"Modeling the tenant mix of a shopping center**"**

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Abstract:

In nowadays financial crisis, consumption reluctance concerning daily and durable expenditures will affect the retail markets and the shopping center industry in the near future. Thus, it is crucial for real estate developers and managers to understand the importance of the success factors of shopping centers in order to create premium customer traffic, higher than average sales productivity and rents as well as low vacancy rates. An ideal tenant mix in a shopping center creates a competitive advantage in this challenging market situation.

This paper aims at analyzing the interdependencies between relevant external variables and their impact on competitive parameters of a shopping center. Moreover, a model is built to create the optimal tenant mix of a shopping center while taking into account variables like the local high street retail mix, demographic factors, consumer trends or purchasing power. The purpose of this model is to build an optimal tenant mix which differentiates the center from competing retail agglomerations, build customer loyalty and a reputation which attracts more desirable tenants.

A review of previous literature, largely based on retail property specific papers, will provide a framework for the discussion and evaluation of different valuable impact factors. Recommendations will be made for the development and application of an optimal tenant mix and strategies adapted to competitive characteristics of a shopping center in order to improve its overall performance will be derived.

Research Background

This conference paper aims at giving an overview over the authors ph.D. work and starts with a short introduction about the research background. Next, the research objectives are presented. The paper proceeds with an overview over the methodology that is intended to be used in the study and preliminary results of the research are demonstrated. Lastly, this work finishes with contributions on a conceptual and practical level.

After mostly being built on green field sitesover the past years, shopping centers are now returning into the inner cities in Germany. This development causes not only a fierce competition between highstreet retail space and new shopping centers, but also among different centers as well.

On the supply side, Germany has a high sale area per inhabitant ratio (1.4 sqm sale area/ inhabitant), which is higher than Spain (1.2 sqm / inh.), Netherlands (1.1 sqm / inh.), France (0.9 sqm / inh.) and UK (0.7 sqm / inh.). However, the ratio of shopping center sale area/inhabitant (115 sqm SC sale area/1.000 inh.) is much lower than the European average of 174.4 sqm/1.000 inhabitants, and thus, many developers are still planning and building new shopping centers, now mostly in towns with 70.000 inhabitants or less. This trend led not only to a declining turnover ratio by sales area for the past 15 years.[1] The increasing competition on the supply side also boosts crowding out effects among shopping spaces. Retailers have been trying to counteract this trend by increasing their spaces even further over the past years – forecasts are predicting this trend to continue for the future.

Oversaturation of retail market place can impact the performance of retail firms competing in those markets. Due to the direct relationship between shopping center productivity and tenant productivity, shopping center managers need to learn to think more like retailers and not just like landlords.

On the demand side, customers' consumption behavior is heavily influenced by a multitude of influences which makes targeting shoppers even more difficult. The so called "multi-optional customer" isn't acting entirely according to his demographic background or income group but

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[1] Hahn Report 2009

shows highly individual consumption behavior depending on factors such as personal preferences or lifestyle trends.

Achieving the right balance between *convenience, event and price orientation* will become as important as reacting on trends like the global *"going green" movement*.

Both the retail industry and the shopping center market need to adapt to these shifting environmental parameters and adjust their characteristics like their tenant mix accordingly in order to prevent decreasing rents, vacancies and declining interest of the customers in a mall. With the real estate investment market in general and the retail property sector especially declining all over continental Europe, financing new developments or transactions of existing projects becomes increasingly difficult. Therefore, securing the economic value of retail property will be crucial in a decreasing real estate market.

Thus, it will become critical to give new shopping center developments a clear profile. Securing the economic value of retail property will be crucial in a decreasing real estate market. Otherwise, new projects might suffer from slow rates of growth, fluctuating occupancy levels, high rates of tenant failure and variations in merchandise mix instead of increase their market share.

Allowing for those considerations, current developments should react to changed customers' demands.

