over a period of four years. This is why, regardless from the time span of data collection, I consider appropriate the use of cross-sectional data. The data was collected through the method of personal observation (Malhotra, 2005), as it follows:

Figure 28: The floor plan of West End shopping center



Ajándék, dísz tárgy, játék

Ambiente	Báthory István sétány 28.
Fotó Kuckó	Eötvös József sétány 19.
Gravir Expressz	Eötvös József sétány 39.
Happy Box Nici Shop	Eötvös József sétány 39.
Minifoklór,	
Nepművészet	Bocskai István krt. 14.
Stile Interio	Széchenyi István nkt. 39.

Bőraru, táskák, ajándék

Deniz	Eötvös József sétány 9.
Mandarina Duck	Deák Ferenc sétány 50.
Monarchy	Eötvös József sétány 11.
Reakcsizslema	
Menadžer Shop	Deák Ferenc sétány 8.
Yellow Kongaroo	Bethlen Gábor sétány 7.

Cipő

Alberio Zago	Báthory István sétány 2.
Box 41	Eötvös József sétány 41.
Buffalo London	Széchenyi István nkt. 27.
City Line	Eötvös József sétány 43.
Fönícia	Deák Ferenc sétány 20.
Mexx	Milennium udvar 112.
Naxx	Széchenyi István nkt. 31.
Overland	Bethlen Gábor sétány 11.
Panama Jack	Bethlen Gábor sétány 21a.
Tizza Márkabolt	Széchenyi István nkt. 27.

Éttermek, kávézók

Polar Espresso	Ferdinánd tér 3.
Segafredo Espresso	Naigara tér 102.
Testarossa Café	Mátyás király pihenő
T.G.I. Friday's	Ferdinánd tér 1.

Fehérméző

Bepan	Eötvös József sétány 17.
Intimissimi	Bethlen Gábor sétány 15.
Konkurencia	Eötvös József sétány 11.
Saniána Dessous	Deák Ferenc sétány 48.
Women Secret	Milennium udvar 105.

Férfi ruházat

camel active store	Eötvös József sétány 25.
Griff Gentlemen's	Széchenyi István nkt. 15.

Értékesítők

Extra Size	Bocskai István krt. 16.
Kristóf Szallan	Milennium udvar 101.
Kristóf Szallan	Bocskai István krt. 25.
Lord Maestro	Naigara tér 103.
Nautica	Széchenyi István nkt. 5.
Saxxo London Shop	Bethlen Gábor sétány 31.
Szudko Uomo	Eötvös József sétány 21.
Walter	Deák Ferenc sétány 44.
Waher	Deák Ferenc sétány 58.

Férfi-Női ruházat

abOrignal	Báthory István sétány 26.
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Blue Heaven Store	Bethlen Gábor sétány 29.
Buffalo London	Széchenyi István nkt. 27.
C&A Áruház	Ferdinánd tér 7.
Energie	Báthory István sétány 6.
Mexx	Milennium udvar 112.
Next	Széchenyi István nkt. 31.
Original Levi's Store	Báthory István sétány 18.
Pepe Jeans Store	Bethlen Gábor sétány 21a.
Retro Jeans	Báthory István sétány 24.
Tizza Márkabolt	Széchenyi István nkt. 27.
Tom Tailor	Bethlen Gábor sétány 23.

Gyermekruha, gyermekcipő

C&A Áruház	Ferdinánd tér 7.
Mexx	Milennium udvar 112.
Next	Széchenyi István nkt. 31.

Hobbi

Eva Közvetlen	Bocskai István krt. 3.
Vision Express	Bocskai István krt. 5.

Könyv

KönyvKuckó	Széchenyi István nkt. 2.
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Lakásfelújítások, lakáskiegészítők, dekorációk

Stile Interio	Széchenyi István nkt. 39.
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Műszaki cikkek, számítástechnika

Dei	Bocskai István krt. 9.
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Samsung	Széchenyi István nkt. 19.
Vannópcentrum	Bocskai István krt. 5.

Gyógynövénytermékek, fitoterápia, étrendkiegészítők

Életerő Centrum	Bocskai István krt. 22.
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Női ruházat

Braga	Naigara tér 104.
Icon Design	Bethlen Gábor sétány 9.
Mango	Deák Ferenc sétány 30.
Mary Lux	Bocskai István krt. 24.
Persona	Eötvös József sétány 27.
Promod	Eötvös József sétány 35.
Tilly Wesi	Milennium udvar 114.
Women Secret	Milennium udvar 105.
Yoko Moda	Eötvös József sétány 29.

Optika

Oliver Exclusive Optika	Deák Ferenc sétány 54.
Vision Express	Széchenyi István nkt. 29.

Óra, ékszer, bisz, divat kiegészítők

Biszu Brigitte	Eötvös József sétány 31.
Elvis Biszu	Milennium udvar 110.
Egés Mária	Naigara tér 105.
Magnolia Silver	Milennium udvar 118.
Mexx	Milennium udvar 112.
Napa Elczar	Milennium udvar 117.
Navett	Deák Ferenc sétány 40.
Next	Széchenyi István nkt. 31.

