

# Customer movement management in a retail setting

An explorative study of customer movement  
management at IKEA

## Forewords from the authors

This paper came from a raving idea during a lunch session at SSE in early 2012. We really did not think about carrying it forward at first, only that we had identified a subject of big interest. We were not even sure if our subject could be put into the context of existing theories about operations or retail management.

Here, our former teacher at the Operations Management sessions came into use. Many thanks to our tutor Mattia Bianchi at the Department of Management and Organization at SSE, on several occasions you helped push us in the right direction whenever we had difficulties to find a meaningful purpose of the paper.

Thank you!

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## Abstract

The designs of stores do seem to be an area of non-interest in general. Providing the right good at the right price should be enough. Still, we are exposed to different kinds of physical impressions when entering a store. The actual effects of those impressions are not well documented in research. With respect to its impressing revenue growth, IKEA is a company of specific interest. Something is clearly going on their stores that contribute to their success. In this study, we identify a peculiar in-store practice at the IKEA store in Kungens kurva outside Stockholm, Sweden and assess the benefits gained by the IKEA store from this practice. Direct observation is the method applied for this identification. This practice is understood by theories of retail store design. Possible emotional and behavioral effects of this practice are investigated in the analysis. At last, the study contributes with a theoretical discussion on the subject. The study concludes that IKEA uses a planned walkway in their store to maximize the time customers spend in store but that significant freedom of customer movement prevails. Earlier studies verify that more time spent in store correlates with making spontaneous purchases, hence yielding higher revenue for IKEA. Though, whether success is in fact due to the planned walkway is debatable. More thorough studies on the causality between the walkway and revenue generation are recommended.

Key words: Store design, store environment, planned walkway, customer movements, customer emotions, spontaneous purchases, IKEA

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## 1. Background

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*This section presents the idea behind the thesis and motivates why the phenomenon presented is worth investigating.*

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### 1.1. Introduction

How to design a store may seem to many people as a research area of non-interest. How may the design of the store such as placement of signs, exposure of goods and pricing be an issue? It should be enough to provide customers in the store with the right merchandise at the right price.<sup>1</sup> Into every store we go, we are continuously exposed to visual and audial impressions of all forms.

Most merchandisers do have an established scheme for how people move through a store. Customers are supposed to walk up and down along aisles in the store to choose the utility-maximizing buying options.<sup>2</sup> Customers are assumed to act in a way where the only thing of interest is to find the right goods at the right prices.

Nowadays, companies can no longer rely on the fact that customers only are interested in the merchandise itself and the values created. They also need to initiate and maintain a long-term and emotional bond with the customers. This need is, among other things, met through creation of a shopping experience for the company's customers.<sup>3</sup>

A shopping experience is defined as the decision process that, while the customer patronize the store, also includes the feelings and behaviors of the customer while in-store.<sup>4</sup> Those feelings and behavior give implications for in which way a customer may conduct their buying decisions.

### 1.2. Earlier research

Unfortunately, the actual effects of the store design on the shopping behaviors and decisions of customers are not well documented in research. Retailers acting in the business have claimed a lot of success from designing the store atmosphere and its layout through manipulation of light, scents and coloring. This however, only provides us with anecdotal evidence.<sup>5</sup>

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1 Nordfält (2007)

2 Larson et al. (2005)

3 Marcelius & Neubauer (2010)

4 Nordfält (2007)

5 Donovan & Rossiter (1982)



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The research field of retail settings may be divided in three large areas. First, the environment is one of many components that customers analyze consciously. This field is seeking to explain how the environment affects the customer's choice of store. Alternatively, store environment may also be seen as measures of successful competition. Second, how customers' feelings are affected by different factors in the store environment is brought up. The actions of the customers are then determined by those feelings. Third and last, more detailed studies concerning exactly what feelings determine customer behavior represent another field.<sup>6</sup>

Also, research has been conducted on how factors of store environment are divided. Firstly, design factors such as decoration and layout; position of shelves and signs in the store make up one field. Secondly, factors of background environment such as music, lighting and scents represent another field. Third, social factors in a store such as the meeting between customers and employees represent the last field.<sup>7</sup>

Earlier studies with the purpose to understand the shopping process through psychology has been made by measuring different factors such as the customers' intentions with the shopping tour and their knowledge of the store. Alternatively, applications of architectural ideas to find out how people move in different environment are made.<sup>8</sup>

There is somewhat inaccessible research about customer movements in-store made by German researchers that is written in German.<sup>9</sup> General conclusions about customer movements are that customers seem to prefer counter-clockwise movements.<sup>10</sup> Further, the impact on customer mood by the store layout and a so-called information rate has been investigated. The conclusion reached is that both factors had positive impacts on customer mood. In turn, mood had a positive effect on the number of unplanned purchases customers made in the store.<sup>11</sup>

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6 Nordfält (2007)

7 Kotler (1976)

8 Nordfält (2007)

9 Ibid

10 Barth (1993)

11 Bost (1987)

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### 1.3. Problem identification

All the previous research, excluding manual observation of customer movements, includes surveys and interviews with customers about their feelings while experiencing the shopping. These kinds of study do provide some clarity regarding customer intentions and answers the question why something in a store is happening from the customer's point of view. This presents a problem of subjectivity since interviewees are giving the information from their own point of view.

Also, store atmosphere is something that causes feelings and those feelings are the desired object of study. Not surprisingly, those feelings turn out to be hard to verbalize and difficult for customers to recall with accuracy when they complete a survey.<sup>12</sup>

Hence, it is hard to complete any research about store design, customer feelings and their behavior, paying full respect to objectivity. A study containing only direct observations of the store environment and making conclusions from those observations only is considered necessary.

### 1.4. Background to the IKEA business

IKEA (*Ingvar-Kamprad-Elmtaryd-Agunnaryd*), founded by Ingvar Kamprad in Sweden in 1943 is a privately held international home products company that specializes in the design, manufacturing and sale of ready-to-assemble furniture, such as beds, desks, appliances and other home accessories.<sup>13</sup> With a FY2011 reported revenue in excess of €25 billion it is the world's largest furniture retailer. Today more than 130,000 people work at the 287 IKEA stores located in 26 countries around the world.<sup>14</sup>

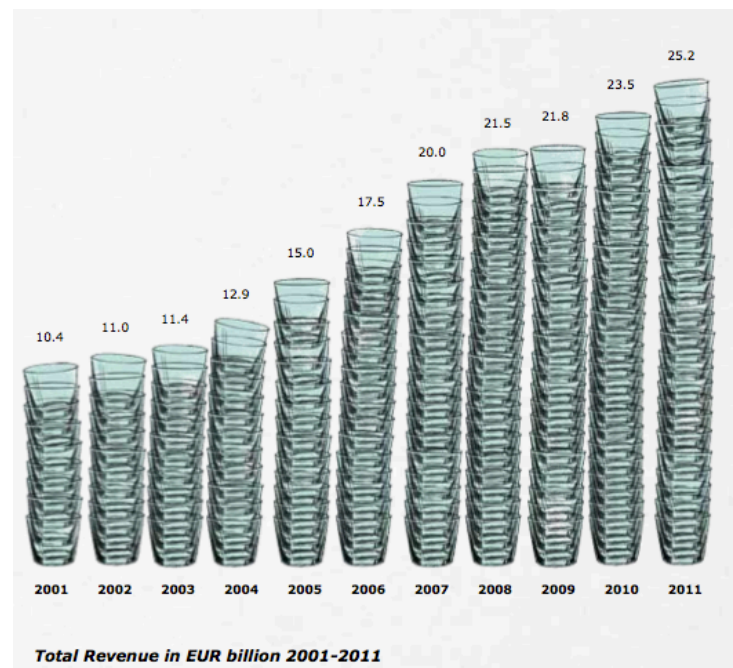


Table 1: Total revenue for IKEA 2001-2011, BN EUR  
Source: IKEA Yearly Summary FY2011

Over the last 10 years IKEA has increased its revenue by 2.5 times, fighting off both the technology crisis in the early 2000's and the financial crisis starting in 2007 (see diagram<sup>15</sup>).

Overall, the compounded annual growth rate (CAGR) over the years

<sup>12</sup> Donovan & Rossiter (1982)

<sup>13</sup> IKEA Facts & Figures retrieved from the IKEA website on 2012-05-08 (see references for URL)

<sup>14</sup> IKEA Yearly Summary FY2011, p. 16, 22

<sup>15</sup> IKEA Yearly Summary FY2011, p. 16

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2001 and 2011 was 9.25%.<sup>16</sup> Also note that not in any one year has revenue declined. This is undeniably an impressive feature.

IKEA is known to give special attention to cost control, operational details and continuous product development. This has over time provided the company with the opportunity to lower the prices of its products. Being structured as a franchise, IKEA has a uniform concept of store and supply chain arrangement. The worldwide franchisor and owner of the IKEA concept is the Dutch registered Inter IKEA Systems B.V. Today, the company continues to grow and is constantly looking for suitable locations around the world where it can open more stores. IKEA plans to spend €3 billion alone on store investments in 2012.<sup>17</sup>

Each IKEA store is built on the values of the IKEA vision and business idea. This includes the following principles:

- To create a better everyday life for the many people.
- To offer a wide range of well designed functional home furnishing products.
- To keep product prices so low that as many people as possible can afford them.<sup>18</sup>

According to the IKEA Business Concept, the vision and the preferred way of making business is through offering high-quality furniture at a low price. Cost consciousness has been a foundational principle for the company since the very beginning. The tradition is to earn money before spending and to invest profits to secure the seemingly contradicting practice of IKEA to grow and at the same time lower prices over time. An important part needed to make this plan work is to involve customers, or as IKEA puts it, a “partnership with our customers”. This is mainly noticed through the participation of customers in transporting and assembling the furniture themselves. The plan will save money both for IKEA and for the customers. IKEA’s idea of a wide product range is to provide both a broad variety of functions and different styles and design based on what they find in the homes of ordinary people and also to always keep in mind the price tag, simplicity and sustainability through the whole production process. All imaginable products for home furnishing are available. In this aspect, IKEA differs from other furniture stores. The basically offer everything for your home, not only the bigger “fixed” furniture such as beds, sofas and kitchen tables.<sup>19</sup>

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<sup>16</sup> IKEA Yearly Summary FY2011, p 16 and authors’ calculations

<sup>17</sup> IKEA Yearly Summary FY2011, p. 15

<sup>18</sup> IKEA Yearly Summary FY2011, p. 6

<sup>19</sup> IKEA Yearly Summary FY2011, pp. 5

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### 1.5. Research object

With respect to IKEA's impressive revenue development over the latest ten-year period, it can be argued something is definitely going on at IKEA that enables the company to generate such revenue growth that over time has made the company the world's largest furniture retailer.<sup>20</sup> We believe that there is a *core practice* considering the store layout, which contributes to IKEA's high level of revenue.