Source: own illustration
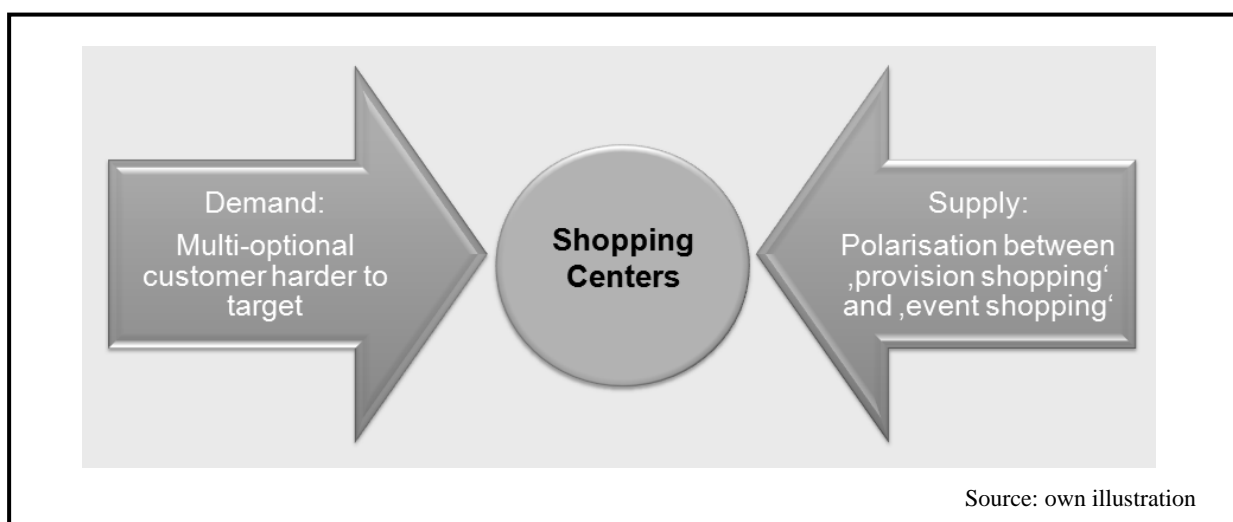
Markets where the underlying determinants of demand and supply are more idiosyncratic and less explained by rational economic factors are more difficult to predict.

Methodology/ Objectives:

Against this background, this study aims at developing a comprehensive consumer-orientated design with special regard to the shop mix of shopping centers in order to both:

(a) Attract and retain customers and

(b) Increase attractiveness for potential tenants

and thus secure the economic success of a shopping center.

Using interdisciplinary approaches and a holistic perspective, the premises are secured to answer questions both relevant to the industry and theory. The main goal is to analyze and develop transferable criteria related to an attractive and quality-focused tenant mix in a shopping center which can be consulted during the development of new projects and in already existing centers.

In a first step, with the help of an in depth review of German and international relevant economic and academic literature, relevant key drivers impacting the specific characteristics and in turn the overall economic performance of a shopping center are identified.

An overview of the current retail market as well as its consumer trends influencing the shopping behavior is given and key trends such as sustainability, security or indulgence are highlighted. A status quo analysis is conducted to depict in how far nowadays shopping centers meet the shoppers' expectations and needs of their potential customer base. A strategic segmentation of different consumer types, with regard to their individual demographic and economic background (age, household size, income) as well as their needs, expectations and consumption motivation factors is conducted. With regard to their domestic setting and intended acquisitions, different target groups for shopping centers are identified.

In a second step, a survey concerning customers' shopping behavior and their attitude towards different trends such as 'sustainability' is conducted. Different variables are included:

- Globalisation
- Demographic challenge
- Wellness, Neo-Ecology
- Convenience „Do it for me"
- Self Service „Do it yourself"
- Clanning
- Cocooning

- Anchoring
- Ego-nomics
- Small Indulgences
- Financial crisis
- Expectations towards architecture, service, PR, … of a shopping center

Objectives

→ Analyzing the determinants/trends of consumers' shopping behavior

→ Analyzing how the shop mix of a Shopping Center should be created ideally

→ Analyzing how current trends such as ‚going green' are implemented into Shopping Centers in practice

→ Conducting a survey among customers' concerning their shopping behavior and their attitude towards different trends such as 'sustainability'

→ Building a model on how a trend such as 'sustainability' can applied to the development of shopping centers with special regard to the customers' preferences

→ Deriving strategies adapted to the needs of today's customers to improve the overall performance of a shopping center

Literature Review

Successful retailing usually depends on fulfilling diverse and often changing needs of customers, which depend heavily on various factors such as the demographic background, their purchasing power, individual preferences or retail trends. The current consumption reluctance concerning daily and durable expenditures will affect the retail markets and the shopping center industry in the near future and make diagnosing trends as well as developments in the future critical for the economic success.