Montblanc	Eötvös József sétány 15.
Swarovski	Bethlen Gábor sétány 27.

Papír, írószerek, irodafelszerelés

Green Papír	Báthory István sétány 8.
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Szálloda, szállodai vendéglátás

Hilton Budapest WestEnd	
Deák Ferenc sétány	
- Arabona Restaurant	
- Kando Bar, Zeta Café	

Sport, és szabadidőruházat, sportcipő, sportszerek

Adidas	Báthory István sétány 16.
Arena	Báthory István sétány 20.
Best Sport-Nike	Bocskai István krt. 10.
DBL Nike	Báthory István sétány 12.
Color Sport	Széchenyi István nkt. 9.
Converse	Bethlen Gábor sétány 3.
Master's Sport	Milennium udvar 107.
Naukica	Széchenyi István krt. 5.
Overland	Bethlen Gábor sétány 11.
Playroom	Milennium udvar 109.
Protest	Széchenyi István nkt. 7.
Puma	Eötvös József sétány 45.

Szépésgépjárat, illatszerek

Drogerie Markt	Széchenyi István nkt. 37.
L'Occitane en Provence	Bethlen Gábor sétány 17.
L'Oréal	Bethlen Gábor sétány 1.

Maronius Parfümériák	Milennium udvar 103.
Parfümeme Douglas	Milennium udvar 116.
Premier	Milennium udvar 119.

Szolgáltatás

Change	Bocskai István krt. 26.
Citibank	Ferdinánd tér 4.
Gravir Expressz	Eötvös József sétány 3.
BUSZ - Hunguest	Eötvös József sétány 1.
Hotels	Eötvös József sétány 1.
Reakcsizslema	
Menadžer Shop	Deák Ferenc sétány 8.

Szórakoztatás, zene, hangszerek

Budapest Fortuna Club	Báthory István sétány 12b.
C-West	Széchenyi István nkt. 45.
City Polka Club	Deák Ferenc sétány 2.
Élőzenei Hangszer	Eötvös József sétány 13.
Play Station West	Széchenyi István nkt. 45.

Telekommunikáció és tartozékok

Cream GSM	Ferdinánd tér 2.
Enternet	Bocskai István krt. 12b.
Enternet+	Bocskai István krt. 20.
Hollónai Vodafone	
Hivatalos Partner	Eötvös József sétány 5.
Nokia Mintabolt	
es Szerviz	Bocskai István krt. 8.
Pannon	Báthory István sétány 14.
Pannon	Széchenyi István nkt. 23.
Sony Ericsson Mintabolt	Bocskai István krt. 12.

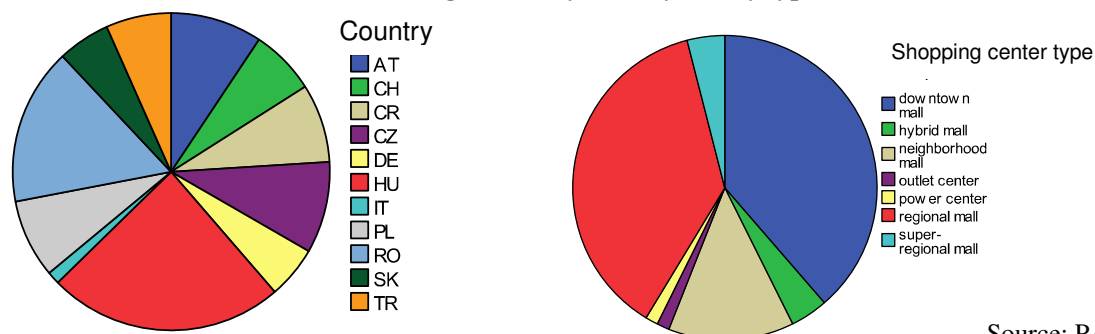
- I gathered and coded the data related to tenant mix, shopping center type and other physical characteristics from the official websites of shopping centers on one hand, and from the retail plan, information leaflets available in the shopping centers on the other hand (e.g. the floor plan shown in Figure 28)
- 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 case of Croatia, People's Republic of China and Turkey) instead of data on the level of the catchment areas of the respective 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.

VI. 5. The Sample and Data

In order to conduct an appropriate analysis 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 and 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. The distribution of shopping centers by country is shown in Figure 29, while Table 23 contains the names and main characteristics of the shopping centers included in the analysis.