### 1.6. Delimitations

IKEA employs 130,000 people and contracts more than 1300 suppliers in a massive supply chain.<sup>21</sup> The study focuses on what is going on inside the store at IKEA Kungens kurva in Stockholm, more specifically on the customer movement patterns in the store. No contact is made with either executives or employees on site. By making this delimitation we disregard the potential effects on IKEA success deriving from the supply chain and other parts of IKEA's organizational structure. Even though it can be argued against such a move, we firmly believe that the store is the place where the customers ultimately make their purchase decision, this in turn is the obvious way IKEA generates its revenue. It is in the store we have the opportunity to observe directly how IKEA and its customers interact and possibly find interesting practices to study. Besides, we also understand that this thesis will not be able to fully provide a "map" of contributors to IKEA success. Rather, it will try to locate and explain an in-store practice that indeed is contributing to IKEA's success.

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<sup>20</sup> "IKEA mulls joint venture with Bosnia furniture maker", retrieved from Reuters website on 2012-05-08 (see references for URL)

<sup>21</sup> The IKEA Way Questions and Answers, retrieved from the IKEA website on 2012-05-08 (see references for URL)

## 2. Purpose

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*This section presents the identified phenomenon of interest and puts it into a theoretical context.*

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### **2.1. The identified phenomenon**

IKEA is the largest home-furnishings company in the world. It has shown a constant streak of increases in revenue for the past ten years. IKEA do have to sell lots of furniture to generate their high levels of revenue, considering their observed low-price strategy. In this process, the IKEA store layout is central. The purpose of this paper is to try to find an in-store core practice that can be seen as an important parameter of the company's strong development and by using applicable theory understand how IKEA is designing its stores to manage the large streams of customers. The study will take on a descriptive approach to the IKEA in-store operation. We will analyze our findings by integrating a number of different perspectives on retail management into a single wide-ranging framework.

## 3. Research questions

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*This section states and briefly explains the research questions that this paper aims to answer.*

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### **3.1. What core practice is peculiar to the IKEA in-store environment that is essential to manage the customer movements?**

A core practice is defined as one special idea or concept applied in a store. The IKEA in-store environment refers to the visible construction and layout inside the IKEA store.

### **3.2. Is the identified practice beneficial to IKEA?**

Here, an assessment of the benefits and consequences of IKEA's core practice for customer movements is made.

### **3.3. How can we understand the practice?**

Understanding the practice means to analyze and make conclusions from our case using the theoretical framework.

### **3.4. How may our research contribute to further discussion about customer movement management?**

The fourth question includes a discussion on contribution and identified possible extensions.

## 4. Theoretical framework

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*This section presents the literature used to analyze our findings.*

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### 4.1. Donovan & Rossiter: "Store Atmosphere: An Environmental Psychology Approach"<sup>22</sup>

Donovan & Rossiter (1982) have contributed to the science about store design factors concerning store layout by conducting a test on a model that displays a way to measure the effects on shopping behavior of customers in a store. The study is based on the *Mehrabian-Russel* model. A slightly modified version of the model that is used in the Donovan & Rossiter study is displayed below.

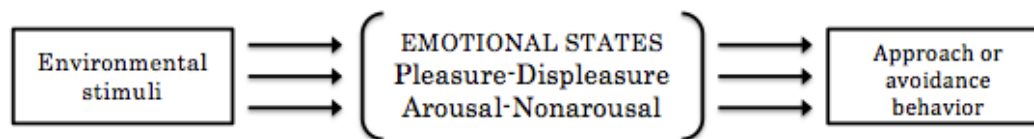


Figure 1: The Mehrabian-Russel model

Store atmosphere is something that causes feelings, which turn out to be hard to verbalize, difficult to recall when completing a survey and that will influence behavior in the store rather than determining which shop to patronize. If store atmosphere does have an effect on in-store behavior, it is necessary to develop a setting of concepts containing the emotional aspect.

The logic of the model is such that customers are affected by some *environmental stimuli*, i.e. a tangible or intangible characteristic of an arbitrary environment. Depending on these environmental factors, people exposed to the environment will develop a corresponding *emotional state* defined as being different degrees of pleasure and arousal. Pleasure-displeasure refers to which extent a person feels happy, joyful and satisfied with the environment. Arousal-Non-arousal refers to which degree the person is active and on the alert in the situation. Depending on if the current environment is considered by the customer to be pleasant or unpleasant and the degree of arousal experienced, the emotional states will have different effects on customer *behavior*.

The degrees of pleasure and arousal are thought to interact in the following way: Arousal strengthens approach behavior in environments perceived as pleasant by the person. The other way around, arousal in an environment perceived as unpleasant amplifies the tendency to avoid. An example of approach-avoid behavior may be a desire to physically stay in the environment or to get out. Another is willingness to explore and study the area closer versus the tendency to remain inanimate.

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<sup>22</sup> Henceforth, the statements in this section refer to the works of Donovan & Rossiter (1982)

Donovan & Rossiter argue that the approach-avoid behavior is applicable to decision-making about patronizing a store as well as tendencies to explore a range of retail offerings. The model is to a high degree predicting. In a retail setting, it predicts that customers will stay for a longer time and presumably spend more money in the store if they experience pleasant feelings and arousal. Using a study group consisting of 30 business students, they tested the predictability of the actual in store behavior from the subjects' emotional states.

By testing this relationship in a number of different stores, Donovan & Rossiter reached the conclusion that the environmental stimulus and the following emotional states significantly affect intended customer shopping behavior. Findings suggest that a customer that takes on an approach behavior in a pleasant store environment tends to spend more time and purchase more goods on any given store visit. The opposite is argued to be true if a customer exhibits avoidance behavior in an unpleasant store environment. The store-induced degree of pleasure especially seems to be a strong explaining factor for approach behavior.

#### 4.2. Spies et al: "Store Atmosphere, Mood and Purchasing Behavior"<sup>23</sup>

Spies et al. (1997) performed a study with the purpose of finding effects of store characteristics on customer mood and purchasing behavior. The study was conducted in two furniture stores (IKEA stores in fact) that differed only with regards to their atmosphere.

One store was classified as being pleasant and the other was classified as unpleasant. Store atmosphere was defined by three variables: the condition of the store, the information rate of the store (the number of information units presented within a certain time interval) and the layout of the store (physical setup of the shopping area).

Customer mood was measured at three different points in time: in the beginning, in the middle and in the end of the shopping experience. Applying the mood-questionnaire (SES)<sup>24</sup>, mood-related adjectives were presented and subjects had to indicate for each adjective on a seven-point scale how well it described their present mood. Three SES subscales with adjectives were used: *elated*, *depressed* and *angry* moods and in order to not prolong the survey more than necessary, the study followed Hampel in first presenting the short form A and the second parallel form B. Both forms comprised seven adjectives of each scale. A total of 76 customers from each store were included in the study.

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<sup>23</sup> Henceforth, the statements in this section refer to the works of Spies et al. (1997)

<sup>24</sup> Hampel (1977)



The diagram illustrates the observed relationships between store atmosphere, customers' mood, satisfaction, and purchasing behavior, considering goal-attainment and visit of the café/restaurant as control variables. The relationships are as follows:

- Store Atmosphere** influences **mood**, **goal-attainment**, and **café/restaurant**.
- Goal-attainment** influences **mood** and **liking of the exhibition**, **satisfaction with shopping**, and **intent to return**.
- Mood** influences **liking of the exhibition**, **satisfaction with shopping**, **intent to return**, **time exhibition**, **time self-service**, **money spent on the whole**, and **money spent for spontaneous purchase**.
- Café/restaurant** influences **mood** and **money spent for spontaneous purchase**.

Relations corresponding to those assumed in Fig. 1 are marked by fat lines, which include the paths from **mood** to **liking of the exhibition**, **satisfaction with shopping**, **intent to return**, **time exhibition**, **time self-service**, and **money spent for spontaneous purchase**.

25 Both these findings are in accordance with the Donovan & Rossiter (1982) findings

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### 4.3. Granbois: "Improving the Study of Customer In-store Behavior"<sup>26</sup>

Granbois (1968) published an article with the purpose to describe an alternative technique for studying customer in-store behavior. He showed that a combination of entrance interviews and direct observations could provide more meaningful information for management regarding customer behavior. This would have the potential to improve retail decisions with respect to manipulating in-store variables.

The study was constructed in such a way that interviewers were stationed in immediate connection to the entrance to three large self-service drugstores during selected time periods. A person outside each store counted the number of customers entering the store and also made notes on initial customer reactions to window displays. The outside person signaled to the interviewer inside when they should conduct an interview, during the interview process brief descriptions of age and sex composition of the shopping party were noted. During their entire stay in the store, another member of the research team dressed as an employee observed the customers, tracking their paths through the layout, what items were purchased and also the amount of money spent. A total of 388 shopping parties were included in the study.

The quantitative analysis found three variables that were important in explaining actual versus planned purchase variation: the *size* of the shopping party, shopping party *composition* and *time* spent shopping. Bigger shopping parties made more changes in their shopping plans than did single shoppers. Compared to single shoppers, shopping parties of three or more bought more or less than planned. A look into the composition of shopping parties showed what types of customers accounted for the greatest amount of deviation between actual and planned purchasing. For example, it was found that shopping parties containing children were most likely to purchase less than planned, on the other hand, females over the age of 30 years shopping alone were most likely to purchase more than planned. Finally, time spent shopping was also related to unplanned purchasing. Specifically, customers spending two minutes or less in the store were most consistent in adhering to planned purchases while shoppers that spent more time in-store showed a strong tendency to purchase more items than planned. Also, the study found that shopping parties that spent more time in-store tended to pass more locations and those that passed more locations bought more items.<sup>27</sup>

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<sup>26</sup> Henceforth, the statements in this section refer to the works of Granbois (1968)

<sup>27</sup> The findings of Granbois link directly to the findings of Spies et al. presented in the preceding section in the sense that customers in a pleasant shopping environment will spend more time in the store. In turn, this will increase the propensity for unplanned purchases.

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### 4.4. Hue & Bateson: "Perceived Control and the Effects of Crowding and Consumer Choice on the Service Experience"<sup>28</sup>

Hue & Bateson (1991) conducted an experimental study drawing heavily from the field of environmental psychology to test the proposition that the customer's perceived control in the service encounter has considerable impact on the service experience. Two situational features of the service encounter, *customer density*, defined as spatial factors either facilitating or obstructing customers' movements, and *customer choice*, defined as to which degree an experience or outcome results from the own persons freedom of choice and not force, were manipulated in the experiment and their effects on the customer's emotional and behavioral responses to the encounter were examined. All the hypothesized relationships were integrated into a single theoretical model presented below.