Developers, occupiers and investors claim that the economic success of a shopping center relies heavily on the tenant mix. In theoretic research, academics seem to share this conclusion. A lot of research was dedicated to identify the relevant success factors of a shopping center.

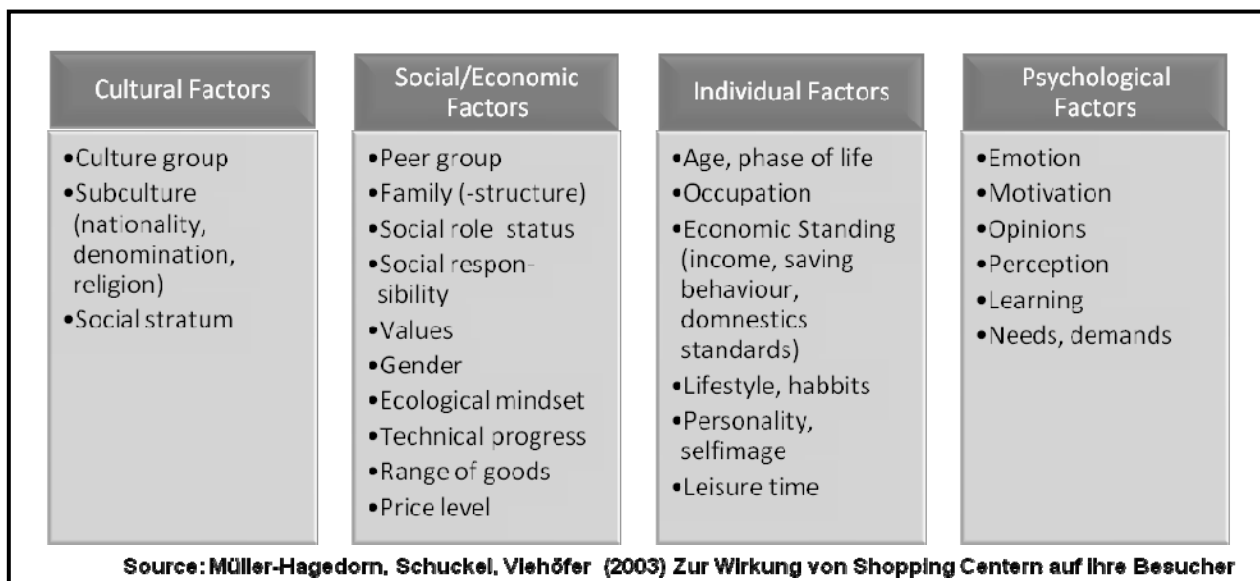| Sirmans, Krisandra. Guidry (1992)	Customer drawing power, architectural design, location, general economic situation
Gerbich (1998)	Store type and size
Houston (1980)	**Tenant mix**
Brueckner (1993)	**Inter-retailer externalities**
Knight, Kinnard, Geckler and Kinnard (1993)	Size of store
Malcolm Kirkup and Mohammed Rafiq (1994)	**Tenant mix,** the quality of location and accessibility, catchment size and quality, car-parking provision, internal layout
LeHew, Fairhurst (2000)	Trade area attributes
Brown (1992)	**Tenant mix**
Bastian (1999)	Convenience, Experience, **Provision/Supply**

An optimal combination of tenants was proven to maximize turnover, retailers' gains and consequently also total net rentals. Despite this evidence, research has mostly been dedicated to single aspects of an optimal tenant mix. Academic work heavily focuses on analyzing anchor tenants, examining the relationship between departments and foodcourts or size and variety of mall stores. The task of developing a holistic model with regard to consumers' preferences has been neglected so far.

Comparing different models of analyzing the determinants of consumers' shopping behavior, it becomes clear that there is a strong relationship between tenant mix and customers' shopping behavior.

Müller-Hagedorn (1991)	Consumption model
Schmitz / Kölzer (1996)	Structure model of shopping behaviour
Gerhard (1998)	Shopping behaviour as a function of income and change in demand
Heinritz et al. (2003)	Structure model of consumption behaviour

| Müller-Hagedorn (2003)	Stimulus-Organism-Response Model
Pepels (2005)	Shopping behaviour as a function of values and personal interests)

Nearly all models depict different underlying influencing factors. Müller-Hagedorn et al. compiled 2003 a comprehensive collection of the most important variables impacting consumption behavior.

