Summary

I   **Introduction:**

In 2012 consumers are more aware of where and on which products they want to spend their money on (NOS, 2012) (CBS, 2011d). This can be attributed to several events: the global financial crisis, urbanization, individualization, time pressure and the upcoming of the internet, this can result in the retailer changing his marketing and retail strategies towards the new needs and wants of consumers. Because of the transparency and easy use of the internet and the large number of households which have online access (CBW-MITEX, 2010, p. 8) e-commerce has the potential to take over a substantial part of the market share of the physical stores'. What the consequences will be for the housing strategies of retailers is still unclear. It's apparent that A1 and A2-segments on inner city locations are still in demand.

The vacancy rate of the retail market was in 2011 nearly 6%, which is a growth of 20% over a period of two years (Locatus, 2011b). If on top of that additional vacancy is added, which is created by retailers who want less space because of the growth in use of e-commerce by consumers, this could cause a rise in the overall vacancy rate in the Netherlands. That could result in problems for the different players (investors, retailers etcetera) involved in retail real estate. At this moment the frictional vacancy in the retailmarket is around 5%. If retailers are going to adjust their portfolios, because of e-commerce, this could result in an unhealthy vacancy situation in the retail market, where the vacancy rate pases the frictional vacancy. The assumption is that this will happen on the less attractive retail locations.

This study is delineated on three fronts. First of all, there is looked at the use of e-commerce by consumers. Secondly, the study is focused on fashion stores, because of the growth in online sales at the fashion industry (Thuiswinkel.org, 2012b, p. 1). Third, for this study is looked at the retail market in the provinces Utrecht, Noord- and Zuid-Holland.

The following research question was used:
What is the impact of e-commerce on the demand for fashion stores?

Based on the research questions three hypotheses where considered and tested at the end of the research:

Hypothesis 1: With the coming of e-shops less fashion articles are sold in physical stores.

Hypothesis 2: The reduction in revenue will lead to fashion retailers chosing to have less stores in their portfolio and the stores which they have left in their portfolio must be on the A1, A2 or B1-locations in inner city's or on main store locations.

Hypothesis 3: The change in demand from retailers for fashion retail space will cause the vacancy in the retail market to grow.

This research paper focuses on the condition of the fashion market and what the future will look like, under the influence of e-commerce. This is done by analyzing data, literature and by conducting and analyzing interviews.

In the first phase (P1) of the study an exploration of the research topic took place. This led to the main and sub-research questions. These were defined during the period P1 in order to make the study suitable for a graduation sized research project. During this period the literature search was started and throughout the second phase (P2) of the study the literature research continued to formulate a clear definition of the problem. The documents which are analyzed are reports from companies which are engaged with the subject retail, articles and books written about retail and e-commerce. At the end of the second phase the theoretical part of the investigation was finished and the empirical research was started.

The third phase (P3) consisted of empirical research. This consisted of interviews with end users (fashion retailers) and branche associations and data from Locatus, which was used to map the current fashion market. Locatus is a company which collects data concerning the retail market in the Netherlands. These empirical activities continued during the fourth phase (P4) of the graduation project. During the last phase between P4 and P5 conclusions were written as well as reflections and recommendations.

II   Theoretical exploration:

The following definition of e-commerce is given in literature; the field of pre-sales, sales and post sales in products and services ordering through electronic channels (Booij, 2002, p. 23). Whitin e-commerce only Business to Consumer (B2C) sales are considered, as in this research is about the fashion market.

The price of real estate is for a part determined by the sum of stock of real estate (new real estate and the supply of old buildings). The market rents and prices fall with increasing supply. When demand increases investors and developers are interested in building new projects and when the demand decreases they are not. In the real estate world new projects are rarely build in a short amount of time, which can be attributed to the time required for a specific building (Post, 2004, p. 22). Therefore it's possible that buildings are created when there is a high demand for retail space, but when the buildings are finished the market demand for space can be low. Therefore it's important for investor's to know what the future demand of retailers is. In a market with high or increasing vacancy the investors will be a reluctancy to invest.