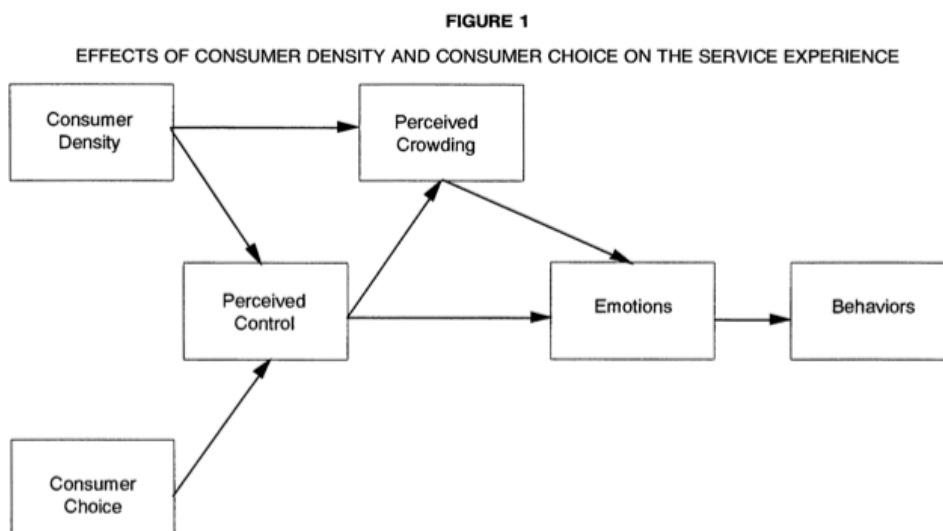


Figure 3: Customer choice and density relations to perceived service experience

Four main hypotheses were brought forward in the study:

- "Any situational or interpersonal characteristic that increases consumers' perceived control will positively affect emotional and, in turn, behavioral responses to the encounter."
- "Providing the consumer with a choice of whether to stay in the service situation will result in higher perceptions of control."
- "In a service setting, density affects consumers' perceived crowding directly and indirectly through perceived control."

<sup>28</sup> Henceforth, the statements in this section refer to the works of Hue & Bateson (1991)

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- *"In a service encounter, consumers' perceived crowding negatively affects emotional and, in turn, behavioral responses to the encounter."*<sup>29</sup>

Of particular interest to our study are the first two hypotheses.

An experimental study was conducted to test the hypotheses. Customer choice in the service encounter and customer density of the service setting was manipulated independently. Subjects were recruited from churches and public housing estates in London and through advertisements in a local newspaper. A total of 115 people between the ages of 25 and 40 participated. The people selected for the study were randomly assigned to a seat in front of which two envelopes containing questionnaires were placed. The subjects were asked to open the first envelope and read the scenario on the first page of the questionnaire. After one minute, the first slide, showing the same service setting that was described in the scenario at one of the three (high, medium, and low) customer density levels, was shown on a screen. The subjects then reported the hypothetical customer's feelings in the situation as described by the scenario and shown in the slide. After the last subject had finished, the whole procedure was repeated for the second service situation.

The completed questionnaires were analyzed through a structural equations model.<sup>30</sup> Multisample LISREL was used to test the hypothesized model.<sup>31</sup>

The findings of the study strongly supported the hypothesized model and confirmed the power of the concept of perceived control in explaining the effects of customer choice and customer density on the emotional and behavioral outcomes of the service encounter. Variation in the subjects' perceived control that was caused by customer choice and customer density was found to exert a considerable effect on pleasure and approach-avoidance. Greater customer choice is considered to be one crucial benefit of service customization. Density can directly influence pleasure in a negative manner but a positive association through perceived control can counteract this.

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29 Quote Hue & Bateson (1991)

30 See Bagozzi (1980)

31 See Jöreskog & Sörbom (1989)

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### 4.5. Larson et al: "An Exploratory Look at Supermarket Shopping paths"<sup>32</sup>

Larson et al. (2005) is the most thorough study on customer in-store movements presented in this thesis. It is well known that most marketers have a clear scheme about how customers tend to move in a supermarket. Traditionally there is a hypothesis saying people walk up and down the aisles, stop at every section and choose the best purchasing option. Despite this folklore truth, few studies exist on how customers are moving around in stores and what is their typical travel pattern. The goal of the study is to provide an exploratory analysis on this issue.

By using a battery of statistical and mathematical methods, they mapped 8,751 shopping paths in a grocery store located in western US. The data were collected through a system called *PathTracker*®. On every cart a transmitter was attached, giving off a position signal every fifth seconds. Using a two-dimensional map of the store, every fifth second, a cart registered a certain  $(x_{it}, y_{it})$  coordinate in the store for cart  $i$  at its  $t^{th}$  position. In this way, a travel path was marked on the map, determining every individual's way through the store.

The coordinates are used as a proxy for customer movements. The authors very carefully state the fact that all customers are not standing by their carts all the time, especially when searching for a product in a tight aisle. Hence, they could not collect all this data using direct observation.

Structuring the data in different clusters, defined by typical travel behaviors through the store, the authors cluster different types of shoppers by their movement patterns.

By dividing the store in different departments and zones, they were also able to see the fractions of time spent in every zone. This is not, however, an indication of exactly how an individual customer's shopping route looks like. The study showed that while spending an equal amount of time in every shopping zone, customers might choose different ways through the store and walk at different pace.

Two important findings are concluded from this study. Firstly, in contradiction to common thoughts, customers are in fact not utilizing the aisles as much as expected. Instead, customers are commonly making detours from the main routes in the store to pick up certain goods. Secondly, as implied by the first finding, the travels of customers are made along the main throughways in the store instead of a systematic shopping up and down along the aisles.

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<sup>32</sup> Henceforth, the statements in this section refer to the works of Larson et al. (2005)

### 4.6. Explanation of the integrated model

This framework represents a row of different studies. In this paper, they are integrated in the following way, based on their main implications for in-store factors (stimuli) that ultimately affect the customer mood and thus behavior.

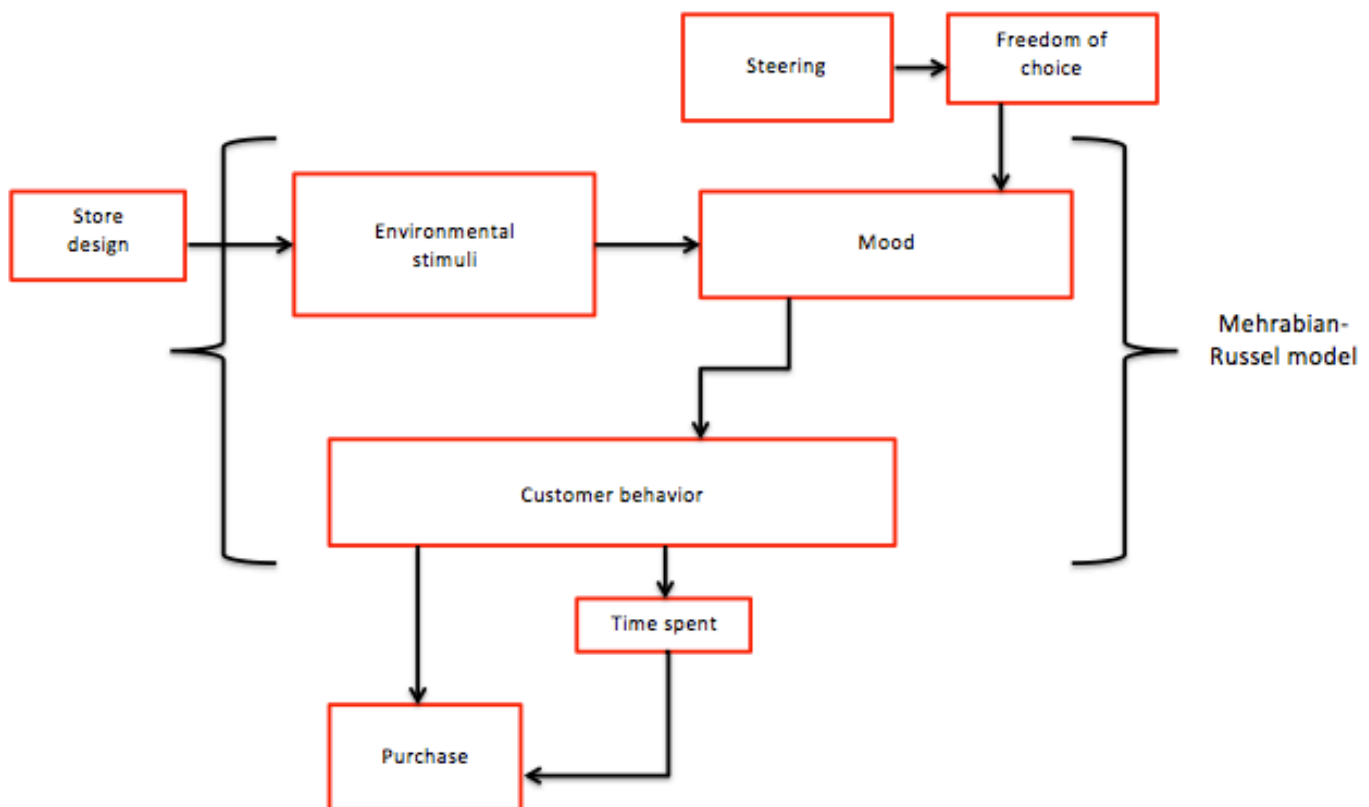


Figure 4: Relations between different theoretical perspectives

Store design provides environmental stimuli, causing a specific mood according to the application of Donovan & Rossiter (through the Mehrabian-Russel model). This is the first factor determining the mood of the customer. The second factor determining the mood is the perception of choice, as pointed out by Hue & Bateson accompanied by Barth. The overall mood is then causing the shopping behavior, determined as being either avoid or approach. The number of goods purchased is seen as directly affected by the behavior. In between, Granbois provides further evidence that time spent in store, which is also affected by behavior (in turn affected by mood and stimuli), has a significant impact on the number of purchased goods.

### 4.7. Discussion of advantages and drawbacks of the theoretical framework

The Donovan & Rossiter study represents the umbrella framework. In their application, the Mehrabian-Russel model is the fundament and also used as a fundament in this study to understand the IKEA core practice. All other studies are more or less applications and/or uses of the same/similar concept. The advantage of the Donovan & Rossiter study is its general scope of possible applications. The drawback is the absence of variation. The model only evaluates its application in a binary way, either by approach or avoid and pleasant or unpleasant. A possible extension of the model is to enhance it with defined degrees of every characteristic.

The study by Spies et al. is a more narrow application of the Mehrabian-Russel model compared to that in the Donovan & Rossiter paper. It takes a closer look at a shopping experience in a certain environment. The study also defines two environments as pleasant and unpleasant beforehand, as opposed to Donovan & Rossiter. The Spies-study confirms the findings of Donovan & Rossiter, supplying the Mehrabian-Russel model with additional strength. On the other hand, an evident drawback is the specificity of their application. It is hard to generalize the study to apply to retail store environments overall.

