Iconic Rotterdam, a Marketed City

A study on the behavior and experience of residents towards recently developed iconic architecture in Rotterdam and its city marketing strategies

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Abstract

This thesis investigates the experience and behavior of residents in Rotterdam and the surrounding Rijnmond region concerning the recently developed iconic architecture and city marketing strategies. Rotterdam is increasingly popular for tourists to visit and for companies to settle in. Regularly, this city appears in the media for its attractive atmosphere and modern architectural environment. Rotterdam is known as the 'city of architecture' in the Netherlands and actively started promoting this image through city marketing strategies several years ago. The motivation to use city marketing strategies is to regenerate the city and make it a more vibrant and economically active place. The city council is investing in city marketing to attract more tourists and companies to the city. In policy statements Rotterdam claims that the architecture is also valuable for the residents to create an attractive living environment. The concepts in the policy of Rotterdam concerning residents are creating identity, urban regeneration and image creation. These concepts are studied in the theoretical part of this thesis and are also reflected in the empirical part. This thesis aims to reveal the importance and value of developing iconic architecture in Rotterdam for the residents of this city. A quantitative (survey) research method was performed to collect data amongst the residents of Rotterdam and the Rijnmond region. The results support the assumption that residents appreciate the new iconic architecture in Rotterdam and that it makes the city a more attractive place to reside. This is mainly a passive appreciation; residents are rarely involved in architectural events and activities. The increasing popularity and amount of tourists is experienced as a positive element in the livability of the city center. Residents do fear to lose 'their city' and uniqueness when tourist rates become too high.

Keywords

Iconic Architecture, City Marketing, Urban Economics, Public behavior, Place Identity, Image, Urban Regeneration, Rotterdam

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1. Introduction

Rotterdam is known as 'The City of Architecture' and has a long history of pioneering architecture developments. Before the Second World War, the first 'skyscraper' in Europe (Witte Huis) was built in this city and the modern movement Het Nieuwe Bouwen became famous and several buildings like the Van Nelle factory were realized in this style. After the bombardment the entire city center needed to be rebuilt and regenerated. This restoration was not executed in a traditional way but with revolutionary visions. The city center needed to become a modern center of architecture. Besides the presence of unique buildings, Rotterdam organizes several architecture events like the Architecture Biennale, it has an architecture museum and the highest density of architecture firms in the Netherlands. Over the last decade, despite the economic crisis internationally, several iconic buildings were constructed in Rotterdam by star-architects. Examples of these new iconic buildings are De Markthal, Central Station, the Red Apple and De Rotterdam.

An important motivation for Rotterdam to invest in architecture is to diminish the negative image of a grey, poor and unattractive city that it had for decades. During the restoration of the city center after the Second World War, mainly shops and offices were realized in this area. Most residents lived in the surrounding neighborhoods which made the center empty and unattractive. The living climate in the city needed to be improved, young high-educated people needed to be attracted and the aesthetic value of the city had to be lifted. Realizing unique iconic buildings is an element the city uses to realize this vision.

The Rotterdam City Council puts effort in creating the image of *the* City of Architecture of The Netherlands and beyond. Special city marketing companies have been installed in Rotterdam, supported by the city council, to create an international attractive image of the city. These companies aim to gain international attention and to attract tourists and companies to visit or settle in this city. Eventually, they strive for economic benefits. An important image element used here is the iconic architecture. Their strategies seem to be effective. In 2014 Rotterdam was named one of the best cities to visit in the world by several media and famous institutions like the New York Times and Academy of Urbanism. This trend continued in 2015, resulting in the nomination of travel guide Lonely Planet as one of the best places to visit in the world, accompanied by many similar nominations and publications worldwide. Important arguments in these reviews were the newly constructed Iconic architectural buildings as mentioned before. Early 2015, Rotterdam Partners (a city promotion organization) published the figures concerning tourism and new companies in Rotterdam. Compared to 2014, tourism and the amount of new companies in Rotterdam increased

significantly. This is a strong indication that city marketing is effective for attracting these two groups.

A third group, that is studied less in this concern, is formed by the residents of Rotterdam. The economic value of city marketing is clear, but what about the public value? Rotterdam developed a clear vision on public policy and architecture. In the Architectuurnota (the architecture bill) of 2010, the municipality of Rotterdam describes its vision on architecture as 'a driving force for the development of the city'. In this paper, several statements are formulated about the functions and benefits of (iconic) architecture to the city of Rotterdam. Several statements concern the role of architecture to the residents of this city.

In the Architectuurnota (2010) it is stated that the city council aims to create an attractive city to live and to work in. Good, high quality architecture is an important element in creating pleasant living environments. Iconic buildings can form unity in the public space; they make this place characteristic and give identity to the city. This identity is important for the residents living in this area. The attractiveness of the city determines to what extent residents feel at home in a city, are satisfied and even feel proud to live in a certain place. The satisfaction of a rich urban life has positive consequences for the economy of the city. As mentioned before, the municipality states that these characteristic, iconic buildings should make the city center attractive to live in. Finally, the multiple architecture related events organized in Rotterdam could increase the attractiveness of the city further.

The image, attractiveness, experience and engagement of residents towards architecture and the livability in the city are the main elements in the Architectuurnota (2010) of Rotterdam. These arguments in favor of developing iconic architecture are stated firmly. Empirical research concerning these elements and the residents' opinion, though, seems not to be present. In this thesis, these elements form the focal points of the research. It aims to identify the image of and behavior of Rotterdam residents towards architecture. This results in the following research question of this thesis:

Is the new iconic architecture as valuable to the residents of Rotterdam, as stated in the policy of this city?

To help formulate a relevant answer to the main research question, several sub questions were formed:

- *What is the vision of the city council of Rotterdam to realize iconic buildings in the city?*

- *Do the residents of Rotterdam experience iconic architecture as a relevant element in the city, or is it just the vision of the city council?*
- *Does the iconic architecture in Rotterdam influence the behavior of residents in any way?*
- *Is there a difference in the experience of and behavior towards architecture between residents in Rotterdam and the surrounding Rijnmond area?*

The first part of the research in this thesis consists of a literature review. A brief explanation of the relevant theoretical concepts is described as well as an explanation of this case of Rotterdam and its policy towards architecture. To measure the value of architecture in Rotterdam for its residents, a survey was conducted amongst them. The survey forms were distributed in different demographic groups in Rotterdam. The questions in the survey are based upon the elements of *identification, image, attractiveness, livability, experience* and *behavior* of residents towards architecture in Rotterdam. As mentioned before, these elements are the main elements in the vision of the municipality and the aim of city marketing activities of this city. The result of the survey should provide insight into what extent residents value the iconic architecture in Rotterdam in terms of the elements mentioned in this paragraph. These results could reflect if the value for residents is as high as the policy and vision of the board of Rotterdam claims it to be.

Why is it relevant to study this research problem? First of all, as mentioned in the previous paragraph, it is interesting to study the most important group in Rotterdam that seems to be least studied concerning city marketing: the resident of this city. It is important to know the influence of policy and marketing strategies on the residents of this city since it most likely influences their living environment to a certain degree. The realization of iconic buildings influences public space and therefore the physical livability of this place and also its attractiveness. Furthermore, results of this or similar research can be interesting to policy makers. The survey questions presented to the residents are partly based on the statements in the Architectuurnota (2010), concerning the approach towards architecture and its impact on public environment. The results will give an indication of the effectiveness and opinion of residents towards this policy. The results could confirm that Rotterdam is on the right track with its architecture policy and marketing strategies. If this is not the case, they can be used by the city council to improve or change the approach towards architecture. City marketing and urban regeneration are relevant topics in the urban policy of Rotterdam currently. This study can contribute to the insight and knowledge concerning the behavior and experience of residents towards these topics in relation to iconic architecture in Rotterdam.

This thesis consists of six chapters. The first chapter contains a brief introduction to the topic followed by the research questions and the relevance of this research. The theoretical concepts are

briefly described and the research methods are mentioned. In the second chapter, the history of Rotterdam and its architecture is studied. What developments are visible after the Second World War? Why is Rotterdam known as *architecture capital*? The demographics are described as well as the social-economic situation of Rotterdam. The third chapter of this thesis contains the theoretical framework. In this chapter the theoretical elements mentioned earlier in this introduction are studied. Relevant literature was used to explain all theories. The aim is to get a clear understanding on the case of the current growing international attention for Rotterdam. The theoretical elements, as well as the visions of the Rotterdam city council and city marketing companies are further explained. Critical opinions towards the recent developments of architecture in Rotterdam are studied here as well. Besides the growing attractiveness of the city, iconic buildings could cause a negative influence on the livability of the place as well. In the fourth chapter of this thesis the research methodology is outlined. Quantitative methods are used in the empirical part of this thesis: a survey was conducted amongst the residents of Rotterdam. The aim is to get a better understanding of the behavior and experience of residents towards iconic architecture in Rotterdam. The results of the survey are analyzed in the fifth chapter. The theoretical concepts, which are reflected in the survey-questions, are analyzed to answer the research questions. Finally, in chapter six, conclusions from the theoretical and empirical part of this research are drawn. In addition, limitations are pointed out and recommendations for further research on this topic are provided.

Chapter 2: Background

2.1 Demographics of Rotterdam

Rotterdam is the second largest city in The Netherlands and is situated in the province of Zuid-Holland on the west side of the country at the river Maas. The port of Rotterdam is one of the largest ports internationally and the city is therefore known as the 'harbor city'. Together with its modern architecture the cities' image is mainly determined by its riversides, harbor and bridges. Rotterdam and the Rijnmond region count over 626.000 residents. The city is highly diverse in its cultures and Rotterdam is known for being the most diverse city in The Netherlands with almost 170 nationalities living in this place. Only half of Rotterdam's residents are natively Dutch, the remainder part is mostly of non-western descent (Rotterdam in Cijfers, 2015).

The density of residents in the city center is remarkably low compared to the areas surrounding the city center. For example, the city center counts about 33.000 residents, the neighborhoods Delfshaven, Noord and Kralingen-Crooswijk count 75.000, 51.000 and 52.000 residents. Area's situated further from the city center count even higher number of residents for example, Prins Alexander with 94.000 residents (Rotterdam in Cijfers, 2015). An explanation for this phenomenon is the design for the city center of Rotterdam after the Second World War bombardment. Rotterdam needed to become a modern city with many commercial activities in the city center. Few residential projects were realized in the center, instead many office buildings and shopping areas were planned. This made the city center unattractive to live for residents and many people moved to surrounding neighborhoods. This phenomenon is one of the main issues Rotterdam is trying to diminish by realizing attractive iconic residential architecture in the city center. The aim is to attract young, educated professionals to improve the image of Rotterdam.

The population in Rotterdam contains a dominant age group of residents between 20 and 65 years old (329.000), second most represented is the group under 20 years old (137.000) and the smallest group are the elderly (94.000). Compared to the general age distribution in The Netherlands, Rotterdam seems to be more equally divided. In The Netherlands, 3,8 million people are under 20 years old, 10 million are between 20 and 65 years old and 3 million above 65 years old (Centraal Bureau voor Statistiek [CBS], 2015). To conclude, the group between 20 and 65 years seems to be less present in Rotterdam than in The Netherlands in general. To increase economic activities though, this middle group is the most interesting to attract to a city.

In Rotterdam 30% of its population has a low level of education, 29% has a vocational education (MBO; middle-level applied education) and 31% has a high level of education (GGD Rotterdam

Rijnmond, 2014). This is slightly different from the general mean in the Netherlands. In general, 22% has a low level of education, 43% has a vocational education and 35% has a high level of education.

2.2 History of the City of Architecture

Rotterdam was founded in the ninth century at the river Rotte. This small settlement developed through the centuries into a flourishing trading town with municipal rights in the fourteenth century. The medieval town contained a triangular city center surrounded by a city wall. This triangular shape is still recognizable in the city plan although the wall is completely destructed. At the end of the nineteenth century, Rotterdam is flourishing economically. Large industrial complexes and offices are realized in the city. Some examples of these structures are the first office tower *Het Witte Huis* (the white house) which was constructed in 1897 as the first sky scraper in Europe, the Entrepot building, the former *Maasbruggen* (Maas bridges), shopping gallery *De Passage* and the drinking water company situated in De Esch in eastern Rotterdam. Until 1920, the industrial developments and growth continued unrestrained. Economic migrants came to the city from other provinces like Brabant and the islands of Zeeland. To house these working migrants, Rotterdam was extended with cheap and badly constructed houses. Examples of these neighborhoods are *Afrikaanderwijk* and *Cool*. After the 1920s, better quality houses were constructed for this working class. The wellbeing of residents became increasingly important which is reflected in the garden city projects like *Tuindorp Heijplaat* and *Vreewijk*. From 1920 on, more experimental housing projects were realized, for example the *Justus van Effencomplex* by architect Michiel Brinkman. In the 1930s, Rotterdam expanded with the realization of new neighborhoods like *Blijdorp*, in which modern architecture was realized according to the ideas of *Het Nieuwe Bouwen*. The most famous example of this movement is the *Van Nelle Fabriek* (Van Nelle Factory), which is still preserved and is officially appointed as a cultural heritage monument (Groenendijk & Vollaard, 2007).

During the German bombardment at the start of the Second World War in May 1940, the historical city center of Rotterdam was bombed. Almost the entire city center triangle was destroyed. Besides the destruction due to the bombing, many buildings that were damaged or in a bad shape were demolished as well. The destruction of the heart of Rotterdam meant a drastic change in the cities' appearance and composition. The reconstruction of Rotterdam started after the Second World War. The city council and its architects chose not to rebuild the old historic city but to transform the center into a progressive and modern place. It had to become a city for the future, an example to other cities. Several revolutionary projects (at the time) were constructed like the *Lijnbaan* by architects Van den Broek and Bakema. This was revolutionary for its car free shopping passageway and apartment buildings. Other examples of buildings still visible in the city center today are the

Groothandelsgebouw (trade building), concert hall *De Doelen* and the realization of the boulevard *Coolsingel*. Many new office and cultural buildings were constructed. In the 1960s the new city icon the *Euromast* was constructed, this tower still counts as one of the main tourist attractions in Rotterdam (Groenendijk & Vollaard, 2007).

In the 1970s, a drastic renewal of pre-war housing projects was realized. New build and social housing projects appeared in the city. Priority in these projects was functionality, beauty and architecture was of minor importance. During the following decade, the 1980s, the vision towards architecture had changed and small people friendly architectural projects were realized like the *Kubuswoningen* (cube houses) and the adjacent buildings in the *Oude Haven* (old harbor) at Blaak by architect Piet Blom. These cube houses are an important icon for the city of Rotterdam for its revolutionary design. From the 1980s on, architecture in Rotterdam is allowed to be beautiful again. At the same time *Stichting Hoogbouw* was founded, this foundation promotes the realization of high rise buildings in the city center of Rotterdam. To connect the southern part of the city to the northern part of the city the development of the *Kop van Zuid* started. Many high rise buildings were constructed at the Maas banks as well as the *Erasmusbrug* (Erasmus bridge) crossing the river Maas and connecting the center to the Kop van Zuid at the south bank of Rotterdam. This bridge and the Kop van Zuid currently form the most important image of Rotterdam promoted to attract external groups. The high rise buildings at the Kop van Zuid make the south bank appear to be closer to the city center. The regeneration of industrial heritage in the harbor areas of Rotterdam, like *Hotel New York*, started in this decade as well (Groenendijk & Vollaard, 2007).

During the 1990s, an increasing amount of private investments in real estate was realized. The *Koopgoot* (an underground shopping street) and the recently constructed *Markthal* (market hall) represent these projects. The development of high rise (apartment) buildings is an ongoing trend in architecture in Rotterdam. The most recent iconic architectural projects that have been realized in this city are the *Rotterdam* sky scraper by Rem Koolhaas, Rotterdam's most famous architect, and the new central station. The new architecture is meant to impress the city's visitors with revolutionary designs by famous architects. It is meant to attract new residents to the city center and to attract new companies to settle in the city and catalyze the economic activities of Rotterdam. From the 1990s on, many projects were private investments of developers. The amount of private investment projects is still increasing. The city council mainly provides financial support in the development of public areas, infrastructure and cultural facilities that in return attract new private investors to Rotterdam (Gemeente Rotterdam, 2008 p. 94).

The development of multiple architectural trends and progressive and unique buildings in Rotterdam made this city famous as the City of Architecture in the Netherlands and in Europe. The previous paragraphs have shown the most important developments. Adjacent to these developments Rotterdam has many events and exhibitions promoting architecture. Furthermore, Rotterdam is the city with the highest density of architectural firms in the Netherlands. In the theoretical chapter, the concept of city marketing will be discussed extensively. City marketing practices in Rotterdam are increasingly popular. An important tool for city marketing is the iconic architecture in this place. Rotterdam Partners, the Chief Marketing Officer and Rotterdam World Brand are organizations using architecture as a promotional tool for the city. Most of these organizations are supported by the local government. The aim is to diminish the negative image Rotterdam gained due to unpopular urban developments and architecture realized after the Second World War. The city center needs to become a lively, vibrant place to reside again (Gemeente Rotterdam. Bureau Binnenstad, 2015).

3. Theoretical Framework

3.1 General

Before studying the effects and value of iconic architecture, it is important to define what *iconicity* is and to clarify which iconic buildings this thesis will focus on. Further on in this chapter, the concepts of *identity of place*, *regeneration of a city* and *city marketing*, including *image creation*, will be studied. These concepts help to understand the case of Rotterdam and the appreciation and behavior towards architecture amongst citizens of Rotterdam. Bases upon these theoretical concepts, several hypotheses are formulated.

3.2 Iconic architecture

3.2.1 What is Iconicity?

This thesis' central subject is *iconic architecture* and the influence it has on its environment. Before studying this subject, it is relevant to clarify what this concept actually means and which buildings are focused on here. Charles Jencks, a famous architecture critic and author of many books and articles, wrote the book "The Iconic Building" (2005). Jencks (2005) provides clear insights on what iconicity is and what developments in iconic architecture occurred over time. According to this author the iconic building has a long history. In ancient times, icons were the cathedrals or city halls in a town. They expressed the communal identity; they represented shared meanings like Christianity. The icons developed over time from monumental buildings with a shared meaning to landmark buildings aiming to attract attention. Current iconic buildings need to stand out, they need to attract people. Target groups are visitors and consumers (Jencks, 2005). The uniqueness and exclusivity are main characteristics when putting an icon to the market. The icon should be an outstanding design, produced only once for a certain clear reason (Hracs, 2013, pp. 1146).

According to Jencks (2005), a recent icon is a democratic building since no parties can influence its appearance and is a public space. This democratic building needs to "upset the context, overturn convention, challenge the hierarchy and get away with the crime [...] in order to overcome the existing order" (Jenks, 2005, p. 19). The icon is a unique renewing structure that creates a strong image for a city. These buildings are often used as a brand image for a place, their figure needs to be recognized even when it is compressed on a postcard. Besides the strong characteristic appearance, people need to consider it an attractive symbol that fits in its environment. It needs to fit the place. When the iconic building ticks these boxes, it can become a powerful tool to create an image and identity of a place (Jencks, 2005, pp. 20-23). In his article on iconic architecture and globalization, Sklair (2010) adds that iconic architectural buildings are famous within the architecture world but

also amongst a large public. It has a high symbolic value for this public. He agrees that the meaning of iconic buildings has changed over time and adds that through the technological revolution, highly extraordinary designs and materials are used to transform the built environment and globalize it. Without new techniques this would not have been possible (Sklair, 2010, pp. 138-40). The past has an impact on the present and the future when it is remembered in events or monuments. In this case, in architecture. Such monumental icons are important for citizens to create their image of a place (Evans, 2003, pp. 417-418).