Several well known location theories are considered for this research. In Christaller's theory it's stated that a certain demand level of consumers is necessary to be profitable in retail, e-shops can cause the demand level will change. Nelson's ideas are relevant due to his thoughts on comparative shopping, analogous to on- and offline shopping. Mydral talks about the desire of retailers who want to join together, to establish that they benefit from consumers of other retailers. E-shops can lead to fewer consumers on the streets, and the consumers that are in the shopping streets know beter what they want. This may change the way retailers think about the theory of Myrdal. Reilly assumes that consumers are guided by the variation in size of the centers and by the difference in the distances traveled to the centers. The rise of e-shops changes the influence of distance. The question now arises what this means to the consumers choise for their physical shopping centers. Alonso's theory is based on the stream of visitors, and he classifies the A - C-locations (Bolt, 2003, p. 16).

The core elements of these classic location theories (Christaller, Nelson, Myrdal, Reilly and Alonso) is the profit which can be achieved compared to the distance, spatial distribution and the

importance of a central location, the concentrated diversity of the retail supply and the importance of clustering. Especially these elements are influenced by e-shopping. Distance is no longer an element which needs to be considered for e-commerce, because the computer, mobilephone or other mobile devices are almost always within reach of the average consumer.

The logistic distribution of stores varies between retailers with a distribution center (DC) and retailers without a DC. For retailers without a DC, there are three different ways in which their supply logistics are handeled:
- Direct dispatching from manufacturer to retailer
- Dispatching from the retailer through a retailer organization
- Dispatching from the retailer through a wholesaler.

When the retailer has his own DC, the orders for new products are made through a central purchase section of the retail organization (Molenberg & Schaaf, 1992, p. 20). After arriving from the factory, the products are stored in a DC, from which all the products are transported to the different stores.

E-commerce retailers need, besides a properly working e-shop, an appropriate logistic distribution for the delivery of the products to the customers. In the DC there are different order picking systems used for e-shops. These systems can be expensive, but are needed for a good supplystream to the customers. Independent retailers do not have the money to pay for those systems and e-shops (Koster, 2001, p. 3). This could lead customers to other webshops, which offer a beter retail experience.

E-commerce:
The definition of e-commerce is clear by now, so how the rise of e-commerce could be explained. Since the 90s, internet has changed the global market. Zoomed in on the Netherlands is seen that more than 90% of all the Dutch people having access to the internet in 2011 (CBS-Statline, 2011d). Meanwhile, e-commerce took over the amount of turnover of the mail order companies. Because sales in e-shops are growing, sales in physical stores are in jeopardy. Other studies showed that mainly services are affected by e-commerce. But the last years products such as clothing are more often ordered in e-shops (Thuiswinkel.org, 2012b, p. 1). This means there are possible implications for the demand of space by fashion stores, because the amount of turnover in the e-shops will grow and could influence sales in physical stores.

When comparing the years 2002 and 2010, there has been a growth of Dutch consumers using e-shops to purchase products online. In 2010 71% of the Dutch population has made purchases online versus 26% in 2002 (Majolee & Sipma, 2011, p. 3). Both men and women in 2012 indicated that they would like to buy more products over the internet in the future. There are a number of reasons for consumers in choosing e-commerce over physical stores, such as easy ordering, ability to order 24 hours a day, home delivery options, comparing products and lower product costs. Yet there are also reasons for consumers not to use e-commerce, for instance not being able to see, to feel or to try on the product and often limited returning options. Consumers purchase their products on the place where they orientate or find information (de Bes - van Staalduinen & Lammers, 2010, p. 18). This means e-shops are becoming more important.

Retail Real Estate market:
After World War II, the construction of a new retail structure in the Netherlands was started. This was boosted by the growth of the economy during the years which followed. Under the influence of the changing demands of consumers in recent years the Dutch retail market has changed considerably (van der Toorn Vrijthoff, de Jonge, Draijer, van Delft, & Guyt, 1998, p. 38). In the retail market, different location segments can be distinguished: inner cities, main shopping centers, core shopping centers, district centers, district or neighborhood shopping centers and large scale shopping concentrations (Locatus, 2008).