The study by Granbois contributes with a time aspect of customers' presence in the store. The study gives strength to the statement that time spent in-store correlates with spontaneous purchases made. The advantage of his study is that this relationship is directly applicable and significant without taking any emotional states of customers into consideration. The drawback is that the study is outdated. It is in need of a re-verification and some present-day research that provides evidence of the validity of Granbois' conclusions.

Hue & Bateson fill up the framework with a perspective on the emotional aspects. While Granbois only draws conclusions from the things he observes, Hue & Bateson interviews a large sample of customers about their feelings while shopping. Barth also contributes to this area of the framework by the provision of insight into customers' feelings about in-store steering. The emotional aspect is according to Donovan & Rossiter essential for understanding customer behavior; hence the advantage of Hue & Bateson and Barth is their studies of the emotional component, not put in particular focus by other research in our framework. The obvious drawback is the narrow scope. Hue & Bateson state conclusions about customer feelings only caused by perceptions, not in fact based on the actual store environment. It is imaginable that the same feelings could be induced from another kind of environment, not similar at all to the one studied in Hue & Bateson.

One exception from the umbrella perspective is Larson's et al. study on customer movement patterns. It is a description of typical in-store movements of customers and makes no attempt to emotionally explain customer movements, just to conclude the mere presence of them. This suits well in an explorative study of direct observation. The findings of Larson et al. are straightforward and

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easily applied to the observations made in this study. On the other hand Larson et al. present no obvious reasons for their findings. That makes this theory lack of particular relevance in further developing understanding of the subject and their model is not verified by further research.



## 5. Method

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*In this section our scientific approach and research method are presented.*

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### 5.1. Explaining and understanding

In this paper we aim to *identify* and *understand* a core practice in a store environment based on *observing* that environment. Understanding is about finding the purpose of a specific course of events. When explaining something observed, we give ourselves up to a rule or formula determining the behavior of an object. When *understanding*, we are not only looking for the fact that determines the happening of events, but we also try to provide some reasons as to why exactly those courses are preferred to others to fulfill the purpose of the observed actions.<sup>33</sup>

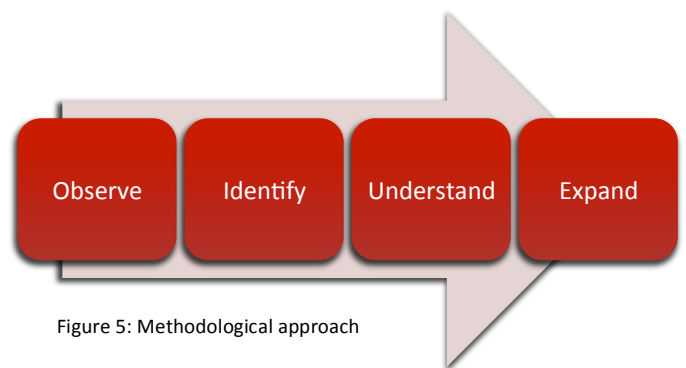


Figure 5: Methodological approach

We first observe something worth investigating further and then we identify more properly what actions and processes that seem to be involved in the creation of the item worth investigating. After that, we will use relevant theory understand the workings of the item of interest and at last expand existing knowledge from the conclusions of our findings.

### 5.2. Evidence and extension of theories

Two ways of scientific approaches are possible. One way is to look upon existing theories and to test their validity. Variables are chosen from the existing framework and measured. This is called *deduction*. A deduction includes a clear and bounded examination of existing theory on the subject of interest. Another way is taking the initial perspective from observations and making a resort to theory to increase understanding of a certain phenomenon identified. This is called *induction*.<sup>34</sup>

Our findings will contribute to existing theory and further research questions will also be suggested. Nothing in the empirics is excluded due to non-fit into a theoretical model; rather we accept this as reality and seek explanations out of our chosen framework. For those practices and actions we cannot support, we want to place in context and find out where they might fit in our general knowledge about furniture stores. We therefore apply an inductive approach in our study, following the four-step figure presented.

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<sup>33</sup> Andersen (1998)

<sup>34</sup> Ibid

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### 5.3. Direct observations

Direct observations are divided into structured and unstructured. When conducting a structured observation, a chosen row of different phenomena is observed. Unstructured observation of practices means being a part of the process and observe all the actions in the way they are unfolding.<sup>35</sup>

Direct observations are also divided in open or closed. Open observation means observing objects conscious about the observation. Closed observations means the objects are unconscious about the observation. Also, observations are classified as qualitative and quantitative.<sup>36</sup>

When doing studies at IKEA Kungens kurva, a mix of structured/unstructured and qualitative/quantitative observations were used. All observations were closed. During every session of studies conducted, including eight visits to the IKEA store Kungens kurva during spring 2012, notes were taken. Every document from our observations was then summarized in writing a document comprising all of our observations.

We conducted structured observations by taking a stationary position when observing a specific behavior or process. We conducted unstructured observations when we took part in the shopping process at IKEA ourselves.

Qualitative observations were made when we observed the ongoing activities in the store. Quantitative observations were made when we classified behavior of customers at different points in the store.

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<sup>35</sup> Andersen (1998)

<sup>36</sup> Ibid

## 6. Empirics

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*This section puts down the fundamentals for our analysis. Everything in the empirics derives from our own observations made at IKEA Kungens kurva during several study sessions that took place in the spring 2012.*

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### 6.1. Observations

The store consists of the following parts.

- Entrance
- Exhibition area displaying all the offered furniture and most other items
- Self-service area for shopping of smaller goods
- Self-service warehouse for collection of dismantled furniture packed in the IKEA-characteristic flat packages.
- Checkouts

#### 6.1.1. The entrance

At the entrance, we find a number of additional services such as a café, a restaurant and a helpdesk giving customers support. They provide snacks, staff to answer questions and daycare of children. Right in front of the main door, a one-way escalator leads to the exhibition area.

#### 6.1.2. The exhibition area

The exhibition area is located in the tower-like building and consists of four circular floors connected by elevators, escalators and downward walkway ramps at certain places. Every floor consists of the following sections.

- Outer circular walkway
- Inner area encircled by the walkway, also referred to as the cell area

Every outer circular walkway consists of the following.

- Different exhibition apartments containing furniture and decoration
- Shopping areas that display different functions of furniture in different styles and colors
- Nodes that connect to the cell area and escalators
- Shortcuts between the outer walkway and the cell area.
- Guided walkways between every department of exhibition and shopping area

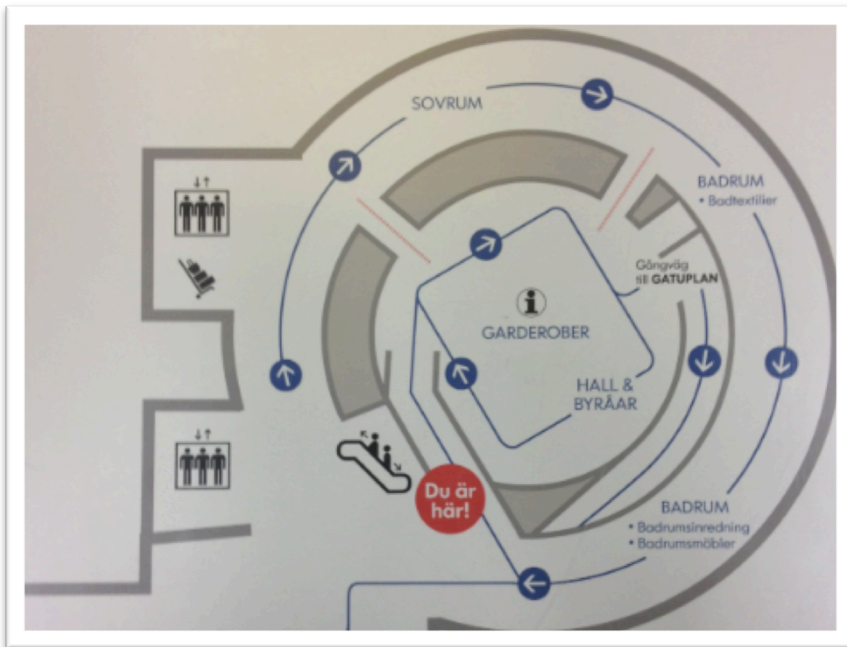


Figure 6: Layout of one of the floors in the IKEA store

Every cell area contains one specific function of furnishing, such as sofas, TV-tables and wardrobes. The picture below displays the layout of a floor of the exhibition. The exhibition consists of four floors alike the one displayed in the picture. Arrows all around the floor mark the outer circular walkway (blue line). This leads into the cell area after completing one lap. Then the walkway stretches throughout the cell area and leads to a walkway ramp connected to the floor beneath. At the next floor, customers arrive near the escalators, i.e. the node (the big red dot “Du-är-här!” The shortcuts between the inner and outer circles are marked in the picture by the thin red lines).

### 6.1.3. Self-service area for shopping

When customers have reached the bottom floor of the exhibition area they will be directed towards the shopping area. This area is located in another building built strictly adjacent to the circular building.

### 6.1.4. Self-service warehouse and checkouts

Right where the shopping area ends, the self-service warehouse begins. This is where the customers will collect their large furniture goods, like shelves, tables and chairs. Right after the shopping and self-service store, the checkouts are located.

This was a brief description of the store in its entirety. The scope of this study focuses on the exhibition area and further descriptions of this area are presented below.

### 6.1.5. Exhibition apartments

The shopping tour starts when customers come down from the escalator at every floor. Directly they are led into the outer circular walkway. First they are presented with the exhibition apartments. Those are real-size apartments fully possible to walk into and look at all furniture and decoration in one piece at the same time in a quite natural setting. The exhibition apartments vary in size and

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style. Some are full-size apartments containing living room, kitchen, bedroom and hygiene facilities. Other exhibitions only display a single room.

### 6.1.6. Furniture selection areas

After every set of exhibition apartments, customers come to the furniture selection area. Those are set-ups of furniture and decoration in the same style as displayed in the exhibition apartments. They contain furniture of the same function in different styles and colors, such as armchairs, dining tables and desks. Those are placed both in direct connection to the exhibitions and further into the cell area.

### 6.1.7. Shortcuts

During the exhibition walkway, two shortcuts emerge leading directly in the cell area. Hence, it is possible for customers to skip parts of the exhibition and turn directly into the furniture selection area located in the middle (the cell area).

### 6.1.8. Nodes

Every floor tour starts and finishes at a node. It consists of escalators leading to the next and preceding floor of the exhibition. Also, this place does have a walkway leading to the cell area.

