

# **THE ART OF CLICKS-AND-BRICKS.**

**AN EXPLORATIVE STUDY ON E-COMMERCE AS AN  
ADDITION TO A GALLERY'S TRADITIONAL BUSINESS STRATEGY**

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## **CHAPTER ONE:**

### **INTRODUCTION - THE ART OF CLICKS-AND-BRICKS.**

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#### **1.1 Electronic commerce.**

The Internet has become a crucial medium to most of the worldwide population. We use the Internet to gather information, to communicate, to study, for amusement and to sell and buy products. The use of the Internet has increased rapidly over the past decade: in 2000 the worldwide amount of Internet users was close to 361 million people, in 2010 the worldwide amount of Internet users was estimated at 1.9 billion, which means a growth of 444.8% (Internetworldstats.com, April 2011).

In 1994, the Internet started to become a public service, Yahoo and Lycos are the first search engines, products can be viewed - the Pizza Hut allows consumers to choose their pizza online. One year later the two largest Internet companies were founded: eBay and Amazon.com. The so-called 'dotcom' companies had the potential to outperform traditional companies. Investors invested in these 'dotcoms' en masse. With returns estimated by the amount of visitors on the website, or even the potential amount of visitors this became a very speculative business. But in 2000, the bubble burst and many of the dotcoms went bankrupt. Traditional companies however steadily improved and developed their electronic commercial activities and the clicks-and-bricks business model slowly started to present its potential. However, large dotcoms such as Amazon.com and eBay have also shown that not all dotcoms are doomed to fail. Meanwhile users of the Internet do not only consume, but start to populate the Internet through social websites. For companies, consumers can be tracked through these social websites and cookies which resulted in advertisement aimed at the individual preference of a consumer.

The effects of Internet are studied in many disciplines, one of the most studied effect is that on doing business. The use of electronic commerce has had a profound effect on firm structure, firms do no longer require a physical shop to sell their products. The online market has the potential to provide retailers with higher sales rates because of new distribution channels, new customers, and new markets. Existing customers may easier (re-)visit the online shop, creating an ease for businesses to retain their clients. Suppliers also experience that electronic commerce requires significantly lower marketing costs. Client support takes

less time, for example, with the F.A.Q section, where customers can try to get their question answered themselves by looking through the 'Frequently Asked Questions' section. Using a database is an efficient and effective way of building a relationship with clients. Online sales do not require a physical store to display products. Fixed costs such as rent and energy can be kept to a minimum when operating online only (Chaffey, 2006). The efficiency of a website is high while the costs of operating are extremely low. Most importantly a website has a global reach, meaning everyone in the world can visit an online shop without travelling expenses. Aside to the possibility to reach millions of people, a website is open twenty-four hours a day, allowing consumers to (re-)visit at any time.

Potentially the use of electronic commerce can eliminate any advantages better established firms have acquired and create a level playing field by allowing any entrepreneur to enter the market and obtain presence on the Internet (Hamill and Gregory 1997, Min and Wolfinbarger, 2005; Regan, 2002; Chaffey 2006). Companies today are facing a critical decision: include new technologies and accept a new business model including electronic commerce or retain their traditional business model and risk becoming outdated and surpassed by new, Web-based opponents. Web-based or cyberspace suppliers are often young, clever and brave entrepreneurs, and cause a potential threat to traditional companies (Schoenbachler and Gordon, 2002). While Internet use continues to grow, many retail businesses adjusted to the need to have an online presence.

Due to the relative youth of electronic commerce, definitions are often unclear and electronic commerce is referred to in many terms including e-commerce, e-business, web commerce, cyber commerce and e-retailing. In 1997 Kalakota and Whinston define e-commerce as "the buying and selling of information, products and services via computer networks". In 2000, Schneider and Perry defined it as: "business activities conducted using electronic data transmission via the Internet and the World Wide Web (WWW)". Some authors distinct a difference between e-commerce and e-business, in which e-business stands for electronic transactions within the organization itself. Grandon and Pearson (2004) define e-commerce in a B2C (Business to Consumer) context as: "the process of buying and selling products or services using electronic data transmission via the Internet and the WWW". According to Gibbs et al (2003) e-commerce is "the use of Internet to buy, sell or support products and services including business transactions, information sharing, business relationship management and the creation of online communities". For study, the use of electronic transactions within the organization itself is excluded. The focus lies on e-

commerce being the process of purchasing, retailing or supporting products and services using electronic data transmission via the Internet and the WWW.

## **1.2 Galleries as Small Enterprises.**

Much of the literature on e-commerce concentrates on 'dotcom' companies such as Amazon or eBay, or the adoption of e-commerce by large traditional 'bricks and mortar' enterprises (Daniel et al. 2002). However, small and medium sized companies are observed to increasingly make use of e-commerce. This gap in prior research is addressed by many researchers by seeking to understand how SMEs are adopting e-commerce in various countries including the UK (Daniel et al. 2002), Taiwan (Huang and Tsai, 2011), and Finland (Ovaskainen, 2010).

There is no single definition of small enterprises that is uniformly applicable to all small enterprises (Storey, 1994). Enterprises vary in their business model, employment, sales etc. therefore it is complicated to define small businesses with the employment of measures of sizes such as net worth, number of employees, annual turnover etc. It could lead to whole sectors to be defined as small, while applied to other industries, results may vary. In Europe, small enterprises are defined as companies with a number of employees between 10 and 49 and an annual turnover of less than 7 million euro's. Micro companies hold less than 10 employees.

Several researches on the field of the art market opt for the application of smaller firm literature on research on art galleries and other cultural organisations and marketers (Fillis, 2004; Smith, Discenza & Baker 2006; Quesenberry and Sykes, 2008; Jyrämä and Äyväri, 2010). It is this newly formed perspective that forms the foundations of this research. Dutch galleries can be seen as very small or micro enterprises as EIM reports over 75 percent operating with no more than 2 employees. The average turnover in 2009 for NGA-members (Nederlandse Galerie Associatie) was 375.000 euro and for non-members 150.000 euro excluding taxes. Prior empirical results on the adoption of e-commerce in SME's will provide the framework for this research on the adoption of e-commerce in art galleries.

### **1.3 Problem Discussion.**

The changing economic climate has caused great difficulty for small businesses. In order to survive owners and managers were forced to attempt to attain sustainable value for their business, adapt to the changing environment as well as look for new opportunities. (Elkington 1994; Gladwin, Kennely & Krause, 1995). Mainstream art galleries perfectly characterize the struggling small enterprises facing major changes in how commerce is accomplished, yet they are perceived to be passive in their strategic responses (Smith, Discenza & Baker, 2006). Art galleries persist to manage their enterprise as if they are unaffected by any technological changes and consolidation that influence so many other small enterprises (Frankel, 1999; Jyrämä and Äyväri, 2010). Rather than ignore the incentives for change due to globalization and digitalization, galleries should utilize new strategies for marketing art and cultivating client relations if they wish to succeed in the future (Fillis, 2002).

Digitalization is especially considered a significant incentive for change when considering how the Internet has the potential to completely transform the way art is marketed and retailed. The Internet is currently playing an important role in the contemporary art world, not only has it led to the emergence of new forms of art - digital art for example; it has also launched a whole new platform for art to be exposed. Technological breakthroughs, like the possibility to display pictures on the Internet have been crucial to the online art market. Museum are displaying their whole collections online, the recent Google art project even allows a visitor to enter several important museums around the world online, zoom in to such an extent previously physically impossible due to safety reasons. Artists have the possibility to promote their art on their own personal website. Aside to promotion, some artists even dismiss their agent or gallery and sell their art directly to their customers (Eyck, 2008). Large auction houses such as Christie's and Sotheby's already utilize e-commerce by accepting online bids.

Thus, prior research suggests galleries display a great deal of passiveness in their strategic responses to the changing environment, and opts for galleries to utilize new marketing strategies. However, most studies only indicate what driving forces affect the success of a gallery. In business research, the adoption of e-commerce is extensively studied as it is ought to be the most important new marketing strategy. Moreover, the adoption of e-commerce by SME's is a much debated topic during the last decade after the Internet bubble had burst. On the adoption of e-commerce by galleries little has been empirically researched,



though research on the demand for an online sales channel (Van Houwelingen, 2007) and the utilization of e-commerce in other sectors of the art market (e-tickets, e-bidding), indicates a viability of an online market for art ( Kazumori and McMillan, 2005). It is evident that there is a gap observed between the growing importance of e-commerce in the art market as well as in small firms, and the perceived lack of innovation in galleries. This gap raises questions on the extent of the use of e-commerce by galleries. With the growing importance of e-commerce, do galleries remain passive as previously observed or is e-commerce impossible to ignore, even for galleries? And if galleries engage in e-commerce, how do they utilize it?

#### **1.4 Aims and objectives.**

Galleries today are facing a critical decision, include new technologies and accept a new business model including electronic commerce or retain their traditional business model and risk becoming outdated and surpassed by new, web-based opponents. The objective of this study is to shed light on the impact of e-commerce on Dutch contemporary art galleries and add more insight to the discussion of the perceived passiveness among galleries in their strategic response to the changing environment as well as add more insight in the impact of e-commerce on small and micro sized firms in general.

In this paper the following research questions are explored:

- *Do recent changes in the economy and new technology require a gallery to change its business model?*
- *Does e-commerce serve as a complementary or substitute to traditional business models for Dutch contemporary art galleries?*
- *What differences in the utilization of e-commerce can be distinguished?*
- *What factors affect the use of e-commerce for Dutch contemporary art galleries?*
- *What is the influence of the use of e-commerce?*

## **1.5 Methodology.**

In order to determine the influence of e-commerce on galleries, a quantitative research is carried out by means of an e-mailed questionnaire which provides the research with some general insights on the use of e-commerce by Dutch galleries. Prior to this survey, literature review presents a theoretical framework according to which the questionnaire is structured. During a period of 4 weeks in May 2011, 328 galleries have received the questionnaire. At the end, 59 completed surveys were received representing a 19 percent response rate. Previous research among art galleries in Colorado fetched a 20 percent response rate (Smith, Discenza and Baker, 2006). Consequently with the theory, the survey questions contain indicators that will reveal the what e-commerce activities are undertaken by the gallery in question.

## **CHAPTER TWO:**

### **GALLERIES AND THE ADOPTION OF E-COMMERCE.**

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This chapter studies the theoretical discourse within the subject of this research in order to gain insights of professionals on different areas. Even though art is thought to be difficult to market online, new technology and a new generation of buyers give galleries the opportunity to increase their sales channels via the use of Internet. Currently, galleries are experiencing financial difficulties due to the harsh economic climate. The Internet may offer them a better chance at marketing and retailing their artworks, however galleries are found to be rather hesitant in changing their traditional business-model. Literature on the adoption of e-commerce at SMEs and micro enterprises can shed light on the possibilities and limitations of the adoption of e-commerce for galleries.

#### **2.1 Introduction to the Dutch primary art market.**

*“The art market is a perfect storm of hocus-pocus, spin and speculation, a combination slave market, trading floor, disco, theatre, and brothel where an insular ever-growing caste enacts rituals in which the codes of consumption and peerage are manipulated in plain sight”* (Jerry Saltz, art critic in Thompson, 2008).

Traditionally the structure of the art market is divided into two separate markets, namely the primary and the secondary market. On the primary market, works of art are sold for the first time, often facilitated by galleries. On the secondary market works of art are resold to new owners, in this market art is put up for auction. Throsby (1994) further structured these market ranking the art market into three levels corresponding with geographic scale and prices fetched on the market. The primary market corresponds to the lowest level with local artists and small dealers. One level higher the international recognized artists and dealers are ranked with works made by established artists as well as popular dead artists. These markets are found in the art infused cities in the world (New York, London, etc.) The third and highest level of the art market is the international art auction market with the two leading art auctioneers, Sotheby's and Christie's.

The origins of the art market in the form that we see today emerged in the beginning of 20<sup>th</sup> century Paris, where contracts in which earnings are split fifty-fifty between dealer and artist first appeared (De Marchi & Van Miegroet, 2006). These dealers not only served as

intermediaries between artist and buyer by exhibiting their art in their own store, they also served as an agent or mentor for new artists whom where not in demand, yet. To ensure income, these dealers operated both in the primary as well as in the secondary art market (Gubbels, 1999). During the first half of the 20<sup>th</sup> century the amount of Dutch contemporary art dealers gradually grew, yet at the end of the fifties contemporary art sales still only accounted for 5 to 10 percent of the total art sales (Gubbels, 1999). In the sixties, the number of Dutch art dealers grew to 130, and art dealers began referring to themselves as gallery owners instead of dealers, distinguishing themselves from the secondary market. They claimed to serve as a mentor for the artist rather than prioritizing the commercial success of their shop. In 1975 Amsterdam accounted for 68 percent of the total amount of Dutch galleries, which at the end of the seventies grew to over 300 (Gubbels, 1999). The eighties were characterized by a massive global interest in contemporary art, contemporary art fairs emerged everywhere. The KunstRAI, first held in 1984 reflects the global interest in contemporary art on the Dutch art market (Steenbergen, 2002). In 1992, over 400 galleries were operating in the Netherlands. Even though the Netherlands plays no large role in the international art market (the United States and the United Kingdom dominate global art sales) the Dutch art market is internationally recognized: of the international top 50 artists ranked by auction turnover in 2006, 6 percent was of Dutch nationality (Bakker & Campbell, 2008). Additionally, The Netherlands also hosts one of the most important art fairs: the European Fine Art Fair, TEFAF.

Currently, approximately 550 Dutch galleries try to sell their art to contemporary art collectors (EIM<sup>1</sup>). Dutch galleries can be seen as micro enterprises as EIM reports over 75 percent are operating with no more than 2 employees. After experiencing an increase of almost 40 percent in 2005-2008, the total industry turnover decreased with 15 percent in 2009-2008 to approximately 120 million euro excluding taxes. The average turnover in 2009 for NGA-members (Nederlandse Galerie Associatie) was 375.000 euro and for non-members 150.000 euro excluding taxes. A quarter of all Dutch gallery owners/managers perceive that the current economic recession caused them to experience a loss of up to 50 percent on their turnover. In the EIM report, galleries claim to experience an inconvenience from the way the Dutch art market is structured. According to Gubbels (2001) 50 percent of the total sales on the Dutch art market is sold to private individuals including collectors, 20 percent is purchased for corporate collections, 13 percent is bought by the government, 4 percent is

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<sup>1</sup> <http://www.eim.nl/index.cfm/1,112,449,0,html/EIM-rapport-aangeboden-aan-Loek-Hermans-MKB-nederland>

bought by museums and 11 percent are classified as “other”. Prior research has indicated that Dutch citizens have appointed the cultural sector as one of the most suitable sectors for the government to impose budget cuts (Gubbels 2001). Unlike other countries such as the U.S, UK or France, large private collections are quite uncommon in the Netherlands. Therefore, unlike collectors in other countries, Dutch collectors are unlikely to cause a trend when smaller collectors mirror their behaviour. Furthermore the primary Dutch art market reveals a restricted nature: the collectors that dealers from Amsterdam retail to are by and large limited to the Netherlands (Velthuis, 2005). With only a few (dedicated) collectors and a large amount of galleries trying to sell their works of art, Velthuis describes galleries in general as monopolists as a result of the heterogenic nature of works of art. With competition not only from other galleries but even to a greater extent from auction houses galleries certainly do not hold all the advantages of being a monopolist. Aside from galleries, more agents are stepping forward to serve as gatekeepers and advisors to especially corporate collectors. With galleries representing only a few artists, independent advisors move freely between many artists. Independent advisors will even surpass galleries by conducting sales directly between artists and enterprise. Furthermore, governmental regulation has mainly focused on supporting and stimulating the supply of arts rather than stimulating demand for artistic products (Gubbels, 2001; Van Dulken, 2002).