Figure 29: The distribution of shopping centers by country and by type



Source: PASW 18

Table 23: The main characteristics of the shopping centers included in the research

No.	Shopping center name	Gross leasable area	Country code	City	Developer/ Owner	Year of data collection
1	McFerihegy	44,000	HU	Budapest	AIG	2008
2	Savoya Park	30,000	HU	Budapest	-	2008
3	Rózsakert	7,700	HU	Budapest	Raiffeisen	2008
4	EuroPark	24,700	HU	Budapest	-	2008
5	CsepelPlaza	13,654	HU	Budapest	SGC	2008
6	Campona	40,000	HU	Budapest	ING	2008
7	MOM Park	30,000	HU	Budapest	-	2008
8	Duna Plaza	47,000	HU	Budapest	SGC	2008
9	Mammut	57,000	HU	Budapest	-	2008
10	Aréna	67,000	HU	Budapest	PC	2008
11	Árkád	45,000	HU	Budapest	ECE	2009
12	Lurdy Ház	33,000	HU	Budapest	-	2009
13	Allee	47,000	HU	Budapest	ING	2009
14	WestEnd	44,800	HU	Budapest	Trigránit	2009
15	Polus Center	56,000	HU	Budapest	Trigránit	2009
16	Parndorf	37,000	AT	Vienna	McArthurGlenn	2008
17	Leonardo	100,000	IT	Rome	-	2009
18	Forum Debrecen	30,500	HU	Debrecen	ECE	2010
19	Elbe	43,000	DE	Hamburg	ECE	2008
20	Europa Passage	30,000	DE	Hamburg	ECE	2008
21	Phoenix	26,500	DE	Hamburg	ECE	2008
22	Alstertal	59,000	DE	Hamburg	ECE	2008
23	Novy Smichov	85,150	CZ	Prague	-	2009
24	Palladium	115,000	CZ	Prague	-	2009
25	Băneasa Shopping City	85,000	RO	Bucharest	Baneasa Dev.	2010
26	Feeria	32,500	RO	Bucharest	Baneasa Dev.	2010
27	Lotus	30,000	RO	Oradea	Mudura	2010
28	Iulius Mall	37,000	RO	Cluj Napoca	Iulius Grup	2010
29	Polus	62,884	RO	Cluj Napoca	Immofinanz	2010
30	Cevahir	110,000	TR	Istanbul	-	2009
31	Istinye Park	87,000	TR	Istanbul	-	2009
32	Kanyon	37,500	TR	Istanbul	-	2009
33	Akmerkez	34,680	TR	Istanbul	-	2009
34	Metro City	34,200	TR	Istanbul	ECE	2009
35	Bucuresti Mall	38,000	RO	Bucharest	Anchor Grup	2010
36	Romania Plaza	46,880	RO	Bucharest	Anchor Grup	2010

37	Corvin	34,600	HU	Budapest	SGC	2011
38	KÖKI	59,000	HU	Budapest	-	2011
39	Ringstrassen Galerien	10,000	AT	Vienna	-	2011
40	Oradea SC	29,600	RO	Oradea	-	2011
41	Manufaktura	125,700	PL	Lodz	APSYS	2011
42	Beijing APM	33,440	CN	Beijing	Sun Hung Kai Properties	2011
43	Intim Lotte	42,900	CN	Beijing	-	2011
44	Tower Shopping City	100,000	CN	Hangzhou	-	2011
45	Polus Center	40,280	SK	Bratislava	Immofinanz	2012
46	Aupark	58,000	SK	Bratislava	Unibail Rodamco	2012
47	Shopping Palace	35,000	SK	Bratislava	Soravia	2012
48	Avion	84,000	SK	Bratislava	Interikea	2012
49	Cerna Ruze	-	CZ	Prague	-	2012
50	Palac Flora	20,200	CZ	Prague	Atrium	2012
51	Arkady Pankrac	40,000	CZ	Prague	-	2012
52	Metropole Zlicin	55,000	CZ	Prague	-	2012
53	Park Hostivar	23,700	CZ	Prague	Immofinanz	2012
54	Donau Centrum	119,000	AT	Vienna	Unibail Rodamco	2012
55	Simmering	-	AT	Vienna	-	2012
56	Millenium City	31,000	AT	Vienna	-	2012
57	Shopping City Süd	173,000	AT	Vienna	Unibail Rodamco	2012
58	Galleria Landstrasse	15,500	AT	Vienna	-	2012
59	Zlote Tarasy	63,500	PL	Warsaw	Unibail Rodamco	2012
60	Arkadia	110,000	PL	Warsaw	Unibail Rodamco	2012
61	Blue City	65,000	PL	Warsaw	-	2012
62	Promenada	41,000	PL	Warsaw	Atrium	2012
63	G. Mokotow	62,300	PL	Warsaw	Unibail Rodamco	2012
64	Avenue Mall	36,500	HR	Zagreb	GTC	2012
65	Centar Kaptol	20,000	HR	Zagreb	-	2012
66	City Center One ZG West	36,000	HR	Zagreb	-	2012
67	City Center One ZG East	50,000	HR	Zagreb	-	2012
68	Garden Mall	26,000	HR	Zagreb	-	2012
69	King Cross	118,000	HR	Zagreb	-	2012
70	Liberty Center	26,000	RO	Bucharest	-	2012
71	Sun Plaza	81,000	RO	Bucharest	-	2012
72	AFI Cotroceni	76,000	RO	Bucharest	AFI	2012
73	Unirea	43,760	RO	Bucharest	Unirea	2009
74	Xintiandi	54,500	CN	Shanghai	-	2012
75	Super Brand Mall	121,433	CN	Shanghai	-	2012