3.2.2 Why iconic buildings?

The function of Iconic buildings is not only an aesthetic one. Icons are not just pretty images for a city. Icons are being built because they can be highly influential for the places in which they are located, both economically and socially. Iconic buildings can be related to *globalization*. In current times the world is increasingly connected which causes increasing competition amongst cities on a transnational scale. Effect of globalization will be discussed further on this theoretical framework. A familiar phenomenon related to iconic buildings is the *Bilbao Effect*. This term derives from the famous Guggenheim Museum realized in the Spanish town of Bilbao by Frank Gehry in 1993. Before this outstanding museum was built, Bilbao was an unfamiliar industrial town in decline. The realization of the Guggenheim Museum changed the economic situation of the entire town and region. Because of its outstanding appearance and aesthetics, the building became legendary and an attraction for tourists all over the world. The increase in tourism caused economic benefits, more jobs were created, the income for residents increased and the number of companies based in the region increased. The construction of the building was clearly successful and worked. The success of Bilbao shows that an outstanding building can transform a place economically if the right architect is picked at the right time. According to Jencks (2005), economics are the driving forces in iconic architecture today. Many big corporations want to house their headquarters in an iconic building after the success of Bilbao. The building becomes part of their brand. Besides corporations, cities are using iconic buildings as part of their place branding and marketing strategies. The iconic buildings need to be partially open and clear to the public but they also need to be exiting and mysterious so people want to come back and 'decode' the building (Jencks, 2005, pp. 180-182). Another important aspect of an icon is its creator. It is important that an iconic building is designed by a famous (local) 'star architect'. In Rotterdam for example, Rem Koolhaas, a local and world famous architect, created his high rise building 'De Rotterdam' at the Kop van Zuid. Furthermore the iconic buildings need to become landmarks in a place representing civic grandeur, a public meeting place and it needs to fit in its environment (Evans, 2003, pp. 230-231). Besides Bilbao, several other cities can serve as examples in which the realization of iconic architecture has changed the negative image of the place

for the better. Barcelona regenerated its city for the Olympic Games in 1992 and continued this process in the following years. Part of this regeneration process was the realization of new architecture, together with new infrastructure. The regeneration was so successful that the city was rewarded with the most prestigious architecture award, a Royal Golden Medal for Architecture in 1999. The urban renewal process, stimulated by the Olympics, turned an unattractive industrial city to one of the most attractive places to visit in the world (Gonzalez, 2011, pp. 1397-1399). The city used the Olympics to create political support for changing and regenerating the city (Riezebos, 2009, p. 3). Like Bilbao and Barcelona, cities like Manchester, Belfast and Dublin have regenerated their image of fear and negativity due to the realization of iconic buildings. The War Museum by Daniel Liebeskind in Manchester, the transformation of Belfast's river side and downtown area and the 'space needle' at Nelson's Pillar in Dublin gave these cities new attractive icons that helped to diminish their image of violent crime cities. Further away, Kuala Lumpur created one of the highest skyscrapers in the world (Petronas Towers) thereby deflecting the attention of the city's high murder rate and crime. These projections of unique positive city elements are important tools in city marketing currently (Neil, 2001, pp. 818-820). These examples illustrate that architectural icons can have a strong influence on cities in several ways, not only aesthetically but also socially and economically.

Over the last decades a trend appeared in which cities want to compete and drown each other. A battle for attention and attractiveness of place amongst cities is caused due to globalization. This trend is also visible amongst artists and politicians and, according to Jencks (2005), is a reflection of time. The difference between buildings and artists though is that (iconic) buildings have codes. The urban decorum, common values, public space and transports need to be taken into account to make a city work. This can be seen as a restriction of the iconic building (Jencks, 2005, pp. 18-22).

3.2.3 What iconic architecture?

Iconic architecture is a broad concept. Icons have been built in all ages and different styles and types. Every unique castle and church from the Middle Ages can be appointed as *icon* as well as factories or towers from the twentieth century. To narrow this concept down and make it manageable, this thesis concentrates on iconic buildings realized in the twenty-first century. The most recent iconic buildings like Central Station, De Markthal (market hall) and De Rotterdam skyscraper. Besides manageability, the reason this architecture is studied is the connection to the recent city marketing strategies and architecture-policy in Rotterdam. Over the last decade, this city is actively working on improving its image and attractiveness for external groups. Together with city marketing, highly iconic buildings designed by world-famous architects were realized in this place. With their

characteristic appearance, these buildings influence the behavior and experience of people in this city, in this case the residents of Rotterdam.

3.2.4 Creating identity

Iconic architecture is believed to serve as an element to increase the sense of identity and pride of residents in a place. People feel the need to identify to places, in this case cities. A certain geographical place can give a sense of connectedness to people and strengthen their group identity. Graham, Asworth and Tunbridge (2000) mention the importance of the geographical place in place identity. Places are distinguished from each other by elements that are part of their identities. Heritage is an element of this identity and although this thesis is not about heritage, iconic buildings can eventually become heritage objects. Geography often determines in what way the history of a certain place is represented in the present, it contributes to the sense of place and the level of identification amongst citizens (Graham, Asworth, Tunbridge, 2000, pp. 4-5).

Hague (2005) describes that creating place identity is increasingly important to city planners and councils. Place identity is about creating a location that people can relate to. The place identity is defined by a sense of belonging, meaning and sentiments felt by its inhabitants. The visual aspects of the place are an important factor. Hague (2005) states that identity is that "what is central, real and typical to someone or something". Furthermore, place identity is about relationships of 'us' and 'them'. This means that there is a sense of connectedness, shared history and culture to fellow citizens. These group sentiments are used to distinguish the own group from other groups (Hague, 2005, pp. 4-8).

To a certain extent city planners are important in creating a place identity for a location. They can manipulate the environment and its activities, feelings and meanings to create a certain atmosphere by their practices. Planners however do not have full power to determine a place identity. *Public participation* is an equally important aspect of place identity. Planners therefore need to engage the residents (the 'public') while respecting their individual identities and values (Hague, 2005, pp. 7-8). Urban planners should consider resident satisfaction as a top priority. To reach a high level of satisfaction, the citizens' commitment to participate in the city and the level of identification of residents with a place are the main elements to take into account. This satisfaction will lead to economic and social benefits for a place (Zenker, 2011, pp. 36-39). In the case of Rotterdam, the city council is actively planning to create a strong identity for the city. The inhabitants of this place need to feel connected and be proud of this place. One way to realize this sense of pride is to create iconic architecture like the Markthal building and the new central station (Architectuurnota, 2010, pp. 17-19). To make sure this architecture contributes to a strong identity of place, the public needs to feel

engaged to or to be proud of these icons. For this reason, it is important that Rotterdam studies the opinion and level of engagement of its residents towards these major projects. In this light, the following hypotheses were formulated:

I. *Iconic architecture is important to attract residents to Rotterdam*.

II. *Iconic architecture is an important element in forming a strong place identity for residents*.

3.2.5 Architecture as a tool for urban (re-)development and regeneration

Rotterdam has long been known for its grey, cold and poor appearance and weak socioeconomic circumstances. City councils have been active in several periods of time to create a better reputation for this city and especially the last decade Rotterdam has tried to create an image of a vibrant world city. The architecture has been part of the urban regeneration from the fifties up until now. The architecture of Rotterdam is a main element in the image restoration and creation of this place. Image creation is one of the main concepts in city marketing practices. Therefore, urban regeneration in Rotterdam is a relevant concept to study in this thesis.

Contemporary urban policy mainly focuses on fields of economic development, targeted area developments and individual projects. For this reason urban policymakers increasingly choose for the development of emblematic projects that represent the revitalized city in an iconic way. This policy of commissioning iconic structures to serve as a symbol of place is increasingly popular (Smith, 2011, pp. 94-95). Sklair (2006) describes the iconic building as a building that is highly innovative and famous, representing a certain era, style or movement. According to Smith (2011), this description explains the motivation of urban planners to realize such projects. Icons are striking and uniquely designed projects resulting in a strong image that is easily communicated via media. These buildings are often isolated and not part of the ensemble of the city (which can be a threath for these projects). Icons in the media are mostly shown on its own, not in their surrounding area and the 'star architect' who was commissioned to build it tends to be more known than the associations of place. The attractive image and easy communication in media cause icons to serve as a marshalling point for further investments in a place according to Smith (2011). Because of the attractive function of the icon, partially due to the famous architects realizing them, the buildings have a catalyzing effect in cities since they attract new activity and development for the area. The best-known example of an iconic project catalyzing new activity in a place is that of the Guggenheim Museum in Bilbao constructed by famous architect Frank Gehry as described earlier in this chapter. The outcomes are highly beneficial for the small town of Bilbao economically. Critics of this example state, though, that this is a highly exceptional case and not a tendency. Other critics towards the regeneration effect of iconic buildings state that there is a threath of 'architectural fatigue' and that iconic architecture is

being over-used. Furthermore, critics claim that iconic architecture is often a temporary fashion which means that buildings will not be interesting after a few years and that the practicality is diminished by the focus on visual impact of the building (Smith, 2011, pp. 94-97). Julier (2005) considers the realization of iconic buildings in a place as a way to create identity and promote the city in a positive way. . He also makes some critical statements regarding the reckless construction of icons in a city. The danger of placing extravagant buildings is that the buildings will be copied in other places all over the world which causes the place to lose its uniqueness and identity. Julier (2005) claims that a more strategic and conscious approach is needed before developing iconic architecture in a city. He calls this urban planning process *urban designscapes* and is convinced these designscapes will lead to *cosmopolitanism* and *vibrancy* (Julier, 2005, pp. 272-275, 284-285).

In the case of Rotterdam, urban policy makers tend to create symbolic *grant projects* (Evans, 2003) to attract new activity like tourism and new companies. Icons like the Markthal by famous architecture design office MVRDV and De Rotterdam by Rem Koolhaas are examples of this policy. Though these buildings are impressive constructions, the question remains whether they are cohesive with their environment and whether or not their designs are supporting their practicality or not.

Paddison (1991) describes the reconstruction of cities' images and regeneration as *new urban entrepreneurialism*. This author states that the competition between cities, caused by city marketing, catalyzes entrepreneurial activities in cities. This new entrepreneurialism enables the reconstruction of images of cities that have fallen into decline. The reconstruction of these images is mainly stimulated by promotion techniques of city marketing. Promotion of a unique event or an image of recognizable icons through the media is effective to realize this (Paddison, 1991, pp. 339-341, 348). In addition to this theory, it is clear that regeneration of a city through the realization of iconic architecture is part of city marketing strategies. This concept will be described in following paragraphs as well. Riezebos (2009) states that strategic plans need to be developed to market a place. In these strategies clear target groups need to be formulated. The target groups 'residents' and 'working people' are the main groups to focus on in making a city successful (Riezebos, 2009, pp. 5-6). There are several theories concerning the importance of target groups in a city. One of the best known authors concerning this topic is Richard Florida. In his book 'The Rise of the Creative Class' (2002), he states that the most important target group to make a city economically successful is the *creative class*. This group consists of young, diverse and innovative thinking people, bringing knowledge, new techniques and creative capital to a city. According to Florida the presence of this group will create an environment of economic growth and attractiveness to other groups to settle in a place (Florida, 2002). This creative class theory by Florida has been criticized numerous times, though, and has not been proven to work. In Rotterdam, local policy makers are focusing on a clear

target group in regenerating this place as well. To make the city center livelier and increase the economic activities, mainly young, high educated residents are aimed to attract. The iconic new high rise apartment buildings are an example of attractive places to live for this group.

Regarding urban redevelopment and regeneration in Rotterdam, the following hypotheses were formulated:

III.   *The iconic high-rise residence buildings make the 'empty' city center of Rotterdam attractive to settle in.*

IV.   *The iconic architecture in Rotterdam creates a pleasant environment to live in for residents.*

3.3   City Marketing
3.3.1 Globalizing cities, a motivation for city marketing

In this age of globalization, cities feel the pressure to distinguish themselves from other places in the world. Competitiveness amongst cities to attract the attention of potential visitors, residents and investing companies is rising high. Globalization is the practice of transnational alliances and actions. These transnational actions cross state borders and can originate from state agencies as well as from other parties and companies. Economic, political and culture-ideology levels of globalization can be distinguished (Sklair, 2010, pp. 134-138). Iconic architecture is an element of transnational consumerism of the culture-ideology. Besides the urge of competition between cities, in which iconic architecture serves as the tool for competition, globalization caused the spread of new techniques in designing buildings. New CAD techniques (Computer Aided Design) made it possible to design extraordinary architecture. These complex buildings meant a drastic change in the urban environment. For globalizing cities the realization of iconic architecture became easily available, though it is an expensive practice (Sklair, 2010, pp. 135-140). Due to the easy accessibility of new techniques and internationally operating architects, iconic architecture increasingly serves as a tool to market a city and beat the competition of other cities. The realization of iconic architecture in a city is a tool of city marketing to attract external groups like companies and cultural tourists. In the case of Rotterdam, the outstanding architecture is one of the elements used by marketing companies to promote this city. The policy of the city council, Rotterdam Partners and different institutes concerning the city marketing of Rotterdam reflects the importance of the star architecture in Rotterdam. Further on in this theoretical chapter, the policies of these parties will be discussed.

The theory of globalization and city marketing is criticized as well. Kavaratzis (2007) states that the picture of cities that are suddenly transnationally connected, is too simplistic. Cities are coping with different levels and phases of globalization that have taken place in several centuries. Cities are not

passive recipients of globalization according to Kavaratzis (2007). The capacity of economical resources to easily switch locations has made the competition amongst cities fiercer to attract investors, visitors and residents. Places around the world have become interchangeable and therefore became less unique (Kavaratzis, 2007, pp. 705-706).

3.3.2 City marketing explained

Before the city marketing practices of the city of Rotterdam and its marketing companies will be studied in the next paragraph, it is necessary to explain the concept of city marketing. Marketing is defined by Kothler (1994), a famous marketing expert for over 40 years, as "a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and values with others" (Kothler, 1994, p. 6). Marketing is not only about selling but also about satisfying the customers' needs, the author claims. City marketing is a type of marketing that became popular in the 1980s and is also known as place marketing. It concerns the practice of putting a geographical place into the market aiming to change, maintain or create attitudes or behavior towards a particular place. The practice of place marketing aims to attract business, tourists or other external groups to a city. Another focus group is the residents of the place (Kotler, 1994, pp. 654-655).

The use of city marketing can be valuable to cities for several reasons. First of all, city marketing can be used to safeguard a city's business in a competitive environment, to preserve its profits and returns but more importantly the wellbeing of its public. Another valuable aspect of city marketing is the ability to understand the needs and wants of customers. Cities can use a more targeted approach to attract potential 'customers' that are interesting to a city. They can invest in an environment that is based on the customers' demands and that is appealing to them. The customers in this understanding are (potential) residents, businesses and tourists. In a transnational competitive environment where customers can choose from many options, this targeted approach is of great value to cities. Several marketing tools can be used for this approach. These tools contain branding, account management, marketing communication and segmentation. Of the wide range of tools, the ones concerning the development of the cities' image are most important. An appealing image of a city can compete with other interesting places from which customers can choose (Braun, 2008, pp. 45-47).

Hospers (2011) states that city marketing is a long term process that consists of different cohesive activities aimed to appeal and to retain specific target groups. The target groups he describes are equal to the groups Braun (2008) and Kothler (1994) mention. Hospers (2011) determines that the target groups of city marketing can be divided into a 'cold' group (external groups like newcomers,

tourists and companies) and a 'warm' group (internal group consisting of residents). Hospers (2011) mentions the importance of the geographical place people live in. The sense of place, pride and social capital (family and work) is an important aspect to most people concerning their residential place. Location forms one of the most important aspects of 'happiness'. People are generally highly attached to the places they live in and are most often unwilling to move to other cities or states. The author states that studies in the Netherlands have shown that only 7 percent of all the people who move between places are moving outside their own region. Hospers (2011) questions the usefulness of city marketers' efforts to attract new residents to a city. 'Cold' city marketing efforts may not be useful since, according to Hospers (2011), projects to attract new residents in cities often fail. The author admits that city marketing can function as a trigger to people who are already considering moving to a certain place. This group, often young and highly educated professionals, is probably most interesting for cities to attract. For this reason 'cold' marketing efforts *can* be useful. Apart from former argument, Hospers (2011) argues that cities should concentrate on 'warm' marketing efforts. Cities should focus on maintaining their own residents and make the place attractive to live in. Loans, career opportunities, and an attractive public space with iconic buildings can be a way to realize this (Hospers, 2011, pp. 12-13, 61-63). A main element in marketing a city is that customers are always the central focus. Visitors, businesses, investors and residents are the main target groups in these marketing techniques. It is important to capture the value of their place. Most important are the residents of the place. City marketing should be about maximizing the economic and social values for the residents of the place to increase their satisfaction of their place of living. Once this is established a place can become successful and attractive for external groups (Zenker, 2011, pp 36-37).

In the research question of this thesis, this theory is reflected by questioning whether Rotterdam's policy is mainly focused on the economic benefits of city marketing or that its residents are equally important in these strategies. In the questionnaire, discussed in the analysis-chapter, residents are questioned what their opinion is towards the iconic architecture in Rotterdam. Do they feel attracted to these buildings and are they proud of them or is it just a way to interest external groups for this place? Regarding the influence of these buildings on residents, one could hypothesize that:

V.   *The characteristic architecture in Rotterdam is an important element to make residents willing to contribute to the economy.*

3.3.3 Creating Image

Creating an attractive image of the city to the world to gain attention of external groups of people and companies as well as for (future) residents is a main element in city marketing. Due to

globalization, cities are pressured to develop themselves in a way to become attractive to business, investments and high-tech professionals. This attractiveness should convince the citizens and entrepreneurs to settle in the city. Here city marketing, and specifically branding, enters the picture. A created image or brand needs to provide a sense of pride amongst citizens. They need to be able to identify with their distinctive and unique place (Kavaratzis, 2007, pp. 707-708).

The revitalization of a city-image often goes hand in hand with constructing a new urban landscape. The creation of 'spectacular' architecture in cities has become a tool for regenerating old industrial cities. These architectural sites have become images that are able to promote the own nature of the place. The urban landscape transformations are one of the strongest promotions a city can offer. Marketing and branding a place by just promoting it, is probably less effective than creating a 'spectacular' urban landscape. Kavaratzis criticizes city marketing for creating sameness amongst cities internationally. This is a result of using the same marketing techniques worldwide. Cities are interacting globally on how to market their selves best and are imitating each other. These practices can diminish the unique local character and identity of a place. Eventually this would make a city less attractive to external groups and investments. According to Kavaratzis (2007), it is important for cities to focus on a wider range of channels and activities of internal and external communication about their local characteristics and assets in their city marketing strategies. Cities should not just focus on the promotional aspect of the place. Furthermore, city marketing activities are mainly focused on the market. Economic motivations are often the incentive to develop city marketing strategies in a place. The ideology of a city, though, is not necessarily oriented towards the market. It is much more about the internal characteristics and communication. Once city marketing is oriented less on attracting the market and more on its own ideology, uniqueness and its residents, a city will gain more self-confidence and consciousness. This would eventually promote a place in its best way (Kavaratzis, 2007, pp. 708-710).

In this thesis, research is focused on the internal aspect in cities as well. In the introducing chapter, the question was raised whether the residents of Rotterdam are pleased with the city marketing strategies of the city concerning the realization of a 'spectacular' urban landscape and iconic architecture, or not. In the case of Rotterdam, it is studied whether the municipality focuses too much on attracting external groups instead of satisfying the internal groups.

3.4   Rotterdam policy towards architecture

In this paragraph of the theoretical framework the urban policy in Rotterdam will be extensively described. The most important policy document for this research is the Architectuurnota (2010) of Rotterdam. This document contains the vision of this modern city towards the development of its

architecture and it reveals the city marketing inspired policy of Rotterdam. First, a summary of the Architectuurnota (2010) is provided to clarify the city's vision and its relation to the theoretical concept stated in former paragraphs of this chapter. This thesis focuses on the internal group in this city, the residents. Therefore, the main elements from the Architectuurnota regarding this group are highlighted here. Following the paragraph concerning the Architectuurnota (2010), other aspects of urban political decision making, policies of the main city marketing companies in Rotterdam and critiques will be discussed.

3.4.1 The Architectuurnota (2010) arguments concerning residents

Rotterdam intends to realize a program to create an attractive and vibrant city, with a positive image nationally and internationally. The city council aims to create an attractive city to live and to work in. Good, high quality architecture is an important element in creating a pleasant living environment according to the Rotterdam city council. The architecture in Rotterdam is unique and has a sense of diversity, modernity and international orientation. It is stated that the beauty of the built environment is a main element in attractiveness of the city (Architectuurnota, 2010, pp. 13-16).

Iconic buildings can form unity in the public space. Architecture is expressed in buildings, but the environment that is influenced by these buildings is part of the architecture according to the Architectuurnota. Two main concepts are connected to this statement, which are considered to be relevant in Rotterdam: The *power of expression* and the *settling climate* ('zeggingskracht' and 'vestigingsklimaat'). The power of expression of buildings in a certain place makes this place characteristic and gives identity to the city. This identity is important for the residents living in this area. The attractiveness of the city determines to what extent residents feel at home in a city, are satisfied and even feel proud to live in a certain place. This satisfaction on a rich urban life has positive consequences for the economy of the city. Unsatisfied people turn away from the city, which has direct negative consequences for its economy. Characteristic architecture, therefore, is an important element in cities to create a place where people love to settle and feel at home (Architectuurnota, 2010, pp. 16-18).