Within the fashion industry segmentation has occurred between the lower and the higher types of stores. Most of the chain stores are in the middel range. Stores of fashion chains are almost twice as large as the stores of independent retailers. The locations of fashion stores are generally in inner cities, in main shopping areas, in core centers and in the inner city shopping centres. Peripheral retail settlements (PDV) and large scale retail settlements (GDV) are avoided by fashion stores (DTNP, 2010, p. 22).

Turnovers made in retail are affected by the demand (consumer) side of the retail branches and it depends on a number of variables: the current transients, the size of the service area, number of consumers in the Netherlands and their spending habits. Locatus and CBS indicate that the current transients in recent years has decreased, while the population of the Netherlands has increased. In the coming years the growth of the population will decrease, which is partly due to the aging population. Older consumers are more price sensitive and cautious with purchases. New consumers want to experience products and taste the atmosphere of a brand, but due to the rising time pressure consumers have increasing interests in convenience shopping and saving time. This creates two types of shopping: funshopping and runshopping.

The amount of retail floor space has increased in the past years, but the number of physical stores has decreased (Lenderink, 2011, p. 16). A1 properties are still in demand and prices continue to rise for those locations. Stores chains are able to pay higher rents and independent fashion retailers not. The moderate growth of the market and the expected developments ensure that retailers are reserved about further expansion. This can result in a growth of vacancy. Places where the vacancy will first start growing are the less attractive shop locations. At C-locations, the vacancy rate increases and it's expected to continue to rise. It's possible that not only C-locations but also properties on B-locations are going to suffer from vacancy.

III   Emprical research:
Interviews:
The practical experience is obtained from a qualitative research through interviews. Hypotheses are tested on answers given by the interviewees. Normally, quantitative data are used to test the hypotheses, but for this study this was not possible and therefore the hypothesis are tested by qualitative data. Three different groups were approached for the interviews; branche organizations and retail real estate specialists, multi-channel retailers and physical retailers. The study examines the impact of e-commerce on retail property in the fashion industry. To further delineate the research small fashion stores which only have a single store in the Netherlands are not used. For this research only fashion chains are interviewed, because they have more than one store, therefore they can say what e-commerce does with their real estate strategie.

Tabel summary 1 Retailers interviewed

Geinterviewde multi-cannel retailers				
Bedrijf	**Naam**	**Functie**	**Opp. In Randstad (m2)**	**Aantal winkels**
Score	Wilbert Franken	Real Estate Manager	3.698	30
Etam Groep	Jaap van der Heijden	Marketing Inteligence Manager	23.442	85
MEXX	Wim van Zijl	Vice President E-commerce	7.768	19
McGregor	Gerrit Spijksma	Algemeen Directeur retail devisie	8.337	60
Jeans Centre	Mark Roex	E-commerce manager	4.665	23
G-Star - Raw	Ricardo Bergsma	Eind verantwoordelijk voor vastgoed	1.504	5

Vragenlijst gestuurd multi-cannel retailers				
Bedrijf	**Naam**	**Functie**	**Opp. In Randstad (m2)**	**Aantal winkels**
Sneakers	Brendan Korten	Marketing & Communicatie	1.618	29
WE (men, woman & store)	M. Baarschers	E-commerce Manager	20.716	60
Hunkemöller	Emma Bonar	Head of E-commerce	12.011	105
Men at Work	Mark Hommelberg	Buying Director	8.285	26
Coltex (Didi, Steps & Superstar)	Marike Goenee	Vastgoedmanager	24.488	154

Geinterviewde fysieke retailers				
Bedrijf	**Naam**	**Functie**	**Opp. In Randstad (m2)**	**Aantal winkels**
The Sting	Shandy den Os	Director Real Estate & Devolopment	23.776	31
America Today	Steven de Raat	Managing dircetor	5.228	23
Coolcat	Bas Smit en Max Parent	Manager onroerend goed en Director Sales	16.637	39
Sandwich	Vanesse van Eeghen	Digital media strateeg	2.909	19