Source: based on my own data collection

Table 24: The Tenant Mix, Location and shopping center type related data of the analyzed shopping centers from Budapest

No.	Name	K	HB	FA	SH	PF	HM	FU	SP	EL	BG	SR	SE	DIY	FO	JA	DF	EN	SM	Total	A	P	F	Gross Leasable Area	Levels	Parking	Entry	Visibility	Distance (km)	Year
1	MC Ferihegy	1	1	6	3	1	1	1	1	1	2	1	4	1	5	0	0	0	0	29	2	8	19	44,000	1	1.550	99	1	17,90	2008
2	Savoya Park	4	6	12	4	1	1	0	0	0	9	0	20	0	7	6	3	1	0	74	2	8	64	30,000	1	1.600	2	1	6,83	2008
3	Rózsakert	4	3	11	2	0	0	0	0	1	2	0	23	0	16	1	4	0	1	68	3	12	53	7,700	4	230	2	1	3,35	2008
4	EuroPark	2	2	14	6	1	0	0	1	3	3	0	22	0	6	3	0	0	1	64	3	6	55	24,700	2	1.000	3	2	7,60	2008
5	CsepelPlaza	1	1	8	3	1	0	0	2	0	4	0	23	0	8	5	0	3	1	60	5	11	44	13,654	2	450	3	1	9,21	2008
6	Campona	5	7	36	12	0	1	0	5	3	2	1	39	0	15	8	4	7	0	145	6	12	127	40,000	2	1.800	5	1	9,82	2008
7	MOM Park	0	4	18	5	0	0	0	1	2	6	0	23	0	18	3	3	2	1	86	3	9	74	30,000	3	1.540	4	2	1,56	2008
8	Duna Plaza	2	6	27	8	2	0	2	4	3	5	1	32	0	16	10	2	3	0	123	4	14	105	47,000	3	1.600	3	1	6,28	2008
9	Mammut	11	15	79	22	2	0	0	15	8	14	0	70	0	43	22	11	5	1	318	5	36	277	57,000	5	1.200	7	1	1,55	2008
10	Aréna	2	8	55	23	1	1	0	9	5	6	0	29	0	27	11	2	2	0	181	7	20	154	67,000	2	2.800	3	1	3,70	2008
11	Árkád	4	7	50	18	0	0	0	9	2	9	0	26	0	17	7	4	1	1	155	4	19	132	45,000	3	1.300	2	2	7,29	2009
12	Lurdy Ház	1	3	14	6	0	0	1	4	5	12	0	33	0	17	6	7	5	1	115	3	11	101	33,000	2	1.000	3	2	4,42	2009
13	Allee	2	8	37	15	0	0	0	5	6	9	0	19	0	22	8	3	3	1	138	6	18	114	47,000	4	1.280	4	1	2,68	2009
14	WestEnd	5	21	118	51	1	0	0	20	9	20	0	53	0	46	45	6	7	1	403	4	16	383	44,800	3	1.400	5	2	1,98	2009
15	Polus Center	10	14	37	13	2	1	0	10	10	11	0	50	0	25	19	1	6	0	209	6	11	192	56,000	1	2.500	6	1	9,63	2009
16	Corvin	1	6	19	5	0	0	0	1	3	2	1	8	0	10	2	0	2	1	61	3	9	49	34,600	4	1.200	4	1	2,72	2011
17	KÖKI	2	9	26	8	1	1	0	3	3	8	0	30	1	24	11	3	4	0	134	4	16	114	59,000	3	1.900	4	1	8,95	2011

Source: own data collection

Legend:

- 18 tenant profiles (according Table 17:proposed tenant profile classification): K-kids, HB-health & beauty , FA-fashion , SH-shoes, PF-pet food , HM-hypermarket, FU-furniture , SP-sports, EL-electronics , BG- books & gifts, SR-showroom, SE-services, DIY-do it yourself, FO-food & foodcourt, JA-jewelry & accessories, DF-décor & furnishing, EN-entertainment, SM-supermarket.
- 3 tenant types: A-anchor, P-preferential, F-fill-up