Rotterdam is the city of architecture. Even before the Second World War, this city has had this image for its pioneering activities in architecture. Realizing Iconic buildings is a tradition in this city and Rotterdam strives to maintain this reputation to strengthen their image of 'Rotterdam, city of architecture'. This image can be an important motivation for potential residents to settle in this city. During the Second World War, the old city center of Rotterdam was destroyed due to bombing. After the war and reconstruction of the city, the center was mainly used to settle shops and companies, most residents lived in the surrounding neighborhoods. Not until the seventies, people realized that

the livability and vibrancy of the city center would increase when more residents would live there. Ever since, there is a clear focus of building characteristic (high-rise) residencies in the 'empty' city center of Rotterdam. These characteristic, iconic buildings should make it attractive to live in the city center. New iconic buildings in Rotterdam contribute to the image of the city, but the older buildings are most important in creating the city's image (Architectuurnota, 2010, pp. 19, 23-29).

To increase the quality of the 'architecture climate' and attractiveness of the city of Rotterdam, it is important to cooperate with the residents of this city in the designing process. Besides cooperating with residents of this city, Rotterdam organizes several events concerning architecture, it houses an architecture museum and has several educational programs to make the public aware of its architectural heritage. This could make this city an interesting place. The events, for example The International Architecture Biennale and the Monumentendag, attract thousands of visitors (bi-) annually. It can be questioned whether Rotterdam residents are attracted to these events as well, or not, and whether these elements make this city a more interesting place to live in (Architectuurnota, 2010, pp. 39-51). This leads to the following hypotheses to investigate:

VI.   *The architectural events make Rotterdam an attractive place to live in.*

VII.   *Residents' awareness of the architectural environment in Rotterdam is not only passive. They are often participating in activities*

3.4.2 Further vision and goals for the city center of Rotterdam

The document 'Binnenstad als City Lounge' (the inner-city as city lounge), published by the city council in 2008, contains the vision and goals of the municipality concerning the development of the city center of Rotterdam. In the document it is claimed that the weakness of Rotterdam's inner city has always been the low residing quality. A lack of terraces, cultural activities and events and an unattractive public space in Rotterdam used to be characteristics of this city. The city is increasingly improving these elements and focuses on adding high quality events, spaces and activities to create an appealing environment for visitors and companies settling in Rotterdam. *Quality* is the key element in public policy towards the development of the city center, therefore the term 'city lounge' was stated in this document. After six decades of regeneration, transformation and creating a denser city, Rotterdam gained a strong unique identity which can serve as an attractive element for external groups internationally. The quality of place in Rotterdam is an important element to gain a stronger economic position. An attractive city center, with good infrastructure, many businesses and employment positions appeals to companies as a motivation to settle in a place. Furthermore, creating a 'city lounge' is appealing to certain residential target groups. It is stated that a high quality, modern and pleasant living environment will appeal to the target groups Rotterdam is most

interested in: highly educated, creative, knowledgeable, younger residents (Gemeente Rotterdam, 2008).

Concerning architecture and high rise buildings the city council states several clear visions in the report 'Binnenstad als City Lounge' (2008). Rotterdam aims to continue its tradition of developing innovative, modern and progressive architecture. The current trend of competing European cities makes authenticity of the city essential to establish its position. In Rotterdam modernism in architecture is the main element in creating its identity. The city council claims that this modernist attitude needs to be preserved in Rotterdam by realizing progressive, high rise projects. Quality, durability and meaning of architecture are focal points here. The added value of architecture for Rotterdam and its residents counts as an important element as well. During the 1990s, a high rise policy in Rotterdam was formulated. High rise projects were, and still are, promoted by the city council. An adjustment in this policy is made though. Due to some negative climate-comfort effects of high rise buildings, the increasing amount of winds and shadow in the center, it is crucial to study the assumed effects before constructing the building. Discomfort of certain places in the center could make the city less attractive to reside in (Gemeente Rotterdam, 2008, pp. 50-52). In the empirical part of this thesis, residents were therefore specifically asked whether they experience the high rise iconic architecture as a disturbing element in the city. In the next chapter the results concerning this element will be revealed.

Bureau Binnenstad, a workgroup supported by the municipality of Rotterdam, published the report 'Binnenstadsmonitor 2015, de staat van de Rotterdamse binnenstad' (2015) concerning the development of the city center in 2015. This is an annual report, based on the vision and goals mentioned in the paper 'Binnenstad als City Lounge' (2008) as described in the previous paragraph, reveals some results that are relevant in this theoretical framework. These results include information regarding the increase of residents, tourism and economic activity in the city center, livability and attractiveness of the city center (as a residential place), the increase in cultural tourism in Rotterdam, the appreciation of architecture in Rotterdam and the image of Rotterdam's city center.

Studying the results of this report, it can be concluded that the number of residents in Rotterdam is increasing. Compared to 2010, the population in the city center has increased by 10% (Rotterdam in general by 5%). The number of residents in the modern built areas *Kop van Zuid* and *Coolsingel/Lijnbaan* increased by 86% and 30% dramatically. Rotterdam is therefore successful in attracting residents to the city center, especially to the areas containing modern architecture. Economic activity, new employment, has increased by 4% in the city center. This a relevant growth

compared to the decrease of 5% in Rotterdam's general rate. The increase in visitors of Rotterdam is measured in several ways in the report. Firstly, there is an increase in hotel beds in the city. A growth of 9% is measured in the report, which is a larger growth than other comparable cities in the Netherlands. This significant growth is also reflected in an increase of the number of guests (15%) and overnight stays (20%) in Rotterdam (Gemeente Rotterdam. Bureau Binnenstad, 2015 pp. 19-33). In the report concerning visitor rates in 2014 by Rotterdam Partner (2014), an increase of visitors is reflected as well: compared to 2013, the city attracted 15% more tourists and 18% more overnight stays were booked in 2014. Almost half of these bookings concern guests from the Netherlands, the other half are international guests (Rotterdam Partners, 2014, p. 1). In total, the number of Dutch tourists increased by 15%, the number of international guests increased by 25% (Gemeente Rotterdam. Bureau Binnenstad, 2015 p. 33). Besides tourists, an important target group for Rotterdam is investors. Rotterdam Partners reported in April 2015 in a 'Persbericht' (press release) that the number of foreign investors settling in Rotterdam has significantly increased during 2014. Over 40 international companies were attracted to this city. Rotterdam Partners claims that companies are attracted because of the mentality, good infrastructure, cheap rental price, international network and its 'red carpet treatment'. Rotterdam Partners claims that this increase in international companies is one of the most relevant occurrences for Rotterdam at the moment (Rotterdam Partners, 2015, p. 1).

According to Bureau Binnenstad (2015), the appreciation of architecture has increased between 2010 and 2015. Firstly, this is measured by studying the amount of publications containing iconic buildings in Rotterdam which has increased from zero to three in the yearbook of architecture over the last five years. Secondly, the appreciation for cultural aspects in Rotterdam was measured. One of the elements is the appreciation for buildings 'worth seeing' in the city. The appreciation for these buildings most significantly increased amongst the other cultural elements like museums and festivals. A plausible explanation is the increased amount of iconic buildings in the city center (Markthal, central station and the Rotterdam) (Gemeente Rotterdam. Bureau Binnenstad, 2015, pp. 33-37). The final element mentioned in the report of Bureau Binnenstad (2015) relevant to this theoretical framework is the *image* of the city. Bureau Binnenstad (2015) states that in 2015, Rotterdam residents find the image of Rotterdam more attractive when compared to 2013. The inner city is experienced as a pleasant environment to visit and reside (pp. 37-39). Based upon this information, the following hypothesis is formulated:

VIII.   *Iconic architecture is one of the most important cultural elements that make Rotterdam attractive to residents*.

3.4.3 City marketing visions and effects in Rotterdam

Ever since the 1980s, city marketing has been a key element in the agenda of Rotterdam policymakers. Many stakeholders were active in practicing city or place marketing strategies. As a result, city marketing efforts were strongly fragmented in in this city. During the 1990s, dissatisfaction towards the practices of the local tourist office, led to a change in policy of Rotterdam marketing strategies. The agency Rotterdam Marketing was created for this reason and replaced the traditional local tourist office (VVV). Rotterdam Marketing became a proactive organization with more responsibilities than the former agency. It was independent but strongly supported by and connected to the local government and its development corporation (OBR) and economic affairs of the city. Rotterdam Marketing was active in attracting external groups like tourists and new economic activities to the city. Another development was the installation of a Chief Marketing Officer (CMO). Its main responsibility became the management of the city's brand to empower the international image of Rotterdam. The ultimate goal of the CMO is, again, attracting and retaining more inhabitants, students, companies and visitors to the city. The small organization of the CMO needs to safeguard and manage the brand of Rotterdam internationally (Braun, 2008, pp. 132-138).

Currently, the promotion of Rotterdam is coordinated and executed by Rotterdam Partners. This organization exists of several sub organizations (the partners) for different fields like tourism, trade and investment and hospitality. These partners aim to support and catalyze the economic situation of Rotterdam. To achieve their goals, this organization receives around two million Euros from the municipality each year to subsidize their activities. Rotterdam Partners is a proactive organization involved in many assets of this city. The marketing of the city of Rotterdam is one of their goals. Promoting the iconic architecture of this place is an important tool to create an attractive image worldwide. The practices of this organization provided this city with many publications, nominations and awards already. This organization plays an important role in the 'booming' image Rotterdam has currently. With the new slogan "Rotterdam. Make it happen" and related activities, Rotterdam Partners, together with the municipality, Havenbedrijf Rotterdam and Erasmus University Rotterdam, aims to put this city more firmly on the map, nationally and internationally (www.rotterdammakeithappen.nl & www.rotterdampartners.nl). In the last few years Rotterdam was mentioned as one of the best places to visit by the New York Times (2014), it was awarded the eight' best city in Europe by the Rough Guides (2014) and Lonely planet (2015) mentioned Rotterdam as number five in the list of best places to visit. In these publications, Rotterdam is often promoted as a city of the future with its modern environment. It is not a coincidence that these publications emerged since Rotterdam Partners is active in promoting the city. The organization invites international journalists, investors and tour-operators to come to the city for an extensive

promotional tour. Due to these activities many positive publications has been gained and placed Rotterdam internationally on the map, the visitor rates raised and the number over overnight stays in Rotterdam has increased (NRC Handelsblad, 2014).

Currently, the pride and satisfaction amongst residents in Rotterdam seems to be growing increasingly. According to a study of the European Commission (2016) and reported by the Business Insider at the start of 2016, residents of Rotterdam are the happiest citizens in the Netherlands and Rotterdam is the twelfth happiest city in Europe (Business Insider & European Commission, 2016). This outcome is remarkable when we look at the results of a research from the 1960s in which Rotterdam citizens could give their opinions on their city. In 1968 professor Rob Wentholt studied the opinion of Rotterdam residents concerning their city center. The results of this research showed that the citizens were very negative in their view to Rotterdam. It was a cold, ugly, businesslike, un-cozy city in which people would not want to live in (Wentholt, 1969). After the Second World War, Rotterdam was rebuilt. There were many new buildings, facilities and infrastructure that were positive, Wentholt's study revealed. The downside of the city center, according to the respondents of Wentholt's survey, was the emptiness and unattractiveness. There was nothing to do or to experience in the area, no cultural activities. The city had no 'heart'. Residents longed to less traffic and office space in the city center, they preferred more residential space in the area which was the opposite of the rebuilding strategies planned after the war. After Wentholt's study was published in 1969, urban policy changed in Rotterdam to improve this image of the city center. Recently, urban platforms *Vers Beton* and *Rotterdam viert de stad!* repeated the research Wentholt did in 1969 to study the opinion of residents in Rotterdam concerning the image and opinion of the city center currently. The results revealed, in contrast to the results in 1969, that residents are predominantly positive about their city center these days (Vers Beton, 2016). In general, residents are proud of Rotterdam but there is also some critique. Residents fear that the city will become too neat and focused on tourists and younger people. Elderly people and residents from surrounding neighborhoods feel less at home in the city. Respondents claim that Rotterdam should not become a copy of the capital Amsterdam dominated by tourists, they fear that Rotterdam can lose its uniqueness, they fear to lose 'their' city (NRC Handelsblad, 2016). This research shows that marketing the city turned out to be positive for Rotterdam to make it a more attractive and livable place, as presumed in previous paragraphs. On the other hand, it reveals a critical note that city marketing can affect a place to the prejudice of residents, the most important group in a city.

4. Methodology

4.1 Research Methods

This thesis contains a theoretical research and an empirical research part. As described in previous chapters, the first part consists of the literature study. Different sources were studied to describe the developments of Rotterdam and its architecture, the policy towards architecture in Rotterdam, as well as the concepts of iconic architecture and its importance, city marketing, image creation, place identity and urban regeneration. I In this chapter, the empirical part is described. The empirical research contains a *quantitative research method*. A survey was conducted to determine if the architecture in Rotterdam is as valuable to the residents as the vision of the city council claims it to be. Concepts from the theoretical research were incorporated in the survey-questions to test their validity amongst the respondents. This survey-method was chosen because this study aims to obtain a vision on the appreciation towards new iconic architecture in Rotterdam amongst a large group: the residents of the city of Rotterdam. The level of appreciation is measured, not the personal motives of respondents. For that reason, quantitative research methods were used. The aim of *qualitative* research methods is to study the deeper personal opinions or motives of respondents about a subject in an interview, which makes it difficult to study large groups using this method. This study's goal is to answer the main research question: '*Is the new iconic architecture as valuable to the residents of Rotterdam, as stated in the policy of this city?*' To find an answer to the main research question, the four sub-questions mentioned in chapter one need to be answered first. The first sub-question is answered by studying the collected literature, the last three sub-questions will be answered by studying the outcome of the survey-analyses of the next chapter. The central aim of this survey is to get an impression of the appreciation and the behavior of residents towards recently developed iconic architecture in Rotterdam. The quantitative methods as described in the book 'Onderzoeksmethoden' (2005) by 't Hart are used as a basis in this chapter.

4.2 Research entities

The research entities or units of analysis in this thesis are the residents of the city of Rotterdam and the Rijnmond Region. The residents needed to be settled in this city or the surrounding towns in the Rijnmond Region for example Schiedam, Vlaardingen or Berkel en Rodenrijs. Both people living in the city and in its surroundings responded to the survey of this research. An expected sub-result of the research is that residents of Rotterdam experience and behave differently towards iconic buildings than people living outside the city. Residents from the region, assumingly, visit the city regularly and

have a strong connection to it as well since the Rijnmond region is a highly intertwined urban area around Rotterdam.

In the survey, there was no selection concerning age, gender, level of education, working industry or neighborhood. These variables are, however, part of the questionnaire and will be analyzed to discover potential notable differences between respondents.

4.3 Sample

The predetermined number of fully completed surveys to collect was between 100 and 150. A total of 157 surveys were completed. Most respondents are residents of the city of Rotterdam (N=128), a minor part lives in the surrounding region (N=29).

It should be noted that the survey-sample for this research meets the predetermined size though in an ideal situation, for a more reliable representation of the population of Rotterdam, the sample size could have been increased even more. Calculating the sample of the complete Rotterdam population (N=618.357), with a margin of error of 5% and a confidence level of 90% the survey-sample should ideally contain 271 respondents (Steekproefcalculator.com. July 2015). With the current number of completed surveys, a margin of error of 6,6% (with a confidence level of 90%) was obtained.

4.4 Methods of data collection

Data of the empirical part of this study is collected by conducting surveys. The surveys are conducted digitally using the software of Qualtrics provided by the Erasmus University. The survey was also created with the Qualtrics software and was spread via different social media platforms (Facebook and Twitter) and via e-mail. The survey was spread amongst different social demographic groups, aiming to reflect the population in Rotterdam. For example, it was sent to employees of a concert hall and congress center, a sports club, a group of middle-aged people (<50 years) and a group of younger people. The collection of data was completely 'online'. No paper versions of the survey were printed and spread. Digital conduction of surveys can be difficult to control and the response is often low. To control the response, digital reminders were sent via e-mail and social media to increase the amount of completed surveys. This turned out to be effective, within 2 weeks in the month May 2015 the predetermined sample size was reached. Since the conductor of the digital surveys could not be physically present to introduce the topic, a short introduction (without giving away too much information) and a contact e-mail address were stated in message and preface of the survey. Finally, all surveys were collected completely anonymous, aiming to increase the response and encouraging respondents to freely state their opinion.

4.5 Methods of data analysis

After finishing the data collecting process, an excel-datasheet was extracted from the Qualtrics software. This sheet contained all collected survey answers and was converted to an SPSS datasheet for statistical analysis (Version 22.0, 2013, IBM Corp.).

4.6 The theoretical concepts operationalized

In the theoretical framework of this thesis several theoretical concepts are studied and described extensively. These concepts are *iconic architecture, identity creation, regeneration, city marketing (as image creation)*. Besides these concepts, the policy of Rotterdam towards creating iconic architecture was studied. The Architectuurnota (2010) served as the main source. This policy showed the cities' focus on *identity creation, engagement* and the *creation of a strong image* for the city and its residents. These concepts are the focal points in this questionnaire. In this empirical part of the research, these concepts will be examined in the survey together with some questions concerning the behavior and appreciation of residents towards architecture in Rotterdam. The focus on residents' behavior and appreciation was chosen to get an indication of the effectiveness of Rotterdam's policy towards iconic architecture. Is architecture really as important and attractive to residents as is stated by local government? Does the policy justify the expenses to develop and promote the iconic architecture in Rotterdam?

This paragraph aims to concretize each concept as clear as possible to make them measurable for the questionnaire. Before determining them as *variables*, the theoretical concepts need to be operationalized. The research question used in the questionnaire is:

> '*Is the new iconic architecture as valuable to the residents of Rotterdam, as stated in the policy of this city?*'

In regard to this research question the following three sub questions will be answered in this empirical part of the research:

- *'Do the residents of Rotterdam experience iconic architecture as a relevant element in the city, or is it just the vision of the city council?'*
- *'Does the iconic architecture in Rotterdam, influence the behavior of residents in any way?'*
- *Is there a difference in the experience and importance of and behavior towards architecture between residents in Rotterdam and the surrounding Rijnmond area?*

In order to test if these concepts are as applicable as is claimed, the behavior, experience and awareness of respondents towards the theoretical concepts were questioned in the survey. This way,

a statement can be formed concerning residents and the effectiveness of architecture policy and city marketing activities in Rotterdam.

The first concept to operationalize is *identity.* First of all, it must be determined what elements are covered in this concept of creating *identity* of place. The levels of pride of and engagement with the iconic architecture of Rotterdam are being measured. These elements can contribute to a strong sense of place identity. A third element covered in this concept is the *willingness to contribute*. This behavior of willingness to contribute to the economy or to the community of the city is stated to increase when residents can identify with the city. Do they feel strongly engaged to the place and are they proud of it? The survey measures whether the residents are consciously experiencing this pride and engagement and whether their behavior is influenced by the iconic architecture or not.

The second concept is *image*. In the theoretical framework city marketing was described. Creating an image of a city to attract external groups to that place is one of the main aspects in city marketing. In the case of Rotterdam, iconic architecture creates this physical image of the city for a major part. The city is famous for its buildings that attract lots of tourists. For residents, a positive image can make a place more attractive to live in. In the survey, the level of physical attractiveness of Rotterdam because of its architecture is measured. The difference in experience the image of Rotterdam as a city of iconic architecture between residents of the city and residents of the surrounding Rijnmond area is measured here as well.

The third concept is *urban regeneration*. In this light, the attractiveness of the city for residents with its *recent* realized iconic architecture was measured. Whether or not the residents experience Rotterdam as a more livable place due to its architecture was measured as well. Finally, it was also measured whether or not the residents experience a stronger engagement to their regenerated city center because of the iconic architecture.

4.7 Variables

In this paragraph the variables from which the survey-questions are extracted are described. First, several general and personal variables are stated, the *independent variables*. Second, the *dependent variables* concerning the concepts *identity, image* and *regeneration* are described.

Independent variables:

- Age
- Gender
- Education level

- Working industry
- Home situation
- Residency
- Native or not

Dependent variables:

Identity:

- What elements make residents feel engaged and proud of Rotterdam?
- Is architecture one of the cultural elements that residents feel more engaged to than other cultural elements in Rotterdam?
- To what extent are residents actively promoting 'their' architecture compared to other famous elements in Rotterdam?

Image:

- What elements influence the image of Rotterdam amongst residents?
- To what extent are residents aware of the image of Rotterdam as an architecture capital?
- To what extent are residents actively involved in the architectural activities in Rotterdam?
- To what extent are 'new' residents influenced by the image of Rotterdam as a city of architecture to settle in this place?

Regeneration:

- To what extent do residents think the recent developed architecture makes the city center more attractive and livable?
- Does the increase in tourism makes Rotterdam a more attractive and lively place to live in?
- To what extent experience residents the increase in tourism and new large buildings as a disturbance?

Vision of Rotterdam according to the *Architectuurnota* (2010):

- To what extent do the residents agree with the investments and policy towards iconic architecture in Rotterdam?
- Is the built environment in Rotterdam, with its new iconic architecture, an important element in contributing to the beauty of the city, according to the residents?