Cultural Factors	Social/Economic Factors	Individual Factors	Psychological Factors
•Culture group •Subculture (nationality, denomination, religion) •Social stratum	•Peer group •Family (-structure) •Social role status •Social respon-sibility •Values •Gender •Ecological mindset •Technical progress •Range of goods •Price level	•Age, phase of life •Occupation •Economic Standing (income, saving behaviour, domnestics standards) •Lifestyle, habbits •Personality, selfimage •Leisure time	•Emotion •Motivation •Opinions •Perception •Learning •Needs, demands

Source: Müller-Hagedorn, Schuckel, Viehöfer (2003) Zur Wirkung von Shopping Centern auf ihre Besucher

„Trends are longlasting forces which shape society and thus influence the future" (Matthias Horx 2009). Especially trends which impact shopping behavior can last up to 10-15 years and are consequently critical forces in the dynamics of retail property markets and rent development. Leading trend scouts such as Mathias Horx or Faith Popcorn predict a variety of influencing and trends in near future:

- Wellness, Neo-Ecology
- Convenience (Do it for me)
- Self Service (Do it yourself)
- Clanning (social networking)
- Cocooning (search for security)
- Anchoring (search for spiritual roots)
- Ego-nomics (individualism)
- Small Indulgences (countering daily stress)

Source: Martin 2001
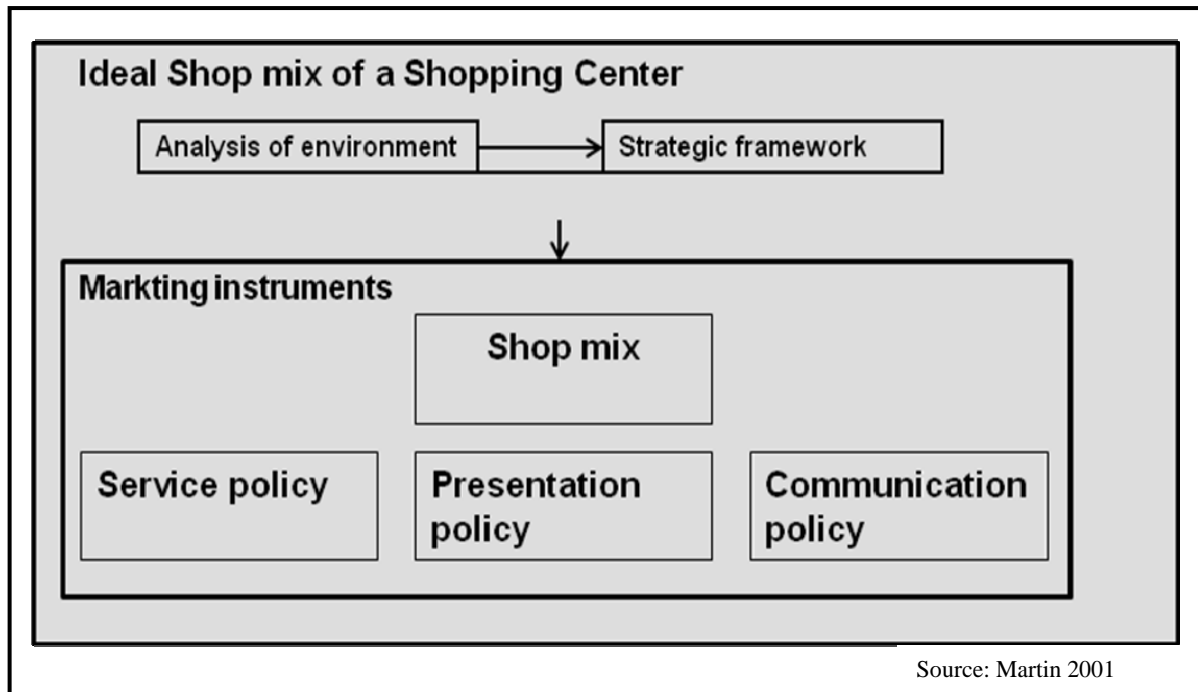
Since it proves to be difficult to react on sudden shifts in consumers' preferences or new, not anticipated trends in an already existing center with grown structures, special regard should be given in the concept stage of new retail real estate developments. Martin (2001) dedicated his work to the analysis of how the shop mix of a shopping center should be created ideally. He found an ideal shop mix being a function of firstly an analysis of the environment. This included mainly a status-quo investigation, which focuses on examination the micro/macro, the competition, international trends, demography and values. Secondly, a strategic framework is build which defines the catchment area and the target groups. Debating the general orientation of the center towards either "price" or "event" is also part of this consideration. With those findings, Martin identifies three marketing tools which are used to support the intended shop mix. The "Service policy" gives regard to parking lots or rest-areas whereas the "Presentation policy" focuses on the general inner and outer architecture of the building. The "Communication policy" enhances those static preconditions with public relations work and event management.