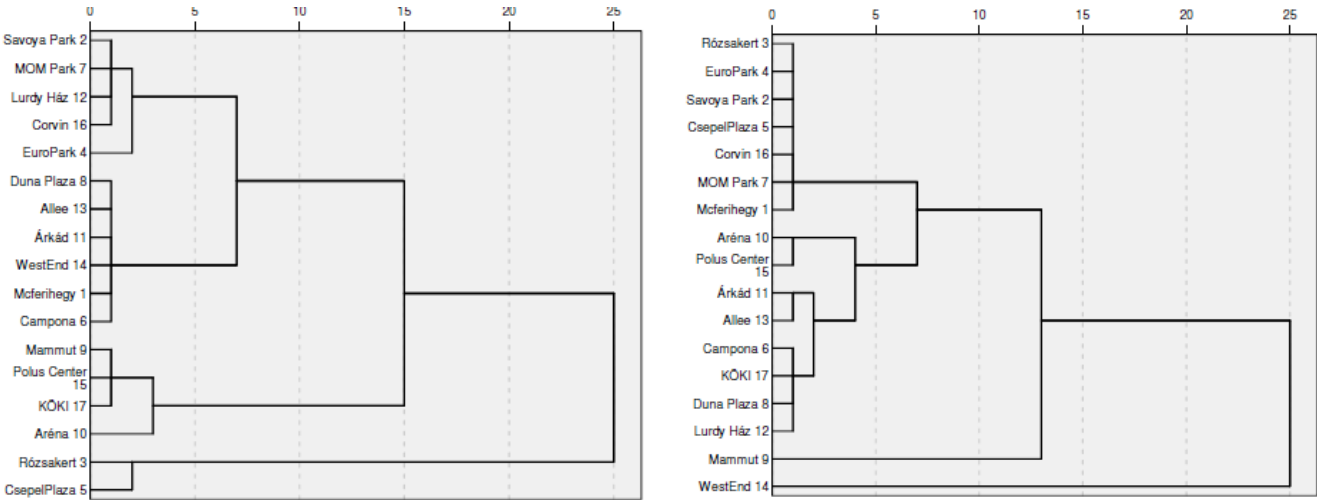
Generally, the shopping centers present in the sample have on average a gross leasable area of ca. 54,000 m² and ca. 150 tenants, out of whom 5 are anchor tenants. Based on the variables involved in the analysis, the shopping centers are very similarly characterized, even regarding Tenant Mix, thus, there is no need to take into account the cultural differences by countries, or for the weighting of data. Regarding shopping habits and attitudes, this would probably be necessary, but since these are not analyzed, the cultural differences can be ignored. The table above confirms that the development and ownership of shopping centers is very concentrated to a few number of market actors, while the majority of shopping centers in Central Europe are in the hands of ECE or the Unibail-Rodamco group.

Table 24 shows the data regarding Tenant Mix, Location and shopping center type for the analyzed shopping centers from Budapest, without claiming to be complete. During the analysis of this sub-sample, some interesting phenomena are observable: for instance, the tenant mix of shopping centers belonging to the same type bare resemblance, therefore horizontal similarity is detectable between shopping centers. However, when we group these shopping centers by variables such as the gross leasable area, the distance measured from the city center or the total number of tenants (variables derived from Huff's (1964) gravitation theory), or by the different elements of their Tenant Mix, we get clearly distinguishable groups. These groupings were carried out by hierarchical cluster analysis using the method of intra-group average chain. Figure 30 summarizes the resulted dendrograms.

The groups resulting from the cluster analysis of variables regarding Tenant Mix confirm the horizontal similarities of shopping centers, because, within the groups the shopping centers belong to the same or similar types. Thus, in the first group of shopping centers we find: Allee, KÖKI, Duna Plaza, Lurdy Ház, Campona, Árkád, Aréna and Pólus Center, which are all regional shopping centers. In the second group belongs: Rózsakert, Corvin, Európark, Csepel Pláza, Savoya Park, MOM Park and Market Centrál Férihegy, which are neighborhood centers or shopping parks. These centers can substitute each other due to their similarities. From these primary results, we can conclude, that the Tenant Mix indeed has a very important defining role when it comes to shopping center type (hypothesis H₄). It is interesting to observe that, in all of the analyses carried out based on Tenant Mix variables, we could identify two outlier shopping centers: Mammut and WestEnd. These two shopping centers are completely unique, they do not bare resemblance to any other shopping center. Due to their uniqueness, they are less prone to competition, are less substitutable with other shopping centers, therefore they possess a competitive advantage. They are the two shopping

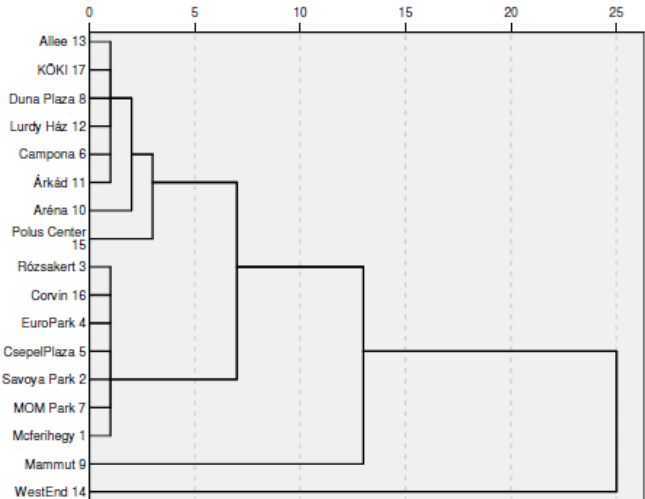
centers that are the most successful in the opinion of the general public, customers from Budapest. If we analyze their other characteristics, we have to say that they have average parking spaces, gross leasable area etc., but what makes them different is the very high number of tenants. Within this, the total number of fill-up tenants is much above average: Mammut – 277, WestEnd – 383. As a result of this, we can assume that the Tenant Mix plays a prominent role in the success of shopping centers.