## 6.2. Usage of escalators

At every node, the customer is faced with the choice to continue into the cell area of the floor, or switch floor by one of the escalators. The below metrics measure the tendency of customers to make either choice. During 20 minutes, the number of customers proceeding into the cell area and switching floor respectively were counted.

	Observations	Switch floor	Cell area	% Switch floor	% Cell area
Floor					
3	362	299	63	83	17
2	257	208	49	81	19
1	270	225	45	83	17

Table 2: Number of customers adhering to the walkway alternatively switching floor at different floor nodes

At every floor, customers choose to use the escalators on 81-83 % of the occasions.

## 6.3. Usage of shortcuts

In every outer circular walkway, the customer is presented with the choice either to continue the walkway through the exhibition or take a shortcut leading directly into the cell area. There are two of these shortcuts at every floor. The below metrics measure the tendency of customers to make either choice. During same 20-minute period, the number of customers making either choice was

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counted. The measuring was made at two points, P1 and P2. At P1, the customers were registered as continuers or deviators in the cell area. At P2, they were once again registered.

Floor	Observations	Exhibition	Shortcut	% Exhibition	% Shortcut
<b>3</b>					
P1	121	93	30	77	23
P2	105	96	9	91	9
<b>2</b>					
P1	94	65	29	69	31
P2	69	55	14	80	20
<b>1</b>					
P1	77	53	24	69	31
P2	58	55	3	94	6

Table 3: Number of customers adhering to the walkway alternatively using shortcuts into cell areas at different floors

At every floor customers tend to continue throughout the exhibition without deviating into the cell area. The number of customers observed during the same 20-minute period decreases steadily when travelling down the store. At P1 and P2 on each floor respectively, roughly the same fraction of customers choose to continue through the exhibition area and deviate to the shortcut respectively. It is much more common to deviate to the shortcut at P1 than P2. The reason that the observed number of customers at P2 does not coincide with the number of customers proceeding into the exhibition is because customers are not consequent in the usage of shortcuts. Some customers used them as a way back into the exhibition and some customers walked the opposite way in the outer circle. Customers behaving in this way were excluded.

### 6.4. Guided walkways

Everywhere throughout the exhibition area, arrows on the floor point in the same direction. Also, there are arrows on signs hanging from the ceiling. Following the arrows from the start, you are urged to walk through the whole exhibition. It starts from the node, through the exhibition and continues around the whole floor. Then, it comes back to the node and leads you to a walkway leading into the cell area. This leads to a smaller circular walkway in the cell area before arriving at a walking ramp connected to the floor beneath. In this manner, the walkway leads you from floor to floor through the exhibition area.

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### 6.5. Other observations

IKEA has a very large range of products displayed in a sequenced manner all over the store. This makes it a lengthy journey to walk through the entire store to look at everything.

Along the path between the different exhibition areas, containers can be found that are filled with smaller goods, this could be anything from kitchen-timers to bathroom hooks but they will always hold content appropriate for the current section of the exhibition. Remarkably, the same goods kept in the containers are found in numerous other places as well.

During our observations, we spent a lot of time exploring the store ourselves. Early on into our exploration it was obvious that customers rarely used the walkway in the cell area that leads to the next floor. The store provides the customers with pencils and note pads to help them keep track of their intended purchases. Every piece of furniture in an apartment or in the set-up of different versions of furniture is marked with a tag that contains information about the pick-up location at the self-service warehouse.

## 7. Analysis

*Here, we put our empirical findings into the perspective of our theoretical framework. We will, based on what theories say and what we have observed try to infer standpoints for our case.*

### 7.1. Identification of core practice

The walkway of the customer seems to be carefully planned throughout the area, as evident by the fact that arrows, signposts and maps overlooking the whole floor are found everywhere and the overall impression is that there is one by IKEA preferred way to go when you move through the store, a *planned walkway*.

#### 7.1.1. Make customers maximize time spent in store

The goal placed in the bottom represents the believed overall goal for IKEA's customer movement management, to make customers maximize the time spent in store. The layout of the store and the mere usage of the exhibition walkway is an obvious sign of this idea.

#### 7.1.2. Stimulate customers into shopping tour

There are two main areas of research at the issue about managing

the customer movements of a retailing store. One focuses on tracking the movements of the

customers in store and hereafter the adjustment of the merchandise's physical position according to the results of the tracking, making customers to see the most profitable products. The other is how retailers are trying to steer and guide customers to the place where those products are placed.<sup>37</sup>



Figure 7: Hierarchy of IKEA beneficial practice

<sup>37</sup> Nordfält (2009), Nordfält is very careful to notify the reader about the fact that these perspectives in no ways contradict each other or represents a polarity. Both aspects need to be taken into consideration by store managers when deciding how to design the store layout.



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### 7.1.3. Planned walkways

A way to get customers to see as much of the store as possible is to stimulate them to move according to the planned walkway. This clearly puts the case in context of the second dominating strategy, steering customers in the desired way. IKEA has put this strategy to an extreme point by designing the whole store out of this purpose.

Recognized tactics applied to realize the strategy are the usage of walkways. This is a design of the store leaving every customer with only a few obvious choices of shopping travels. Walkways are seen between the exhibition squares, functional layouts and the clear boundaries between self-service shops and warehouse to stimulate the completion of the intended shopping tour.

Leaving the customer with no possible reason to leave the store creates lock-in effects. The store contains a restaurant, a daycare section, café's and plenty of hygiene facilities. Nobody has to look for the right way; it is already marked out with arrows on the floor and signs in the ceiling to direct every customer to the next part of the exhibition or to the service departments (i.e. the restaurant etc.).

### 7.2. Assessment of the benefits gained by IKEA

IKEA's in-store strategy for income maximization and hence, to maximize sales seems to be to make the customers stay in the store for as long as possible. When people stay in a store for a long time, they see more furniture and decoration and hence shop more.<sup>38</sup> This is an argument for spontaneous shopping, the incremental surplus amount of purchases made compared to what the customer planned from the start.<sup>39</sup>

#### 7.2.1. Implications for the IKEA in-store operations

As identified, IKEA seems to strive for steering the customers in the store into the planned walkway. People make spontaneous purchases to a higher degree when they stay longer in the store because of the planned walkway. The implications of this practice are examined below.

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38 Marcelius and Neubauer (2010)

39 Granbois (1968)

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### 7.2.2. A long way to walk

A main problem is that customers feel it takes a long time to shop at IKEA. This is not only presented as a matter pertaining to the size of the store though. The interior layout of the store is another fact explaining the difficulties for customers to find their way and eventually to find specific products.<sup>40</sup> This gives a long physical way to walk, despite signs and maps.

### 7.2.3. Customers get inspired

Shopping could just be a way to make the time pass, i.e. customers may visit a store without the explicit intention to make any purchases. It does not really matter what kind of store is concerned, as long as it is something that a customer never has seen before.<sup>41</sup> The IKEA store offers practically everything in home decoration. It is arranged along a walkway, carefully designed for staying visible to all customers passing by. Possible combinations of furniture are also exposed in the exhibition apartments. This is clearly an opportunity to make further decisions about the color and design of any particular piece of furniture. The store exhibition is a source for inspiration, which increase customer propensity for spontaneous purchases.

### 7.3. Customer movement patterns

From our own observations of customer movements, several conclusions are made. We want to evaluate the performance of the walkway, operationalized as the fraction of customers adhering to the walkway measured at select points in the store, i.e. customers that do not use shortcuts.

#### 7.3.1. Customer movement at nodes

At every node, the customer is put to the choice to continue into the cell area of the floor, or switch floor by one of the escalators. Our study concludes that between 17-19 % of the customers choose to use the planned walkway.

Stimulus to adhere to the walkway seems to be very low at nodes, given that customers made the decision at the node regarding their walkway. It was further noticed that a larger fraction of customers that entered the node from the previous exhibition area tended to continue along the planned way compared to those who arrived at the node from the entrance or the downward-bound escalator respectively.

There were slight differences between top floor node and the rest since it is located close to the one-way entrance. The sample size during the 20-minute measurement period was greater, probably explained by customers walking in from the entrance to take the shortcut to below floors of the store immediately instead of staying at the top attending the exhibition. Later on, the number of customers passing by was diluted.

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<sup>40</sup> Marcelius & Neubauer (2010)

<sup>41</sup> Bäckström (2010)

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We observed an intensive use of the map at every node, sometimes even causing queues. Customers also tended to walk out from the cell area entrance and to take the escalator to the next floor. Hence, they were not using the walkway ramp leading to the next floor. During most of our observations we noticed customers apparently had difficulties to find this walkway ramp. The purpose of the walkway ramp seemed to be misunderstood or not marked clearly enough on maps and by signs.

### 7.3.2. Customer movements in exhibition area walkways

The tendency to deviate from the exhibition area into the cell area and hence the planned walkway was stationed at 25-30 % at the first observation point. Later on, a second chance to use a shortcut appeared. The fraction of customers using the shortcut at the second observation point, out of those adhering to the walkway at point 1, was roughly 10-20 %.

First, the number of observed customers decreased steadily travelling down the store. This point to a tendency for customers to converge to use the escalators the longer the exhibition area runs. More customers tended to use the planned walkway in the upper compared to the lower floors. Fewer customers passed by our observation points on floor 1 than on floor 3, possibly as a result of more customers having already gone straight to the shopping and warehouse area by using escalators down to floor 0, thus completely skipping above floors.

Second, people tended to deviate into the cell area more often at first available opportunity. This is noted by the large differences in customers choosing the shortcut at P1 compared to P2. This makes sense since people intending to proceed throughout the whole exhibition area would not deviate at either point. If they made the decision not to deviate at the first point, the probability for deviation at the second point is much lower and makes sense intuitively.

It is also crucial to point out that the difference between total observed customers at every point is partially explained by reverse walking i.e. customers turning around in-between the points. Also, customers using the first shortcut as exit from the cell area and back into the exhibition explain inconsequence in the data.

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### 7.3.3. Conclusions of the customer movements

If all customers would adhere to the walkway without exceptions, we expect the number of customers observed at every point to be constant all over the store, cleared from natural variation.<sup>42</sup> In IKEA's case, we note a falling degree of customer intensity in the exhibition walkways; making it clear that people tend to concentrate around the escalators the farther they travel through the store. Customers are using the shortcuts to navigate between the cell areas (horizontally) and the exhibition and using the escalators to travel between floors (vertically). The planned walkways (ramps) between floors seem to rarely be used by customers. Since they are hidden in the corner of the cell area, this is not very surprising.

The escalators are used on four times as many occasions as the walkway to the cell area. This is further connected to the fact that nearly no one uses the walkways connecting the floors. This in turn gives further indications that could point to customers believing that the cell area is not connected to a lower floor and that there is not a specific walkway to allow them to get there, when in fact there is.