4.8 The survey

The survey designed for this research contains several types of questions and topics. The first part (questions 1 to 7, see attachment) contains general questions about the respondent's characteristics; the independent variables. This part contains partly open and partly (semi-)closed questions like age, gender, residential area, education and working industry. The following questions (question 8 to 15) are semi-structured questions concerning the theoretical concepts described in the previous paragraph. Finally, question 16 contains eight statements testing the experience, behavior, identity and engagement towards iconic architecture in Rotterdam. Respondents could completely agree, agree, disagree or completely disagree with or be neutral towards these statements.

In the attachment section of this thesis, the final survey as it has been presented to the respondents is enclosed (attachment I). The survey was presented to the respondents in Dutch. The research studies the residents of Rotterdam, expected to speak Dutch. Presenting the survey in Dutch also might lower the threshold to respond to the survey request. The survey is translated in English for this thesis and can be found in the appendices as attachment II.

5. Analysis and results

5.1 General

In this chapter, the results of the survey on image, experience and behavior towards iconic architecture, city marketing and urban policy in Rotterdam will be explained. This chapter contains the empirical part of the thesis which is conducted through a questionnaire. The final sample, contains 157 respondents. There was some missing data with respect to the neighborhood or field of employment. These empty fields were coded as 'unknown' and analyzed as such.

In this chapter, the most relevant results of the survey will be analyzed and discussed. The results are linked to the theoretical concepts described in the previous two chapters. The survey contains several questions per concept. Linking the survey results to the concepts and analyzing them will eventually provide answers to the research question and sub questions stated in this thesis.

The survey contains several sections. The first questions (question 1 to 7) provide the characteristics of the research population. Questions 8 and 9 evaluate the motivation to move to Rotterdam and the elements of attractiveness in this city. Further questions concern the appreciation of cultural elements, the sense of pride and engagement (identity theory) for certain elements in the city, the active and passive awareness of architecture in Rotterdam and the promotional efforts and appreciation of architecture amongst residents. The results of each question are reflected in numbers and percentages. Many survey results are supported by graphical diagrams in which several subgroups are compared when appropriate. *Likert-plots* were drawn to visually support the results from the statements to which respondents could react (completely disagree = red; disagree = orange; neutral = yellow; agree = light green; completely agree = dark green).

When independent groups (nominal or categorical) were compared, a Chi-square test was used to test for significant differences between these groups when a nominal outcome variable was present. A Fisher exact test was used in these groups when appropriate (N<5). When ordinal groups were compared, a Mann-Whitney test was used when a nominal outcome variable was present. A Chi-square test was used when nominal groups were compared in the presence of a ordinal outcome. No continuous outcome variables were available. Correlation was tested when appropriate using the Spearman's rank coefficient (ρ). Only variables with ordinal scales needed to be evaluated. P values lower than 0,05 (p<0,05) were considered statistically significant.

As stated previously, the most relevant and striking results are presented in this chapter. The complete survey results are included in attachment III. . The final answers to the research question and sub questions will be presented in the following concluding chapter.

5.2 Composition of the study population

The complete study population in this study contains 157 respondents. The majority (N=128) of this population is formed by inhabitants of Rotterdam, a smaller group of 29 respondents is living in the Rijnmond region surrounding Rotterdam, as is shown in Figure 1.

Figure 1: Residential place study population
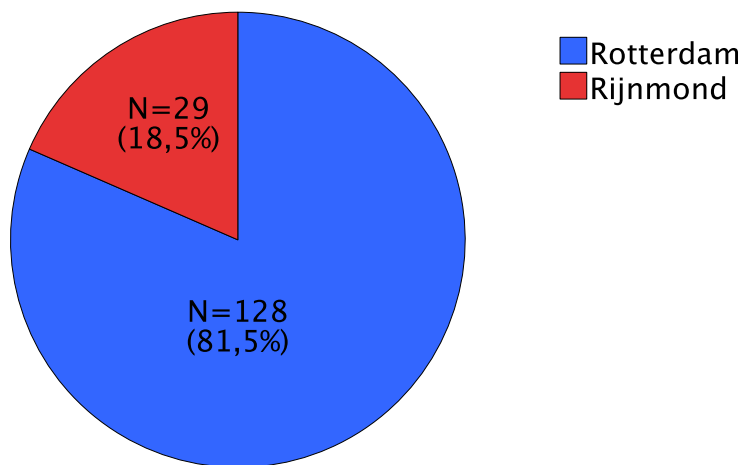
The respondents living in Rotterdam are mostly residing in 'the city center' (14,6%), 'Kralingen-Crooswijk' (25,2%) and 'Noord' (11,5%) area's. Unfortunately, the residing area of 28,7% of the population in Rotterdam is unknown. The respondents living in the Rijnmond region surrounding Rotterdam are mostly living in Schiedam (27,6%), Cappelle aan den IJssel (13,8%) and Berkel en Rodenrijs (10,3%). These towns are relatively close to the city of Rotterdam. The residential places of remaining respondents in the Rijnmond area are strongly divided and they live further away from the city of Rotterdam.

The distribution of gender amongst the study population is almost equal, 76 (48,4%) and 81 women (51,6%) participated in this research. The education level of this population, in contrast to the level of education in Rotterdam, is skewed. The distribution of level of education is presented in Figure 2. Mediocre vocational educated (or less) respondents represent 14,7% of the population (MBO and LBO), 45,2% of the population is educated in applied sciences (HBO) and 40,1% received academic education (WO). This study population differs from the general population of Rotterdam and the Rijnmond region. In the general population of Rotterdam 30% has a low level of education, 29% is vocational educated and 31% has a high level of education (GGD Rotterdam Rijnmond, 2014). The

distribution of age categories also differs from the general population; almost half of the population (48,4%) is between 26 and 39 years old (see Figure 3). Although the study population in these respects (age and education) differs from the general population of Rotterdam, an important group is represented. Rotterdam aims to attract young, highly educated professionals with its marketing strategies and urban policy towards iconic architecture. This target group should be attracted to settle in this place for economic and social development. For this reason, despite the skewness, this sample remains interesting to help answer the research questions.
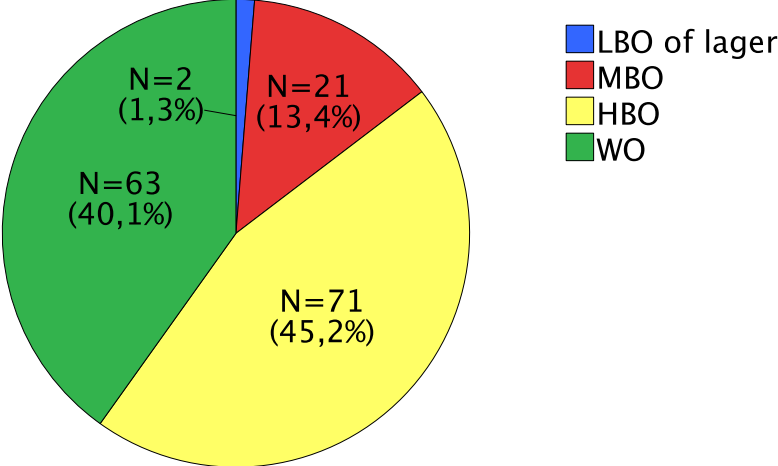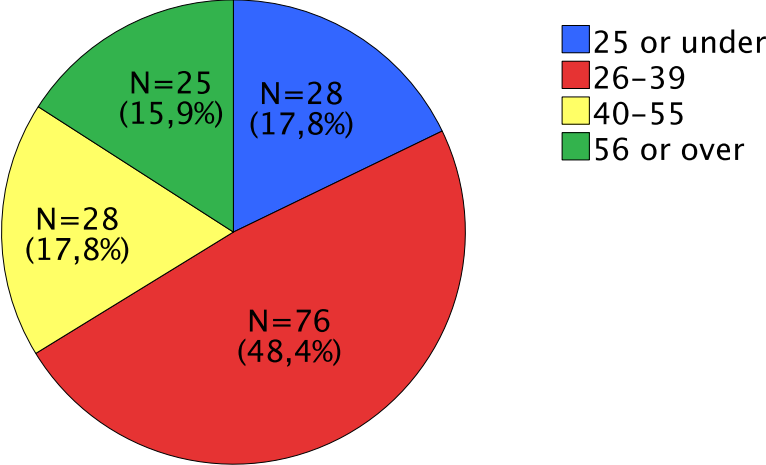
Figure 2: Education level study population

Figure 3: Age distribution

The survey contains questions regarding working industry. The respondents were questioned in what professional sector they are working. This variable is relevant to eliminate the assumption that professionals in the construction sector and cultural sector are more interested and appreciating towards architecture than other respondents. Cultural professionals represent 21,7% of this study population which makes this group the best represented profession, the construction professionals

represent only 3,8% of the population. Another major group is healthcare and welfare professionals with 20,4%, the third largest group are technical and ICT professionals. The study population was divided equally amongst several sectors.

5.3 Architecture and place identity

After the general personal variables, questions concerning the operationalized theoretical concepts decribed in the previous chapter were conducted in the survey. The experience and behavior towards architecture and city marketing was questioned. The first concept analyzed in this chapter is *place identity.* Several relevant questions regarding this concept are aimed to be answered. What elements make residents feel engaged and proud of Rotterdam? Is architecture one of the cultural elements that residents feel most engaged to in Rotterdam? To what extent are residents actively promoting 'their' architecture compared to other famous elements in Rotterdam? Some interesting results can be revealed concerning this concept.

One of the main elements in the concept of *identity of* place is the sense of pride people feel to 'their' city. To create a strong group identity, people need to feel engaged in a place, they have to be able to relate to a place and have sentiments for it. A sense of pride follows from this engagement and therefore is an important element to measure the level of identification to a place. Overall, the results show that residents living in Rotterdam are proud of their city with its iconic architecture and feel engaged to the place. The statement below clearly reveals the sense of pride amongst residents in relation to the iconic architecture in the city (Figure 4). Over 77% of the study population feels proud to live in this city of architecture. Only 8% of the respondents do not feel proud and do not appreciate the architecture in Rotterdam:

Figure 4: Table and Likert-plot 'I appreciate the new iconic buildings in Rotterdam, it makes me proud to live in (or near) "The Architecture Capital of the Netherlands".'

| completely disagree	disagree	neutral	agree	completely agree
2 (1,3%)	11 (7,0%)	23 (14,6%)	88 (56,1%)	33 (21,0%)
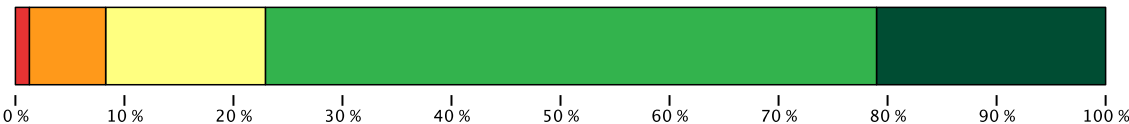
To strengthen the results above, the sense of belonging was also reflected in the following results in which respondents give their opinion on their interest in architecture (Figure 5). 64,3% of the study

population disagrees to the statement not to be interested in architecture. They do not think the city council spends its money badly by realizing architectural icons. Only 6,4% of the respondents think otherwise:

Figure 5: Table and Likert-plot 'I am not interested in architecture. The city should spend its money on something else.'

completely disagree	disagree	neutral	agree	completely agree
30 (19,1%)	71 (45,2%)	46 (29,3%)	8 (5,1%)	2 (1,3%)
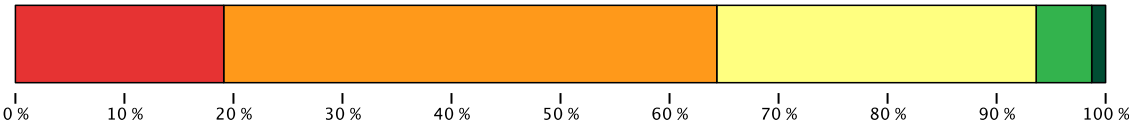
The results above show that architecture is an important element to feel proud of in residents' experience of place identity. The importance of architecture is also shown in other survey results where residents had to rank typical elements in Rotterdam from 1 (high) to 8 (low). The results are reflected in the diagram below (Figure 6). The answer categories with the lowest mean scored highest amongst respondents:

Figure 6: Mean ranks 'With which elements of the city do you feel most engaged and makes you feel proud of Rotterdam?'. A table with detailed ranking information is provided in attachment III under question 12.
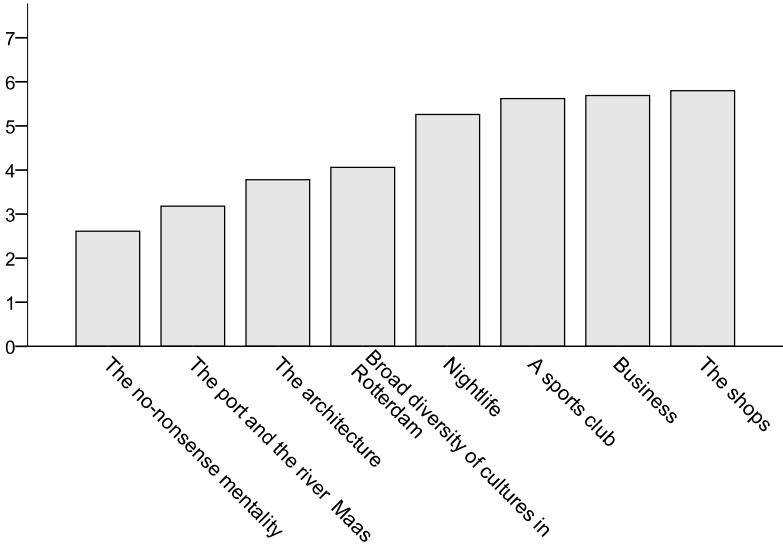
From this ranking question, it appears that the iconic architecture in Rotterdam scores third out of eight amongst most important elements that make residents proud and feel most engaged to in

Rotterdam. This shows that residents do feel attached to its architecture when it comes to a sense of place and identity as described in the theoretical framework of this thesis.

Compared to previous results, it can be stated that many residents feel engaged and proud of the iconic architecture in Rotterdam but overall they feel most engaged to the no-nonsense mentality. How is iconic architecture by residents used as a tool to promote their city towards others? Respondents were asked where they would take a friend visiting Rotterdam for the first time. Again eight popular places and activities in Rotterdam are given that respondents needed to rank from 1 (high) to 8 (low). The element 'Kop van Zuid, Markthal, Central Station' (all iconic architecture) clearly scores the lowest mean (see Figure 7). This means that residents, maybe unconscious, do appreciate architecture as one of the main elements of pride in Rotterdam, which connects the internal group of the city, the residents. Urban planners have a task to create a place for citizens to which they can relate to. Iconic architecture is one of these elements. City planners are doing well in creating an attractive place to engage to for residents.

Figure 7: Mean ranks 'Where would you take a friend visiting Rotterdam for the first time?'. A table with detailed ranking information is provided in attachment III under question 13.
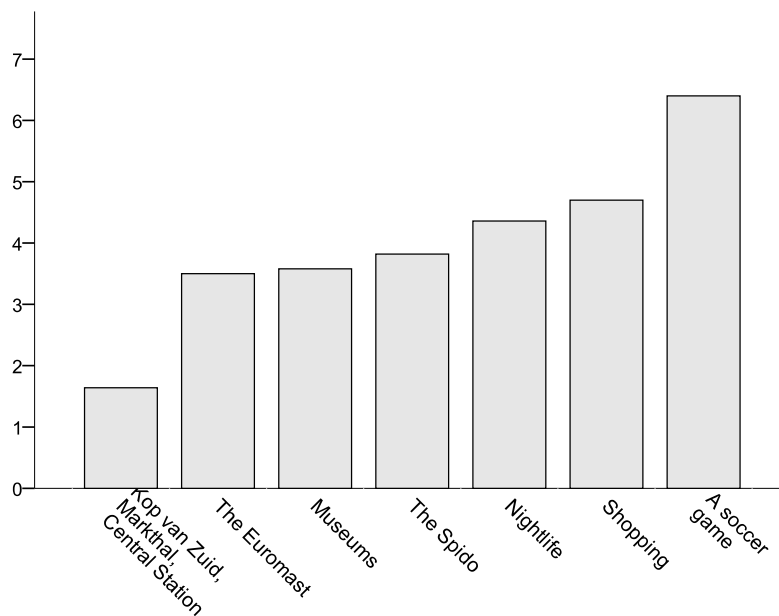
Finally, in this research the appreciation and interest of architecture as one of the cultural elements in Rotterdam was studied. Respondents were presented a list containing several well-known cultural elements in Rotterdam., From this list, they could select the elements they appreciate . Multiple answers were possible. The results are as follows:

'Which cultural elements do you appreciate most in Rotterdam?'

Festivals	90	(57,3%)
Museums	78	(49,7%)
Architecture	84	(53,5%)
Sports events	55	(35,0%)
Theater	56	(35,7%)
Concerts	50	(31,8%)
Film	84	(53,5%)

To reveal a possible difference in appreciation and connectedness to the city, the appreciation for each individual cultural element by residents of Rotterdam and residents of the Rijnmond region was compared. The results are summarized in Table 1. As each cultural element could be selected independently (multiple answers possible), a Chi Square test was performed to test for significant differences for each of these elements.

Table 1: Influence of location (Rotterdam versus Rijnmond region) on most appreciated cultural elements

	Group Total (N=157)	Rotterdam (N=128)	Rijnmond (N=29)	P value*
Festivals	90 (57,3%)	80 (62,5%)	10 (34,5%)	0,006
Museums	78 (49,7%)	65 (50,8%)	13 (44,8%)	0,563
Architecture	84 (53,5%)	71 (55,5%)	13 (44,8%)	0,300
Sports events	55 (35,0%)	40 (31,3%)	15 (51,7%)	0,037
Theater	56 (35,7%)	46 (35,9%)	10 (34,5%)	0,883
Concerts	50 (31,8%)	48 (37,5%)	2 (6,9%)	0,001
Film	84 (53,5%)	68 (53,1%)	16 (55,2%)	0,842

*Chi Square used

The former table (Table 1) shows that residents of Rotterdam have a significant higher appreciation for the cultural elements 'festivals' and 'concerts' than the residents of the Rijnmond region. The appreciation of 'sports events', on the other hand, is significantly lower by Rotterdam residents when compared to region residents. The appreciation of the architecture in Rotterdam showed no significant result when comparing residents of the city to residents of the Rijnmond region.

It is likely that respondents working in the cultural sector and the architecture or construction business have a higher appreciation of the element 'architecture' when compared to the rest of the population. To test this expectation, the influence of job sector on appreciation of 'architecture' was evaluated. The results are shown in Table 2.

Table 2: Architecture amongst most appreciated elements set out against each job sector

	Architecture amongst most appreciated elements = yes
Accountancy and Finance (N=14)	8 (57,1%)
Business, Consulting and Management (N=7)	4 (57,1%)
Construction (N=6)	4 (66,7%)
Cultural (N=34)	20 (58,8%)
Education (N=7)	4 (57,1%)
Healthcare and welfare (N=32)	17 (53,7%)
Leisure, Sports and Tourism (N=11)	7 (63,6%)
Public administration (N=7)	3 (42,9%)
Technical and ICT (N=21)	9 (42,9%)
Transport and Logistics (N=5)	1 (20,0%)
Other (N=13)	7 (53,8%)

No significant difference was found for the appreciation of 'architecture' when looking at the various job sectors (Fisher's Exact test; p=0,912).

Rotterdam aims to attract younger age groups (25-39 years old) to its city center to make the area livelier and create a vibrant atmosphere. Table 3 displays the appreciation of architecture as a cultural element for all age groups. Although in the 25-39 years old group architecture appears to be appreciated less than in the other age groups, no significant difference could be found (Mann-Whitney U 2835,5; p=0,385). This sample therefore cannot confirm that architecture is a good cultural element to promote to attract this younger age group. Though it is not a significant result, the middle aged group seems to appreciate architecture more than the younger group. This group possibly identifies more to architecture when compared to other groups:

Table 3: Architecture amongst most appreciated elements set out against each age group

	Architecture amongst most appreciated elements = yes
25 years or under (N=28)	16 (57,1%)
26-39 years (N=76)	34 (44,7%)
40-55 years (N=28)	21 (75,0%)
56 years or over (N=25)	13 (52,0%)

As can be seen in Table 4, the level of education appears not affect the appreciation of architecture. No significant differences were found between these groups (Mann-Whitney U 3058,5; p=0,977).

Table 4: Architecture amongst most appreciated elements set out against level of education

	Architecture amongst most appreciated elements = yes
LBO or less (N=2)	1 (50,0%)
MBO (N=21)	9 (42,9%)
HBO (N=71)	42 (59,2%)
WO (N=63)	32 (50,8%)

Sex did not influence the appreciation of architecture either (Chi Square p=0,285).