Figure 30: Dendrograms obtained by the horizontal grouping of shopping centers from Budapest

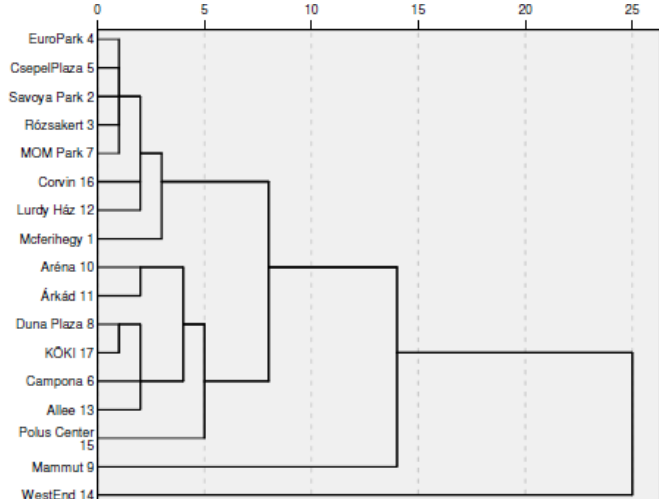


Variables: gross leasable area, distance and total number of tenants

Variables: retailers, service providers and entertainment units



Variables: tenant types – anchor tenant, preferential tenant and fill-up tenant



Variables: 18 tenant profiles

Source: compiled with the help of the PASW 18 software

VII. Results

The analysis of the collected data was carried out in two steps. At first, I did an explorative analysis of the main characteristics of shopping centers involved in the sample. For this, the PASW 18 software pack's describing statistics function was used. In a second step, the SmartPLS 2.0 software pack has been used for the critical path (LVPLS) test of the simplified general shopping center model presented above. I discuss the results together with their reliability and validity indicators in accordance with the external formative, external reflective measuring models and the internal structural model. Finally, I analyze again the hypotheses according to the results and accept or reject them. The conclusions drawn from the results are presented in the next chapter.

VII. 1. Primary statistics

I used the PASW 18 software pack for the primary analysis of the shopping centers included in the research; the results are presented in Table 25. From the 75 shopping centers included in the research, Rózsakert shopping center from Budapest has the smallest gross leasable area (7,700 m²), while the Austrian Shopping City Süd (173,000 m²) has the largest. On average, shopping centers have a gross leasable area of ca. 54,000 m². Market Centrál Ferihegy power center has the smallest total number of tenants (29 tenants), while the maximum number of tenants are present in WestEnd (403 tenants). The shopping centers are situated, on average, at ca. 6 km from the center of the respective cities and have, on average, 3 levels. It is interesting that there are shopping centers without any anchor tenants, e.g. the Austrian Galleria Landstrasse, while the most anchor tenants are counted in the German Europa Passage (14 anchor tenants). We can say that, on average, there are 5 anchor tenants in a shopping center. Regarding tenant profile, the average ratio between fashionwear and shoe stores is 5:1; there are, on average, 50 fashionwear stores and 10 shoe retailers in a shopping center. They are followed by entertainment facilities and food stores or food court tenants (ca. 21 tenants on average). The average number of sportswear, electrical appliances and book stores is between 4-5, while the number of entertainment facilities is ca. 3. Products for children are sold, on average, by 4 tenants; the average number of health and beauty stores is 8 and 12 in the case of jewelry stores. Now, we have a picture of the average tenant profile mix, which very probably represents the sustainable tenant profile mix for the long-term.

Table 25: Primary statistics

Primary statistics						
	Total sample	Minimum	Maximum	Average	Standard deviation	Variation
Total tenants	75	29	403	150.15	75.116	5642.451
GLA	73	7700	173000	53555.63	32443.478	1.053E9
Distance	75	,1	43.6	5.900	5.9175	35.017
Parking lot	73	0	10000	1728.75	1332.273	1774951.772
Levels	75	1	10	3.31	1.755	3.080
Anchor tenants	75	0	14	5.24	2.832	8.023

Source: PASW 18

VII. 2. The results of the LVPLS-SEM analysis of the general shopping center model

In accordance with the above, I analyzed the simplified version of the general shopping center model through critical path (LVPLS – SEM) analysis, for which I used the SmartPLS 2.0 software pack. In valuing and interpreting the results and assessing the reliability and validity of the model, I used the rules of thumb gathered by Hair et al (2011 a, p. 145.), which applied to this model are summarized in Table 26 below.