Martin claims that the shop mix itself is influenced by seven factors such as anchor stores (special competence of goods), network intensity (combination of shops) or parcelling (which proportions for shops). The mix amplitude (how many departments), mix depth (how much space for individual departments) and mix level (quality of departments) give regard to the different retail branches represented in an ideal shopping center. Lastly, the structure (chain

stores of individual stores) of the targeted tenant mix is examined whether mostly retail chain or rather individual store should be included into the shop mix.

Preliminary Results:

To be presented at the ERES conference in Milano 2010.
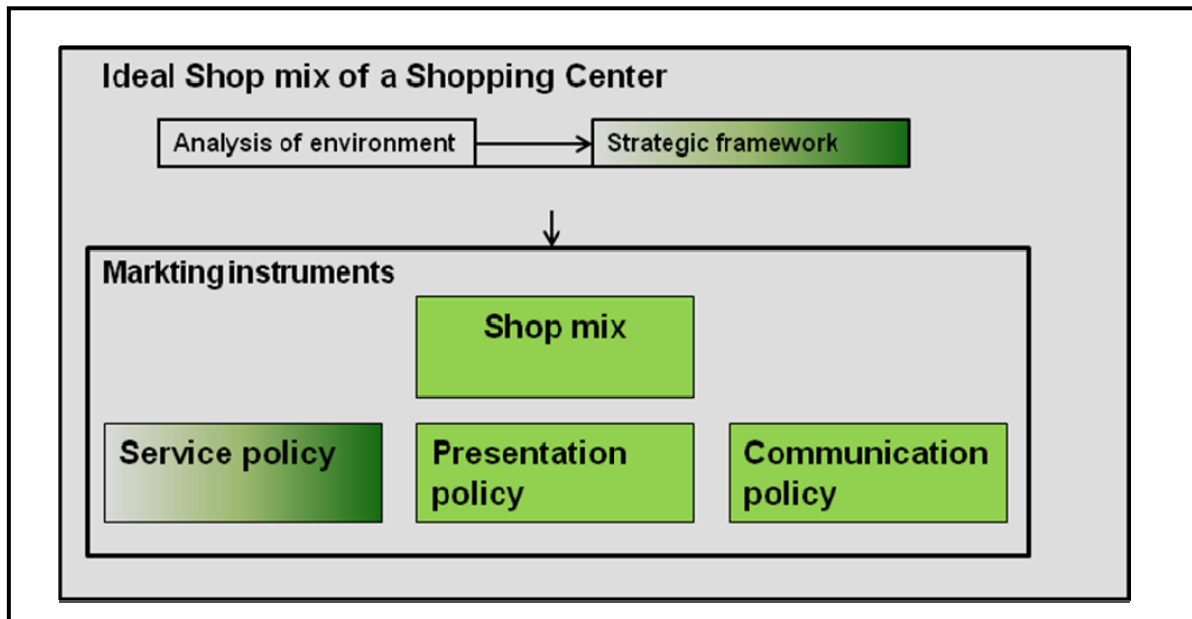
Contribution

On a scientific level, the contribution of this study lies in analyzing the interdependencies between relevant external variables and their impact on competitive parameters such as the tenant mix of a shopping center. An interdisciplinary model adapted to the particularities of retail property markets is developed and gives consideration to both, existing tenant mix models and influence factors such as personal preferences or trends. In this way, this study targets at closing the gap between different approaches concerning the modeling of the tenant mix and might shed some light on further retail property related objectives worth researching.

From a professional point of view, implications for the positioning of shopping centers to meet consumers' expectations with special attention to changed consumers' preferences in times of financial crises are pointed out and help to secure the economic success and value of retail property in a narrow investment market. On the basis of a model developed, strategies can be derived adapted to the competitive characteristics of a shopping center in order to improve the overall performance based on scientific evidence rather than intuition.