Galleries work with fixed prices, even when a potential buyer offers to pay more it will not necessarily ensure ownership over the work of art (Velthuis, 2003). Particular collectors, branded collectors or regulars often receive special privileges. For galleries it is most important to maintain clients, giving them special privileges is one of many strategies they use. However, this can be seen as a prevention of free purchasing accessibility by constructing boundaries. During market booms when demand tends to outperform supply, galleries enjoy the advantages of being price setting firms. In times of recession a decline in the demand for art is observed. Studies indicate a positive relationship between the art market and the financial market (Stein, 1977; Chanel, 1995; Singer, 1990; Goetzmann, 1993). Galleries are hesitant to reduce their prices during a declining market. As a result of this hesitancy prices in the primary market fluctuate less than prices in the secondary market. In the secondary market during a decline in demand, the lower willingness to pay corresponds with lower prices fetched at auctions. Instead galleries respond by offering works of art of higher quality (Ashenfelter, 2003). The preference for price stability and the boundaries

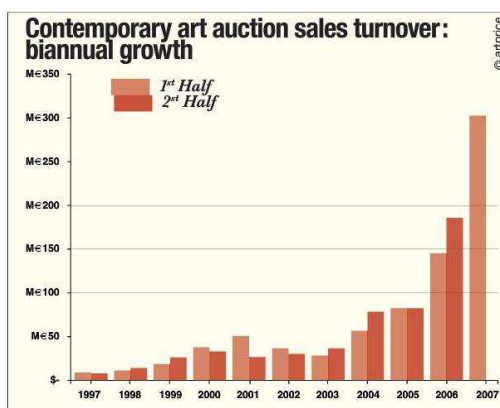
galleries have constructed conflicting with free purchasing accessibility make the primary art market respond different from a market solely driven by supply and demand.

## 2.2 Economic climate and the performance of art galleries.

Until late 2007, financial resources seemed inexhaustible. With this booming world economy, alternative ways of investing were explored, real estate, oil and wine had all become a much speculated investment. There was however one bubble greater than the others, the contemporary art market was booming with prices previously unseen for living artists.

The art market became an extraordinary hot market for speculators. Investors saw the revenues that could be made by broadening their investment portfolio's with art as an asset. Suddenly everyone wanted to invest in art and the demand for contemporary art was deemed to be infinite. The demand for Contemporary Art was not only the result of a trend. Alongside the substantial prices living artists fetched at auctions, even more was paid for Traditional Art. An artwork does not often switch owners so today, when a non-contemporary artwork appears at auction, often astronomic prices are paid. Lists of most expensive artworks ever sold show names as Picasso, Klimt, Monet, Van Gogh and Rubens. Commercially, Contemporary Art thrived on the disappearing of other schools from the market due to high demand.

Some galleries and dealers intentionally limited the supply of art works. In September 2008 The Art Newspaper reveals that The White Cube gallery in London is sitting on over 200 unsold sculptures and paintings by the British artist Damien Hirst worth in excess of £100m. This indicates that the White Cube gallery was stocking works by Damien Hirst and releasing a limited amount of works on the market in order to artificially maintain the increased demand for his work. However, Damien Hirst is known for his factory enterprise and networking of assistants working in multiple studios to ensure mass production. His challenge is to find enough outlets to distribute the immense volume.



The idea of scarcity was encouraging the demand for contemporary art even more. Another driving force behind the growing demand for contemporary art came from a new wealthy business population originating from new emerging countries. Brazil,

Russia, India and China formed the new emerging markets. On April 13<sup>th</sup> 2011 South Africa has been formally added<sup>2</sup> to this group of countries after receiving an invite in the beginning of 2011<sup>3</sup>. Since 2003, these emerging BRICS countries have caused a shift in global economic power and are expected to become the most dominant economies in 2050 (O'Neill et al., 2005 for Goldman Sachs). During the boom in 2002-2007 the financial 'bubble' was inflated. In response to the financial market, the art market experienced a similar boom. The 'contemporary art bubble' lasted from 2003 until 2008. Between 2006 and 2007, contemporary art sales nearly doubled (see figure 1), artworks made by Damien Hirst and Jeff Koons sold at auctions for prices previously unseen for living artists. It was the resale market that profited largely from the contemporary art bubble. Star galleries like White Cube or Gagosian, had collectors whom were willing to pay astronomical prices for works they had never seen.

*"I am not an art dealer anymore. I sit around, a crate comes in, I see who's the crate from, I go to the waiting list, I make up this outrageous number and send it out. [...] Another gallery employee phones clients and says "Larry[Gagosian] says you need this for your collection." One former Gagosian employee claims that in about a quarter of the cases, clients say "I'll take it" without ever asking "What does it look like?," or "How much?""* (Bob Shapazian, former director of the Gagosian Gallery in Los Angeles in Thompson, 2008).

Most mainstream galleries also noticed an increase in demand for contemporary art, collectors in this market are often risk takers aiming at new artistic talent. With a booming market, chances were high for new talent to become a profitable investment. More and more buyers entered the primary market for investment purposes (Mamarbachi, Day & Favato, 2008). Between 2005 and 2008, the total turnover in the Dutch gallery industry increased with 40%. Galleries claim the booming economy and art market to be the reason for this sudden increase in total turnover (EIM).

The contemporary art market became an immense speculative, overheated bubble growing bigger and bigger as more new buyers kept entering the market. A similar bubble occurred in the American real estate branch. Where speculators bought real estate often supported with large loaned amounts of money. In 2007, crisis in the United States became visible when this real estate market completely collapsed. House-owners were left with large

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<sup>2</sup> <http://www.southafrica.info/global/brics/brics-080411.htm>

<sup>3</sup> <http://www.bbc.co.uk/news/world-africa-12113830>

debts unable to pay off. Banks started to face liquidity problems which resulted in decline of consumer confidence. The global monetary financial system faced immense pressure. Worldwide governments and central banks had to provide for financial support in order to prevent banks from going bankrupt. With consumer's confidence dropping, the financial crisis transferred to stock and bond markets. The global economy was in recession and many were affected by the crisis experiencing a loss of wealth.

The loss of wealth at the end of 2008 had a considerable effect on the performance of the art market. Many enterprises accustomed their strategies between 2003 and 2008 to the booming demand, supply and prices. With the sudden collapse of global economy, contemporary art buyers quickly left the market. The decline of consumer confidence hit the contemporary art market and in 2009 prices for top contemporary artists declined by 50 percent (Lewis, 2009). "The art of the contemporary art boom will for ever be associated with the credit boom. Just as the values of that economic system are now discredited, so too will be the values of the art that went with it" (Anonymous in New York Times<sup>4</sup>, 2009). Most art galleries were largely affected by the credit crunch, mainstream art galleries experienced an immense decline in demand. In 2008, Moscow-based dealer Vladimir Ovcharenko said "*The ultra-rich Russian collectors lost billions in stocks last months. Nobody wants to think about art now*" (artmarketmonitor.com<sup>5</sup>). The Dutch gallery branch experienced a fall of 15 percent in the total industry turnover in 2009, a quarter of all Dutch gallery owners/managers perceive that the economic recession caused them to experience a loss of up to 50 percent on their gallery's turnover.

Besides negative effect, the financial crisis on the art market also holds positive effects. "It was in the 90's –the bottom of the market- that some important collectors like Si Newhouse and Leonard Lauder built their collections" (Basilico in Art and Auction 2009). The credit crunch has also had a positive effect on the niches of the art market. A lot of investors now try to find profitable niches in the market. Latin-American art is becoming very profitable as well as other 'affordable art' from young talented artists (artmarketmonitor.com<sup>6</sup>). For mainstream galleries this offers great opportunities as large collectors now turn their heads away from star galleries and begin to look at an alternative gallery art scene (Pollock, 2011 in The Art Newspaper<sup>7</sup>).

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<sup>4</sup> [http://entertainment.timesonline.co.uk/tol/arts\\_and\\_entertainment/visual\\_arts/article6275738.ece](http://entertainment.timesonline.co.uk/tol/arts_and_entertainment/visual_arts/article6275738.ece)

<sup>5</sup> <http://www.artmarketmonitor.com/2008/10/15/frieze-fall/>

<sup>6</sup> <http://www.artmarketmonitor.com/2010/11/17/why-latin-american-art-is-so-important/>

<sup>7</sup> <http://www.theartnewspaper.com/articles/Alive+and+kicking+despite+the+slump/22157>



## **2.3 New technologies, new opportunities for many businesses.**

The use of electronic commerce may eliminate any advantages better established firms have acquired and could create a level playing field by allowing any entrepreneur to enter the market and obtain presence on the Internet (Hamill and Gregory 1997; Min and Wolfinbarger, 2005; Regan, 2002; Chaffey 2006). Aside to the fact that large incumbent firms enjoy great advantage for the use of e-commerce, the advantages are also enjoyed by small and micro firms. Any company today are faces a critical decision, include new technologies and accept a new business model including electronic commerce or retain their traditional business model and risk becoming outdated and surpassed by new, Web-based opponents. Web-based or cyberspace suppliers are often young, clever and brave entrepreneurs, and cause a potential threat to traditional companies (Schoenbachler and Gordon, 2002). While Internet use continues to grow, many retail businesses adjusted to the need to have an online presence.

The use of electronic commerce has had a profound effect on any firm structure, firms do no longer necessarily require a physical shop to sell their products. The online market has the potential to provide retailers with higher sales rates because of new distribution channels, new customers, and new markets. Existing customers may easier (re-)visit the online shop, creating an ease for businesses to retain their clients. Suppliers also experience that electronic commerce requires significantly lower marketing costs. Client support takes less time, for example, with the F.A.Q section, where customers can try to get their question answered themselves by looking through the 'Frequently Asked Questions' section. Using a database is an efficient and effective way of building a relationship with clients. Online sales do not require a physical store to display products. Fixed costs such as rent and energy can be kept to a minimum when operating online only (Chaffey, 2006). The efficiency of a website is high while the costs of operating are extremely low. Most importantly a website has a global reach, meaning everyone in the world can visit an online shop without travelling expenses. Aside to the possibility to reach millions of people, a website is open twenty-four hours a day, allowing consumers to visit at any time.

### **2.3.1 New technologies, new generation of buyers.**

In order to somewhat simplify the gallery's challenge of facing new technologies, it is important to understand what drives consumers to buy from different channels. Consumers are always making choices regarding products and they have the tendency to search for

product information before buying a certain product. Especially when studying the art market – a market that seems to consist of irrational decision-making processes based on feelings and opinions, consumer behaviour can shed light on possibilities and limitations of electronic retailing potential for galleries.

The Internet has made it easier to compare products, using the Internet consumers are able to search for the best possible quality for the amount of money they are willing to pay. The price of a product sold from an Internet store is often significantly lower, compared to the price of the same product sold in a conventional store. This is because Internet shops have lower fixed costs such as the rent or utility bills, the price for products bought online is often lower than the price for the same product offered in a conventional store (Van Houwelingen, 2007). Purchasing products online also reduces travelling expenses like gas or a bus ticket, things that do not have to be paid when buying online. In a global market, the reduction of travelling costs for the consumers is a significant advantage of e-retailing. However, it brings one major disadvantage that largely influences the art market, most e-commercial transactions require the buyer to pay in advance. On a market known for its scarce and often expensive information, the physical absence of the artwork when displayed online can cause for hesitancy among buyers. The higher the product price the greater the level of risk involved in the market transaction between buyers and sellers who are geographically separated and may have never dealt with each other before. Buyers are therefore more inclined to buy small purchases on the web. Therefore the online art buyer needs to be sure the transaction is safe. The online art buyer wants an excellent service that provides the possibility to return the artwork, clear contact data, clear guaranty policy, the possibility to cancel the purchase and naturally, home delivery (Van Houwelingen, 2007).

Internet provides limitless information for a minimum price, typically one buying art on the Internet is an experienced Internet-user and spends a significant amount of time on the Internet searching for information. The online art buyer is also very aware of the price and tries to get a better deal than when buying at a gallery, in this perspective it is important that the (online) gallery establishes a strong reputation. Exposure to art leads to an increase in consumption in art over time (Lévy-Garboua & Montmarquette, 2002; Van Houwelingen 2007) In his survey, van Houwelingen showed that a potential buyer often already possesses artworks. Furthermore he found a positive correlation between diversity in the collection of the potential buyer and their susceptibility to e-commerce. People that have the resolution to buy an artwork within 5 years are more willing to purchase the artwork online. Additionally,

the research revealed that buyers who refuse to buy in an online shop simply prefer the experience of shopping in a conventional store. The major problem in buying online is trust (Keeney, 1999). This seems even more important when buying art online. The buyer wants to feel that online galleries do not compare artworks with buying books or CD's online. The higher the product price the greater the level of risk involved in the market transaction between buyers and sellers, who are geographically separated and may have never dealt with each other before. An artwork is an emotional, unique and costly purchase and thus safety should be guaranteed. Buyers are therefore more inclined to buy small purchases on the web.

Van Houwelingen advised cultural entrepreneurs to construct a consistent reputation by quick delivery and excellent after-sales service. The Internet art buyer wants to shop 'in style' with clear terms and a 'frequently asked questions' department. Cultural entrepreneurs should build their website focused on speed, user-friendliness and clarity. The presence of detailed information about the possible purchase is important, as is including clear pictures and a description of the condition the artwork is in. In his research, Van Houwelingen indicates a readiness among art buying to use the Internet as a channel to buy art. Quesenberry and Sykes (2008) mention the influx of a whole new generation of young and wealthy collectors on the art market. This new generation is more experienced online than previous art collectors and they access the Internet to find limitless cheap information on the artwork prior to their (online) purchase. In their article they quote Amy Cappellazzo, co-director of postwar and contemporary art at Christie's, who recognizes that "all this information gets young collectors up to speed quickly and become as sophisticated as someone who has been collecting for years"(Quesenberry and Sykes, 2008).