Tabel summary 2 Experts interviewed

Geinterviewde experts		
Bedrijf	**Naam**	**Functie**
NRW	Tessa Vosjan	Beleidsmedewerker
HBD	Patrick Manning	Hoofd afdeling Ruimtelijke ordening
Déhacé	Dick Hendricks	Directeur Déhacé

The sales numbers in physical stores are not at risk under the influence of e-commerce, according to most of the respondents. Two retailers noticed that their physical sales were less than they used to be. They say not only e-commerce is to blame but also the crisis and a stagnating population. In the future the physical turnover growth will decline towards a minimum. According to all respondents, the growth in use of e-commerce will continue further over the next five years and therefore digital sales will continue to rise. The following location criteria are used by retailers: segmentation, competition, shopping area types, number of transients and the number of residents in a catchment area. These criteria will remain the same for the retailers the coming years, despite the rise of e-commerce. Some retailers have added, in addition to their current DC, a DC specifically for e-shops because of their e-shops. These DCs are designed to operate as efficiently as possible with small orders. Determening which sales are made in the e-shops and which are made in physical stores is getting harder, that is why the respondents say to work on new models they can use to calculate the importance of a store.

The respondents do not see their store portfolio grow in the near future, which is largely due to the crisis and demographic changes. They believe that when the market improves the growth of stores increases. The location theories of Mydral and Nelson are the most used for determination of convenient retail locations. Some location criteria which are used are based on the location theories. The e-shop is indispensable according to all respondents for orientation of products. The physical retailers however do not see that sales in e-shops are necessary. According to nine of the respondents the crisis, e-commerce and population growth/decline are the reason of a growth in chain stores. On locations which are not on A1 and A2 a greater vacancy rate is expected. Retailers which bear the brunt of e-commerce according to the respondents are independent retailers and retailers who do not have an e-shop (primarily independent retailers). A number of respondents indicated that maintaining physical stores affects the digital sales, because closing a store in a specific area, creates a decrease in digital sales in the same area.

The retail chains which are interviewed indicated that the locations which they want to preserve and rent in the future are in the following areas:

Inner cities: A1, A2, B1 and B2 locations
Main Shopping centres large: A1, A2, B1 and B2 locations
Main Shopping centres small: A1, A2 and B1 locations
Core centres large: A1 and A2 locations
District Centres: A1 and A2 locations
Inner city shopping streets: A1 and A2 locations
Large scale shopping concentrations: A1 and A2 locations

Data Locatus:

The fashion branche is in particular located in inner cities and main shopping areas according to Locatus. This corresponds to the report of DTNP (DTNP, 2010, p. 22). When looking to those areas itself it's shown that the fashion chains have most stores and square meters on the high segments and the self-employed retailers have their stores at the lower segments of the retail locations. In the fashion market at the fashion chains has been a considerable growth in the number of square meters from the year 2005 to 2012. In all five segments square meters were added. Because of new fashion stores or other retail branches are repressed from a certain location by fashion stores. On the A1-segment less vacancy has arisen in recent years, the other segments show an increase in the number of stores which each year are left to be vacant. The vacancy which may be created by the fashion market is not harmful at all location segments, because the segments A1 and A2 have a vacancy rate below the frictional vacancy (A1 and A2 1.95% vacancy rate: 3.36% vacancy). The B1-, B2- and C-segments have a vacancy rate above the frictional vacancy. At those locations additional vacancy can create a bigger vacancy problem. How long the vacancy in those areas remains above the frictional vacancy depends on the willingness of owners to decrease the rent, so that retailers will rent those stores again, or that buildings get a different function, purchasing behavior of consumers, influence of e-commerce, state behavior etcetera. When data of the CBS on the population size and annual sales of the fashion market and Locatus are examined there is to see that the sales per square meter of retail space are going down.