5.4   Image creation and city marketing

Image creation is an important element in city marketing strategies. The results concerning this concept, therefore, reflect the city marketing efforts in Rotterdam. Several important questions were formulated concerning *image creation*. What elements influence the image of Rotterdam amongst residents? To what extent are residents aware of the image of Rotterdam as an architecture capital? To what extent are residents actively involved in the architectural activities in Rotterdam? To what extent are 'new' residents influenced by the image of Rotterdam as a city of architecture to settle in this place? Does the image of Rotterdam created by city marketing agencies correspond with the image residents of Rotterdam have?

The residents' image of Rotterdam seems to be strongly determined by its modern environment and architecture. The study population was asked to choose their most determining elements of Rotterdam. This revealed the following results:

'Which element(s) determine(s) your image of Rotterdam most?'

The Port	97	(61.8%)
Cultural diversity amongst residents	88	(56,1%)
Modern environment and architecture	119	(75,8%)
Shopping center	29	(18,5%)
Sports clubs	24	(15,3%)
Bombardment of the Second World War	46	(29,3%)
A city center with few residents	8	(5,1%)
Cultural events	60	(38,2%)

The 'modern environment and architecture' element was selected most frequently as the most important image of Rotterdam, even more than the port of Rotterdam, which previously was the main selling point of the city.

When looking at the different job sectors, the modern environment and architecture element scores comparably high for all sectors (see Table 5). No significant differences when looking at the various job sectors (Fisher's Exact test; p=0,863).

Table 5: Modern environment and architecture amongst elements that determine the image of Rotterdam most set out against each job sector

	Modern environment and architecture amongst elements that determine the image of Rotterdam most= yes
Accountancy and Finance (N=14)	10 (71,4%)
Business, Consulting and Management (N=7)	6 (85,7%)
Construction (N=6)	5 (83,3%)
Cultural (N=34)	27 (79,4%)
Education (N=7)	4 (57,1%)
Healthcare and welfare (N=32)	26 (81,3%)
Leisure, Sports and Tourism (N=11)	7 (63,6%)
Public administration (N=7)	5 (71,4%)
Technical and ICT (N=21)	17 (81,0%)
Transport and Logistics (N=5)	3 (60,0%)
Other (N=13)	9 (69,2%)

The image of Rotterdam is determined by the modern environment and architecture for comparable high percentages of residents in all age groups (Table 6), no significant differences could be found (Mann-Whitney U 2257,0; p=0,986).

Table 6: Modern environment and architecture amongst elements that determine the image of Rotterdam most set out against each age group

	Modern environment and architecture amongst elements that determine the image of Rotterdam most= yes
25 years or under (N=28)	22 (78,6%)
26-39 years (N=76)	56 (73,7%)
40-55 years (N=28)	22 (78,6%)
56 years or over (N=25)	19 (76,0%)

As can be seen in Table 7, the level of education appears to determine to what extent the modern environment and architecture determine the image of Rotterdam. No significant differences however were found between these groups (Mann-Whitney U 1916,0; p=0,123).

Table 7: Modern environment and architecture amongst elements that determine the image of Rotterdam most set out against level of education

	Modern environment and architecture amongst elements that determine the image of Rotterdam most= yes
LBO or less (N=2)	2 (100,0%)
MBO (N=21)	14 (66,7%)
HBO (N=71)	51 (71,8%)
WO (N=63)	52 (82,5%)

Sex did not influence to what extent the modern environment and architecture determine the image of Rotterdam either (Chi Square p=0,550). This was also the case when comparing Rotterdam residents with Rijnmond region residents. For 78,1% (N=100) of the Rotterdam residents, the modern environment and architecture are amongst the elements that most determine the image of their city, while this was the case for 65,5% (N=19) of the Rijnmond region residents (Chi Square p=0,152).

Non-native Rotterdam residents were questioned about their motivations to move to this place. This way, the attractiveness of Rotterdam as a motivation to move there was evaluated. The following results were revealed:

'What was your most important motivation to move to Rotterdam?'

Education	35	(33.0%)
Work	15	(14,2%)
Relationship	17	(16,0%)
Attractiveness of the city	17	(16,0%)
Family or friends	14	(13,2%)
Other*	8	(7,5%)

*such as 'moved together with parents' or 'coincidence'

The results show that 16% of the population chose 'Attractiveness of the city' as their key motivation to move to Rotterdam (in which the architecture possibly is part of this motivation). The attractiveness of Rotterdam might have played a partial role in an unknown number of respondents as well.

These results do not show what elements of attractiveness were appealing to the respondents yet. When combining the responses from this question with those from the question on which elements make Rotterdam an attractive place (see directly below), 12 out of 17 respondents (71%) who chose attractiveness of the city to move to this place, mentioned 'The architecture' as (one of the) important element(s) of attractiveness of Rotterdam. Although it is a small sample, this result confirms the importance of architecture as an element of attractiveness of Rotterdam.

Which element(s) make(s) Rotterdam attractive for you?

The ambience	113	(72,0%)
The architecture	77	(49,0%)
Shopping opportunities	59	(37,6%)
Career opportunities	57	(36,3%)
The people living here	81	(51,6%)
Other: *_____	24	(15,3%)

* Such as culture (N=5), education, roots, sports, nightlife

The results of 'which elements make Rotterdam attractive for you?' that are presented above, show that almost 50% of the population appreciates the architecture as an attractive element of Rotterdam. Possibly, indirect attractiveness as a result of architecture is also present. Career opportunities, for example, might be generated in this city by the realization of iconic buildings. The theoretical framework showed that the realization of iconic architecture stimulates new economic activities in cities. New entrepreneurs, investors and companies can be attracted to the interesting modern image of Rotterdam as a place to settle. This creates new career opportunities to a wider range of people.

In the following table a comparison between residents of Rotterdam and residents of the surrounding Rijnmond region is displayed. This comparison reflects the sub question 'Is there a difference in the experience and importance of architecture between residents in Rotterdam and the surrounding Rijnmond area?'

Table 8: Influence of location (Rotterdam versus Rijnmond region) on most appreciated attractive elements in Rotterdam

	Group Total (N=157)	Rotterdam (N=128)	Rijnmond (N=29)	P value*
The ambience	113 (72,0%)	94 (73,4%)	19 (65,5%)	0,391
The architecture	77 (49,0%)	66 (51,6%)	11 (37,9%)	0,185
Shopping opportunities	59 (37,6%)	46 (35,9%)	13 (44,8%)	0,372
Career opportunities	57 (36,3%)	50 (39,1%)	7 (24,1%)	0,195
The people living here	81 (51,6%)	69 (53,9%)	12 (41,4%)	0,311
Other	24 (15,3%)	19 (14,8%)	5 (17,2%)	0,776**

*Chi Square used (or Fishers Exact test if expected count is less than 5). ** Fishers Exact test used

The results of the table above show no significant differences between residents of Rotterdam and residents of the surrounding Rijnmond region regarding the appreciation of attractive elements of Rotterdam. Although the result of the architecture element of attractiveness shows no significant difference (p=0,185) between the two groups, there appears to be a difference in percentages. 52% of Rotterdam residents appreciate architecture versus 38% of the region residents. This indicates that architecture might be more important to Rotterdam residents than to region residents. With a larger sample size this difference might have become significant.

In 'the city of architecture' it is expected that residents are aware and to a certain extent actively involved in architecture events or activities. To measure their passive versus active awareness of architecture in Rotterdam respondents were questioned what elements of architecture or architectural activities they knew in Rotterdam followed by the question 'how often do you visit these events or building for its architecture?' The results show that the knowledge of architecture (events) in Rotterdam varies greatly. The knowledge is not very high; 55,5% of the population knows 2 architecture events or activities in Rotterdam at most. Only 12% of the study population knows all the mentioned architecture elements in this city.
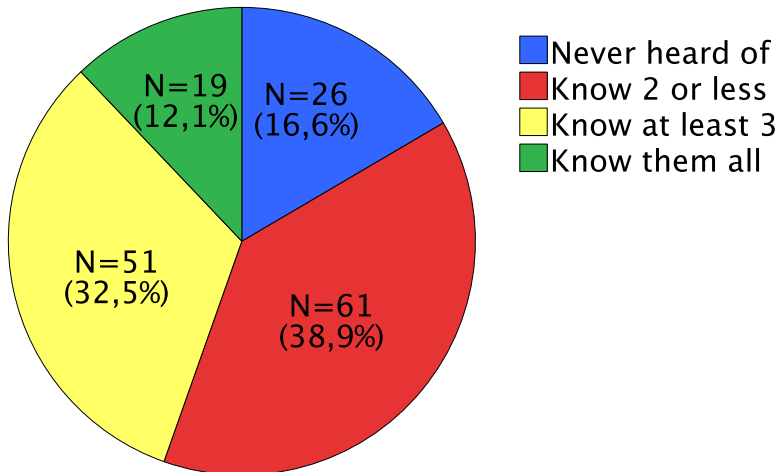
When respondents were asked how often they actually visit a building or architecture event yearly, the numbers showed to be relatively low. 35,7% of the respondents answer that they never visit a building or architectural event and 54,8% pays one to three visits a year. The remaining 9,5% declares to visit architectural events or buildings four or more times a year:

Figure 9: 'How often do you visit these kinds of events or do you visit a building for its architecture?'
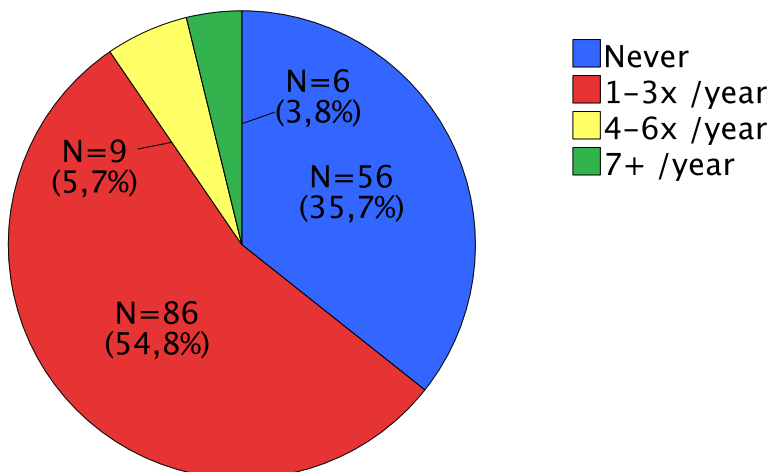
The results of the knowledge (passive awareness) and activity (active awareness) questions combined are presented in Table 9.

Table 9: Active and passive awareness

	Never heard of (N=26)	Know 1-2 (N=61)	Know 3-6 (N=51)	Know all (N=19)
No visits (N=56)	18 (32,1%)	31 (55,4%)	6 (10,7%)	1 (1,8%)
1-3 visits (N=86)	6 (7,0%)	29 (33,7%)	38 (44,2%)	13 (15,1%)
4-6 visits (N=9)	1 (11,1%)	1 (11,1%)	4 (44,4%)	3 (33,3%)
7+ visits (N=6)	1 (16,7%)	0 (0%)	3 (50%)	2 (33,3%)

Percentages represent the distribution within the 'number of visits' groups

Not surprisingly, as can be appreciated from the table, there appears to be a positive correlation between the number of known elements (passive awareness) and number of architecture related visits (active awareness). Correlation was tested using Spearman's rank coefficient and proved significant (ρ =0,494; p<0,0001).

A positive correlation between age (as a continuous variable) and passive awareness was found (ρ =0,278; p<0,0001). However, no correlation was found between age and active awareness (ρ =0,133; p=0,121). No correlation was found between level of education and event awareness (ρ =0,011; p=0,896) or event visits (ρ =0,114; p=0,154).

Despite these somewhat disappointing results regarding the active awareness of architectural elements in the city, respondents in general state that 'the unique buildings make the city center more attractive to visit and spend time'. 45,2% of the respondents do agree with this statement and another 26,9% completely agree with it (see Figure 10). Furthermore, a vast majority of the respondents (almost 90%) thinks 'the unique and impressive buildings contribute to the beauty of Rotterdam' (see Figure 11). The image creation in this city through architecture seems to be highly successful.

Figure 10: Table and Likert-plot 'The unique buildings make the city center more attractive to visit or to spend time.'

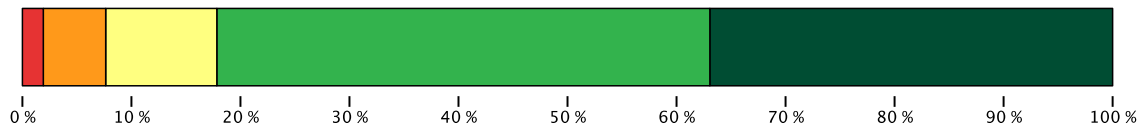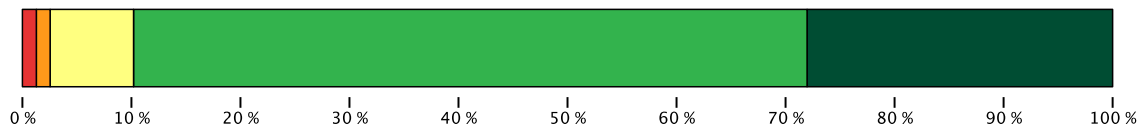| completely disagree	disagree	neutral	agree	completely agree
3 (1,9%)	9 (5,7%)	16 (10,2%)	71 (45,2%)	58 (36,9%)

Figure 11: Table and Likert-plot 'The unique and impressive buildings contribute to the beauty of Rotterdam.'

completely disagree	disagree	neutral	agree	completely agree
2 (1,3%)	2 (1,3%)	12 (7,6%)	97 (61,8%)	44 (28,0%)

In the promoting activities of residents, their image and engagement towards architecture in Rotterdam is reflected. Results from the question 'Where would you take a friend visiting Rotterdam for the first time?' that were presented in Figure 7 in the previous paragraph concerning *identity* are equally relevant in this paragraph. The results reveal that the study population is keen to show visitors the iconic buildings first to create an attractive image of Rotterdam. This eagerness to show its architecture might be unconscious, passive awareness. This result is interesting in relation to city marketing theory and image creation described in the theoretical part of this research. It shows that there is a strong indication that promoting a city through its icons is actually really effective, not only amongst external groups but amongst internal group (residents) as well.

Other results relate to the city marketing efforts of Rotterdam as well. Previously, in the theoretical framework, several sources showed the effects of city marketing in Rotterdam. The numbers of visitors and overnight stays increased in the last few years and residents of Rotterdam feel more connected to and satisfied with their city. In the empirical part of this thesis, respondents were asked on their opinion concerning the increase in tourism in the city center of Rotterdam. Citizens could experience this as an attractive element but it could also be experienced as a disturbing element in the city. The following two statements show that the opinion of residents towards the increase of tourism and therefore city marketing efforts is highly positive. The promotional activities of Rotterdam do not seem to affect the image residents have of their city in a negative way, it only improves this image, as can be seen in Figures 12 and 13.

Figure 12: Table and Likert-plot 'The increase in tourism in Rotterdam makes the city more lively and attractive.'

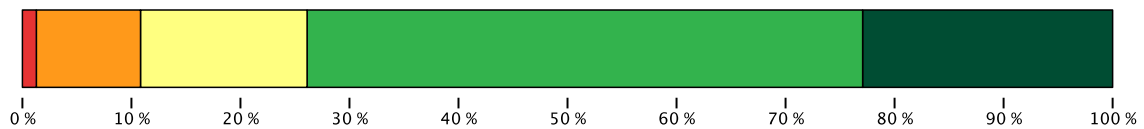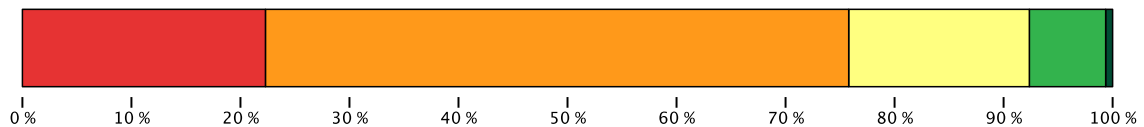| completely disagree	disagree	neutral	agree	completely agree
2 (1,3%)	15 (9,6%)	24 (15,3%)	80 (51,0%)	36 (22,9%)

Figure 13: Table and Likert-plot 'Because of the promotion of architecture in Rotterdam, the amount of tourists attracted is too high, this is annoying for the citizens of Rotterdam.'

completely disagree	disagree	neutral	agree	completely agree
42 (26,8%)	73 (46,5%)	34 (21,7%)	7 (4,5%)	1 (0,6%)

5.5   Urban regeneration

The third major theoretical concept operationalized in the previous chapter is *urban regeneration*. To diminish the negative image of Rotterdam as a dull, empty and ugly city, from the 1970s on, the urban policy was increasingly focused on regenerating the city center. Rotterdam needed to become more lively, attractive and vibrant. To realize these goals, high rise apartment building projects were planned to increase the amount of residents living in the city center, more cultural events were organized and in the last decade the city marketing activities were increased. The aim was to attract more residents (preferably young and with a high level of education), tourists and companies to the city. These elements would satisfy the citizens and would increase the willingness to live in this area. Creating icons serves as a regeneration tool for cities. Regeneration can be catalyzed by city marketing efforts. For that reason, this theoretical concept is interconnected to the concept of image creation described in the previous paragraph. Critics claim that creating icons is only temporarily effective. The increase in tourism can be a disturbing element for residents living in this area and the

realization of high rise buildings causes a decrease of livability in this place. Several of these elements are studied in this survey. To what extent do residents think the recently developed architecture makes the city center more attractive and livable? Does the increase in tourism makes Rotterdam a more attractive and lively place to live in? To what extent do the residents experience the increase in tourism and new large buildings as a disturbance?

First of all, as revealed in the paragraph on *image creation*, we have seen that the study population agrees mostly to the statement that 'the increase in tourism in Rotterdam makes the city more lively and attractive'. Almost 74% of the population agrees or completely agrees to this statement (Figure 12). The livability and attractiveness is increased because of the presence of tourist according to the respondents. The statement that 'Because of the promotion of architecture in Rotterdam, the amount of tourists attracted is too high, this is annoying for the citizens of Rotterdam' is in its turn strongly disagreed with by respondents in this survey (73,3%, see Figure 13). Tourists clearly are experienced as an asset to the city, at least at this moment. If tourism in Rotterdam increases in the future, this appreciation might change since the studies *Vers Beton* and *Rotterdam viert de stad!* (2016) reveal the fear of residents to lose their authenticity.

Further arguments against the realization of iconic architectural buildings could be that they decrease the livability and comfort of living in the city center. As can be seen in Figures 14 and 15, a vast majority of the respondents currently does not fear these inconveniences.

Figure 14: Table and Likert-plot 'These massive buildings are unattractive, they increase the unattractive and cold image of Rotterdam.'

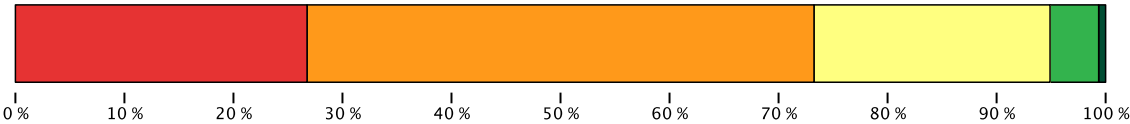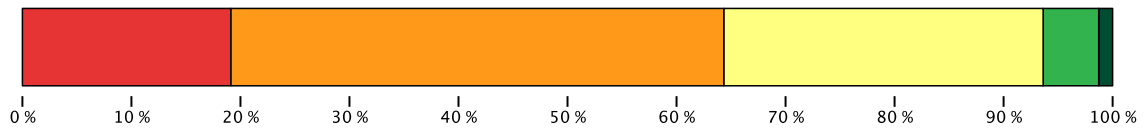| completely disagree	disagree	neutral	agree	completely agree
54 (34,4%)	80 (51,0%)	17 (10,8%)	5 (3,2%)	1 (0,6%)

Figure 15: Table and Likert-plot 'These buildings cause a lot of shadow, wind and disturb my view. They decrease the livability of the city.'

| completely disagree	disagree	neutral	agree	completely agree
35 (22,3%)	84 (53,5%)	26 (16,6%)	11 (7,0%)	1 (0,6%)

Since most of these iconic buildings are constructed in the city center it is interesting to compare the results from these four statements (presented in Figures 12-15) in different residential areas. Is there a difference in appreciation of architecture in the city center versus surrounding neighborhoods?

The following four tables and plots show the results when the residents are divided in a group living in the city center (N=23) versus residents living in other neighborhoods in Rotterdam (N= 89). The upper plot represents the city center and the lower plot in each image represents the residents of other neighborhoods.