## **2.4 A business model under attack.**

*“What’s dangerous is not to evolve”* (Jeff Bezos, CEO Amazon in personal audioblog on innovation, 2009)

The changing economic climate caused great difficulty for small businesses. In order to survive owners and managers were forced to attempt to attain sustainable value for their business, as well as adapt to the changing environment and look for new opportunities (Elkington 1994; Gladwin, Kennely & Krause, 1995). Adapting to changes in technology is a key factor for driving the competitive advantage (Porter, 1980; Miles and Snow, 1978).

Mainstream art galleries perfectly characterize these struggling small enterprises facing major changes in how commerce is accomplished, yet they are perceived to be passive in their strategic responses (Smith, Discenza & Baker, 2006). Art galleries persist to manage their enterprise as if they are unaffected by any technological changes and consolidation that influences so many other small enterprises (Frankel, 1999). The current market environment for the gallery art market demands careful attention to competitive trends in order to build sustainable success for the future (Smith, Discenza & Baker, 2006). Traditionally, most corporations, collectors and individuals purchased art through local galleries from which they received their published catalogues. Gallery owners/managers still spend most of their time maintaining their clients, as returning collectors are accountable for the lion share of their revenues. The conventional business model that galleries have employed is now heavily under pressure because of globalization and electronic commerce eroding and changing sales locations, marketing channels, client relations and the structure of the industry. Additionally, the changing economic environment is causing threats as well as opportunities for art galleries. The preference for price stability and the boundaries galleries have constructed conflict with free purchasing accessibility make the primary art market respond different from a market solely driven by supply and demand.

Despite the external incentives for a change, galleries maintain to avoid any business oriented mentality. Partly as a result of the romantic ‘art for art’s sake’ culture embedded in the art world and partly because galleries remain naïve and believe the conventional business model will persevere (Smith, Discenza & Baker, 2006). Rather than ignore the incentives for change due to globalization and digitalization, galleries should utilize new strategies for marketing art and cultivating client relations if they wish to succeed in the future (Fillis, 2002). Digitalization is especially considered a significant incentive for change when

considering how the Internet has the potential to completely transform the way art is marketed and retailed. It has led to the emergence of new forms of art, digital art being perhaps the best example, as well as launching a whole new platform for art to be exposed on. Technological breakthroughs, like the possibility to display pictures on the internet have been crucial to the online art market, more and more galleries, as well as museums are using the internet to display their collections online and this is only part of this important role.

With the introduction of the internet, consumers have global access to an enormous amount of products twenty-four hours a day resulting in a significant growth of online sales. Using the Internet, consumers are able to search for the best possible quality for the amount of money they are willing to pay. Most enterprises have embraced this 'e-commerce' not only as a new platform to retail their products but also as an addition to their marketing strategies, with the internet allowing them to reach customers they would not be able to reach in a conventional way. Some reports on the art market predict that 90 percent of the art commerce will eventually be carried out with the utilization of the Internet (Klebinikov, 1999). Auction houses already have an established online bidding clientele, for example, 28 percent of Christie's clientele is now bidding online, more than a quarter of these online bidders were new to the auction house<sup>8</sup>. Even galleries admit that they experience significantly more visitors on their electronic exhibitions (i.e., website) than visitors in their physical premises (Vadon, 1995). Galleries remain sceptical about e-commerce, however they can use their culturally ingrained notion of art on conjunction with electronic technologies in order to improve their distribution and marketing. Over 90 percent of all Dutch galleries are using a personal website as an electronic exhibition space, though only few galleries actually use the Internet as a sales channel. However, the galleries who utilize electronic technologies as a retail channel, hold over 10 percent of their turnover accountable to online sales (EIM). Aside to the possibility of electronically retailing, electronic technologies also improve the promotion of art. Providing direct access to in depth knowledge may enhance a consumer's susceptibility and motivation to start or expand their collection.

Even though art is thought to be difficult to market online, new technology and a new generation of buyers give galleries the opportunity to increase their sales channels with the use of Internet. Currently, galleries are experiencing financial difficulties due to the harsh economic climate. The Internet may offer them a better chance at marketing and retailing their artworks. However, galleries have the tendency to remain passive in their strategic

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<sup>8</sup> <http://www.artmarketmonitor.com/2011/02/07/more-details-on-christies-online-sales/>

responses. They persist to manage their enterprise as if they remain unaffected by new external threats and opportunities. Literature shows that the changing environment does not leave contemporary art galleries unaffected, furthermore it pressurizes galleries to respond with new strategies.

## **2.5 E-commerce as a substitute or complementary strategy?**

*"We're fast approaching the point at which there is really no distinction between the dot.com companies and traditional businesses. The only distinction will be between the winners and losers, and of course, the pace of change at which companies become winners or losers."* (Michael Dell CEO Dell at the DirectConnect Customer Conference 1999)

Galleries today are facing a critical decision, include new technologies and accept a new business model including electronic commerce or retain their traditional business model and risk becoming outdated and surpassed by new, web-based opponents. web-based or cyberspace art retailers are often young, clever and brave entrepreneurs, and cause a potential threat to traditional galleries. While Internet use continues to grow, many retail businesses adjusted to the need to have an online presence. The result of this adjustment is the growing importance of the multi-channel marketers who offer products through more than one channel to their customers (Schoenbachler and Gordon, 2002). Many enterprises abandon their single business model approach such as the brick and mortar business-model, and adopt multi-channel approaches linking their store operations to e-commerce, catalogues and call-centres (Schoenbachler and Gorden, 2002; Zappalà and Gray, 2006).

Ideally for a gallery, establishing a retail website would generate new sales from Internet art buyers. With often less than 10 employees, most galleries can be viewed as small enterprises. Research on small-medium enterprises (SMEs) and the implementation of Web-based sales channels can shed light on the use of Internet based services for galleries (Fillis, 2002).

With the emergence of the Internet as an important channel, three types of retailers can be defined, 'pure play' Internet e-retailers, 'bricks-and-mortar' traditional or offline retailers, and bricks-and-clicks or multi-channel retailers. Research based on an analysis of 13720 price quotes, results show that "when list prices are measured, traditional retailers have the highest prices, followed by multichannel and 'pure play' e-retailers, in that order. However, when shipping costs are included, multichannel retailers have the highest prices, followed by 'pure play' e-retailers and traditional retailers" (Ancarani and Shankar, 2002). Despite optimistic

reports on the increase of e-commerce and the success of 'pure plays', a dramatic change occurred in 2000 and 2001, which was a result from a loss of confidence in pure Internet-based businesses (Steinfeld et al. 2001; Rasheed, 2009). Steinfeld states a growing recognition that e-commerce is improbable to serve as a substitute for the traditional sales channels for business to consumer (B2C) commerce. Most traditional enterprises are much more likely to use Internet-based services as a complementary strategy aside to traditional brick and mortar retail channels (Pristin 1999; Tedeschi 1999; Otto and Chung 2000; Rosen and Howard 2000; Steinfeld et al. 2001; Regan 2002).

Recently, the Internet is becoming more omnipresent, slowly driving retailers without electronic presence to extinction. Business models are now expected to be designed to incorporate e-commerce without causing channel conflicts with existing retail and marketing channels (Rasheed, 2009). Research in marketing literature is now focusing on Internet-based commerce as a part of the business' strategy of multiple channels of marketing and distribution (Geysken et al., 2002) A large amount of firms that have complemented their business model with Internet-based commerce are often referred to as 'clicks-and-bricks' businesses. However, some traditional retailers remain hesitant to embrace the Internet for fear of cannibalizing their existing market share (Enders and Jelassi, 2000; Rasheed, 2009).

For galleries, who have shown to be hesitant to change their business model (see: chapter 1), it is interesting to look at the impact of the use of Internet-based services on online as well as offline sales. In their research Biyalogorsky and Naik (2003) investigated the effect of customer's activity on a business' website, on off line sales. The results of their analysis show that the impact of online visits on offline sales is negative, however not statistically significant. The authors therefore mention that "the contemporaneous cannibalization of offline sales due to online sales is negligible" (Biyalogorsky and Naik 2003, p. 28). In another research by Min and Wolfinbarger (2005) results indicate that a clicks- and-bricks business models hold higher online market share and marketing efficiency (ratio of sales to marketing expenses) than single channel business models. Other researchers question the sustainability of the competitive advantage provided by Internet-based services because the technology has become commonly available to rivalling firms (Barney,1999; Mata et al., 1995). Rasheed (2009) conducted a research among 240 small enterprises that used a clicks-and-bricks business model and small enterprises using a 'pure play' business model in order to compare and contrast two Internet-based electronic commerce models for small enterprises to determine their relative efficiency of marketing strategies and performance outcomes. The

findings indicated that 'pure plays' enjoy a greater international growth rate in web-based revenue than brick-and click enterprises. However, the study also suggests that higher use of electronic commerce for sales generation has a negative impact on profit expectations and revenue growth. In addition to these findings, the author suggests that 'pure plays' distribute products that can be digitized or otherwise electronically distributed and therefore are more successful at growing in global markets.

Most researches on the implementation of e-commerce support the clicks-and-bricks business model. Otto and Chung (2000) mention that the future of consumer to business marketing lies in a multi-channel approach, focused on customer needs. Furthermore, traditional retailers that implemented e-commerce in their business model, attract twice the consumer click rate compared to pure plays (Lai and Chen, 2006). Multi-channel focused firms are found to experience lower costs on marketing and advertising their online presence compared to pure plays. Additionally, they generate a larger share of online revenues compared to pure plays (Jaffe, 2000; Vishwanath and Mulvin, 2001). In a research among eighteen clicks-and-bricks firms, results indicate that firms use click-and-bricks to enhance relations with existing clients in geographical markets where the firms are already active. Additionally, clicks-and-bricks firms are able to re-establish the relationship with clients that have moved away. Finally, a clicks-and-bricks business model can increase the ease and decrease costs of making a purchase within a firm's existing market, which may result in bringing new clients to that market (Adelaar, Bouwman and Steinfield, 2003). The research also indicated a clicks-and-bricks business model are, contrary to the expectation, little used to infiltrate new, more geographically distant markets on a national and international level.

Literature on SMEs indicated that by complementing traditional business models with e-commerce – and thus creating a multi-channelled clicks-and-bricks business model, galleries can acquire significant benefits that single-channel business models neglect. As a results of findings in previous literature the first hypothesis is formulated as: *E-commerce serves as a complementary to the traditional business model of a Dutch contemporary art gallery*



## **2.6 Level of adoption of e-commerce.**

The Internet may perhaps be the most supreme stimulus for marketing thus far created, it creates the opportunity for firms to reach new customers, suppliers and serves as a new distribution channel. Furthermore, it generates a limitless amount of information on markets, businesses, trends, and the latest technology and developments (Hamill, 1997;Steinfeld et al. 1999) Despite the fact that there is a comprehensive acceptance of the importance of e-commerce activities in business environments, the degree of which e-commerce is used in SME environments is highly diverged (Sadowski et al. 2002).

Research indicates little sales are being generated directly as a result of online marketing activities (Gallagher and Gilmore, 2004). Nevertheless the implementation of Internet technologies into a business' marketing mix could offer an opportunity for them to display their products online, advertise in more markets with fewer costs, use e-mail as a marketing tools and decrease printing expenses. Furthermore, the use of e-commerce offers firms the possibility to improve their brand image through the presence of an efficient website (Chen et al. 2003; Gallagher and Gilmore, 2004). In their study, Gallagher and Gilmore revealed that SMEs were not only slow in their response to possibilities and changes of Internet, they also showed that SMEs see the Internet as a separate entity as opposed to integrating it within the whole organization. Introducing it in an ad hoc manner, the Internet served only as an additional promotional tool. In doing so, SMEs failed to use it to create real competitive advantages, such as using e-commerce as a marketing tool as well as retailing tool (Gallagher and Gilmore, 2004).

Firms adopt e-commerce for various purposes, ranging from simple online presence to using e-commerce to change business operations. Correspondingly, the impact of adoption also varies among enterprises and different levels of e-commerce adoption can facilitate different e-commercial activities (Chen et al 2003).Straub and Klein (2001) identified three levels of progression to which firms evolve in their endeavour to practise e-commerce strategies. At the first level, a business is mainly focused on decreasing costs and raising productivity using Internet-based services. At the second level the focus turns to the use of e-commerce to access new consumers and markets. Finally, the third level builds on the preceding levels focusing on the achievement of a complete integration of electronic commerce into the firm's business model. Small enterprises focus on the first and second levels (Karagozoglu and Lindell, 2004).

Teo and Pian (2003) examined the contingency factors that affect levels of Internet adoption and their impact on competitive advantage. They have created a model on the level of Internet and e-commerce adoption. They have grouped the level of adoption as: level 0 (e-mail adoption), level 1 (Internet presence), level 2 (prospecting), level 3 (business integration) and level 4 (business transformation). A firm at level 0 has an e-mail account but no web presence such as a personal website. Firms at level 1 have made the decision to adopt e-commerce into their business operations, they have Internet presence solely to give information about their business. In the prospecting level (2), firms have established websites to provide their clients with detailed information about the firm, newsletters, and product information. At the next level (3), a firm incorporates e-commerce into their business model. They enjoy cost reduction due to the use of e-commerce, as well as cross-functional links between clients and suppliers. Websites at this level are more complex, with additional features for interaction between clients and the firm, marketing and sales, online communities and secure transactions. Features displayed at level 1 and 2 are largely improved. At the final level, firms use e-commerce to transform the overall business model.

In a research among 678 small UK firms, an alternative model on the level of adoption of e-commerce defines four degrees of integration of e-commerce in clicks-and-bricks business models. (Daniel et al. 2002). The research states that the adoption of e-commerce by SMEs proceeds in a set of sequential stages. At first, companies with the lowest level of operational e-commerce services showed a high level of development in these services and are referred to as 'Developers'. At the next level, companies have a higher level of operating e-commerce activities and displayed a large focus on e-commerce activities that enhance communication with clients and suppliers, mainly using e-mail. These companies are referred to as 'Communicators'. At the third level, companies were undertaking all activities displayed by the 'Communicators'. Additionally they have websites that provide information about their business, therefore focusing on having web presence. At this level, companies are referred to as 'Web Presence'. Businesses in the final level display all activities displayed by previous levels, and in addition, they take orders online, provide after sales services. Furthermore, the majority of activities under development in, for example the second level, were found to be operating in the next level.