### 7.4. Understanding the practice

#### 7.4.1. The Mehrabian-Russel model as main analytical framework

The shopping environment at IKEA is considered to cause environmental stimuli that induce a given emotional response. It turns out, it is the emotional response that determines the behavior of the customer.<sup>43</sup> Therefore, we see the Mehrabian-Russel model, as adapted by Donovan & Rossiter, as a suitable framework for initially organizing and exploring the findings made at IKEA.

We are interested in understanding how different imaginable emotional states are caused by the IKEA store environment. Hence, we ask ourselves the question whether it is possible to understand and make any conclusions about customer behavior as determined by the physical environment.

#### 7.4.2. Understanding IKEA's intention to make customers stay in the store by usage of store design

Customers spending a longer time in store will purchase more goods in the form of unplanned purchases. This means it is a positive correlation between customer time in-store and the amount of goods purchased.<sup>44</sup> Customers that exhibit an approach behavior will spend more time in store.<sup>45</sup>

<sup>42</sup> As an example, customers will not be able to walk at the same pace, causing certain areas to get crowded at times.

<sup>43</sup> Donovan & Rossiter (1982)

<sup>44</sup> Granbois (1968), Spies et al. (1997) and Donovan & Rossiter (1982)

<sup>45</sup> Donovan & Rossiter (1982)

### 7.4.3. Understanding the store layout from an emotional perspective

Studies have suggested that customers are affected by store environment in the sense that they perceive its content as either positive or negative.<sup>46</sup>

From the Mehrabian-Russel model we know that customers in a retail environment will take on either an approach behavior or an avoid behavior depending on environmental stimuli that trigger certain emotional states.<sup>47</sup> At IKEA, this would mean for customers to either walk through the store eager to explore the merchandise offered or avoid it by taking the fastest (shortest) way out, assumingly by using the shortcuts presented in the empirics.

Mood or emotional state, as triggered by some environmental stimuli affects in-store behavior in the sense that customers feel either pleased or displeased by their shopping experience. It is clear from this study that whatever environment identified at the IKEA store, it will have immediate implications for customer perception of pleasure or displeasure.<sup>48</sup>

Customers finding themselves in a pleasant store environment tend to spend more time in it. This is completely in line with the concept of the planned walkway at IKEA; the purpose of which seems to be to make customers extend their visit. What kind of factors may induce pleasant feelings about the store and its planned walkway?

### 7.4.4. Section conclusions

- Customers will feel either pleased or displeased with their shopping experience. This has to do with their emotional state, which is determined by different environmental stimuli present in the store.
- With the usage of a planned walkway, IKEA seems to want customers to extend the time spent in-store by walking the longest way possible.
- In order to get customers to stay (to get them to complete the planned walkway) they must perceive the environment as pleasant.

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<sup>46</sup> Barth (1993), Hue & Bateson (1991)

<sup>47</sup> Donovan & Rossiter (1982)

<sup>48</sup> Spies et al. (1997)

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### 7.5. Understanding customer freedom as a foundation for a good emotional state

What are affecting customers to take on an approach or avoid behavior when it comes to in-store layout and design? What at IKEA would get customers to spend more time in the store (take on an approach behavior), i.e. what can be found to be beneficial for revenue generation, considering the store environment?

Many customers at the store did not seem to accurately follow the planned walkway. Rather, arbitrary customer movements were observed, including customers moving in the opposite direction pointed out by maps, arrows and signs, customers moving randomly between the outer circle and the cell area and customers making excessive use of the shortcuts available.

Certain layout patterns are especially attractive to customers. Among other things it has been found that customers are rather reluctant to accept any attempts to divert the direction in which they are going.<sup>49</sup>

A store design of low steering and high freedom of movement is reportedly deemed by customers as attractive. These findings will definitely have implications for the in-store layout design evaluation at IKEA regarding what is beneficial for customer movement management.

An interesting feature observed is that IKEA neither through the store layout nor through its employees made any obvious intentions to physically force the customers in a certain direction, as could have been expected if they wanted customers to walk the planned walkway. Instead, customers seem to be encouraged to use alternative ways since despite the maps and arrows, there are plenty of shortcuts such as escalators, lifts and stairs. Why would IKEA bother pointing out a planned walkway if they would not try to enforce customer movements in accordance with that walkway?

This is an expression for providing customers with freedom of choice. Customers exploring open store scenery find this attractive compared to strict steering without or with little choice of how to move.<sup>50</sup> This provides us with the insight that IKEA may have adopted a mid-position between the two extremes steering and freedom. A planned walkway is presented as a foundation for in-store movement and at the same time, customers that prefer another way are not hindered to pursue it.

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49 Barth (1993)

50 Ibid

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To add to the above, the study that tested the effects of perceived control on customer crowding and choice provides information thought to be very useful in understanding the findings. Considering the customer in-store experience as an issue about perceived situational control, the study managed to vindicate the following (cited below):<sup>51</sup>

*“Any situational or interpersonal characteristic that increases consumers' perceived control will positively affect emotional and, in turn, behavioral responses to the encounter.”<sup>52</sup>*

If we consider the planned walkway at IKEA, a strict enforcement of such a way where customers will have no or very limited choice as to decide which direction to walk will have emotional and behavioral consequences that have negative implications for their perception of control.

Linking to the studies<sup>53</sup> on customer mood and in-store behavior, an environmental stimulus i.e. the walkway, that sets off negative feelings among customers will lead them to identify the environment as unpleasant. This feeling may lead the customers to develop an avoidance behavior, which could result in less time spent in store and fewer goods purchased.

*“Providing the consumer with a choice of whether to stay in the service situation will result in higher perceptions of control.”<sup>54</sup>*

In contrast to the previous discussion, a more loosely controlled customer flow will provide customers with a greater choice of how to move around. This will induce feelings of higher perceived control of the store experience.

Emotional stimuli that are perceived by customers as positive will ultimately lead to the expression of an approach behavior, increasing time spent in-store and the amount of goods purchased.<sup>55</sup> Customers at IKEA are using the opportunities given through the presence of shortcuts to choose their own walkway. This freedom of movement implies customers to a higher degree will have a pleasant set of feelings towards the environment.<sup>56</sup>

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51 Hue & Bateson (1991)

52 Quote Hue & Bateson (1991)

53 Compare Donovan & Rossiter (1982) and Spies et al. (1997)

54 Quote Hue & Bateson (1991)

55 Compare Donovan & Rossiter (1982) and Spies et al. (1997)

56 Hue & Bateson (1991)

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Studies on the subject of in-store mood and behavior reveals that customers' freedom to choose how to move is a very important determinant of the overall outcome of the shopping experience in terms of time and amount of money spent on purchase.<sup>57</sup> As our study of customer movements finds, many customers do in fact move in unstructured patterns, including counter-clockwise movements with respect to the signs and arrows that point out the planned direction. Customers may first move in the planned direction for maybe half a floor and then suddenly turn around and walk back the same way and go into the cell area using a shortcut. Such customers can be said to be expressing a high degree of movement control in the context of store layout.<sup>58</sup>

Especially in the outer circular walkway, where customers were presented with the option to continue through the exhibition or take a shortcut to the cell area, inconsequence was found. Although the customers tended to proceed along the exhibition area, at least as many customers used the shortcut as a way to return into the exhibition area. The shortcut was by no means working as a one-way valve leading customers into the cell area. The observed movements are an indication that it is the customers rather than IKEA that ultimately directs in-store movements. In the light of what has been stated so far, this is to be expected and even desired.

### 7.5.1. Section conclusions

- Studies on the subject of in-store mood and behavior reveal that customers' freedom to choose how to move around is a very important determinant of the overall outcome of the shopping experience in terms of the emotional states induced. Higher perceived freedom gives more feelings of pleasure, which will positively affect customers' emotional states. The opposite is true if the level of perceived freedom is decreased.
- At IKEA, it is observed that in spite of the planned walkway, customers can to a high degree choose their own individual path through the store by using various shortcuts and combine those with the main walkway.
- The customer freedom of movement at IKEA is beneficial for the store in the light of the studies presented. It is to be expected and even desired in order to get customers into an approach behavior.

### 7.6. The idea about customers in a pleasant environment

As previously stated, findings of studies on the subject strongly indicate a close connection between what state of mood customers are in and their in-store behavior as defined by time spent in the store and the amount of goods purchased.<sup>59</sup> This is further backed by the study that links customer perceived degree of choice to purchasing behavior.<sup>60</sup> Relevant to our case, it is suggested that IKEA would want to keep customers in a positive mood by providing a pleasant environment that is not constraining on them with respect

<sup>57</sup> Granbois (1968), Spies et al. (1997) and Donovan & Rossiter (1982)

<sup>58</sup> As suggested by Hue & Bateson (1991)

<sup>59</sup> Donovan & Rossiter (1982) and Spies et al. (1997)

<sup>60</sup> Hue & Bateson (1991)



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to their (perceived) freedom of movement, thus inducing a high degree of control. In this sense, an enforcement of a planned walkway cannot be seen as desirable. Stimulate customers to utilize the walkway as a form of general guidance structure for in-store movements as opposed to enforcement would be more of a preferred approach.

At first, most customers do not as supposed by common thought move along the aisles. Instead, travelling to select aisles is the common behavior. Customers rarely shop in a systematic way. In reality they make only short detours into the aisles.<sup>61</sup>

This does not have to imply any disadvantages for IKEA. Customers seem to use the planned walkway as the main thoroughfare, making detours into the apartments like customers making planned movements into the exhibition apartments and the functional layouts.<sup>62</sup> The apartments display every imaginable piece of what can be found in an ordinary home, making many of the items sold at IKEA equally exposed, not just the big furniture. Hence IKEA arguably cannot be said to suffer from the fact that customers do not seem to walk in aisles, leading us to the conclusion that non-usage of shelves in the exhibition area may be motivated by this fact. It actually seems, from Larson's et al. point of view that IKEA is designed from the customer's need of a clear thoroughfare or point of return. To maintain customer willingness to continue the shopping tour and make them spend as long time as possible traveling along the walkway, customers are provided with the natural point of return between detours into aisles. This will likely contribute to keep customers in a positive mood and also yield positive perceptions about the store environment, such as an increased perceived freedom of movement.

Customers spending more time in a store showed a strong tendency to purchase more items than planned and that customers that passed more locations bought more items.<sup>63</sup> This helps us to further understand the fact that IKEA has designed the main thoroughfare, i.e. the planned walkway, to adhere to customer natural movements.<sup>64</sup>

In the perspective of the IKEA planned walkway, this points to the obvious way for the store to maximize purchases. An approaching behavior by customers to the IKEA store design will lead to a stronger willingness to follow the planned walkway. This in turn would imply that more time is spent in store. The exposure of the merchandise is maximized since the walkway runs past every single department of the store.