Tabel summary 3 Amount of space in shopping areas according to Locatus

	Zelf.	Ketens	Totaal
Binnenstad	91.375	152.525	**243.900**
Hoofdwinkelgebied groot	54.502	85.410	**139.912**
Hoofdwinkelgebied Klein	39.534	73.714	**113.248**
Kernverzorgend centrum groot	7.161	11.365	**18.526**
Stadsdeelcentrum	6.651	14.914	**21.565**
Binnenstedelijke winkelstraat	9.071	12.217	**21.288**
Grootschalige concentratie	1.860	8.096	**9.956**

IV   Hypotheses:

The first hypothesis will, based on the interviews, be rejected. Nearly all retailers – twelve of the fifteen – did not notice that by specific e-commerce sales, sales in their physical stores have declined. Instead the retailers have seen an increase in turnover the last five years. Two respondents have noticed a slight decline in sales; they say that this decrease is also related to the crisis and demographic changes in the Netherlands. Distinction between physical and digital sales is difficult; retailers see that these retail sales will blend together. Therefore it's tough to say whether it's an e-shop sale or a physical sale. For that reason the retailers started with making other models for their calculations. In those models is not important where a product was purchased, but for example the amount of people within a certain period in a store will be seen as more important.

From the second hypothesis, the first part cannot be confirmed, because the results of the interviews indicate that the retailers want to maintain the number of stores which they own or want more stores. If the retailers are opening more stores, they only do that when the market rebounds. Preservation of stores can be important for digital marketing, as told by the retailers, because they observed the digital revenues did go down in a neighborhood where a store was closed. What the retailers indicate is they want more stores in the main cities and think about closing stores in small retail centers. The last part of the second hypothesis can partially be accepted. The retailers prefer their stores in the future mostly on A1- and A2-locations – located in inner cities or main shopping areas. Some indicate they want stores on B1- or B2-location, but in the main shopping areas.

The third hypothesis is about the growth of vacancy in stores caused by the possible change in demand for space by fashion retailers. During this research only fashion chains are interviewed and not independent fashion retailers. Therefore, in this hypothesis are only the fashion chains examined. On the A1- and A2-segments, e-commerce will not deflect the trend according to the respondents. The B1-, B2- and C-segments are influenced by the advent of e-commerce. At C even so much it becomes a negative trend line according to the interviewees. According to the respondents, the demand of retailer for the 318.000m^2 located at the A1-, A2- and B1-segments will not decline for the next couple of years. However, the 2.000m^2 on the B2-segment which lies outside the inner cities and 18.500m^2 located on the C-segments no longer meet the demand of fashion chains. Whether these square meters are really an addition to the vacancy of the retailmarket is difficult to say, because that is only possible when the situation will remain the way it's now (2012). Consumers continue with buying products, no other store branches move into the empty stores created by the fashion chains, the owners of stores are not changing the rent prices, the government does not com up with new rules, laws and solutions for the vacancy, there is no threshold value at a certain rental value of vacancy rate on which the owner gives the property another function (housing, care, office, dentist etcetera) and the tenant has not changed its strategy. At this moment it can be said that the 20.500m^2 does not meet the demand of the fashion retailers.

When the 20.500m^2 really is becoming vacant the frictional vacancy sould be taken into account – frictional vacancy is necessary for the market so it can function properly (VNG, 2010, p. 14). A healthy frictional vacancy in the retail lies around 5% (DTNP, 2012). Therefore, the additional vacancy in areas where less than 5% vacancy occurs is not a big problem. For areas which have a vacancy rate above the 5%, additional vacancy is a problem. The areas A1 and A2 are still under the frictional vacancy – A1 has a vacancy rate of 1.95% and A2 a vacancy rate of 3.36%. The B1 locations have a vacancy rate of 7.23%, on B2 12.45% is vacant and C has a vacancy of 13.47%.

The majority of the vacancies which may arise are according to the predictions of the interwiewees will be on the B2- and C-locations. Investors who have stores in those locations will begin to notice declining earnings. This is because the supply exceeds the demand and therefore the rent of the buildings must be lowered. This is shown in the four-quadrant diagram of DiPasquale-Wheaton (Geltner, et al., 2007, p. 26). Many of the big investors have most of their property in the inner cities at A1 and A2-locations. This group will hardly feel these changes. However, investors who have properties on C-locations can have lower turnovers. For them it's a plan to look what other functions might be relevant for those buildings.