The owner or manager of a SME decides on the issue of adopting Internet and e-commerce in their business strategies. This decision making process is influenced by a number of factors that affect the adoption of e-commerce. Iacovou et al. (1995) and Knol and Stroeken (2001) revealed that a lack of awareness and knowledge about the technology are factors that influence the owner/manager in not adopting e-commerce. Furthermore, distrust in the Internet and lack of time also negatively affects the decision to adopt e-commerce. The existing level of practice of Internet and e-commerce within the firm also affects the progression of adoption of e-commerce (Iacovou, 1995). Small firm owners or managers are involved in making a return on their investments and therefore can be hesitant to make significant investments in particular when short-term returns are not certain (Steinfeld, 2001). Limited financial resources, as well as time and employees in small firms all affects the adoption of e-commerce, for the reason that they cannot bear to experiment with new technologies, and risk making costly mistakes.

### **2.6.1 E-commerce activities.**

Many studies distinguish a variety of levels or degrees of the extent of adoption. The levels or degrees correspond with certain activities. The extent to which a firm undertakes the activities determines on what level they operate. However, it could be discussed whether e-commerce activities should be classified towards levels of degrees indicating hierarchy and perhaps even superiority of more e-commercial activities. A better classification of activities can be found in various studies on online marketing that carefully describe what activities a firm should undertake to accomplish various goals. Some activities are focused purely on gaining presence online, others are focused on marketing and promotion of products online in order to generate more sales, online or offline. These firms will have largely incorporated e-marketing into their business model. They enjoy cost reduction due to the use of e-marketing, as well as cross-functional links between clients and suppliers. Websites are more complex, with additional features for interaction between clients and the firm, marketing and sales, online communities. Finally some activities are precisely focused on generating online sales. Table 1 gives an overview of various e-commerce activities and the corresponding goals used in the present study based on previous research.

**Table 1: Overview of various e-commerce activities with corresponding goals.**

<i>Activity</i>	<i>Goal</i>
<b>Use of e-mail to communicate with clients, artists and employees.</b>	Gaining online recognition/ presence.
<b>Personal website to display artists, products and product-information.</b>	Gaining online presence.
<b>Use of other websites besides personal website to provide basic information about the gallery.</b>	Gaining online presence.
<b>Use of other websites besides personal website to feature artists.</b>	Gaining online recognition/ presence.
<b>Promotion and advertising via e-mail (e-mail marketing)</b>	Online marketing/promotion.
<b>Use of other websites to promote and advertise gallery's exhibitions and offers .</b>	Online marketing/promotion.
<b>Enhancement of personal website e.g. with cookies or personal profiles.</b>	Online marketing.
<b>Use of social media to promote and advertise products (social media marketing).</b>	Online marketing.
<b>Receiving online orders.</b>	Online retailing.
<b>Retailing products via personal website.</b>	Online retailing.
<b>Retailing via other websites besides personal website.</b>	Online retailing.
<b>Receiving payments online.</b>	Online retailing.
<b>Providing online after-sale services.</b>	Online retailing.

As a results of literature studies on the adoption of e-commerce the following hypotheses can be determined:

- *Certain e-commerce activities correlate more strongly to one another indicating some activities can be clustered together.*
- *The adoption of e-commerce is staged, galleries progress through clusters when all activities of the previous cluster are operational.*

## 2.7 Chapter Conclusion

The traditional business model of an art gallery is under pressure. Due to the credit crunch, globalization and digitalization many small and medium enterprises have had to reconsider their business models and strategies. Most of these businesses adapted to the changing environment. Art galleries however, have the tendency to remain passive in their strategic responses. They persist to manage their enterprise as if they remain unaffected by new external threats and opportunities. Literature reveals that the changing environment does not leave contemporary art galleries unaffected, furthermore it pressurizes galleries to respond with new strategies. Research on the demand for contemporary art sold through the Internet suggests that with a new generation of collectors who are used to e-commerce, galleries could experience a viable online market.

With often less than 10 employees, most galleries can be viewed as small enterprises. Research on SMEs and the implementation of Web-based sales channels can shed light on the use of Internet based services for galleries. By complementing traditional business models with e-commerce - thus creating a multi-channelled clicks-and-bricks business model, galleries can acquire significant benefits that single-channel business models neglect. The Internet may perhaps be the most supreme stimulus for marketing thus far produced, it creates the opportunity for firms to reach new customers, suppliers and serves as a new distribution channel. Furthermore, it generates a limitless amount of information on markets, businesses, trends, latest technology and developments.

Despite the fact that there is a comprehensive acceptance of the importance of e-commerce activities in business environments, the degree of which e-commerce is used in SME environments is highly diverged. This variety in the extent to which e-commerce has been adopted into a business model can be assumed to be clearly visible in Dutch art galleries, who are characteristically hesitant in changing their traditional business model. Many studies distinguish a variety of levels or degrees of the extent of adoption. The extent to which a firm undertakes the activities determines on what level they operate, and thus reveals to what extent they have adopted e-commerce. However, it could be discussed whether e-commerce activities should be classified towards levels of degrees indicating hierarchy and perhaps even superiority of more e-commercial activities. A better classification of activities can be found in studies of online marketing that carefully describe what activities a firm should undertake to accomplish various goals (see table 1).

## **CHAPTER THREE:**

### **RESEARCH STRATEGY.**

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Galleries today are facing a critical decision, include new technologies and accept a new business model including electronic commerce or retain their traditional business model and risk becoming outdated and surpassed by new, web-based opponents. The objective of this study is to shed light on the extent of the adoption of e-commerce by galleries and add more insight to the discussion of the perceived passiveness among galleries in their strategic response to the changing environment. Information on the adoption of e-commerce by micro-enterprises such as galleries is often limited to literature on SMEs. In the literature review, exploratory and descriptive studies have been adopted to attain necessary information with regard to the research questions. This study is of both exploratory and descriptive nature, seeking insights and describe the level of e-commerce adoption of micro firms, especially Dutch galleries.

### **3.1 Research method.**

In order to determine the extent of usage and benefits of e-commerce for galleries, a quantitative research is carried out by means of an e-mailed self-completing questionnaire which provides the research with some general insights on the use of e-commerce by Dutch galleries. Self-completion questionnaires are questionnaires where “respondents answer questions by completing the questionnaire themselves” (Bryman, 2008:216). Prior to this survey, literature review presents a theoretical framework according to which the questionnaire is structured. Consequently with the theory, the survey questions contain indicators that will reveal the what e-commerce activities are undertaken by the gallery in question. Indicators are necessary to provide the measure of a concept (Bryman, 2008). The questions in the survey contain indicators that will reveal what e-commerce activities are undertaken by the gallery in question. Corresponding with these activities, the extent of their use e-commerce can be determined. A survey can be carried out in a number of ways, for example through postal questionnaires or face-to-face interviews. In this case, the questionnaires have been carried out online and through telephone. Most surveys have been

distributed through the use of e-mail which commenced by a simple explanation of e-commerce and the research purpose. Online questionnaires have a number of advantages for the respondents as well as for the researcher. It is an easy way to recruit a large number of galleries which are geographically dispersed in the Netherlands. Secondly, responses are digitized which provide the researcher with data in a functional form for statistical analysis using SPSS. For galleries, it is easy to return the completed questionnaire and anonymity can be guaranteed. However generally the response rate can be rather low, the risk of missing data largely present. Furthermore the questionnaire should be kept to a minimum length, otherwise the researcher risks respondents losing their interest or concentration. In order to avoid biased results due to the sole use of an online questionnaire, the few galleries who lacked online presence or an email-address were reached by phone.

The questionnaire contained three sections. The first section measured the characteristics of the sample (i.e. geographical location, gallery age, total number of employees, number of artists represented by the gallery, revenue and marketing/promotion costs). Section two measured the extent of e-commerce adoption. These Likert-scaled questions contain indicators that will reveal what e-commerce activities are undertaken by the gallery in question. Corresponding with these activities, the level of e-commerce can be determined (see Table 1). Respondents were asked to indicate to what extent they currently employed several listed e-commerce activities. For each activity they also had the option to indicate whether the service was still in development. Additionally in the third section, respondent were asked to rate certain perceived benefits as found in the literature research using Likert-scaled questions. These responses will give an indication of the perceived benefits that galleries whom employ e-commerce experience. Once the extent of adoption has been determined, the influence of independent variables - such as geographic location, revenues and various costs on the level of adoption can be observed. Finally, relations between perceived benefits and the level of adoption of e-commerce can be observed.

Prior research indicated the extent of e-commerce adoption can be ranked alongside four clusters or levels. However this research does not intend to categorize the extent of the adoption of e-commerce among Dutch Contemporary Art galleries, this research seeks to find indication to the extent of the adoption. Therefore, the levels of prior research do serve as a scale alongside which the activities function.

When conducting research it is important to safeguard validity and reliability. High validity corresponds with adequate and truthful the conclusions (Bryman, 2008). The

measurement validity is related to the issue whether one has accomplished measuring what one aimed to measure. Safeguarding the validity of the research starts with the provision of a theoretical framework, which is based on theory of professionals of different areas. The questions in this questionnaire derived from the existing theory found during the literature review. The external validity is safeguarded by the research design. In order to attain a high response rate from the research sample, the e-mails have been set up to convince the potential respondents of the importance of this research. Furthermore, reminders have been sent out after a period of two weeks in order to convince any non-respondents to fill in the survey. It is possible that respondents interpret questions in an unintended manner which could result in incorrect answers. This respondent bias is reduced by using clear and understandable language in the questionnaire and by explaining concepts that might cause misinterpretation or difficulty. Because the questionnaire was fully anonymous the compliance bias for social desirability was also reduced. Additionally, to avoid biased findings of conducting solely online questionnaires when researching adoption of Internet-based services, the few galleries that did not have an e-mail address, were reached by telephone.

### **3.2 Sample Selection.**

The population of interest in this study is Dutch galleries. According to the EIM report, this population consists of approximately 555 galleries in the Netherlands. This includes art dealers, jewellery galleries and contemporary art galleries. The Gallery Guide 2011, provided this research with a database of contact details of these galleries. After the exclusion of art dealers who do not represent any living artists, a sample of 328 galleries was selected. The selected sample contained galleries situated all over the Netherlands. Most of these galleries had their website or e-mail address listed in the guide. In the attempt to receive non-biased results, galleries without online contact details were phoned in order to attain their response. However, galleries without any online presence were scarce, eventually five galleries completed the questionnaire through telephone. Three galleries indicated a preference to have the survey conducted face-to-face during Art Amsterdam. The questionnaires have been sent out during a period of 4 weeks in May 2011. A total of 19 questionnaires were returned indicating incorrect addresses or business no longer operating, suggesting a viable population of 309 galleries. From this sample population, 59 completed surveys were received representing a 19 percent response rate. There is no norm for response rate in academic studies, yet the response rate can be crucial to a paper's validity (Baruch 1999). In his paper



Baruch suggests a norm of 36 percent with a SD of 13 for behavioural studies aimed at top management or other representatives of a organization. In this case this study would not meet the norm. However, previously published research aimed at art galleries in Colorado fetched a 20 percent response rate (Smith, Discenza and Baker, 2006) suggesting that even low response rates can be representative.

## CHAPTER FOUR:

### RESULTS.

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This chapter will provide the results of the data analysis of the 59 responses to the survey among Dutch Contemporary art galleries. First, general findings on the characteristics of respondents will be explored. Secondly, the extent of the adoption of e-commerce will be analyzed. Once the extent of adoption has been determined, the influence of independent variables - such as geographical location, firm size and age on the use of e-commerce can be observed. Then the effect of the use of e-commerce on variables such as annual revenue, sales rate and sales price is studied. Finally, relations between perceived benefits and the level of adoption of e-commerce can be observed. The following hypothesis are tested:

*Hypothesis 1: E-commerce serves as a complementary to the traditional business model of a Dutch contemporary art gallery.*

*Hypothesis 2: Certain e-commerce activities correlate more strongly to one another indicating some activities can be clustered together.*

*Hypothesis 3: The adoption of e-commerce is staged, galleries progress through clusters when all activities of the previous cluster are operational.*

Aside to the hypotheses found through literature research, another set of hypotheses is formed through questions that rise when the main objective of this study is achieved. Namely, shed light on the current state of the adoption of e-commerce of Dutch art galleries. When a certain general state of adoption has been determined among Dutch art galleries, any systematic variance in the adoption of e-commerce can be studied for systematic variance in any determinants such as firm size, age and location of the firm. Furthermore, the effects on the use of e-commerce for galleries can also be tested according to characteristics related to income. This leads to the following set of hypotheses which will also be tested in this chapter:

*Hypothesis 4: Firm characteristics size, age and location influence the use of e-commerce.*

*Hypothesis 5: The extent to which galleries undertake e-commerce influences firm characteristics related to income: annual turnover, retail price and sales-rate.*

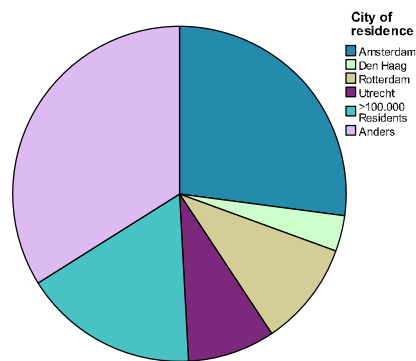
*Hypothesis 6: In general, galleries perceive e-commerce to be beneficial to their business value.*

## 4.1 Descriptive statistics.

**Table 2: City of residence**

City of residence	Number of respondents (N)	Percent (%)
Amsterdam	16	27.1
Den Haag	2	3.4
Rotterdam	6	10.2
Utrecht	5	8.5
>100,000 Residents	10	16.9
Anders	20	33.9
<b>Total</b>	<b>59</b>	<b>100.0</b>

**Figure 1 City of residence.**



From all responses from the Dutch galleries, 49.2% of the galleries are located in the G4 area: the four largest cities of the Netherlands, namely Amsterdam, Den Haag, Rotterdam and Utrecht. 21.7% are located in Amsterdam, followed by 10.2% which are located in Rotterdam, 3.4% are located in Den Haag and 8.5% are located in Utrecht. Furthermore, 16.9% of the galleries are located in cities larger holding over 100,000 inhabitants (G4 excluded) and 33.9% come from areas holding less than 100,000 inhabitants, see table 1. The unequal distribution becomes even more apparent when it is visualized in a pie-chart (see figure 1).