Table 26: Results and 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 characteristics	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	R ² values	Predictive value Q ² > 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

VII. 2. 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 their 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 eliminate it from the model. In case of the total number of tenants (0.918) and gross leasable area (0.771), the resulting loading values surpass the expected values; and since the loading of the number of levels (0.551) did not drop under 0.4, we keep all of them in the model. 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

Forner-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. We could rightfully assume that the discriminant validity criterion is not met because, beside the construct of Tenant Mix, we use the variable of total number of tenants in case of shopping center type. But if we delete this from the model, and take into consideration only the gross leasable area and the number of levels, the discriminant validity is still not met, as the AVE value is close to its former value, while the correlation between Location and Customer Mix has likewise a value of over 0.8. With this deletion we achieve only the deterioration of the constructs explaining value. The effect of Tenant Mix on shopping center type is the strongest and most significant; the load of the gross leasable area and of the total number of levels also shows strong relations. This is why, in spite of the lack of discriminant validity, I accept the reflective measurement model without subtracting the total number of tenants from the model, because this explains better the shopping center type.

VII. 2. 2. External formative measurement model

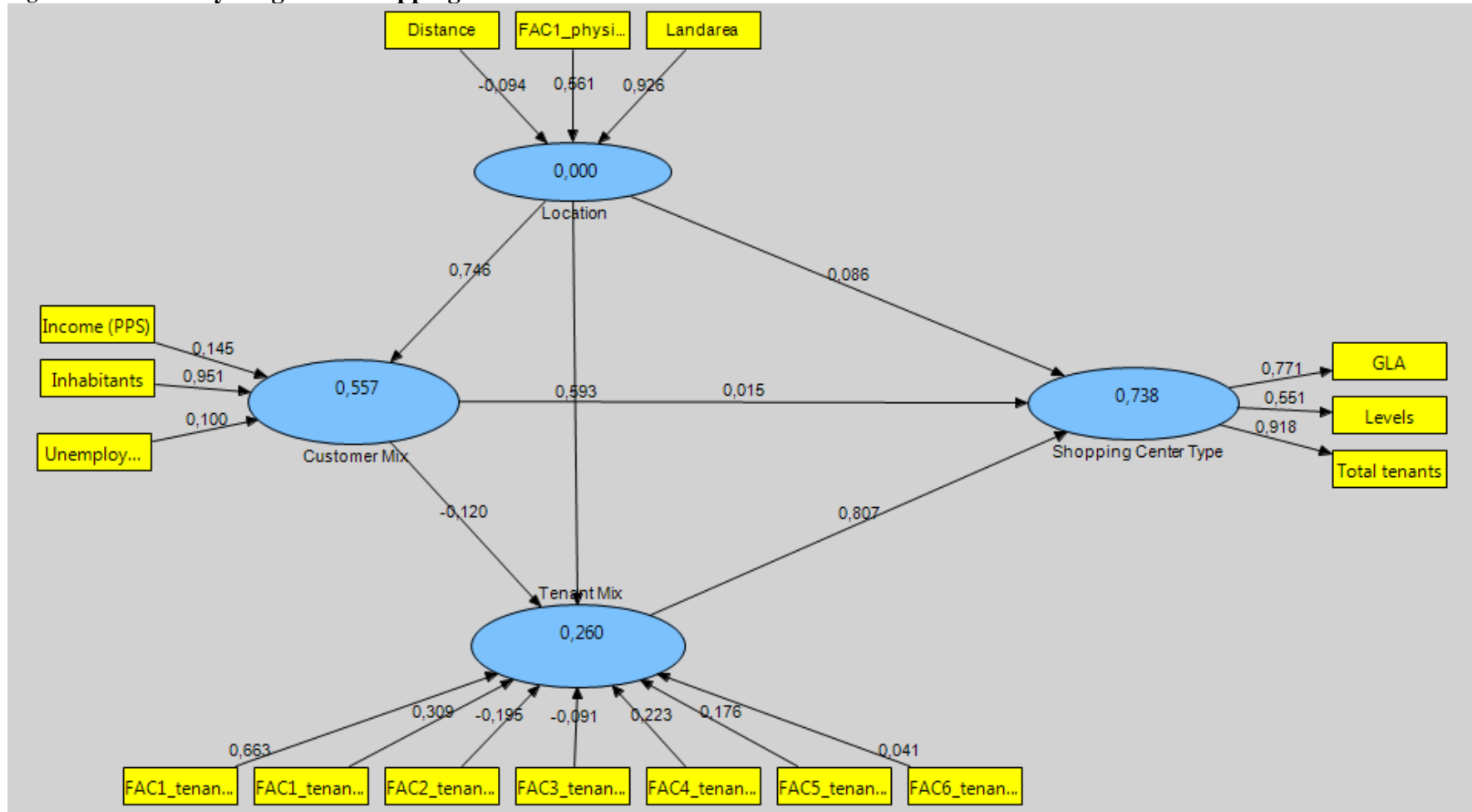
In case of the *external formative models*, the resulted weights and loads of the variables must be examined together with their significance levels. Based on the extent to which the variables explain the respective constructs, we can talk about content and external validity. From the values presented in the table above, it can be observed that except the distance, income, the number of unemployed, tenant profile 3 and 6, the resulting weights and loads are all signaling moderate or strong relations. The significance analysis of these variables with weak relation and the *t* values resulted from bootstrapping, indicate that the effects of these 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 measuring the 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 at 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 within the acceptable range.