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61 Larson et al. (2005)

62 Larson et al. (2005)

63 Granbois (1968)

64 Compare Larson et al. (2005)

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This would mean an increased propensity for unplanned purchasing.<sup>65</sup> The intuition goes as follows. By making the customers walk the long way they will spend more time in-store. By spending more time in-store, customers will be exposed to the products for a longer time period. A higher exposure to products increase chances that they end up buying more than they had initially planned.<sup>66</sup> This in turn means that number of items sold will increase.

The bottom line is that to make customers spend more time in-store, they need to consider the store environment as pleasant. Clearly, in the case of IKEA a strict enforcement of a planned walkway cannot be deemed a desirable approach to achieve this. Finally, the mere purpose of the IKEA store layout is to respect the typical customer movements<sup>67</sup> by the use of walkways, shortcuts and the absence of deep-running aisles.<sup>68</sup> This is why the walkway structure is so loosely enforced.

### 7.6.1. Section conclusions

- Customers that are in a pleasant environment will spend more time in that environment. When they spend more time in the environment, it has been shown that the propensity to buy more goods increases. It has also been shown that by being exposed to more goods, customers are likely to buy more.
- It has been found that customers to a high degree follow a main throughway and make only short detours into aisles.
- At IKEA, the idea is to find a balance to make customers walk the longer planned walkway but at the same time offer other options in order to not set off any negative emotional states among customers. By inducing positive emotional states, customers may actually approach the longer walkway by their own free will, without any enforcement from IKEA. This is clearly the most desirable outcome of in-store customer flow – to make customers like the environment by giving them freedom to choose, IKEA can lure them to actively pursue the longer walkway all by themselves. If not in a systematic way occurring immediately (as ordered by signs and arrows) then at least in a more random way over the long run.

### 7.7. General conclusion of analysis

It can be concluded that IKEA is refusing to tightly control customer movements through the store since the company would not want to interfere with customers' assumed desire for freedom of movement. Such control would likely have a negative effect on customers' mood and emotional states, which would increase the share of customers with feelings of an unpleasant shopping experience. This has a negative impact on the amount of time spent in store and also decreases the probability of money spent on spontaneous purchases. This would not be optimal for IKEA revenue generation. From a customer movement management

<sup>65</sup> Granbois (1968), also in line with Donovan & Rossiter (1982) and Spies et al. (1997)

<sup>66</sup> Granbois (1968)

<sup>67</sup> Compare Larson et al. (2005)

<sup>68</sup> Compare Granbois (1968) and Larson et al. (2005)

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perspective it may be desirable to get customers to move in a uniform manner through the store and at the same time maximize the exposure of customers to the various items being sold. This is in line with a planned walkway being in place at IKEA. Though, an application of this planned walkway would negatively impact customer perceptions on in-store environment, which in turn would negatively affect in-store behavior. The possible effects would be that customers spend less time in the store and display less inclination to engage in purchasing activities. Both of these effects are expected to have a negative impact on company revenue, all other things alike.

Also, while increased exposure to goods increases items bought this may only hold if customers act in a pleasant environment, are in a positive mood and have a perceived ability to move freely. Customers expressing an avoidance behavior are not likely to respond to an increased exposure by making more purchases.

## 8. Conclusions

### 8.1. Answering the research questions

We wanted to contribute with a descriptive study about what is peculiar to shopping at IKEA compared to other comparable furniture stores. As the foundation for our effort we stated the following research questions:

- *What core practice is peculiar to the IKEA in-store environment that is essential to manage the customer movements*
- *Is the identified practice beneficial to IKEA?*
- *How can we understand the practice?*
- *How may our research contribute to further discussion about customer movement management?*

Below, each research question is discussed in order and provided with an answer according to our findings.

#### 8.1.1. What core practice is peculiar to the IKEA in-store environment that is essential to manage the customer movements?

The core practice identified, as peculiar at IKEA is the practice of a set-up, planned walkway environment that, if applied accordingly, will guide the customer through the entire store. This means that when a customer chooses to walk the planned walkway, they will see all that is to be seen, from the entrance to the checkouts. Since the route cover all areas of the store, it runs a great length. A customer that walks this way is estimated to spend a significantly greater amount of time in-store compared to a customer that navigates through the usage of shortcuts such as escalators, elevators or stairs. Studies (particularly Granbois) have suggested that the more time a customer spends in a store, the more inclined that customer is to make spontaneous purchases. In conclusion, by urging as many of its customers as possible to walk the planned walkway, IKEA may make them spend significantly more time in-store, ideally increasing its revenue and thereby its success per the definition used in this paper.

#### 8.1.2. Is the identified practice beneficial to IKEA?

As determined, in order for the core practice to be beneficial to IKEA success, it must from an in-store perspective contribute in a clear way to the success of the company, defined from the strong development of revenue. It has previously been established that making the customers spend more time in the store may reinforce such revenue collection. Our own observations point to an unclear conclusion as to how much the planned walkway actually contributes to creating or affecting revenue.

- First, we cannot identify a significantly strong uniform flow of customers taking the planned walkway through the store to an extent that make them spend significantly more time in-store.
- Second, various shortcuts are used excessively at all floors of the exhibition, presumably shortening customer time in-store compared to the opposite. Even if a customer time spent in-store was not to be shortened by the usage of shortcuts, it

would still be evidence against the planned walkway since other routes than the walkway itself decide the time spent.

Customers indeed seem to be very much in their own control of where to go, contrary to the supposedly restricted options of direction should the planned walkway be enforced upon them.

### 8.1.3. How can we understand the practice?

From our perspective, the purpose of the core practice would be to make customers stay in-store for a longer time and at the same time expose them to a greater amount of products than should they chose another (shorter) path of walking. The outcome of our research points to an unclear contribution of the core practice to store revenue. This would not make the core practice beneficial to IKEA success. Taking on theory, we found that customers having an approach behavior tend to spend more time and money in-store while customers having an avoidance-behavior tend to the contrary.<sup>69</sup> Other theory as well states that customer time in-store and the rate of spontaneous purchases are positively correlated.<sup>70</sup> If we imagine a world where IKEA really enforced upon its customers the planned walkway each time they visited the store we could achieve a one-way flow from beginning until end, making the customers see everything and not being able to deviate until they had done so. But let us also consider the implications of such enforcement on customers' experienced pleasantness of in-store environment.<sup>71</sup> Not many customers would like to be forced to move around like cattle. More likely, customers would likely hurry through the store as quickly as possible, only paying attention to get what they really need so they can quickly exit the store.

#### 8.1.3.1. Enforcement leads to avoidance

Strictly enforcing the planned walkway would likely stabilize and even-out customer flow and make the customers see everything, effectively increasing exposure to the products sold. Judging from the findings of relevant studies on customer actions in a retail environment, customers' perceptions of the store might become negative if they feel they have no free will to move in whatever direction they want. This may increase the share of customers displaying an avoidance behavior. It is easy to see the potential operational benefits of structured customer flow but when customers notice they have been "robbed" of their freedom of movement, they sure will not appreciate in-store environment as much.

#### 8.1.3.2. The walkway is perceptive to customers' movements

Looking at IKEA Kungens kurva in reality, we find the store filled with all sorts of shortcuts running both horizontally and vertically that accompany the planned walkway. At times customer flow seems completely arbitrary and almost chaotic, as if IKEA has no

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<sup>69</sup> Donovan & Rossiter (1982) and Spies et al. (1997)

<sup>70</sup> Granbois (1968)

<sup>71</sup> Barth (1993) and Hue & Bateson (1991)

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intention or desire whatsoever to enforce a thing like a preset route that customers must use or are encouraged use. A store environment that is beneficial to customers ought to be beneficial to company revenue<sup>72</sup>. By allowing customers to move freely while still keeping the planned walkway as a foundation for store structure IKEA can actually be able to make customers spend more time in-store simply because they can walk through the same area several times a visit, thereby increasing the exposure of products in this area. It has actually been noted that customers do move back and forward on the same floor. So while taking the planned walkway will show you everything once, making use of a combination of pathway and shortcuts will likely show you maybe not everything but at least a lot of products more than one time. While this may seem like a nightmare from an operations and customer movement management perspective, it could increase revenue. The pathway will be of great help to those customers that really want to see everything, but in doing so it must not interfere with those customers that do not wish to get the entire IKEA shopping experience. Also, as stated by Larson et al. store layout is likely to benefit from having a walkway that works as a form of central route from which customers are free to deviate as desirable. Rather than being considered as the core practice of the IKEA store, the walkway potentially should be regarded as the complement to the in-store environment that it really seems to be.

### **8.1.4. How may our research contribute to further discussion about customer movement management?**

Please refer to the discussion section for a discussion about a possible theoretical extension and contribution.

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<sup>72</sup> Donovan & Rossiter (1982)

## 9. Discussion

### 9.1. Discussion of customer movement management knowledge

A moderate degree of steering and structure facilitates the number of purchases. The total number of purchases made in the store goes up since this degree of steering does not have a negative effect on customer mood. Rather, customers are in need of some structuring in order not to get lost in the store and for the sake to facilitate their shopping. By structuring the store layout, customer good mood can be stimulated and the approach behavior towards the shopping environment is maintained. Customers tend to make more purchases if the store is somewhat structured with clear department boundaries and a clear concept. Signs and maps may also facilitate the journey through the store.<sup>73</sup>

When customers start to feel a lack of choice and a decreasing self-control of movement, they may adopt an avoidance behavior. This occurs when the customer movement steering measures shift from providing guidance and structure to physically steering the customers directly. Customers in a store do not like to be directly steered and if being so they will end up in a bad mood.<sup>74</sup> The bad mood implies an avoidance behavior. Customers that adopt this behavior do not feel pleasant about the store environment and will end up with fewer purchases and shorter time spent in the store.<sup>75</sup> When the degree of steering in a store reaches high or very high levels the number of purchases will hence decrease as a result of an increasing amount of customers displaying an avoidance behavior.

### 9.2. Comments on the relationship between factors

This relationship we find based on our study and in the perspective of the studied research is shown in the figure below. The total number of purchases in the store is placed on the y-axis and the hypothetical degree of customer movement steering is placed on the x-axis. The curve presents an optimization problem. Store managers want the highest possible level of sales. All else equal, to which extent should they try to steer and direct customer movements by store layout decisions? Solving for the optimal level of in-store steering with respect to customer purchases will likely be conditional on individual store characteristics. Different stores with different purposes will optimize their layouts in different ways and to different degrees (in terms of steering). Customers are also likely to be more or less adherent to store structure depending on the type of store, leading to the possibility of some stores to steer their customers to a higher degree without experiencing the negative implications for the number of purchases.