**Table 3: Firm size in average amount of employees during one year.**

<i>Average amount of employees during one year.</i>	<i>Number of respondents (N)</i>	<i>Percent (%)</i>
<b>0</b>	6	10.2
<b>1.0</b>	21	35.6
<b>1.2</b>	1	1.7
<b>1.5</b>	2	3.4
<b>1.7</b>	1	1.7
<b>2.0</b>	18	30.5
<b>3.0</b>	4	6.8
<b>4.0</b>	5	8.5
<b>5.0</b>	1	1.7
<b>Total</b>	59	100.0

**Table 4: Firm size in average annual amount of artists represented.**

<i>Average amount of artists represented during a period of one year.</i>	<i>Number of respondents (N)</i>	<i>Percent (%)</i>
<b>4.0</b>	3	5.1
<b>5.0</b>	3	5.1
<b>6.0</b>	4	6.8
<b>7.0</b>	1	1.7
<b>8.0</b>	3	5.1
<b>9.0</b>	3	5.1
<b>10.0</b>	6	10.2
<b>12.0</b>	7	11.9
<b>13.0</b>	1	1.7
<b>14.0</b>	1	1.7
<b>15.0</b>	6	10.2
<b>16.0</b>	1	1.7
<b>17.0</b>	1	1.7
<b>20.0</b>	2	3.4
<b>21.0</b>	1	1.7
<b>22.5</b>	2	3.4
<b>23.0</b>	2	3.4
<b>24.0</b>	1	1.7
<b>25.0</b>	1	1.7
<b>30.0</b>	4	6.8
<b>50.0</b>	3	5.1
<b>60.0</b>	1	1.7
<b>150.0</b>	1	1.7

**Table 5: Years in operation.**

<i>Years in operation</i>	<i>Number of respondents (N)</i>	<i>Percent (%)</i>
0 < 5	10	17
5 < 10	14	23.7
10 < 15	8	13.5
15 < 20	6	10.2
20 < 25	10	17
25 < 30	3	5.1
30 < 35	4	6.8
35 < 40	5	8.5
40 < 45	2	3.4
45 < 50	1	1.7

**Table 6 : Average annual turnover per location.**

<i>City of residence</i>	<i>Mean annual turnover (in €1000/year)</i>	<i>N</i>	<i>Std. Deviation</i>
Amsterdam	291.5	16	319.79
Den Haag	105	2	63.64
Rotterdam	130	6	79.5
Utrecht	150	5	198.75
Large cities (>100.000 residents)*	41.6	9	24.87
Small cities (≤100.000 residents)	161	20	356.01
<b>Total</b>	172.4	58	282.43

\* With the exclusion of G4: Amsterdam, Den Haag, Rotterdam and Utrecht.

Annually, the average gallery represents 19 artists, employs 2 more workforces besides the gallery owner and has been operating for 16.9 years. The average respondent participates twice a year in national art fairs and once a year in art fairs on an international level. The expenses of an average gallery consist of marketing and promotion (20.5%), exhibitions/art fairs (25.5%), labour costs (14.2%), fixed costs (18.6%) and other costs (9.3%).

The average gallery charges a retail price of €2104.31 however 53.4% charges between €1000,- and €2000,-. The average annual turnover is €172,431.03 though the turnovers are so diverse, calculating an average would not produce manageable results. More interesting are the average annual turnovers per location (Table 5).

The average turnover of galleries located in Amsterdam is considerably higher than the average turnover of galleries located in any other location. Moreover, galleries located in the cluster of cities with a population larger than 100,000 inhabitants reveal drastically lower annual turnovers compared to Den Haag, Rotterdam, Utrecht and small cities with less than

100,000 inhabitants. A two sample t-test was performed in order to compare the means of annual turnover between Amsterdam and other clusters and to calculate significant differences. All five clusters do not significantly differ from Amsterdam, revealing negative t-values of 0.000 and  $p > 0.10$ . This indicates that differences in turnovers are not produced as a result of the variance of locations. However, these results should be approached with interpretive caution T-test assumption are violated due to low numbers of N between the clusters.

## **4.2 To what extent have Dutch contemporary art galleries adopted e-commerce?**

The questions central to this paragraph are: to what extent have Dutch galleries adopted the use of Internet to conduct business into their business model? And what activities do Dutch galleries undertake to conduct electronic business?

### **4.2.1 Hypothesis 1: E-commerce as a complementary marketing and sales channel.**

Literature on small firms showed that by complementing traditional business models with e-commerce – and thus creating a multi-channelled clicks-and-bricks business model, small firms acquire significant benefits that single-channel business models neglect. Therefore one would also expect most galleries to utilize the clicks-and-bricks business. The average respondent indicated to spend 20.5 percent of their total budget on marketing and promotion in general. Of this marketing and promotion budget, 18.5 percent is spent on online marketing and promotion and 81.5 percent on offline marketing and promotion. This already reveals that on average galleries complement their traditional business model with e-commerce rather than replace traditional marketing and sales channels with e-commerce.

### **4.2.2 Hypothesis 2: Certain e-commerce activities correlate more strongly to one another indicating some activities can be clustered together.**

In order to gain more insight in how galleries use the Internet in order to conduct business and to gain insight on the adoption of e-commerce respondents were asked to scale the extent to which the gallery undertakes certain e-commerce activities. The scale used in the survey was a five-point scale, ranging from: 'no use'(0) – 'in development'(1) – 'limited extent'(2) – 'medium extent'(3) – 'large extent'(4) – 'very large extent' (5). For the activities measuring the extent of the use of e-commerce activities, the Cronbach's alpha is 0.902 indicating sufficient internal reliability. Responses on the activities can be found in table 7, analysis of the responses is listed in table 8. In correspondence with tables 7 and 8, figure 2 provides a clear view on the adoption per activity by displaying the mean response per activity. The graph reveals to what extent activities are undertaken by the respondents, additionally figure 3 reveals the percentage of galleries who are undertaking individual activities. Correlations between activities show that the correlation coefficients are significantly higher between neighbouring activities rather than coefficients between activities focused on gaining on

online presence and activities focused on online retailing. This indicate activities can be clustered according to purpose, and that activities with the same purpose highly correlate to one another (see appendix).



**Table 7. Responses per activity:**

	Activity	0 (N)	1 (N)	2 (N)	3 (N)	4 (N)	5 (N)
Activities focused on online presence.	Use of e-mail to communicate with clients, artists and employees.	3	2	2	6	17	29
	Personal website to display artists, products and product-information.	5	4	4	3	19	24
	Use of other websites besides personal website to provide basic information about the gallery.	7	7	9	15	14	9
	Use of other websites besides personal website to feature artists.	7	13	6	16	15	2
Activities focused on online marketing	Promotion and advertising via e-mail (e-mail marketing)	7	4	3	4	15	26
	Use of other websites to promote and advertise gallery's exhibitions and offers .	9	10	8	16	9	7
	Enhancement of personal website e.g. with cookies or personal profiles.	11	5	8	13	13	9
	Use of social media to promote and advertise products (social media marketing).	37	10	4	2	2	4
Activities focused on online retailing	Receiving online orders.	22	13	10	5	5	4
	Retailing products via personal website.	28	11	10	2	6	2
	Retailing via other websites besides personal website.	38	10	5	5	1	0
	Receiving payments online.	45	6	5	2	1	0
	Providing online after-sale services.	36	11	6	4	1	1

<sup>1</sup>Multiple modes exist. The smallest value is shown.

**Table 8. Response analysis per activity:**

	Activity	Non-operational activities*	Operational activities**	Mean	Mode
Activities focused on online presence.	Use of e-mail to communicate with clients, artists and employees.	5 (8,5%)	54 (91,5%)	<b>4,02</b>	<b>5</b>
	Personal website to display artists, products and product-information.	9 (15,3%)	50 (84,7%)	<b>3,68</b>	<b>5</b>
	Use of other websites besides personal website to provide basic information about the gallery.	14 (23,7%)	45 (76,3%)	<b>2,73</b>	<b>3</b>
	Use of other websites besides personal website to feature artists.	20 (33,9%)	39 (66,1%)	<b>2,46</b>	<b>3</b>
Activities focused on online marketing	Promotion and advertising via e-mail (e-mail marketing)	11 (18,6%)	48 (81,4%)	<b>3,59</b>	<b>5</b>
	Use of other websites to promote and advertise gallery's exhibitions and offers.	19 (32,2%)	40 (67,8%)	<b>2,42</b>	<b>3</b>
	Enhancement of personal website e.g. with cookies or personal profiles.	16 (27,1%)	43 (72,9%)	<b>2,66</b>	<b>3<sup>1</sup></b>
	Use of social media to promote and advertise products (social media marketing).	47 (79,7%)	12 (20,3%)	<b>0,88</b>	<b>0</b>
Activities focused on online retailing	Receiving online orders.	35 (59,3%)	24 (40,7%)	<b>1,49</b>	<b>0</b>
	Retailing products via personal website.	39 (66,1%)	20 (33,9%)	<b>1,20</b>	<b>0</b>
	Retailing via other websites besides personal website.	48 (81,4%)	11 (18,6%)	<b>0,66</b>	<b>0</b>
	Receiving payments online.	51 (86,4%)	8 (13,6%)	<b>0,44</b>	<b>0</b>
	Providing online after-sale services.	47 (79,7%)	12 (20,3%)	<b>0,75</b>	<b>0</b>

\* Non-operational activity is calculated by aggregating responses indicating no use (0) and developmental activity (1)

\*\* Operational activity is calculated by aggregating responses indicating usage to limited extent (2), medium extent (3), large extent (4) and very large extent (5).

Figure 2: Mean score per activity.

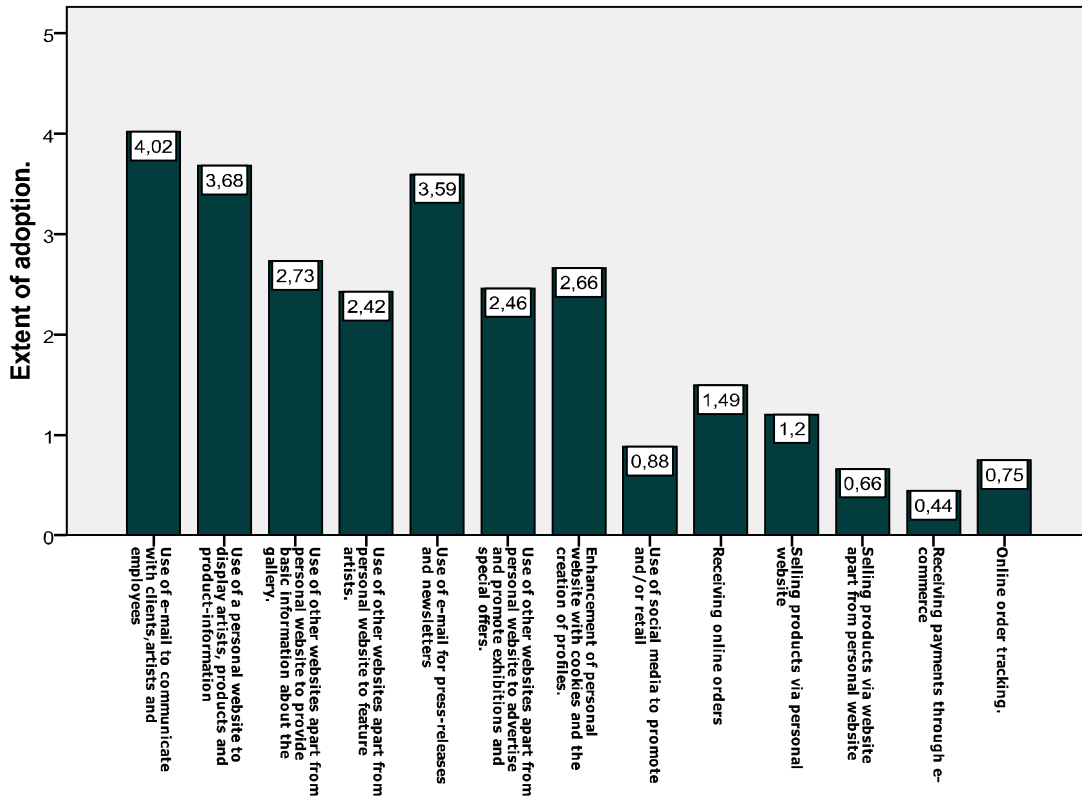
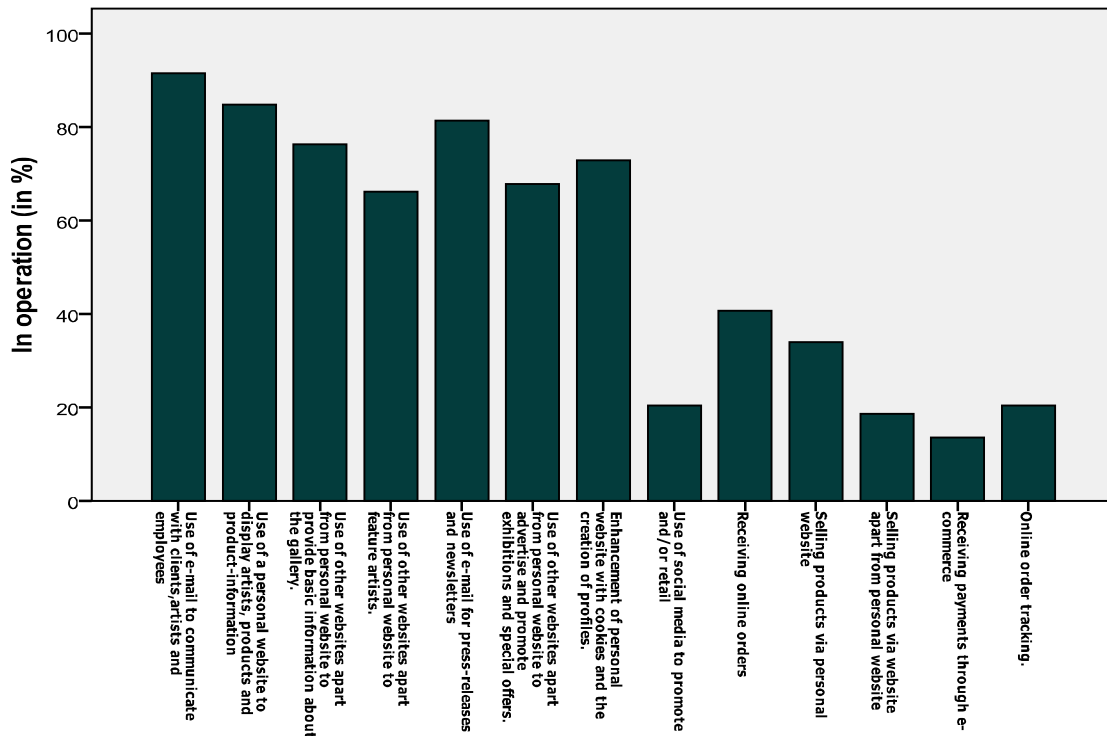


Figure 3: Percentage of galleries per operational activity.



Overall, the results show lower affirmative responses when activities are more focused on e-retailing, a higher total of affirmative responses can be found in e-marketing activities and activities corresponding with communication purposes. Frequency tables are used to determine the relative adoption per activity (see attachment).