Figure 16 shows that both residents of the city center and residents in other areas of Rotterdam for the most part (completely) agree with the statement that unique buildings make the city center more attractive. There is no significant difference between these two groups (Chi-square 2,916; p=0,572).

Figure 16: Table and Likert-plots 'The unique buildings make the city center more attractive to visit or to spend time.'

	completely disagree	disagree	neutral	agree	completely agree
City center	0 (0,1%)	1 (4,3%)	3 (13,0%)	8 (34,8%)	11 (47,8%)
Other neighbourhoods	1 (1,1%)	4 (4,5%)	6 (6,7%)	46 (51,7%)	32 (36,0%)
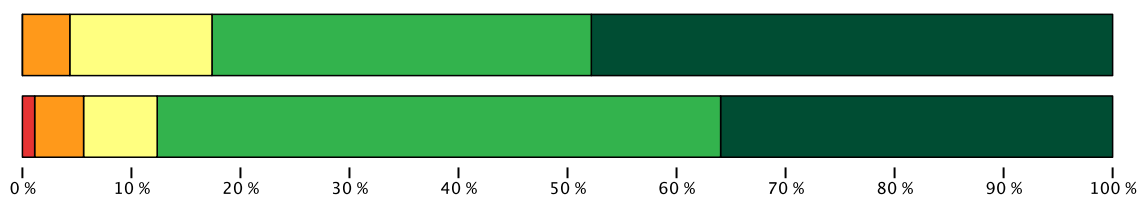
In Figure 17, a significant difference between the answers from both groups is seen (Chi-square 11,249; p=0,024). The significant difference appears to be mainly caused by a higher percentage of the city center residents (39,1%) that completely agrees that tourism is a positive asset (versus 18% amongst other Rotterdam residents). To a lesser extent, city center residents also appear more negative (17,4%) when compared to the other groups (6,7%). Living in the city center means that tourism is a more current aspect in everyday life and people also experience the costs of it.

Figure 17: Table and Likert-plots 'The increase in tourism in Rotterdam makes the city more lively and attractive.'

	completely disagree	disagree	neutral	agree	completely agree
City center	0 (0,0%)	4 (17,4%)	4 (17,4%)	6 (26,1%)	9 (39,1%)
Other neighbourhoods	1 (1,1%)	5 (5,6%)	13 (14,6%)	54 (60,7%)	16 (18,0%)
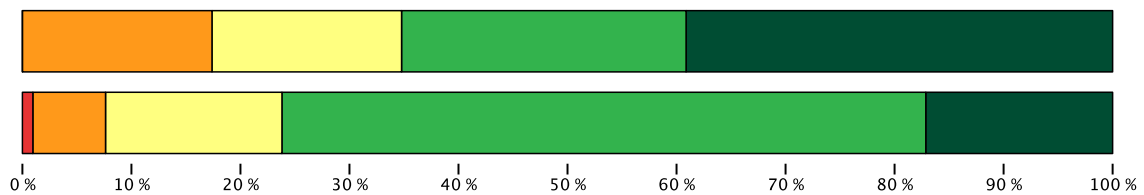
The following two figures concern the livability of place in the city center of Rotterdam. It is interesting to see that residents living in the city center all disagree (100%) to the statements that the new massive buildings are unattractive and cause discomfort in the center of Rotterdam (Figure 18). Respondents living in the surrounding neighborhoods are, in general, also negative towards this statement, but significantly less outspoken (Chi-square 8,176; p=0,043). Apparently they think the modern environment is highly attractive. There is a trend towards city center residents being more negative towards the statement in Figure 19 as well (Chi-square 9,159; p=0,057).

Figure 18: Table and Likert-plots 'These massive buildings are unattractive, they increase the unattractive and cold image of Rotterdam.'

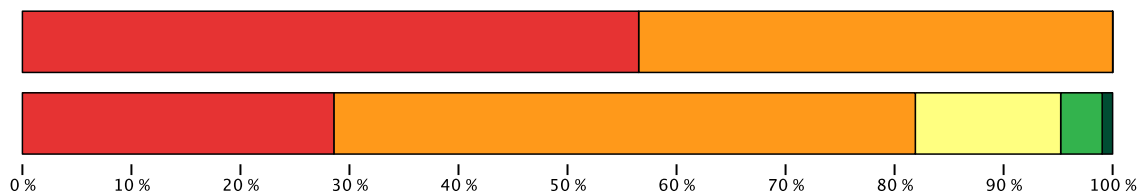|	completely disagree	disagree	neutral	agree	completely agree
City center	13 (56,5%)	10 (43,5%)	0 (0,0%)	0 (0,0%)	0 (0,0%)
Other neighbourhoods	26 (29,2%)	48 (53,9%)	11 (12,4%)	4 (4,5%)	0 (0,0%)

Figure 19: Table and Likert-plots 'These buildings cause a lot of shadow, wind and disturb my view. They decrease the livability of the city.'

	completely disagree	disagree	neutral	agree	completely agree

City center	11 (47,8%)	9 (39,1%)	3 (13,0%)	0 (0,0%)	0 (0,0%)
Other neighbourhoods	17 (19,1%)	47 (52,8%)	17 (19,1%)	7 (7,9%)	1 (1,1%)
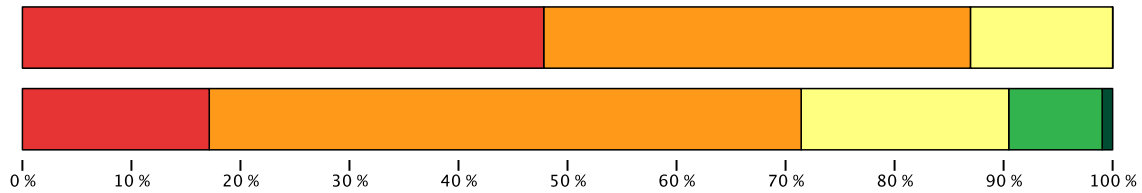
When combining the results from these four figures, the residents living in the city center appear to have a higher appreciation for the iconic architecture in that area compared to residents living in other neighborhoods. These residents experience more comfort in the city center compared to other residents living in Rotterdam and appreciate tourists in the city center more than other Rotterdam residents. This result is cohesive with the expectation that residents in the city center choose to live in this area for its attractive environment of modern architecture.

Based upon the results presented in this chapter, the hypotheses III, IV and VI can be accepted ('The iconic high-rise residence buildings make the 'empty' city center of Rotterdam attractive to settle in', 'The iconic architecture in Rotterdam creates a pleasant environment to live in for residents' and 'The architectural events make Rotterdam an attractive place to live in').

5.6   The vision of Rotterdam on architecture

The results of this empirical part are based on the theoretical concepts studied in this thesis. The theoretical concepts are reflected in the urban policy documents described in the theoretical chapter. The main policy document used in this case is the *Achitectuurnota* published in 2010. The concepts *image, identity* and *regeneration* in relation to architecture are the focal points in this document. In this chapter, the results of the empirical research appear to support the main points of this vision document that has been described in previous paragraphs. Many hypotheses stated in the theoretical framework were answered in this chapter.

In the analysis, results of the empirical research revealed that iconic architecture is not only of interest for attracting tourism but also to residents in the city. Over 77% of the respondents declare to appreciate the architecture in the city center. Over 82% of the respondents think that the unique buildings make the city center a more attractive place to spend time. And it is strongly agreed by the study population that the unique and impressive buildings contribute to the beauty of the city (89,9%). Furthermore, respondents mainly disagree that these buildings are a disturbing element in

center and that it would decrease the livability of place (75,5% of the respondents). Also, at this moment tourism is appreciated as an element that makes the city center more lively and attractive.

The iconic architecture is indeed an important element in forming a strong place identity for residents as was stated in the urban policy of Rotterdam. Residents feel proud of their city due to its unique iconic buildings and the majority of respondents that decided to move to Rotterdam for its attractiveness stated that the architecture was their motivation to do so. Architecture is one of the most important elements in the sense of pride of respondents. Only the no-nonsense mentality and the port and the river Maas make them more proud.

Based upon these results, the hypotheses I and II can be accepted ('Iconic architecture is important to attract residents to Rotterdam' and 'Iconic architecture is an important element in forming a strong place identity for residents.')

Architecture is one of the most important cultural elements that make the city an attractive place to live but it is not the most important element. Respondents appreciate its festivals most (57,3%), architecture and film come next (both 53,5%). Although the study population appreciated the architecture of its city as an attractive element of the place, a limited number of residents is actively involved in the architectural events (limited active awareness). There appears to be a positive correlation between age and passive awareness of architectural events. No other relation between demographics and (active and passive) awareness of architectural events was found. It will probably be hard for policy makers to interest a wider range of residents for architecture events in the future. On the other hand, the interest for iconic unique buildings visible in public space seems to be high and much appreciated. At this moment, the awareness of residents towards architecture remains mostly passive though. Hypothesis VII (Residents' awareness of the architectural environment in Rotterdam is not only passive. They are often participating in activities) is therefore rejected.

The cultural economic effects have not been measured in this empirical part of the study, but reflecting to the literature and reports of an increasing number of companies settling in Rotterdam, the city marketing and promoting strategies seem to be effective. New residents are attracted to the city for its interesting residential high rise buildings and for the settlement of companies in this place. These aspects eventually stimulate the economic activity in Rotterdam and help the city to regenerate.

Based upon the abovementioned literature study performed in Chapter 3, hypothesis V is accepted ('The characteristic architecture in Rotterdam is an important element to make residents willing to contribute to the economy').

6. Conclusions

6.1 Iconic architecture as a city marketing tool

The main concepts studied in this research are the iconic architecture and its influence to residents of the place and the influence of city marketing. Rotterdam and its residents served as the case study in this research. A current trend in promoting strategies is the use of city marketing techniques to put a place on the international map more firmly and increase its economic activities. City marketing and the realization of unique iconic buildings to make the place more attractive are important elements in the current urban policy of Rotterdam. A tool to promote the city internationally and to increase its economic activities is the promotion of iconic architecture to create a symbolic image that is easily spread via the media. Targeted groups are often tourists and potential companies, but a third important group consists of the residents of this place. Critics claim that city marketing can diminish the sense of place and cohesion of a place, which affects the residents in the place. On the other hand, promotion of icons and creation of a strong image of a place can be beneficial since it creates a sense of pride and engagement amongst residents. Residents, the internal group, seemed to be studied less than external groups in this concern. The relevance of satisfying and attracting the internal group in a city, though, is equally important as satisfying and attracting the external groups. This argument motivates the choice to focus on the residents of the city of Rotterdam in this study. The research question formulated in this thesis will be answered in this chapter: *Is the new iconic architecture as valuable to the residents of Rotterdam, as stated in the policy of this city?*

This thesis is divided in two research parts. First, a theoretical research is being executed. This part contains several theoretical concepts based on relevant literature. Multiple expected results are extracted from this theoretical part. Second, an empirical research part was conducted by examining the expected results through a survey amongst residents of Rotterdam and its surrounding Rijnmond region.

6.2 Conclusions of the theoretical framework

What is the vision of the city council of Rotterdam to realize iconic buildings in the city? This is the sub research question that needed to be answered in the theoretical part of this research. Reflecting to the theoretical part of this thesis, several conclusions can be drawn. An important element in the theoretical research was to study the vision of the municipality of Rotterdam concerning urban policy on the development of iconic architecture in the city. The main policy document studied in the theoretical framework is the *Architectuurnota* (2010), which contains the vision of Rotterdam towards the development of architecture and urban development. The central concepts in this

document are *identity*, *image* and *regeneration* in relation to architecture. In this research the targeted study population consists of the residents of a city. This research aims to reveal to what extent the vision of policymakers in Rotterdam is cohesive with the experience, behavior and awareness of residents living in this city or the surrounding area. Therefore, in the theoretical framework, the concepts reflected in Rotterdam's vision together with the concept of *iconic architecture* are addressed extensively. Throughout this theoretical framework, hypothetical conclusions based on the theory were stated. Several of these hypotheses are formulated as survey questions in the empirical part of this study which will provide us with an indication of the opinion of residents compared to the vision of the city council.

Iconicity is a much debated concept in architecture. Iconic buildings are unique extravagant buildings visible in the public space Cities are increasingly keen in developing unique iconic architecture as a promotional image of their city and to place the city more firmly on the international map. The iconic building needs to be an outstanding unique structure but it also has to fit in its environment. In this way it can become a strong image for a city and part of citizens' *identity of place*. Identity of place means that residents experience a sense of belonging and pride towards their place of living. This concept is increasingly important for urban planners aiming to create a living environment to which people can relate and are willing to contribute to. Besides identity and image creation, iconic buildings can cause an increase in economic activity in a place. The Bilbao effect is the most famous example of the power of iconic buildings. Other examples of cities experiencing benefits from realizing iconic architecture are Barcelona, Manchester, Belfast and Kuala Lumpur. In Rotterdam, buildings like the Markthal, Central Station and the high rise buildings at Kop van Zuid are iconic structures which can cause an increase in tourism, economic activity and a sense of place identity for this city. This catalyzing effect of iconic buildings leads to the next concept described in the theoretical framework: *urban regeneration*.

Regeneration is a relevant concept in the policy of Rotterdam. For a long period of time, the image of the city has been negative. From the 1970s on the city council is active in restoring the image of Rotterdam to an attractive and recognizable one. As mentioned before, iconic architecture can have a catalyzing effect in improving the socioeconomic circumstances in cities. Iconic buildings can promote the city when the images are spread through the media. The effect is that more tourists are attracted, new companies want to settle in an interesting modern environment and the residents will experience the place as a more livable and vibrant place which is appealing to spend time in. These aspects eventually will stimulate the economic activity of a place. Which in its turn stimulates more entrepreneurialism.

Regeneration of an urban environment is an important goal in *city marketing* efforts. City marketing is also known as place marketing. City marketing involves the practice of putting a geographical place into the market aiming to change, maintain or create attitudes or behavior towards a particular place. The practice of place marketing aims to attract business, tourists or other external groups to a city. A third focus group concerns the residents of the place (Kotler, 1994, pp. 654-655). Promoting the attractive *image* of a city, in this case by iconic architecture, is one of the main activities of marketing practices in Rotterdam. Due to globalization, marketing a place is increasingly important to compete with other transnational cities who want to put their image firmly on the map. Cities need distinguish themselves with unique assets like buildings, events or cultural aspects to beat the competition and attract external groups to the place. The easy access to media and internet globally provide the public the opportunity to discover geographical places worldwide. The threat of globalization for cities is that they might lose their uniqueness due to copying techniques and design from other places.

In Rotterdam we have seen that regeneration through city marketing strategies (and the use of iconic architecture as a promotional image) has been effective in the last few years. Figures by the municipality and Rotterdam Partners have shown that tourism has increased as well as the amount of companies settling in Rotterdam. Reflecting to the vision documents published by the municipality, we can conclude that their activities have been effective in realizing their vision. Comparing the vision of Rotterdam to the literature studied in this thesis, Rotterdam seems to be on the right track. All concepts are supported by several references containing practical examples of its effectiveness. Rotterdam has an increasingly popular and appealing image to external groups (tourists and companies), the municipality documents and independent resources in this thesis show, and the residents of the place are positive towards their renewed city center compared to the research by Wentholt executed in 1969. The only threat to Rotterdam is the fear to lose the authenticity and uniqueness and become flooded by tourists like other large international famous cities experience.

6.3   Conclusions from the empirical research

Do the residents of Rotterdam experience iconic architecture as a relevant element in the city, or is it just the vision of the city council? Does the iconic architecture in Rotterdam, influence the behavior of residents in any way? Is there a difference in the experience and importance of architecture between residents in Rotterdam and the surrounding Rijnmond area? These are the sub research questions which needed to be dissolved in the empirical part of this thesis.

Several conclusions can be stated based upon the analysis of the empirical part of this thesis. Overall, the survey results show that the residents of Rotterdam appreciate the architecture in this city, it is a relevant element in the city and it makes residents feel proud, more engaged and attracted to the place. It is interesting to see that residents of this city use the iconic architecture most often as a promotional attraction when showing relatives around in Rotterdam. This outcome is consistent with city marketing strategies as described in the theoretical framework. The modern environment and architecture is also the element that represents their *image* of Rotterdam best.

The popularity of icons as a promotional tool for the city does not mean that the architecture is the most important attractive element for residents themselves. The analysis showed that people chose architecture less often than the ambience or relatives living in this place as an attractive element. But when they chose attractiveness as an element to move to Rotterdam, the architecture is the most relevant aspect in this attractiveness of the city.

The active awareness and participation of residents in architecture is lower than expected. Most respondents don't know any or maximum two architectural events or activities in this city. The participation of the study population is low as well. 35% never visits such activities or events, 55% pay one to three visits to architecture events a year. Only a small percentage is more actively participating in the architecture events. These results are slightly surprising when looking at the appreciation and sense of connectedness to architecture in the general results. One might expect that people are more actively involved in architecture events when they appreciate it highly. On the other hand, architecture is known for its relatively narrow public since it needs certain knowledge to delve into architecture. The awareness amongst residents seems to be more passive than active. The experience is positive, the participation is low.

Rotterdam residents seem to love the increase in tourists visiting the city; it makes the city more lively and attractive. Residents in the city center are confronted with tourists every day and which could eventuallybecome a burden. The experience of the effects of iconic architecture and city marketing seems to be highly positive. At this moment, residents do not agree that the increased tourism is disturbing in this study. Like mentioned in the theoretical part of this thesis, promotion of the city attracts more tourists which makes the city a more appealing place. On the other hand, as described in the theoretical framework, a recent study by *Vers Beton* and *Rotterdam viert de stad!* (2015) concerning the opinion of Rotterdam residents on the city center revealed a critical note towards the increasing popularity of the city. Although the empirical research in this study does not reveal this fear, according to other research some residents fear that Rotterdam will lose its uniqueness and will become too touristic. People fear to lose 'their city'.

The iconic architecture is strongly beneficial for the physical appearance and beauty of Rotterdam. Almost the complete population agrees or strongly agrees with this statement. It causes a great sense of pride amongst the residents in this place. The urban policy of Rotterdam to create a modern iconic environment to make the place more appealing seems to be strongly supported by its residents. The behavior of residents is not strongly influenced by the architecture of the city. As mentioned before, residents preferably show friends the modern and iconic environment when visiting. When it comes to actual behavior towards architecture events and activities, residents in general are less interested and active in visiting these elements of the city than expected. There is no significant difference in the appreciation and behavior of Rotterdam residents versus residents living in the Rijnmond region.

In conclusion, the results of the empirical research show that the vision and goals of the urban policy in Rotterdam are very well executed with respect to the residents of this place. The population is supportive towards the city marketing efforts and investments in large (and expensive) building projects to make Rotterdam a more attractive place in the world. The urge to diminish the image of Rotterdam as a grey, cold and unattractive city is not only encouraged by the local government but is also strongly supported by its residents. Rotterdam should continue its urban policy concerning city marketing and realizing iconic buildings. In a passive sense, the iconic architecture is as valuable to the residents as assumed in the urban policy of Rotterdam. The beauty of Rotterdam is highly increased by these structures. When it comes to activity, architecture is not as valuable to residents as assumed in the urban policy. Overall, Rotterdam should be highly satisfied by what is achieved over the last decades. The image of Rotterdam is instantly improving and the city is booming in the media. As long as the residents can relate to this image and feel comfortable in 'their' city, Rotterdam should continue their strategies.

6.4   Reflection and limitations

When reflecting on the theoretical and empirical research in this study, several aspects are noticed. During the process of writing this thesis, there appeared to be an increasing interest in this research topic. During the months this study has been executed, an increasing amount of publications concerning the popularity and attractiveness of Rotterdam emerged. Because of the current developments, this is an interesting and relevant topic to be studied in the coming years extensively. There are some limitations regarding the empirical research of this study that can be improved in further research. One of these empirical limitations is the size of the collected data sample. Though sample size fulfills the requirements of this thesis, a larger sample would reduce the margin of error Rotterdam. Another limitation is that the distribution of the demographic characteristics of the study

sample differs from those of the general population in Rotterdam. More respondents have a high level of education and are aged between 26 to 39 years than the general population in Rotterdam. On the other hand, this sample reflects the target group Rotterdam aims to attract to the city a bit more. Therefore it is interesting to see what the opinion of this group is regarding attractiveness of Rotterdam. Arguably, more demographics could have been collected to uncover potential factors that influence the opinions of the respondents. Furthermore, the research will improve when the answer categories are adjusted to less 'multiple answers possible' options. There will be clearer results, less equally divided, when respondents need to choose one answer instead of multiple answers.