VII. 2. 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 these, 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 already extracted factors, i.e. they were compiled from a total of 21 directly observed variables. This is why, practically we did here a double factor analysis for determining the construct, and therefore in my opinion the resulting R^2 value is quite acceptable. 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 \rightarrow Shopping Center Type (0.807), Location \rightarrow Customer Mix (0.746) and Location \rightarrow Tenant Mix (0.593). On this basis, we conclude that there is a very close and positive relation between the constructs, and a unit change in the starting variable causes a shift of 0.807, 0.746 or 0.593 in the target variable. It is interesting that the effect between Customer Mix \rightarrow Tenant Mix (-0.120) has a negative value. The predictive Q^2 values were calculated with blindfolding at 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 31 shows the graphical presentation of the results obtained from the LVPLS-SEM analysis of the general shopping center model.

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

Figure 31.: The analyzed general shopping center model



Source: created by SmartPLS 2.0

VII. 3. 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 27.

Table 27: 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 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 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 has 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 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 is definable as a combination of its three composing elements: Location, Customer Mix and Tenant Mix. We accept all hypotheses related to the inner 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, the data used in the analysis for defining Customer Mix were available only on aggregated level of cities or countries from where the shopping center originates, and not on the level of the direct catchment areas of the respective shopping centers. Accordingly, as already mentioned during the definition of variables and data collection, these only approximate the desired input variables which 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 (H_5) and the other physical characteristics (H_7), while we reject the hypothesis on the distance measured from the city center (H_6) because it did not reach an appropriate significance level. From the general customer characteristics (H_8), 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 has a negative value; accordingly hypothesis H_{11} is only partially accepted. The variables related to shopping center type all proved to be significant, therefore we accept hypothesis H_{13} . It is worth mentioning that unfortunately, the hypotheses H_9 , H_{10} , H_{12} , H_{14} , H_{15} and H_{16} were not analyzed due to lack of data. This is why, I 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 well 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.

VIII. Conclusions

The last chapter summarizes the most important conclusions of the present thesis and their effects on both shopping center theory and practice. Beside these, the limits of the present 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 recall the criteria system developed by Bacharach (1989) in Table 28. This criteria system analyzes in general the rationale of theories in terms of falsifiability and utility. Thus, in addition to the logical analysis of the theory's elements it takes into consideration the results of the empirical analysis carried out on the observed data.

Table 28: The rationale analysis of the general shopping center theory

Elements of the theory / Criteria	FALSIFIABILITY	UTILITY
VARIABLES	Definitions	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 by practitioners in the field of shopping centers.
	Measurement issues – content validity, reliability	
	The data measured by observation are content-valid and are in accordance with the definitions.	
CONSTRUCTS	Clarity and Parsimony – convergent and discriminant validity	Scope of constructs, latent variables.
	From the point of view of internal consistence and convergent validity, the values are accepted. Discriminant validity is not met.	The field of application for the constructs is delimited, but is not entirely exclusive. Maybe there is a common latent element behind them? Still, the constructs are applicable.
RELATIONSHIPS	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 the 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 collected 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 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.

VIII. 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 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 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 conclude 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.

VIII. 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, due to the concentration and centralization of the industry; 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.

VIII. 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. These data are very difficult to access; often they aren't even forwarded to the institutions recognized by the industry. Consequently, it is completely understandable why in most of the studies presented in the literature, only the data of one shopping center is analyzed by researchers as case studies. Mejia's (2000) study stands as an exemption, for he managed to analyze the data of 41 shopping centers. The limitation of this study lies in the fact that all 41 shopping centers were owned by the same corporate group. In

addition to the main research limitation that arises from the topic itself, the limitations arising from industry characteristics also have to be mentioned. As Seres (1998) also concluded, this industry is characterized by a very high degree of concentration and centralization, and this makes data collection and the selection of the adequate sample more difficult, especially when the majority of the observed shopping centers have the same owner or developer. All these limitations are present to a moderate degree in the present study on the general shopping center model, since fortunately I managed to compile a sample consisting of 75 elements. Compared to other industries, this sample would be very probably small, but in the present case, due to the characteristics of the industry, it is rather big. Due to the diversity of the sample, since the range of research comprises several countries, though concentration and centralization are also present here, they have little effect on the outcome of the results. Reason why 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.

VIII. 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. 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 (H₃) 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.

VIII. 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, a new era begins in shopping center research and development.

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X. Publications, conference participations

Scientific book, bookchapter

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