E-mail for communicational purposes is used by almost any gallery, 91.5 percent of the respondents indicate this service to be operational, the mean response lies on 4.02 indicating most respondents are undertaking this activity to a large extent. 84.7 percent of all responses utilizes a personal website to provide business information, the use of websites apart from personal websites to provide business information is utilized by 84.7 percent of the respondents and 66.1 percent uses other websites to feature their artists. Furthermore 66.1 percent responded affirmative in undertaking all activities corresponding with online presence. The average response for these activities is 3.3 indicating galleries make medium use (3) of activities in order to gain online presence. 8.5 percent of all respondents is not undertaking any of these activities.

The next cluster of activities are undertaken for online marketing purposes. 81.4 percent of all galleries use e-mail for marketing purposes to some extent, the average response indicated to undertake the activity medium to a large extent. 67.8 percent of respondents indicated the use of other websites besides their personal website to promote and advertise their gallery's exhibition and special offers. 72.9 percent of all respondents indicates to enhance their personal websites by means of the creation of personal profiles clients can log on to in order to view more detailed information on artworks or by the use of cookies that are installed on the viewers PC in order to track their preferences. In this cluster a significantly lower amount of affirmative responses is observed: 20.3 percent of all responses were affirmative to all activities in this cluster. Of this 20.3 percent 66.7 percent also gave an affirmative response to all activities in the previous cluster. Furthermore the average response is 2.4 indicating limited use. 18.6 percent of all respondents indicated to have no operational activities at all in this cluster, yet 31 percent of all these non-operational activities in this cluster is under development. However, in this cluster some activities display unexpected behaviour: the use of social media is very low (N=12, mean= 0,88) 62.7 percent of the respondents indicated this activity to be non-operational. 16.9 percent indicates the activity to be in a developing stage. Social media can provide a business with efficient and inexpensive channels to communicate and promote exhibitions and special offers. By creating for example fan bases (Facebook) or followers (Twitter) the use of social media also allows the gallery to

gain more insight in preferences and demographics of their customers. Creating a profile and keeping it up-to-date with exhibitions, special offers and other marketing possibilities can be time-consuming, though it is perceived to be an uncomplicated and very inexpensive activity. The low use of social media becomes even more an anomaly by comparing it to high amount of galleries indicating to enhance their personal website with profiles and cookies in order to gain more insight on the preferences of their customers. For enhancing a personal website in this matter is a very sophisticated activity which often requires a specialist to create such an enhanced website. This anomaly could be the result of a response bias, however if 72.9 percent of all galleries does enhance their personal website but severely neglects to undertake social media marketing activities an obvious discrepancy is observed between those two activities possibly indicating inefficient use of online marketing possibilities.

The final cluster contains activities that focus on generating actual online sales. 5,1 percent of the respondents indicated to be utilizing all activities to some extent. The average response is 0.9. Consequently, lower affirmative responses result in higher negative responses, 71.6 percent of the respondents indicated to have no e-retailing activities operational, yet 23.2 percent of all non-operational activities are under development. 40.7 percent of all respondents claims to receive and utilize online orders, furthermore 22 percent claims to be developing this service. 33.9 percent claims to sell their products via their personal website and 18.6 percent even sells via other websites besides their personal website. 13.6 percent of the respondents receive their payment online and 20.3 percent of all galleries claims to provide online after-sale support, such as the possibility to allow the clients to track their orders online and provide feedback on products and services. Findings show again reveal unexpected behaviour expressed in the high percentages in the adoption of advanced activities such as e-retailing via personal and other websites and online after-sale services.

The actual retail possibility through the use of e-commerce has been adopted by relatively high number of galleries. These results may indicate a response bias in which respondents might not have understood the concepts of online retailing and after-sales clearly, or the sample may be biased in favour of the use of e-commerce. Furthermore, the small sample may induce these high percentages while the absolute numbers are far less impressive. However, on the other hand prior literature on the online demand has revealed that retailing art websites require highly sophisticated support and excellent after-sales to significantly decrease any trust issues consumers may have.

### 4.2.3 The adoption of e-commerce is staged, galleries progress through clusters when all activities of the previous cluster are operational.

**Table 9: Staged adoption.**

	Activity	>1 activity in operation PER CLUSTER (N=number of galleries)	Of which have all activities in operation PER CLUSTER. (N=number of galleries)	Of which have also adopted the activity listed prior to the current activity*
Activities focused on online presence.	Use of e-mail to communicate with clients, artists and employees.	54	39	54
	Personal website to display artists, products and product-information.			50
	Use of other websites besides personal website to provide basic information about the gallery.			45
	Use of other websites besides personal website to feature artists.			39
Activities focused on online marketing	Promotion and advertising via e-mail (e-mail marketing)	48	12	33
	Use of other websites to promote and advertise gallery's exhibitions and offers (affiliate marketing).			28
	Enhancement of personal website e.g. with cookies or personal profiles.			27
	Use of social media to promote and advertise products (social media marketing).			8
Activities focused on online retailing	Receiving online orders.	24	3	6
	Retailing products via personal website.			5
	Retailing via other websites besides personal website.			4
	Receiving payments online.			3
	Providing online after-sale services.			2

\* This shows for example that of the 54 galleries who have adopted use of e-mail to communicate with clients, artists and employees, 50 have adopted the following activity namely: personal website to display artists, products and product-information etc.

In their article Daniels et al. (2002) present the idea of staged adoption, according to which the adoption of e-commerce activities can be ranked into various stages. They provide empirical evidence that reveals most businesses to follow these stages in their adoption of e-commerce, furthermore the study reveals that all activities corresponding with the stages are adopted before the firm moves to the next stage. The activities in this study are extracted from the activities used in the study by Daniel et al. and should, according to their theory, therefore also reveal a somewhat staged adoption. Table 4 reveals that of all 39 galleries indicating to have all activities in cluster 1 in operation, 8 have all activities in cluster 2 in operation and of these 9 galleries, there are 2 who have all activities in cluster 3 in operation and consequently,

all activities in this study. On the other hand, 48 galleries indicate to have at least one activity of the second cluster in operation indicating that 9 (15.3 percent) galleries have proceeded to cluster 2 without having all activities in cluster 1 in operation. In the final cluster, 24 galleries indicate to have at least one activity in operation, indicating that 15 (25.4 percent) galleries proceeded to the final cluster without having all activities in cluster 2 in operation. Of all 24 galleries indicating at least one activity in operation in cluster 3, only 3 have all activities in operation and of which 2 have all activities in all clusters in operation. These findings indicate that unlike theory suggested galleries do not adopt their activities precisely according to stages, however the theory should not be entirely neglected for the reason that the results do indicate that in order to arrive at e-retailing, a range of activities focused on gaining online presence and online marketing activities should be undertaken.

### 4.3 Relationships.

Regression analysis is a statistical technique to analyse a relationship between two (or more) variables. Most variables in this research are ordinal, for example, the extent to which an e-commerce activity is in use. Some variables, such as geographical location are nominal and others, such as average annual turnover and average annual sales rate are ratio. In order to find what variables influence the use of e-commerce, a new ratio variable has been created. This new variable contains the sum of the scores on all 13 activities with the lowest possible score being 0 and the highest score being 78. A high score indicates a large extent of e-commerce usage, low scores indicate little extent of e-commerce utilization.

Correlation is used to decide the force and the direction of the connection. To link variables to each other, depending on the measure, a variety of correlation coefficients can be used. The value of a correlation coefficient is usually between -1 and +1. The significance is expressed in p. If p is zero, the correlation is 100% reliable. At 99% reliability p is 0,01. At 95% reliability p is 0.05 This study will only discuss variables who have 95% reliability or even higher significantly relate to the other variable. Correlations are useful in detecting connections between variables and also indicate a direction, however correlations are unable to indicate any causality. Therefore, regression analysis can be performed to determine the causal relationship between the dependent variable (use of e-commerce) and various independent variables (firm characteristics).

Because the variable 'use of e-commerce' is scaled, regression analysis can only be performed when basic assumptions of Ordinary Least Squares for regressions are confirmed: both variables should be normally distributed. Values of collinearity should be  $\leq 1$  and Durbin-Watson coefficient should be between 1 and 2.5 in order to exclude auto-correlation. Residuals should be normally distributed, linear and homoscedastic.

#### 4.4 The influence of firm size, firm age and firm location on the use of e-commerce.

This paragraph studies what firm characteristics influence the use of e-commerce. The firm characteristics in this paragraph are: firm size, firm age and geographical location of the firm. The hypothesis central to this paragraph is: *Firm characteristics: size, age and location influence the use of e-commerce in Dutch galleries.* Correlation analysis is performed with firm characteristics being the independent variables and use of e-commerce the dependent variable. Regression analysis is performed when correlation analysis shows significant results.

##### 4.4.1 Firm size.

Firm size can be determined by many factors, for example turnover and in this study the focus lies on the amount of employees, however for galleries another determinant can be found in the amount of artists they represent. The influence of both variables on the use of e-commerce is studied.

**Table 10: Mean score on the use of e-commerce related to the amount of employees.**

Average annual amount of employees.	Mean score on use of e-commerce (min = 0, max = 78)	Number of respondents (N)	Std. Deviation
.0	24.83	6	11.4
1.0	29.57	21	13.
1.2	31.00	1	.
1.5	25.00	2	4.2
1.7	31.00	1	.
2.0	22.78	18	13.7
3.0	23.25	4	16.3
4.0	38.00	5	9.3
5.0	17.00	1	.
<b>Total</b>	26.98	59	12.9

Test of normality reveals that the variable 'use of e-commerce' is normally distributed and the variable 'average amount of employees per year' is not normally distributed. The data has violated the parametric assumption and therefore Spearman's rho and Kendall's tau are both used in order to study the relationship between these variables. No significant correlation was found between the average amount of employees operating in the gallery during the period of



one year and the use of e-commerce:  $r_s = 0.033$ ,  $p = 0.805$  and  $\tau = 0.024$ ,  $p = 0.811$ . This indicates that a systematic variation in the amount of employees, does not influence the extent to which e-commerce is undertaken. Galleries with any amount of employees undertake e-commerce up to a certain extent. Table 9 emphasizes this conclusion by displaying the mean score on the variable ‘use of e-commerce’ per amount of employees. Mean scores are somewhat even in all clusters with a maximum score of 38 and a minimum score of 17. Scores all show medium to low usage of e-commerce.

**Table 11: Mean score on the use of e-commerce related to the average annual amount of artists represented.**

<i>Average annual amount of artists represented.</i>	Mean score on use of e-commerce (min = 0, max = 78)	<i>Number of respondents (N)</i>	<i>Std. Deviation</i>
4.0	34	3	9.5
5.0	22.7	3	20.8
6.0	21	4	14.3
7.0	59	1	.
8.0	18	3	16.5
9.0	22	3	24.9
10.0	29	6	8.8
12.0	24.9	7	13.3
13.0	6	1	.
14.0	4	1	.
15.0	33.2	6	8.8
16.0	34	1	.
17.0	28	1	.
20.0	19.5	2	10.6
21.0	24	1	.
22.5	40	2	5.7
23.0	29	2	7.0
24.0	16	1	.
25.0	47	1	.
30.0	28.5	4	2.4
50.0	25	3	2.7
60.0	19	1	.
150.0	30	1	.
<b>Total</b>	26.8	58	12.9

No significant correlation was found between the average amount of employees operating in the gallery during the period of one year and the use of e-commerce:  $r_s = 0.014$ ,  $p = 0.915$  and  $\tau = 0.003$ ,  $p = 0.937$ . This indicates that a systematic variation in the amount of artists represented by the gallery does not influence the extent to which e-commerce is undertaken. Galleries representing any amount of artists undertake e-commerce up to a certain extent. Table 10 emphasizes this conclusion by displaying the mean score on the variable ‘use of e-commerce’ per amount of artists represented by the gallery.

Firm size can also be determined by the annual turnover, the variable 'average annual turnover' is not normally distributed. The data has violated the parametric assumption and therefore Spearman's rho and Kendall's tau are both used in order to study the relationship between these variables. No significant correlation was found between the average annual turnover and the use of e-commerce:  $r_s = 0.069$ ,  $p = 0.606$  and  $\tau = 0.049$ ,  $p = 0.599$ . This indicates that a systematic variation in the average annual turnover, does not influence the extent to which e-commerce is undertaken.

These results indicate that most galleries again undertake e-commerce activities to a low or medium extent regardless of firm size. Thus firm size has no effect on the use of e-commerce.

#### **4.4.2 Years in operation.**

Test of normality reveals that the variable 'use of e-commerce' is normally distributed and the variable 'average amount of employees per year' is not normally distributed. The data has violated the parametric assumption and therefore Spearman's and Kendall's are both calculated in order to study the effect of firm age on the use of e-commerce. No significant correlation was found between the age of the gallery and the use of e-commerce:  $r_s = -0.42$ ,  $p = 0.753$  and  $\tau = -0.34$ ,  $p = 0.714$

Comparing means shows that 13 cases do not score between 20 and 40 in their use of e-commerce, these outliers are dispersed between 0 and 50 years in operation. This, together with insignificant correlations leads to the conclusion that the age of the firm has no significant influence on the extent of e-commerce use within a gallery. All galleries use e-commerce up to a certain extent, regardless of their age.

#### **4.4.3 Geographical location.**

Test of normality reveals that the variable 'geographical location' is not normally distributed, therefore Spearman's and Kendall's are both calculated in order to study the effect of firm location on the use of e-commerce. No significant correlation was found between the age of the gallery and the use of e-commerce:  $r_s = -0.129$ ,  $p = 0.330$  and  $\tau = -0.93$ ,  $p = 0.346$ .

**Table 12: Mean score on the use of e-commerce related to the geographical location.**

<i>City of residence</i>	<i>Mean score on use of e-commerce (min = 0, max = 78)</i>	<i>N</i>	<i>Std. Deviation</i>
<b>Amsterdam</b>	30,38	16	9,091
<b>Den Haag</b>	18,50	2	17,678
<b>Rotterdam</b>	25,17	6	12,983
<b>Utrecht</b>	21,60	5	18,420
<b>&gt;100.000 Residents</b>	26,00	10	19,613
<b>Anders</b>	27,50	20	10,211
<b>Total</b>	26,98	59	12,934

A two sample t-test was performed in order to compare the means of the variable ‘use of e-commerce’ between Amsterdam and other clusters and to calculate significant differences per geographical location. All five clusters do not significantly differ from Amsterdam, revealing negative t-values of 0.000 and  $p > 0.10$ . This indicates that differences in the use of e-commerce are not produced as a result of the variance of locations. However, these results should be approached with interpretive caution T-test assumption are violated due to low numbers of N between the clusters.