This study contains elements of several study types and methods. It contains elements of *contingent valuation method* since a survey was conducted amongst residents of the city. The respondents answered questions concerning their opinion towards iconic architecture and city marketing. A characteristic of contingent valuation method is that respondents are asked what their willingness to pay is for a certain good to measure their valuation of it. Respondents in this survey are not asked what their willingness to pay is for iconic architecture or more city marketing efforts, the only question that comes close to a valuation question is the one in which respondents needed to answer if they agree on the expenses Rotterdam makes for iconic architecture projects or that the money should be spend on other aspects. This study also contains elements of a *cost-benefit analysis*. This study aims to reveal the benefits of the development of iconic architecture in Rotterdam for residents. In the empirical part of the research the aim is to measure whether respondents experience the downsides over the benefits of these projects of vice versa. Do the benefits weigh out the costs in this case? To provide this study with a better structure, the strategies of one certain research method should have preferably been followed . The economic and financial aspects play a minor role in this research since it is more focused on the experience, behavior and engagement of the study population. Using one of the economic study methods mentioned here would have delivered better results on the economic aspects of this case. This can be recommended in further research to this topic. In this case, the purpose of the study was not to measure the economic value on itself, revealing the public value was the main focal point in this case.

Future studies could focus more on cultural economic literature and literature concerning creative cities.

6.5 Recommendations

An increasing amount of publications concerning the influence of architecture and place marketing on cities emerge. This field is constantly developing. In this thesis, only the case of Rotterdam has been studied. Further research is warranted in comparable cities to study the most effective urban policies and marketing strategies. Concerning this case, it will be interesting to add more (interesting) independent variables in the empirical research. For example, different racial groups should be studied (since Rotterdam counts over 150 nationalities). In this survey respondents are not questioned about their nationality. Including this variable can reveal interesting data concerning the connectedness of different cultures to this topic. To further investigate the economic results of city marketing, future research should contain a cost-benefit analysis or use the contingent valuation method. The financial side of this topic is equally important to the urban policy makers as the public opinion. Without the economic resources it is hard to finance marketing campaigns and new architecture projects planned in Rotterdam.

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Attachments

I. Survey translated in English

From the hypotheses, mentioned previously, the following survey-questions are distracted. The survey consist of several parts. The first part contains general questions about personal data from respondents, the second part contains questions on the experience of residents towards iconic architecture, the third part contains questions on the image residents have of Rotterdam, in the fourth part behavioral questions towards architecture are stated and finally questions about engagement and identity of residents towards their city are formulated.

General questions:

1. What is your year of birth?

   Year of birth: _ _ _ _

2. What is your gender?

   a. Male

   b. Female

3. Education Level

   a. LBO (or lower)

   b. MBO

   c. HBO

   d. WO

4. In what sector are/were you working?

   a. Financial sector

   b. Healthcare sector

   c. Cultural sector

   d. Building sector

   e. Hospitality industry

   f. Technical sector

   g. Administrative sector

   h. Other: _____

5. What is your home situation?

   a. One-person household

   b. Multi-person (partners) household without kids

    c. Multi-person (partners) household with kid(s)

    d. One-parent household

    e. Multi-person household other

6. What is your residency?

    a. Rotterdam. In the neighborhood_____(choice can be selected from a dropdown menu with all neighborhoods in Rotterdam.

    b. Regio Rijnmond, in: _____ (write down residency). Go to question 8.

7. Since when do you live in Rotterdam?

    a. I have lived here my whole life. Go to question 9

    b. _ _ years

8. What was your most important motivation to move to Rotterdam? (choose 1)
    a. Education

    b. Work

    c. Relationship

    d. Attractiveness of the city

    e. Family or friends

    f. Other, namely: _____

9. Which elements makes this city attractive for you? (Multiple answers possible)

    a. The ambience

    b. The architecture

    c. Career opportunities

    d. The people living here

    e. Other: _____

10. Which cultural elements do you appreciate most in Rotterdam? (Multiple answers possible)

    a. Festivals

    b. Museums

    c. Architecture

    d. Sports events

    e. Theater

    f. Concerts

    g. Film

11. Which element(s) determines your image of Rotterdam most?:
    a. Port

    b. Cultural diversity amongst residents

    c. Modern environment and architecture

    d. Shopping center

    e. Sports clubs

    f. Bombardment of the Second World War

    g. A city center with few residents

    h. Cultural events

12. Which elements of the city do you feel most engaged to and makes you feel proud of Rotterdam? (Rank from 1 (high) to 8 (low))

    a. The no-nonsense mentality

    b. The port and the Maas river

    c. Diverse broad diversity of cultures in Rotterdam

    d. Business

    e. Nightlife

    f. The architecture

    g. A sports club

    h. Shops

13. Where would you take a friend visiting Rotterdam for the first time? (Rank from 1 (high) to 7 (low))

    a. Museum Boijmans van Beuningen and the Kunsthal

    b. De Kop van Zuid, De Markthal and Central Station

    c. The Euromast

    d. Spido, to see the Maas and the port

    e. Nightlife

    f. Shopping in the city center

    g. A soccer game of Feyenoord, Sparta or Excelsior

14. Are you aware of the architecture elements in Rotterdam? (Dag van de Architectuur, Open Monumentendag, De Architectuur Biënnale Rotterdam, Het Nieuwe Instituut, lectures of Architectuur Instituut Rotterdam (AIR), tours of De Rotterdam Tours and Archiguides?)

a. Never heard of it

b. I know 2 or less of these events

c. I know at least 3 of these events

d. I know all of these events

15. How often do you visit these kind of events or do you visit a building for its architecture?

a. Never

b. 1-3 times a year

c. 4-6 times a year

d. More than 7 times a year

16. In the following section several statements will be mentioned. These statements concern the influence of the new iconic buildings (for example the Red Apple, De Rotterdam, Markthal, Central Station) to the livability and engagement in Rotterdam. For each statement, choose to what extend you agree with it in a range from 1 to 5.

1 = 'completely disagree'
2= 'disagree'
3 = 'neutral'
4 = 'agree'
5 = 'completely agree'

I. 'The unique buildings make the city center more attractive to visit or to spend time.'					
II. 'The increase in tourism in the Rotterdam makes the city more lively and attractive.'					
III. 'These massive buildings are unattractive, it increases the unattractive and cold image of Rotterdam.'					
IV. 'These buildings cause a lot of shadow, wind and disturb my view. It decreases the livability.'					
V. 'Because of the promotion of architecture in Rotterdam, the amount of tourists attracted is too big, this is annoying for the citizens of Rotterdam.'					
VI. 'The unique impressive buildings contribute to the beauty of Rotterdam.'					
VII. 'I am not interested in architecture. The city should spend its money on something else.'					
VIII. 'I appreciate the new iconic buildings in Rotterdam, it makes me proud to live in (or near) "The Architecture Capital of the Netherlands".'					

II. Original survey in Dutch – as presented to respondents

Rotterdam 'De Architectuurstad van Nederland'

Deze enquête is onderdeel van mijn master thesis voor de studie Cultural Economics and Entrepreneurship aan de Erasmus Universiteit Rotterdam. Zonder al te veel prijs te geven, en daarmee uw antwoorden te beïnvloeden, gaat deze thesis kort samengevat over de beeldvorming van Rotterdam als 'architectuurstad'. De laatste tijd is deze stad veel in het nieuws geweest en werd Rotterdam gekroond tot internationale hotspot om te bezoeken, met name vanwege haar nieuwe iconische gebouwen als De Rotterdam, de Markthal en het nieuwe Centraal Station. Het doel van dit onderzoek is te kijken hoe u als bewoner van Rotterdam of Regio Rijnmond, de architectuur van deze stad ervaart.

Alle verzamelde gegevens in dit onderzoek worden volledig anoniem behandeld en opgeslagen. Indien u vragen heeft of benieuwd bent naar de resultaten kunt u mailen naar: 323944ng@student.eur.nl.

17. Wat is uw geboortejaar?

Geboortejaar: 19_ _

18. Wat is uw geslacht?
   a. Man
   b. Vrouw

19. Wat is uw opleidingsniveau?

   a. LBO (of lager)

   b. MBO

   c. HBO

   d. WO

20. In welke sector bent u werkzaam (geweest)??

   a. Financiële sector

   b. Zorg sector

   c. Culturele sector

   d. Bouw sector

   e. Horeca

   f. Technische sector

   g. Administratieve sector

   h. Anders, nl. _____

21. **Hoe ziet uw huishouden er uit?**

a. Eenpersoonshuishouden

b. Meerpersoonshuishouden (partners) zonder kinderen

c. Meerpersoonshuishouden (partners) met kind(eren)

d. Eenouderhuishouden

e. Meerpersoonshuishouden overig

22. Wat is uw huidige woonplaats?

a. Rotterdam. In de wijk: _____ (keuze in dropdown uit alle wijken in Rotterdam)

b. Regio Rijnmond, in de plaats: _____ . Ga naar vraag 8

23. Hoe lang woont u al in Rotterdam (of de regio)?

a. Ik heb hier altijd gewoond. Ga naar vraag 9

b. _ _ jaar

24. **Wat was uw (belangrijkste) motivatie om naar Rotterdam te verhuizen? (Kies 1 motivatie)**

a. Opleiding

b. Werk

c. Relatie

d. Aantrekkelijkheid van de stad

e. Familie of vrienden

f. Anders, namelijk _____

25. Welke elementen maken Rotterdam aantrekkelijk voor u? (Meerdere antwoorden mogelijk)

a. De sfeer

b. De architectuur

c. Carrière mogelijkheden

d. De mensen die er wonen

e. Anders, namelijk _____

26. Welk(e) culturele element(en) waardeert u het meest in Rotterdam? (meerdere antwoorden mogelijk)

a. Festivals

b. Museums

c. Architectuur

d. Sportevenementen

    e.   Theater

    f.   Concerten

    g.   Film

27. Door welk(e) element(en) wordt het beeld dat u van Rotterdam heeft het meest bepaald? (meerder antwoorden mogelijk)

    a.   De haven

    b.   De culturele diversiteit onder bewoners

    c.   De moderne omgeving en de architectuur

    d.   Winkelen

    e.   Sportclubs

    f.   Bombardement Tweede Wereldoorlog

    g.   Een binnenstad met weinig bewoners

    h.   Culturele evenementen

28. Met welke elementen voelt u zich het meest verbonden en waar bent u trots op in Rotterdam? (rangschik de opties van 1 (hoog) t/m 7 (laag))

    i.   De no-nonsense-mentaliteit   ___

    j.   De haven en de Maas   ___

    k.   De grote diversiteit aan culturen in Rotterdam   ___

    l.   Het bedrijfsleven   ___

    m.   Het uitgaansleven   ___

    n.   De architectuur   ___

    o.   Een sportclub /h. winkels, winkelcentrum

29. Waar zou u een vriend(in) mee naartoe nemen als hij/zij voor de eerste keer Rotterdam bezoekt? (rangschik de opties van 1 (hoog) t/m 7 (laag))

    a.   Museum Boijmans van Beuningen en de Kunsthal   ___

    b.   De Kop van Zuid, De Markthal en het nieuwe Centraal Station   ___

    c.   De Euromast   ___

    d.   Speedo, om de haven en de Maas te bewonderen   ___

    e.   Het uitgaansleven   ___

    f.   Winkelen in het centrum   ___

g. Een voetbalwedstrijd van Feyenoord, Sparta of Excelsior   ___

30. Bent u zich bewust van de volgende architectuur- gerelateerde evenementen en tentoonstellingen in Rotterdam: de Dag van de Architectuur, Open Monumentendag, De Architectuur Biënnale Rotterdam, Het Nieuwe Instituut, lezingen van het Architectuur Instituut Rotterdam (AIR), rondleidingen van De Rotterdam Tours en Archiguides?

a. Nooit van gehoord.

b. Ik ken er hooguit 2.

c. Ik ken er minstens 3

d. Ik ben volledig op de hoogte van gerelateerde activiteiten

31. Hoe vaak bezoekt u dergelijke evenementen of bezichtigt u een gebouw vanwege de architectuur?

a. Nooit

b. 1-3 keer per jaar

c. 4-6 keer per jaar

d. Meer dan 7 keer per jaar

In het laatste gedeelte van de enquête worden 8 stellingen weergegeven. Deze stellingen hebben betrekking tot de nieuwe iconische gebouwen en de invloed hiervan op bewoners van Rotterdam. (Onder iconische gebouwen worden gebouwen zoals de Red Apple, De Rotterdam, De Markthal en het Centraal Station verstaan.). Kruis voor iedere stelling aan, in welke mate u het ermee eens bent:

1 = 'geheel mee oneens'
2= 'mee oneens'
3 = 'neutraal'
4 = 'mee eens'
5 = 'geheel mee eens'

	1	2	3	4	5
'De unieke gebouwen in de stad maken het centrum aantrekkelijker om te bezoeken of tijd door te brengen.'					
'De toename van het aantal toeristen in de stad maakt Rotterdam levendiger en aantrekkelijker.'					
'Deze enorme nieuwe gebouwen zijn niet mooi, het maakt Rotterdam juist onaantrekkelijker en killer.'					
'De leefbaarheid wordt aangetast door deze nieuwe gebouwen in Rotterdam. Ze zorgen voor veel wind, schaduw en een belemmering van uitzicht.'					
'Door het promoten van architectuur in Rotterdam worden teveel toeristen aangetrokken. Dit is een ergernis voor bewoners.					

'De unieke en indrukwekkende gebouwen in Rotterdam dragen bij aan de schoonheid van de stad'					
'Ik ben niet geïnteresseerd in architectuur. Het bestuur zou moeten investeren in andere zaken.'					
'Ik waardeer de nieuwe iconische gebouwen in Rotterdam, de architectuur maakt me trots om in "de Architectuurstad van Nederland" te wonen.'					

Hartelijk dank voor het invullen van de enquête!

III. Complete survey results

The first questions (question 1 to 7) provide the characteristics of the research population. Questions 8 and 9 address the motivation to move to Rotterdam investigate and the elements of attractiveness in this city. Further questions concern the appreciation of cultural elements, the sense of pride and engagement (identity theory) for certain elements in the city, the active and passive awareness of architecture in Rotterdam and the promotional efforts and appreciation of architecture amongst residents. The results of each question are reflected in numbers and percentages. From question 9 onwards, often the results are reflected in a chart containing the results as percentages and numbers.

Descriptive variables

1.   Age (N=157)

Age categories:
1 (25 or under)	28	(17,8%)
2 (26-39)	76	(48,4%)
3 (40-55)	28	(17,8%)
4 (56 or over)	25	(15,9%)
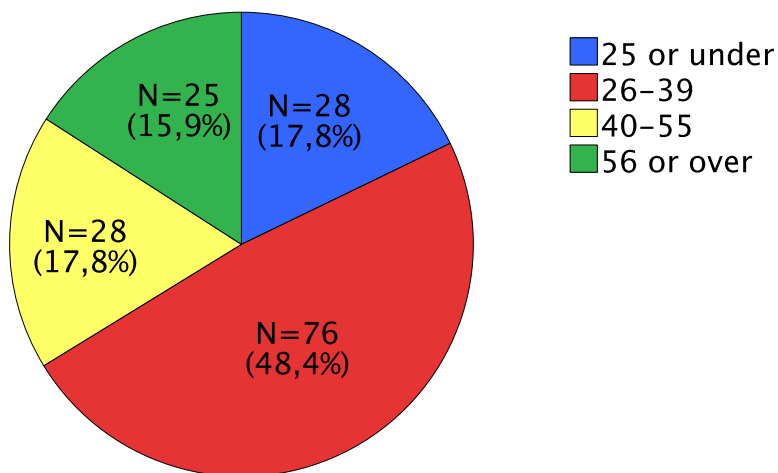
2.   Gender (N=157)

Male	76	(48,4%)
Female	81	(51,6%)

3.   Education Level (N=157)

LBO (or less)	2	(1,3%)
MBO	21	(13,4%)
HBO	71	(45,2%)

WO   63   (40,1%)

N=2
(1,3%)

N=21
(13,4%)

N=63
(40,1%)

N=71
(45,2%)

Legend:
- LBO of lager
- MBO
- HBO
- WO
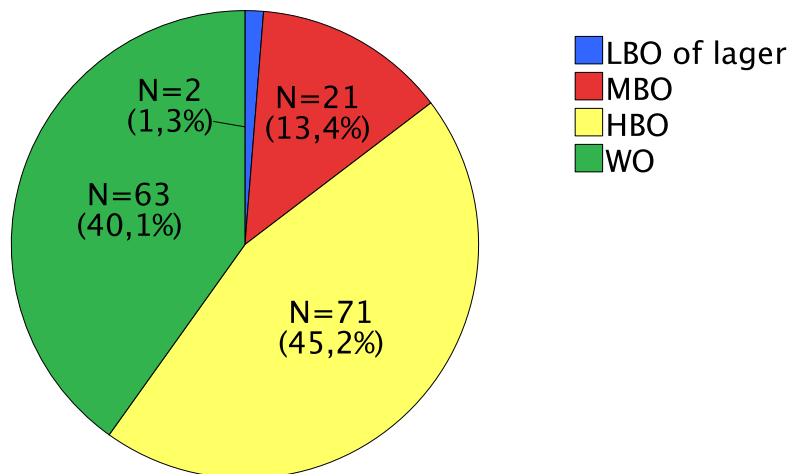
4.   In which sector are/were you working? (N=157)

Accountancy and Finance	14	(8,9%)
Business, Consulting and Management	7	(4,5%)
Construction	6	(3,8%)
Cultural	34	(21,7%)
Education	7	(4,5%)
Healthcare and welfare	32	(20,4%)
Leisure, Sports and Tourism	11	(7,0%)
Public administration	7	(4,5%)
Technical and ICT	21	(13,4%)
Transport and Logistics	5	(3,2%)
Other	13	(8,3%)

5.   Household composition (N=157)

One-person household	57	(36,3%)
Multi-person (partners) household without kids	36	(22,9%)
Multi-person (partners) household with kid(s)	44	(28,0%)
Single-parent household	4	(2,5%)
Multi-person household other	16	(10,2%)

6.   Residency (N=157)

Rotterdam	128	(81,5%)
Centrum	23	(14,6%)
Kralingen	20	(12,7%)
Crooswijk	4	(2,5%)
Hillegersberg-Schiebroek	12	(7,6%)
Delfshaven	14	(8,9%)
Charlois	3	(1,9%)
Feyenoord	5	(3,2%)

Hoek van Holland	0	(0%)
Hoogvliet	0	(0%)
IJsselmonde	1	(0,6%)
Noord	18	(11,5%)
Overschie	3	(1,9%)
Pernis	0	(0%)
Prins Alexander	9	(5,7%)
Rozenburg	0	(0%)
Unknown	45	(28,7%)

Rotterdam region (Rijnmond)	29	(18,5%)
Schiedam	8	(27,6%)
Capelle aan den IJssel	4	(13,8%)
Berkel en Rodenrijs	3	(10,3%)
Vlaardingen	2	(6,9%)
Zwijndrecht	2	(6,9%)
Puttershoek	1	(3,4%)
Hendrik-Ido-Ambacht	1	(3,4%)
Spijkenisse	1	(3,4%)
Maassluis	1	(3,4%)
Bergschenhoek	1	(3,4%)
Ridderkerk	1	(3,4%)
's Gravendeel	1	(3,4%)
Nieuwerkerk aan den IJssel	1	(3,4%)
Oostvoorne	1	(3,4%)
Unknown	2	(6,9%)

N=29 (18,5%) Rijnmond
N=128 (81,5%) Rotterdam
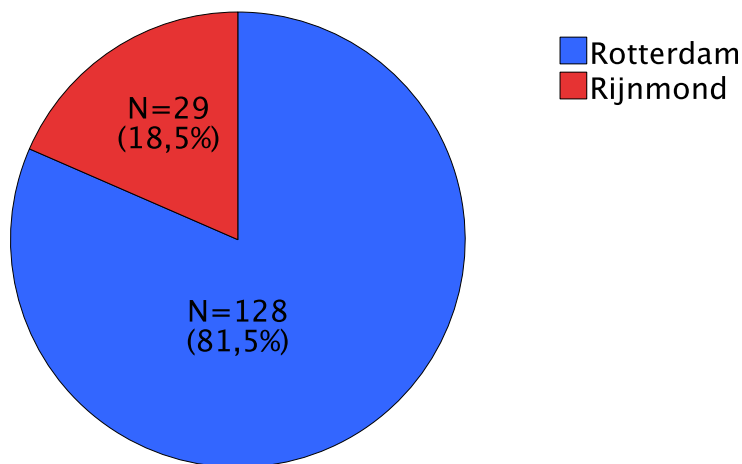
7.   Number of years residing in Rotterdam or Rijnmond region (N=157)

Native	51	(32,5%)
Non native	106	(67,5%)
Number of years residing in Rotterdam:		
0-1 year	9	(5,7%)
2-5 years	30	(19,1%)