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<sup>73</sup> Spies et al. (1997)

<sup>74</sup> Barth (1993) and Hue & Bateson (1991)

<sup>75</sup> Donovan & Rossiter (1982)

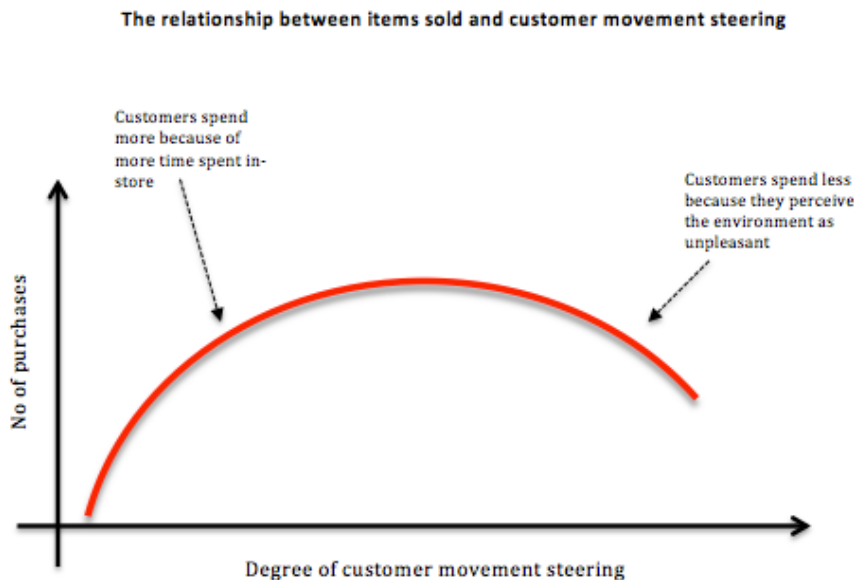


Figure 8: Relationship between number of products purchased by customers and degree of movement steering

## 9.3. Methodological discussion

### 9.3.1. Comments on the choice of theoretical framework

While producing this paper, we on a number of occasions encountered fellow students that pointed out the fact that we are using marketing theories to investigate the IKEA case while in fact writing a thesis in management. This is partially true in the sense that all of our main earlier research material is initiated from marketing and retailing journals. On the other hand, we want to stress how these theories fit into our management case.

Firstly, there are no pure management theories explaining our case. We have, after frequent searching, decided to adhere to theories in retailing. This subject is considered to be a mixture of marketing and management.

Secondly, we find it hard to put a distinction between marketing and management on the extreme micro-level we are studying. It is practically impossible to explain what in the IKEA store design is implied by management or marketing issues and whether there is any point in trying to distinguish between those in the first place.



Finally, our contribution is a study where we try to explain how IKEA has chosen to design and develop their intended shopping operation (mainly seen in the planned walkway) to create the success in terms of high revenue. The customer has, in our opinion, already decided to shop at IKEA. We do not present any ideas for IKEA's marketing strategies but solely present the case that the company indeed makes a lot of money and using this as a motive for our study.

### **9.3.2. Comments on secondary data usage**

Secondary data such as newspapers and yearly summaries from IKEA are solely used as support for stating our case.

### **9.3.3. Comments on validity and reliability**

The validity measures the degree of connection between the empirical variables used and the theoretical variables. High coherence between the theoretical definitions and the operationalization of these definitions is a condition for a high degree of validity. Relevance is a measure of the suitability between chosen variables and the problem formulated. The reliability refers to the degree of certainty in the methods conducted. The results from empirical observations become biased by mere coincidence or errors in data registrations.<sup>76</sup>

The variables measured are the customer movement steering and the adherence to the planned walkway by customers. The validity and reliability of these variables are tested through a short discussion.

#### **9.3.3.1. Measuring customer movement steering**

Customer movement steering is measured from qualitative nominal observations of the store design at IKEA. Those observations are unstructured and hence not standardized by any form or survey. The identification of the store peculiar practice relies on an overall impression. Our observations are solely valid for this particular IKEA store case, and such studies are seldom possible to generalize. The validity of the customer movement steering is low.

Relevance of the customer movement steering is high because customer movements are highly determined by the store layout in this case. We identify a beneficial core practice at IKEA regarding the design of the store, thus observing the store is a relevant operationalization.

Reliability of the variable is high because store environment is a constant factor. One factor making the reliability suffer is that all observations are made on an unstructured basis; hence the objectivity suffers from our own interpretations of the observations

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<sup>76</sup> Andersen (1998)

collected. Also, misunderstandings and failure to properly take notes during the observations are other factors that make the reliability suffer.

### 9.3.3.2. Measuring customer adherence to planned walkways

In the numerical measuring of customers' choice to adhere to the planned walkway, a binary variable model is used. The numbers of customer using the planned walkway and shortcuts are counted and compared. There is a strong connection between the tendency to deviate from the walkway and the adherence to the same, since deviating is the definition of not adhering. Validity is high.

Since the study measures IKEA's customer movement management, adherence and deviation from our identified planned walkway measures the performance of the IKEA practice. The relevance for the case is high.

Deviations are measured by the number of occasions when customers choose not to follow the planned walkway without considering the irrational customer behavior. The assumption made that everyone is shopping and completely focused on the merchandise is a strong one. Customers may instead look for toilets or hurrying to the exits. Such possibilities were not considered. Also, studies were conducted during a few afternoons on weekends in the spring of 2012. The measuring says nothing about deviation and adherence patterns during other time periods such as weekdays, mornings or evenings. The reliability is low.

### 9.3.4. Comments on the method of direct observations

#### 9.3.4.1. The advantages of using direct observations

Collecting qualitative data through direct observation is useful under the circumstance when the researcher wants direct information, when they try to understand an ongoing behavior, process or situation, when there is physical evidence that can be readily seen and when written or data collection procedures seem inappropriate.<sup>77</sup> All of these circumstances can be applied to our case.

There are not many other options to adhere to if we want to capture an as true picture of reality as possible. Besides, the lack of access to IKEA internal information closes out the obvious alternative of getting our hands on their own statistics regarding customer flow.

Direct observations give a clear picture of what people do and not what they say. Conducting a survey, the outcome is partly depending on the respondents' ability to interpret the survey itself.

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<sup>77</sup> Taylor-Powell & Steele (1996)

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### 9.3.4.2. The drawbacks and risks of direct observations

The most imperative drawback regarding direct observation is the issue of susceptibility to observer bias. Unstructured direct observations are the most risky because of this contains the highest degree of the observer's own interpretation. Also, the behavior of the object studied may be affected if the observation is revealed.<sup>78</sup>

We observed the happenings at IKEA on an unstructured basis. Thus the interpretations of the observations are dependent on our own perception. When further studies are conducted in a similar way like ours, we suggest the following improvements.

In general, it is a good idea to determine the focus of the observations. Direct observations need to be directed to a selected course of events. This could be realized with direct observation forms focusing on the events chosen in the focus scope. A form lists different items to observe and is basically looking like an ordinary customer survey with the only difference that it is filled by the observer.<sup>79</sup>

IKEA observed items are the exhibition design and customer movement patterns. The systematization of different items to observe in the exhibition and looking for particular customer behaviors is facilitated if a form is used for every customer observed.

As earlier stated as an advantage, direct observation produces data on what customers do and not what they say. Another side of this fact is a clear drawback. Since we see exactly what people do without asking for what reason, we do not get hold of why something is actually happening. Considering we aim for an as autonomous study of customer movements as possible, it is undesirable to ask a customer for the purpose of their behavior because this interrupts our observations.<sup>80</sup> A possible solution is to concentrate on a smaller focus group brought to IKEA, making it possible to complete observations with interviews.

Direct observation studies suffer from sampling problems. It is hard to generalize any study results because those are highly dependent on the kind of store setting. Stores do have different design characteristics presenting different possibilities and problems for customers and hence induce different behaviors.<sup>81</sup> The specific case at IKEA and the conclusions drawn are hardly valid in general since IKEA provides customers with a specific shopping environment probably not provided by the majority of other stores. Then again, this is a main reason for us to choose IKEA as our object of study.

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<sup>78</sup> See Kumar (1991)

<sup>79</sup> Ibid

<sup>80</sup> Wells & Lo Scutio (1966)

<sup>81</sup> Wells & Lo Scutio (1966)

Also, the timing of the studies is essential for minimizing sampling errors. The shopping environment and the customer crowd changes from time to time. An observation at a certain time of a certain day may not be valid under different circumstances.<sup>82</sup> At IKEA, the observations preferably would have been conducted during a selected number of occasions at different times of the day. Also, other similar IKEA stores could be included to create further possibilities to generalize the study. The non-inclusion of other stores has more to do with geographical constraints than a lack of interest from a research perspective.

### **9.3.4.3. How our study handles the drawbacks of direct observations**

By adopting a method of not notifying customers of the fact that they are being observed, we can get past one of the major drawbacks. It is significantly harder to make sure to eliminate any observer bias since such bias may come in the form of subconscious values and norms long time present in the mind of the observer. By keeping the purpose for the direct observations clear and also to use a simple and systematic mode of operation, we believe this risk can be kept at an acceptable level.

### **9.3.5. Regarding the intended interaction with IKEA**

Early contacts were made with IKEA management with the ambition to get hold of data such as layout plans and strategic material on customer flow patterns. This contact took place via telephone and e-mail correspondence. The outcome of this effort however, was the refusal of the Human Relations department at IKEA Kungens kurva to participate or provide any such material mentioned and also to deny us any further contact with store management. The reason given for this negative decision was time constraints. Since IKEA generally has the ambition of assigning staff to guide projects such as ours from start to finish, should they take on any, the current time constraints made it impossible for them to do this. Upon admitting us to take part of strategic information, they would want to guide us, not only for their own privacy but also to help us find the relevant material.

## **9.4. Theoretical discussion**

The advantage of the theoretical framework is its general posture to be applicable to arbitrary situations where questions about environments and behavior are present. The most important drawback is its emptiness at first sight. A general model like this needs to be filled up with empirical background and measures, which our study lack to a certain extent. That makes it unsuitable for direct observation, thus serving as umbrella theory gives it relevance.

### **9.4.1. Discussion of analysis**

In our case, the environmental stimuli mainly refer to the store interior, such as layout. Concerning the Donovan & Rossiter study, we are presented with the problem that it claims interdependency between stimuli, feelings and the decision to approach or avoid. From our point of view, the stimuli (walkways and signs) directly have an effect on avoidance and approach. Since we never

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<sup>82</sup> Ibid

conducted a study on customers' actual feelings of pleasure or displeasure while shopping at the IKEA store, we cannot make any direct conclusions about the possible feelings caused by environmental stimuli.

However, we can, based on our observations deduce possible explanations to the store layout using the Donovan & Rossiter version of the M-R model as a foundation for creating a basic understanding of customer behavior in-store. Adding to this the insights of a combination of other studies presented, we create a framework that somewhat can help us understand the motives behind the current layout in contrast to what could originally be postulated, considering the planned walkway that still is in place.

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### 10.3. Other printed material

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