None of the firm characteristics are found to significantly correlate with the use of e-commerce. Therefore the hypothesis that firm size, age and geographical location of the firm influences a gallery’s use of e-commerce is rejected. This does not mean no conclusions can be drawn from these results, results shows overall low adoption scores and no systematic variation, this could mean that few firms consider e-commerce to be greatly beneficial.

## **4.5 The influence of the use of e-commerce on average annual turnover, average retail price and average annual sales rate.**

In this paragraph the influence of the use of e-commerce is tested on the variables: average annual turnover, average retail price and average annual sales rate. Additionally, the influence of the use of e-commerce on the generation of online sales is assessed. The hypothesis central to this paragraph is: *The extent to which galleries undertake e-commerce influences the economic value of a gallery.*

### **4.5.1 Average annual turnover.**

Tests of normality show annual turnover is significant ( $p=0.00$ ) therefore not normally distributed, use of e-commerce is not significant ( $p= 0.168$ ) therefore normally distributed. The data has violated the parametric assumption and therefore Spearman's rho and Kendall's tau are both used in order to study the relationship between these variables. No significant correlation was found between the use of e-commerce and the average annual turnover:  $r_s= 0.069$ ,  $p = 0.606$  and  $\tau = 0.049$ ,  $p = 0.599$ . This indicates that a systematic variation in the use of e-commerce, does not influence the average annual turnovers.

Additionally, no significant correlation was found between the generation of online sales or revenues and average annual turnover.

### **4.5.2 Average retail price per piece.**

Test of normality reveal that average retail price is significant ( $p=0.00$ ) and therefore not normally distributed. Spearman's rho and Kendall's tau both reveal no significant values:  $r_s= 0.212$ ,  $p = 0.111$  and  $\tau = 0.136$ ,  $p = 0.151$ . This indicates that a variation in the use of e-commerce, does not influence the average retail price.

Additionally, no significant correlation was found between the generation of online sales or revenues and average retail prices.

#### 4.5.3 Average annual sales rate.

Test of normality reveal that average retail price is significant ( $p=0.00$ ) and therefore not normally distributed. Spearman's rho and Kendall's tau both reveal no significant values:  $r_s = -0.062$ ,  $p = 0.646$  and  $\tau = -0.44$ ,  $p = 0.642$ . This indicates that a variation in the use of e-commerce, does not influence the average annual sales rate.

Additionally, no significant correlation was found between the generation of online sales or revenues and average annual sales rate.

#### 4.5.4 Generation of online sales and revenues via online sales.

The influence of e-commerce is tested on the generation of the percentage of online sales and revenues generated through the use of e-commerce as opposed to total amount of sales and revenues. Tests of normality again shows both variables to be significant thus not normally distributed. Spearman's rho reveals that the use of e-commerce influences the generation of online sales ( $r_s = 0.617$ ,  $p = 0.00$ ) and revenues generated via online sales ( $r_s = 0.653$ ,  $p = 0.000$ ). For both variables regression analysis can be performed. Because the variable 'use of e-commerce' is a scaled variable, regression analysis can only be performed when the assumptions for regression are confirmed: both variables should be normally distributed. Values of collinearity should be  $\leq 1$  and Durbin-Watson coefficient should be between 1 and 2.5 in order to exclude auto-correlation. Residuals should be normally distributed, linear and homoscedastic.

In the regression for the variables 'use of e-commerce' and 'percentage of sales generated online' values of collinearity are 1, Durbin-Watson coefficient is 1.9, residuals are not normally distributed however they are linear and homoscedastic because there is no funnel shape in the scatter plot. The variable 'percentage of sales generated online' is not normally distributed and therefore the relationship does not confirm all assumptions. Because both unstandardized coefficients are significant ( $p=0.020, 0.000$ ), the percentage of online sales =  $-10.292 + 0.681 \cdot \text{use of e-commerce}$ . Indicating that an increase in the use of e-commerce by 1 results in an increase of 0.681 in the percentage of online sales.  $R^2$  is 0,281 revealing that 28.1 percent of the variance of the percentage of online sales is explained by the use of e-commerce, indicating other factors influence this variable as well.

In the regression for the variables 'use of e-commerce' and 'percentage of revenues generated online' values of collinearity are 1, Durbin-Watson coefficient is 1.9, residuals are linear and homoscedastic because no funnel shape appears in the scatter plot, residuals are however not normally distributed. The variable 'percentage of revenues generated online' is not normally distributed and therefore not all assumptions are confirmed. Both unstandardized coefficients are significant ( $p=0.007, 0.000$ ). The percentage of revenues generated via online sales =  $-11,583 + 0.723 \cdot \text{use of e-commerce}$ . Indicating that an increase in the use of e-commerce by 1 results in an increase of 0.723 in the percentage of revenues generated via online sales as opposed to total revenues.

It is important that both regressions are approached with interpretive caution because not all assumptions are confirmed and therefore results are disputable. The fact that both dependent variables are not normally distributed leads to unreliable p-values. Further research on this subject is advised to use a larger dataset in order to apply the Central Limit Theorem.

Overall, results show that the influence of e-commerce on various variables related to income is very limited. For Dutch galleries, high scores on the use of e-commerce do not lead to higher revenues or sales rates. Higher scores on the use of e-commerce can however lead to a higher percentage of sales and revenues generated via online sales. This indicates that total revenues and sales do not change as a result of engaging in e-commerce, but the percentage of sales and revenues generated by the use of Internet in relation to total sales and revenues increases. This conclusion is subject to discussion because both regression violate assumption and therefore p-values might not be reliable. Nevertheless for the use of e-commerce to hold economic benefits for galleries - without it leading to an increase of total turnover, increasing the use of e-commerce should then lead to cost reductions.

Correlation analysis on the influence of the use of e-commerce on the costs structure of a gallery reveals that: promotion and marketing costs, expenses on exhibitions and art fairs, labour costs and fixed costs remain unaffected from systematic variation of the use of e-commerce. The share of online marketing costs in relation to total marketing costs increases as a result from an increase in the use of e-commerce ( $r_s = 0.339, p = 0.00$ ).

These results reveal that an increase of the use of e-commerce creates no additional economic value for Dutch galleries, total costs as well as total revenues remain unaffected as a result of a systematic variation in the use of e-commerce.

#### 4.6 Perceived benefits of e-commerce.

Economic value is not the only value that can be created in a business: value creation may also include organizational value, social value and cultural value. These values are often together referred to as business value. Values other than economic value are not directly measured in monetary terms. In marketing theory, the value of a product is a psychological estimation of how the customer deems the product in relation to the perceived costs in receiving benefits of the product. The hypothesis central to this paragraph is: *In general, galleries perceive e-commerce to be beneficial to their business value.*

Results on firm characteristics indicated an overall low adoption scores and no systematic variation, this could mean that few firms consider e-commerce to be greatly beneficial. In order to assess the perceived benefits of e-commerce by Dutch galleries the questionnaire also contained statements that could gauge the opinion on benefits of the use of e-commerce. Specific benefits brought forward by the literature research were rated by the respondents using a 5-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). There was also a ‘neutral’ option. Table 12 shows an overview of all statements, their responses and the mean response to each statement. Perceived benefits can be divided in operational benefits and relationship-related benefits.

**Table 13. Responses on statements measuring perceived benefits.**

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Operational benefits	The use of e-commerce increases efficiency.	0	9 (15.3%)	17 (28.8%)	20 (33.9%)	13 (22.0%)	3.63
	The use of e-commerce increases effectiveness.	0	7 (11.9%)	15 (25.4%)	26 (44.1%)	11 (18.6%)	3.69
	The use of e-commerce increases competitiveness.	0	9 (15.3%)	11 (18.6%)	30 (50.8%)	9 (15.3%)	3.66
	The Internet is a reliable source to find information about my gallery.	0	2 (3.4%)	12 (20.3%)	33 (55.9%)	12 (20.3%)	3.93
Relationship-related benefits	The use of e-commerce simplifies communication between clients, artists and employees.	0	7 (11.9%)	9 (15.3%)	28 (47.5%)	15 (25.4%)	3.86
	The Internet provides galleries with a global reach.	0	3 (5.1%)	5 (8.5%)	23 (39.0%)	28 (47.5%)	4.29
	The use of e-commerce speeds up communication.	0	1 (1.7%)	7 (11.9%)	35 (59.3%)	16 (27.1%)	4.12
	The use of e-commerce helps to access new clients and artists.	0	3 (5.1%)	5 (8.5%)	36 (61.0%)	15 (25.4%)	4.07
	The use of e-commerce increases client relations.	0	5 (8.5%)	9 (15.3%)	27 (45.8%)	18 (30.5%)	3.98

The results show that Dutch gallery's perceive to acquire operational benefits as well as communicational benefits from the use of e-commerce. 55.9 percent of all respondents confirm that the use of e-commerce efficiency, 62.7 percent holds the opinion that the use of e-commerce increases effectiveness. 66.1% of all respondents agrees that using e-commerce increases their competitiveness against other galleries. 76.2 percent of all respondents values the Internet as a reliable source to find information on their business. 72.9% believes that The use of e-commerce simplifies communication between clients, artists and employees. Of all respondents, 86.4 percent confirms that the use of e-commerce helps to access new clients and artists, 76.3 percent indicates that the use of e-commerce increases client relations. 86.5 percent agrees to the statement that the use of e-commerce provides galleries with a global reach.

On average, results show that galleries experience high benefits from the use of e-commerce. E-commerce allows a gallery to be more efficient, effective and competitive in their business processes. E-commerce use also simplifies and speeds up communications as well as increasing client relations. As a result, the organizational value of a gallery is perceived to benefit from the use of e-commerce.



## 4.7 Chapter Conclusion.

Almost all (91.5 percent) of the respondents complemented their traditional business model with some e-commerce activities. 8.5 percent of the respondents did not complement their traditional business model and 0 percent of the respondents indicated to be an online gallery. E-commerce activities can be divided into three clusters: activities focused on gaining online presence, activities focused on online marketing and activities focused on online retailing. 66.1 percent of all respondents indicated to undertake all activities focused on gaining online presence. 20.3 percent of all respondents undertake all activities focused on online marketing of which  $\frac{2}{3}$  also undertakes all activities focused on gaining online presence. In this cluster of activities, social media marketing is severely neglected. The final cluster contains 5.1 percent of all respondents who undertake all activities in this cluster, of which  $\frac{2}{3}$  also undertook all activities of the previous clusters. Findings indicate that unlike theory suggested galleries do not adopt their activities precisely according to stages, however the theory should not be entirely neglected for the reason that the results do indicate that in order to arrive at e-retailing, a range of activities focused on gaining online presence and online marketing activities should be undertaken.

None of the firm characteristics are found to significantly correlate with the use of e-commerce. Therefore the hypothesis that firm size, age and geographical location of the firm influences a gallery's use of e-commerce is rejected. This does not mean no conclusions can be drawn from these results, results shows overall low adoption scores and no systematic variation, this could mean that few firms consider e-commerce to be greatly beneficial. Results also reveal that the influence of e-commerce on annual average turnover, average sales price and average annual sales rate is very limited. For Dutch galleries, high scores on the use of e-commerce do not lead to higher revenues or sales rates. For the use of e-commerce to hold economic benefits for galleries - without it leading to an increase of total turnover, increasing the use of e-commerce should then lead to cost reductions. However, correlation analysis on the influence of the use of e-commerce on the costs structure of a gallery reveals that promotion and marketing costs, expenses on exhibitions and art fairs, labour costs and fixed costs remain unaffected from systematic variation of the use of e-commerce. These results reveal that an increase of the use of e-commerce creates no additional economic value for Dutch galleries, total costs as well as total revenues remain

unaffected as a result of a systematic variation in the use of e-commerce. Economic value is not the only value that can be created in a business: value creation may also include organizational value, social value and cultural value. results show that galleries perceive e-commerce to allow a gallery to be more efficient, effective and competitive in their business processes. E-commerce use also simplifies and speeds up communications as well as increasing client relations. As a result, the organizational value of a gallery is perceived to benefit from the use of e-commerce.

## **CHAPTER FIVE:**

### **CONCLUSION.**

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The effects of Internet are studied in many disciplines, one of the most studied effect is that on doing business. While Internet use continues to grow, many retail businesses adjusted to the need to have an online presence. Companies today are facing a critical decision, include new technologies and accept a new business model including electronic commerce or retain their traditional business model and risk becoming outdated and surpassed by new, web-based opponents. Web-based or cyberspace suppliers are often young, clever and brave entrepreneurs, and cause a potential threat to traditional companies. The changing economic climate has caused great difficulty for small businesses. In order to survive owners and managers were forced to attempt to attain sustainable value for their business, adapt to the changing environment as well as look for new opportunities.

Mainstream art galleries perfectly characterize the struggling small enterprises facing major changes in how commerce is accomplished. Even though art is thought to be difficult to market online, new technology and a new generation of buyers give galleries the opportunity to increase their sales channels with the use of Internet. Currently, galleries are experiencing financial difficulties due to the harsh economic climate. Research on the effects of the crisis on the art market indicate that the changing environment does not leave contemporary art galleries unaffected: the Dutch gallery branch experienced a fall of 15 percent in the total industry turnover in 2009, a quarter of all Dutch gallery owners/managers perceive that the economic recession caused them to experience a loss of up to 50 percent on their gallery's turnover. This pressurizes gallery owners to respond with new strategies: the Internet may offer them a better chance at marketing and retailing their artworks.

Theory asserts however that galleries persist to manage their enterprise as if they remain unaffected by new external threats and opportunities. Yet the results of this study indicate quite the opposite: almost all respondents undertake one or more e-commerce activities and thus complement their traditional business models with e-commerce creating a multi-channelled clicks-and-bricks business model. 91.5 percent of all respondents undertakes activities focused on gaining online presence, 66.1 percent indicated to undertake all of the activities in this cluster. 20.3 percent of all respondents undertake all activities focused on

online marketing of which  $\frac{2}{3}$  also undertakes all activities focused on gaining online presence. The final cluster contains 5.1 percent of all respondents who undertake all activities in this cluster, of which  $\frac{2}{3}$  also undertook all activities of the previous clusters. Results have indicated that most Dutch galleries have adopted e-commerce to some extent.

Furthermore findings could raise the question why galleries are somewhat neglecting the possibility to retail their products online, previous studies have indicated a readiness among Dutch art consumers to buy their art online. This study is unable to give a precise answer to that question, yet prior research has indicated that the Dutch primary art market is not a global market in which sales are often limited to national borders. Any benefits e-commerce may offer over long distances and on a more globalized market could be ignored on a more local Dutch primary art market. Yet, drawing people in to your gallery may be of great focus which as the results show, 20.3 percent of the galleries is already realizing by adding e-marketing in to their strategy.