6-10 years	18	(11,5%)
11-15 years	8	(5,1%)
16 years or more	41	(26,1%)

8.   What was your most important motivation to move to Rotterdam? (N=106)

Education	35	(33.0%)
Work	15	(14,2%)
Relationship	17	(16,0%)
Attractiveness of the city	17	(16,0%)
Family or friends	14	(13,2%)
Other*	8	(7,5%)

*such as 'moved together with parents' or 'coincidence'

9.   Which element(s) make(s) Rotterdam attractive for you? (Multiple answers possible) (N=157)

The ambience	113	(72,0%)
The architecture	77	(49,0%)
Shopping opportunities	59	(37,6%)
Career opportunities	57	(36,3%)
The people living here	81	(51,6%)
Other: *_____	24	(15,3%)

* such as culture (N=5), education, roots, sports, nightlife

10.   Which cultural elements do you appreciate most in Rotterdam? (Multiple answers possible) (N= 157)

Festivals	90	(57,3%)
Museums	78	(49,7%)
Architecture	84	(53,5%)
Sports events	55	(35,0%)
Theater	56	(35,7%)
Concerts	50	(31,8%)
Film	84	(53,5%)

11.   Which element(s) determine(s) your image of Rotterdam most? (Multiple answers possible) (N=157)

The Port	97	(61.8%)
Cultural diversity amongst residents	88	(56,1%)
Modern environment and architecture	119	(75,8%)
Shopping center	29	(18,5%)
Sports clubs	24	(15,3%)
Bombardment of the Second World War	46	(29,3%)
A city center with few residents	8	(5,1%)
Cultural events	60	(38,2%)

12. With which elements of the city do you feel most engaged and makes you feel proud of Rotterdam? (Ranking. 1=high, 8=low) (N=157)

| Answer	1	2	3	4	5	6	7	8	Mean*
The no-nonsense mentality	68	26	22	10	15	8	3	5	2,61
The port and the river Maas	29	42	26	23	17	11	7	2	3,18
Broad diversity of cultures in Rotterdam	17	29	26	19	18	25	15	8	4,06
Business	5	6	12	21	22	26	29	36	5,69
Nightlife	4	14	19	19	17	31	34	19	5,26
The architecture	19	25	33	29	20	15	9	7	3,78
A sports club	9	11	8	17	25	17	28	42	5,62
The shops	6	4	11	19	23	24	32	38	5,80

* The answer category with the lowest mean scored highest amongst respondents

*Diagram of the 'mean' values of former table concerning question 12:*
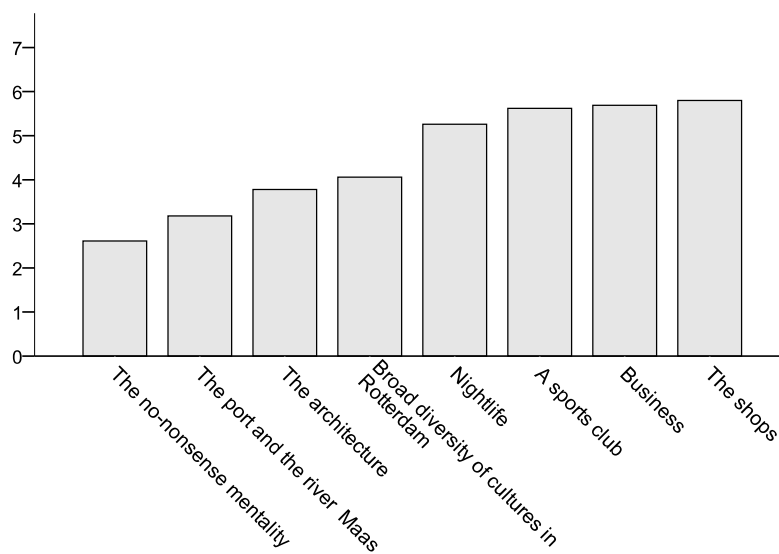
13. Where would you take a friend visiting Rotterdam for the first time? (Ranking. 1=high, 7=low) (N=153)

Answer	1	2	3	4	5	6	7	Mean*
Museum Boijmans van Beuningen and de Kunsthal	17	39	28	19	25	21	8	3,58
Kop van Zuid, De Markthal and Central Station	98	34	16	4	3	2	0	1,64
The Euromast	9	40	31	39	20	14	4	3,50
The Spido to see the Maas river and the port	11	21	36	37	24	26	2	3,82
Nightlife	10	10	25	26	48	30	8	4,36
Shopping in the city center	11	12	15	25	28	44	22	4,70
A soccer game of Feyenoord, Sparta or Excelsior	1	1	6	7	9	20	113	6,40

* The answer category with the lowest mean scored highest amongst respondents

Diagram of the 'mean' values of former table concerning question 12:
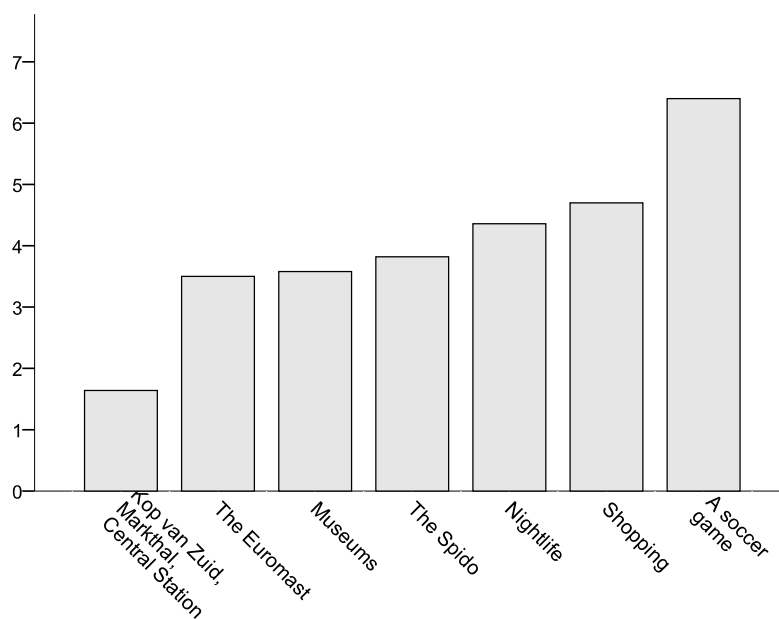
14.   Are you aware of the architecture elements in Rotterdam? (Dag van de Architectuur, Open Monumentendag, De Architectuur Biënnale Rotterdam, Het Nieuwe Instituut, lectures of Architectuur Instituut Rotterdam (AIR), tours of De Rotterdam Tours and Archiguides?) (N=157)

Never heard of it	26	(16,6%)
I know 2 or less of these events	61	(38,9%)
I know at least 3 of these events	51	(32,5%)
I know all of these events	19	(12,1%)
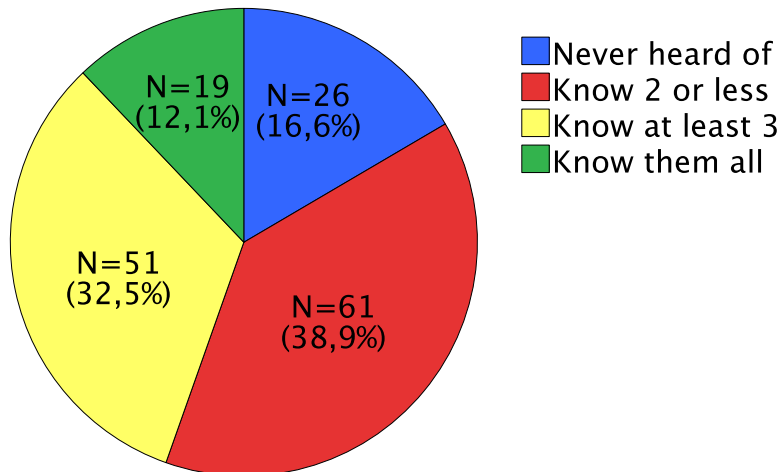
15.   How often do you visit these kind of events or do you visit a building for its architecture? (N=157)

Never	56	(35,7%)
1-3 times a year	86	(54,8%)
4-6 times a year	9	(5,7%)
More than 7 times a year	6	(3,8%)
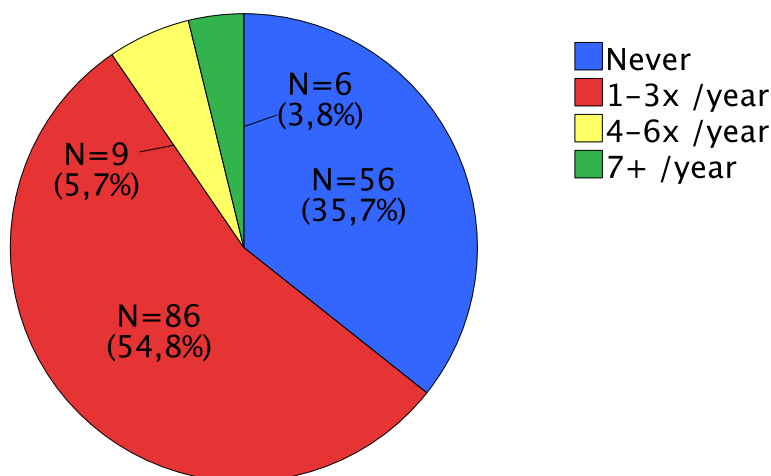
16. **In the following section several statements will be mentioned. These statements concern the influence of the new iconic buildings (for example the Red Apple, De Rotterdam, Markthal, Central Station) to the livability and engagement in Rotterdam. For each statement, choose to what extend you agree with it in a range from 1 to 5.**

1 = 'completely disagree' (red)
2= 'disagree' (orange)
3 = 'neutral' (yellow)
4 = 'agree' (light green)
5 = 'completely agree' (darker green)

I. 'The unique buildings make the city center more attractive to visit or to spend time.'

completely disagree	disagree	neutral	agree	completely agree
3 (1,9%)	9 (5,7%)	16 (10,2%)	71 (45,2%)	58 (36,9%)
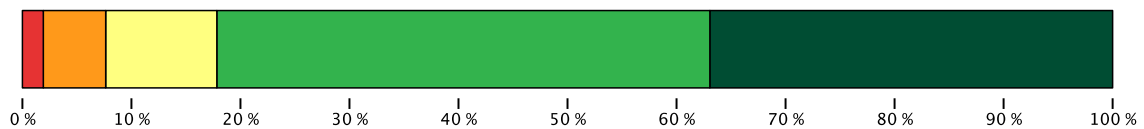
II. 'The increase in tourism in Rotterdam makes the city more lively and attractive.'

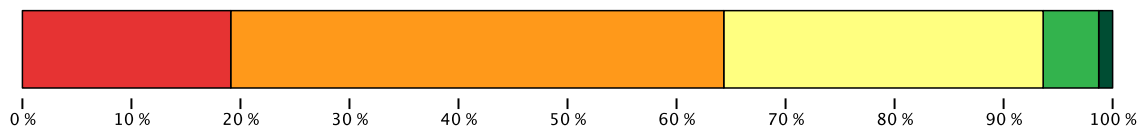| completely disagree	disagree	neutral	agree	completely agree
2 (1,3%)	15 (9,6%)	24 (15,3%)	80 (51,0%)	36 (22,9%)
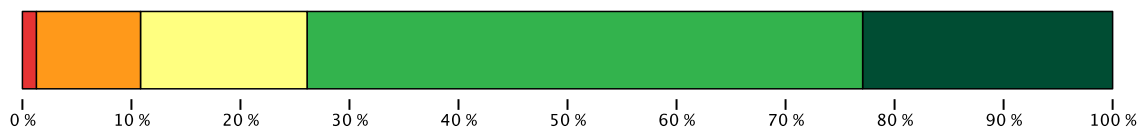
III. 'These massive buildings are unattractive, it increases the unattractive and cold image of Rotterdam.'

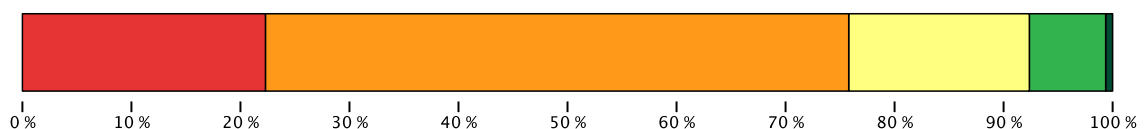| completely disagree	disagree	neutral	agree	completely agree
54 (34,4%)	80 (51,0%)	17 (10,8%)	5 (3,2%)	1 (0,6%)
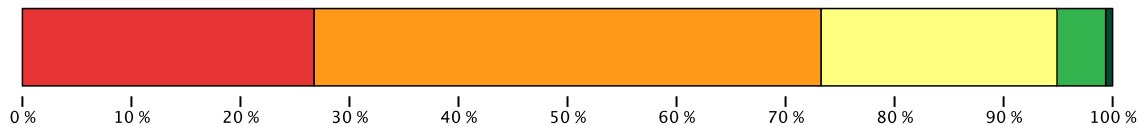
IV. 'These buildings cause a lot of shadow, wind and disturb my view. It decreases the livability of the city.'

completely disagree	disagree	neutral	agree	completely agree
35 (22,3%)	84 (53,5%)	26 (16,6%)	11 (7,0%)	1 (0,6%)

V. 'Because of the promotion of architecture in Rotterdam, the amount of tourists attracted is too high, this is annoying for the citizens of Rotterdam.'

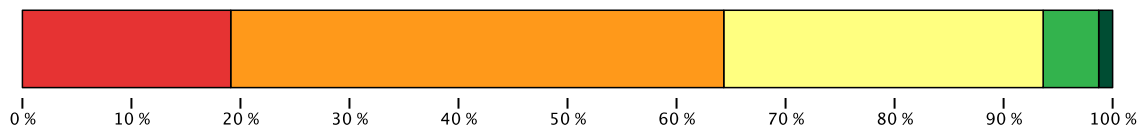| completely disagree	disagree	neutral	agree	completely agree
42 (26,8%)	73 (46,5%)	34 (21,7%)	7 (4,5%)	1 (0,6%)

VI. 'The unique and impressive buildings contribute to the beauty of Rotterdam.'

| completely disagree	disagree	neutral	agree	completely agree
2 (1,3%)	2 (1,3%)	12 (7,6%)	97 (61,8%)	44 (28,0%)
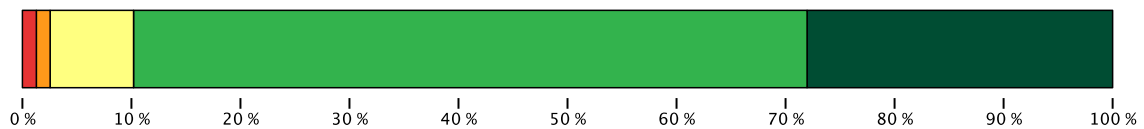
VII. 'I am not interested in architecture. The city should spend its money on something else.'

completely disagree	disagree	neutral	agree	completely agree
30 (19,1%)	71 (45,2%)	46 (29,3%)	8 (5,1%)	2 (1,3%)

VIII. 'I appreciate the new iconic buildings in Rotterdam, it makes me proud to live in (or near) "The Architecture Capital of the Netherlands".'
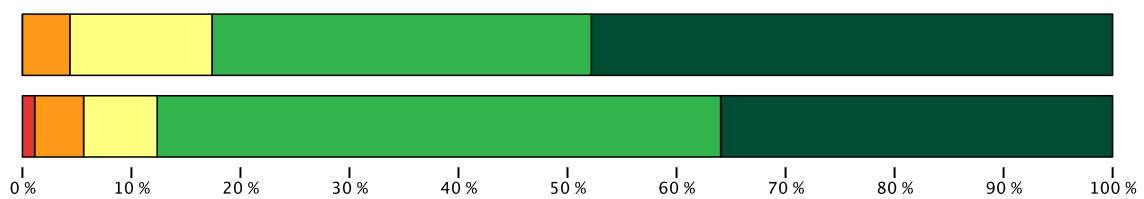
completely disagree	disagree	neutral	agree	completely agree
2 (1,3%)	11 (7,0%)	23 (14,6%)	88 (56,1%)	33 (21,0%)
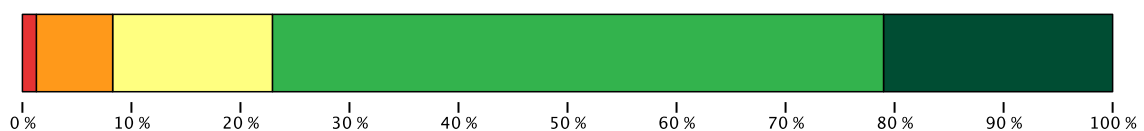
The following four plots show the results when the residents are divided in a group living in the city center (N=23) versus residents living in other neighborhoods in Rotterdam (N= 89). The upper plot represents the city center and the lower plot in each image represents the residents of other neighborhoods.

*'The unique buildings make the city center more attractive to visit or to spend time.'*

	completely disagree	disagree	neutral	agree	completely agree
City center	0 (0,1%)	1 (4,3%)	3 (13,0%)	8 (34,8%)	11 (47,8%)
Other neighbourhoods	1 (1,1%)	4 (4,5%)	6 (6,7%)	46 (51,7%)	32 (36,0%)

Chi-square 2,916; p=0,572

'The increase in tourism in Rotterdam makes the city more lively and attractive.'
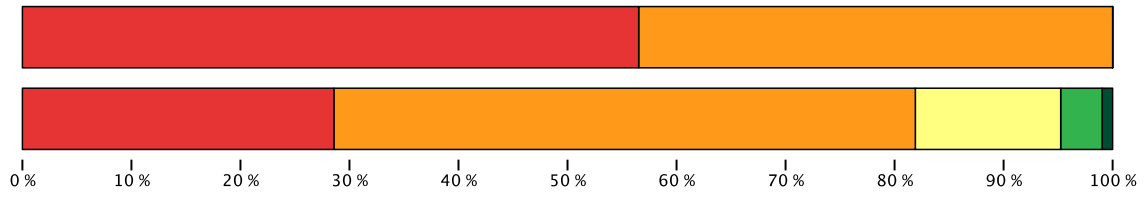
	completely disagree	disagree	neutral	agree	completely agree
City center	0 (0,0%)	4 (17,4%)	4 (17,4%)	6 (26,1%)	9 (39,1%)
Other neighbourhoods	1 (1,1%)	5 (5,6%)	13 (14,6%)	54 (60,7%)	16 (18,0%)
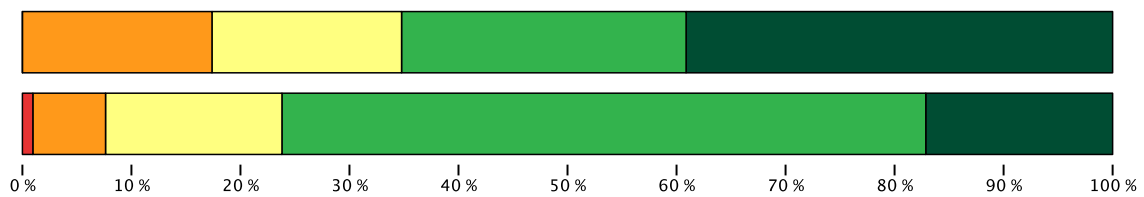
Chi-square 11,249; p=0,024

'These massive buildings are unattractive, they increase the unattractive and cold image of Rotterdam.'
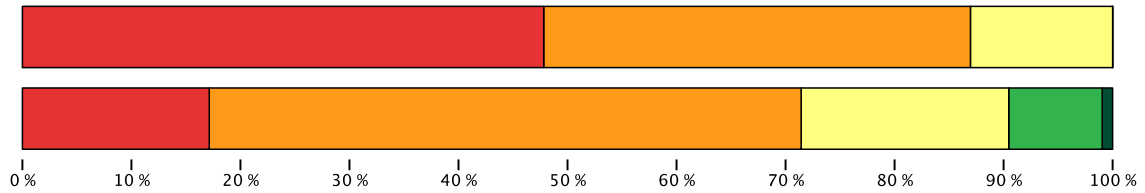
	completely disagree	disagree	neutral	agree	completely agree
City center	13 (56,5%)	10 (43,5%)	0 (0,0%)	0 (0,0%)	0 (0,0%)
Other neighbourhoods	26 (29,2%)	48 (53,9%)	11 (12,4%)	4 (4,5%)	0 (0,0%)

Chi-square 8,176; p=0,043

'These buildings cause a lot of shadow, wind and disturb my view. They decrease the livability of the city.'

	completely disagree	disagree	neutral	agree	completely agree
City center	11 (47,8%)	9 (39,1%)	3 (13,0%)	0 (0,0%)	0 (0,0%)
Other neighbourhoods	17 (19,1%)	47 (52,8%)	17 (19,1%)	7 (7,9%)	1 (1,1%)

Chi-square 9,159; p=0,057