One would expect that the extent of the adoption of e-commerce would be influenced by firm characteristics size, age or geographical location. None of the firm characteristics are found to significantly correlate with the use of e-commerce. This does not mean no conclusions can be drawn from these results, results reveal overall low adoption scores and no systematic variation, this could mean that few firms consider e-commerce to be greatly beneficial. Results also reveal that the influence of e-commerce on annual average turnover, average sales price and average annual sales rate is very limited. For Dutch galleries, high scores on the use of e-commerce do not lead to higher revenues or sales rates. Galleries see the Internet as a separate entity as opposed to integrating it within the whole organization. Introducing it in an ad hoc manner, the Internet serves only as an additional promotional tool. In doing so, galleries failed to use it to create real competitive advantages, such as using e-commerce as an integrated marketing tool as well as retailing tool. The key aspect for a successful clicks-and-bricks business model is, to a large extent, determined by a company's ability to manage the trade-offs between separation and integration of their retail and online businesses.

For the use of e-commerce to hold economic benefits for galleries - without it leading to an increase of total turnover, increasing the use of e-commerce should then lead to cost reductions. However, correlation analysis on the influence of the use of e-commerce on the costs structure of a gallery reveals that promotion and marketing costs, expenses on exhibitions and art fairs, labour costs and fixed costs remain unaffected from systematic

variation of the use of e-commerce. These results reveal that an increase of the use of e-commerce creates no additional economic value for Dutch galleries, total costs as well as total revenues remain unaffected as a result of a systematic variation in the use of e-commerce.

Economic value is not the only value that can be created in a business: value creation may also include organizational value, social value and cultural value. Results show that most gallery owners/ managers perceive e-commerce to allow a gallery to operate more efficient, effective and competitive in their business processes. E-commerce use also simplifies and speeds up communications as well as increasing client relations. As a result, the organizational value of a gallery is perceived to benefit from the use of e-commerce.

At this present, the adoption of e-commerce into the business model of a Dutch gallery may not directly lead to a significant increase in economic value. It can also be discussed whether the perceived organizational benefits are realized benefits as well. Yet, the economic climate, the risk of becoming outdated and surpassed by new, more innovative opponents and the risk of losing their role as an agent for artists to disintermediation as a result from the Internet pressurizes galleries to innovate and adopt e-commerce in large numbers.

### **5.1 Limitations and future research.**

Although the population in the study sample was sufficient to achieve the objectives of the study, the size of the sample was rather small and the number of the respondents made it difficult to draw general conclusions for the entire population. Unfortunately, the survey was not designed to draw extensive and in-depth conclusions in a manner qualitative research could achieve in order to give insight in the motives of galleries to adopt or neglect e-commerce in their business model. Furthermore, a response bias may have slipped in to this research possibly causing biased results.

This study can be seen as an inclination for further research on the e-commerce adoption of cultural entrepreneurs in several fields. Future studies should therefore be undertaken with a larger sample, covering for example many cultural industries rather than focusing on the primary art market. Another possibility for further research could lie in a more thorough qualitative study on the behaviour of galleries. Extensively studying the behaviour of art galleries would give more insight in specific motives for galleries to choose to adopt or either to neglect e-commerce. E-commerce is an interesting subject to study and it holds many possibilities for cultural entrepreneurs.

For gallery owners/managers, this study can be seen as an inclination to study their business behaviour more closely and consider the possibilities of e-commerce. Activities such as social media marketing are an inexpensive and effective way to reach more clients. Increasing or creating economic value may not be a gallery's first objective, yet in the future the Internet will continue to increase its role in business processes and increasing knowledge on online marketing, promotion and retailing may eventually lead to an increase in economic as well as other values. Art is a difficult product to retail without physical presence, but it is incredibly suitable to be promoted and marketed online.

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Source image page 14: [www.artprice.com](http://www.artprice.com)

## APPENDIX.

### SURVEY:

#### Enquête naar de adoptie van e-commerce bij Nederlandse galeries.

Geachte heer/mevrouw,

Allereerst wil ik U alvast hartelijk bedanken voor de deelname aan deze enquête. De enquête bestaat uit 14 vragen en zal tussen de 5 en 10 minuten van uw tijd in beslag nemen.

Met uw deelname levert u een persoonlijk bijdrage aan het onderzoek naar de adoptie van e-commerce bij galeries. Ben U geïnteresseerd in de resultaten van dit onderzoek kunt U een email sturen naar [jjeyck@gmail.com](mailto:jjeyck@gmail.com)

Ik wil uitdrukkelijk verzekeren dat uw bijdrage aan deze enquête ANONIEM zal blijven.

Alvast hartelijk bedankt en succes!

Start

[www.thesistools.com](http://www.thesistools.com)

#### Enquête naar de adoptie van e-commerce bij Nederlandse galeries.

Het eerste deel bestaat uit een aantal open vragen naar de karakteristieken van uw galerie.

1.

In welke stad is deze galerie gesitueerd?

2.

Hoeveel jaar is uw galerie actief?

3.

Wat is het gemiddelde aantal werknemers actief in uw galerie gedurende de periode van één jaar?

4.

Hoeveel kunstenaars representeert uw galerie gemiddeld gedurende de periode van één jaar?

5.

Maak een ruwe schatting van de gemiddelde prijs per kunstwerk.

6.

**Maak een ruwe schatting van het gemiddelde aantal verkochte werken gedurende de periode van één jaar.**

7.

**Aan hoeveel Art Fairs participeert uw galerie gemiddeld gedurende de periode van één jaar?**

Nationaal

Internationaal

8.

**Maak een ruwe schatting van uw gemiddelde jaarlijkse omzet exclusief BTW.**

9.

**Voor elk onderwerp, maak een ruwe schatting van het percentage van de kosten ten opzichte van de totale kosten van de galerie.**  
LET OP: het eindtotaal moet 100% zijn.

	Percentage (%)
Promotie en marketing.	<input type="text"/>
Tentoonstellingen en beurzen.	<input type="text"/>

Lonen.

Vaste kosten zoals rente, huur, g/w/l, internet etc.

Administratieve kosten.

Andere kosten.

**Het volgende deel van deze enquête bestaat uit vragen die inzicht geven in hoeverre uw galerie gebruikt maakt van e-commerce.**

10.

**Maak een ruwe schatting van het percentage van de kosten die uw galerie kwijt is aan ONLINE promotie t.o.v het totaal van kosten aan promotie en advertenties**

11.

**Schat het percentage van het geheel aan promotie en advertenties dat uw galerie via het Internet bewerkstelligd.**

12.

Schat het percentage verkochte werken via het Internet in relatie tot het totaal aantal verkochte werken gedurende de laatste 2 jaar.

0 %

13.

Schat het percentage van uw inkomsten dat de galerie heeft kunnen verwerven door het verkopen van kunstwerken via het Internet.

0 %

14.

In hoeverre maakt uw galerie gebruik van de volgende e-commerce activiteiten?

	Geen gebruik	In ontwikkeling	In zeer kleine mate in gebruik	In gemiddelde mate in gebruik	In grote mate in gebruik	In zéér grote mate in gebruik
De galerie gebruikt e-mail om te communiceren met klanten, artiesten en werknemers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie toont kunstwerken op een persoonlijke website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie toont kunstwerken op een andere website dan een persoonlijke website (bijvoorbeeld galleries.nl)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie adverteert komende exposities op andere websites dan de persoonlijke website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie promoot artiesten op andere websites dan de persoonlijke website van de galerie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie e-mailt press-releases en nieuwsbrieven naar (potentiële) klanten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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De galerie ontvangt bestellingen online.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie verkoopt kunstwerken op de persoonlijke website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie verkoopt kunstwerken op andere websites dan de persoonlijke website van de galerie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie communiceert met klanten via de persoonlijke of andere websites.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie maakt gebruik van cookies en profielen op de persoonlijke website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie maakt gebruik van sociale media (Hyves, Facebook, LinkedIn etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Klanten kunnen de status van hun bestelling bijhouden op de persoonlijke website van de galerie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De galerie ontvangt betalingen via persoonlijke of andere websites (internetbankieren valt hier niet onder).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15.

Geef aan in welke mate U het eens bent met de volgende stellingen:

	Zeer mee oneens	Oneens	Neutraal	Eens	Zeer mee eens
Het gebruik van e-commerce kan ervoor zorgen dat een galerie meer efficiënt te werk gaat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het gebruik van e-commerce kan bedrijven als deze meer effectief laten functioneren.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vermeerdering van het gebruik van e-commerce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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kan de concurrentiepositie van een galerie verbeteren.					
Het gebruik van e-commerce en Internet vereenvoudigt de communicatie met klanten, artiesten en werknemers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het Internet is een betrouwbare bron om informatie te vinden over deze galerie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het gebruik van Internet helpt een galerie nieuwe klanten en artiesten te bereiken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het gebruik van e-commerce helpt de galerie in het behoud van klant relaties.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het Internet zorgt dat de galerie een globaal bereik heeft.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gebruik van e-commerce versnelt de communicatie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Verstuur enquête!

[www.thesistools.com](http://www.thesistools.com)

Hartelijk bedankt voor uw deelname!

[www.thesistools.com](http://www.thesistools.com)

**CORRELATIONS BETWEEN ACTIVITIES:**

**Correlations**

		Use of e-mail to communicate with clients, artists and employees	Use of a personal website to display artists, products and product-information	Use of other websites apart from personal website to provide basic information about the gallery.	Use of other websites apart from personal website to feature artists.	Use of e-mail for press-releases and newsletters	Use of other websites apart from personal website to advertise and promote exhibitions and special offers.	Enhancement of personal website with cookies and the creation of profiles.	Use of social media to promote and/or retail	Receiving online orders	Selling products via personal website	Selling products via website apart from personal website	Receiving payments through e-commerce	Online order tracking.
Use of e-mail to communicate with clients, artists and employees	Pearson Correlation Sig. (2-tailed) N	1 59	,715 ,000 59	,500 ,000 59	,555 ,000 59	,724 ,000 59	,468 ,000 59	,584 ,000 59	,202 ,124 59	,471 ,000 59	,318 ,014 59	,277 ,034 59	,228 ,083 59	,240 ,068 59
Use of a personal website to display artists, products and product-information	Pearson Correlation Sig. (2-tailed) N	,715 ,000 59	1 59	,585 ,000 59	,508 ,000 59	,731 ,000 59	,389 ,002 59	,501 ,000 59	,161 ,222 59	,543 ,000 59	,440 ,000 59	,396 ,002 59	,283 ,030 59	,356 ,006 59
Use of other websites apart from personal website to provide basic information about the gallery.	Pearson Correlation Sig. (2-tailed) N	,500 ,000 59	,585 ,000 59	1 59	,709 ,000 59	,600 ,000 59	,659 ,000 59	,476 ,000 59	,374 ,003 59	,351 ,006 59	,339 ,009 59	,386 ,003 59	,417 ,001 59	,239 ,069 59
Use of other websites apart from personal website to feature artists.	Pearson Correlation Sig. (2-tailed) N	,555 ,000 59	,508 ,000 59	,709 ,000 59	1 59	,616 ,000 59	,739 ,000 59	,493 ,000 59	,440 ,000 59	,427 ,001 59	,377 ,003 59	,549 ,000 59	,450 ,000 59	,245 ,061 59
Use of e-mail for press-releases and newsletters	Pearson Correlation Sig. (2-tailed) N	,724 ,000 59	,731 ,000 59	,600 ,000 59	,616 ,000 59	1 59	,476 ,000 59	,457 ,000 59	,301 ,020 59	,448 ,000 59	,300 ,021 59	,312 ,016 59	,252 ,054 59	,158 ,231 59
Use of other websites apart from personal website to advertise and promote exhibitions and special offers.	Pearson Correlation Sig. (2-tailed) N	,468 ,000 59	,389 ,002 59	,659 ,000 59	,739 ,000 59	,476 ,000 59	1 59	,386 ,003 59	,390 ,002 59	,249 ,058 59	,299 ,021 59	,448 ,000 59	,425 ,001 59	,174 ,188 59
Enhancement of personal website with cookies and the creation of profiles.	Pearson Correlation Sig. (2-tailed) N	,584 ,000 59	,501 ,000 59	,476 ,000 59	,493 ,000 59	,457 ,000 59	,386 ,003 59	1 59	,146 ,271 59	,443 ,000 59	,406 ,001 59	,297 ,022 59	,274 ,036 59	,371 ,004 59
Use of social media to promote and/or retail	Pearson Correlation Sig. (2-tailed) N	,202 ,124 59	,161 ,222 59	,374 ,003 59	,440 ,000 59	,301 ,020 59	,390 ,002 59	,146 ,271 59	1 59	,264 ,044 59	,257 ,049 59	,180 ,171 59	,529 ,000 59	,061 ,645 59
Receiving online orders	Pearson Correlation Sig. (2-tailed) N	,471 ,000 59	,543 ,000 59	,351 ,006 59	,427 ,001 59	,448 ,000 59	,249 ,058 59	,443 ,000 59	,264 ,044 59	1 59	,726 ,000 59	,438 ,001 59	,465 ,000 59	,644 ,000 59
Selling products via personal website	Pearson Correlation Sig. (2-tailed) N	,318 ,014 59	,440 ,000 59	,339 ,009 59	,377 ,003 59	,300 ,021 59	,299 ,021 59	,406 ,001 59	,257 ,049 59	,726 ,000 59	1 59	,556 ,000 59	,450 ,000 59	,879 ,000 59



Selling products via website apart from personal website	Pearson Correlation	,277**	,396**	,386**	,549**	,312*	,448**	,297*	,180	,438**	,556**	1	,548**	,458**
	Sig. (2-tailed)	,034	,002	,003	,000	,016	,000	,022	,171	,001	,000		,000	,000
	N	59	59	59	59	59	59	59	59	59	59	59	59	59
Receiving payments through e-commerce	Pearson Correlation	,228	,283	,417**	,450**	,252	,425**	,274*	,529**	,465**	,450**	,548**	1	,268*
	Sig. (2-tailed)	,083	,030	,001	,000	,054	,001	,036	,000	,000	,000	,000		,040
	N	59	59	59	59	59	59	59	59	59	59	59	59	59
Online order tracking.	Pearson Correlation	,240	,356**	,239	,245	,158	,174	,371**	,061	,644**	,879**	,458**	,268*	1
	Sig. (2-tailed)	,068	,006	,069	,061	,231	,188	,004	,645	,000	,000	,000	,040	
	N	59	59	59	59	59	59	59	59	59	59	59	59	59

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## FREQUENCIES:

### Use of e-mail to communicate with clients, artists and employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No use	3	5,1	5,1	5,1
	In development	2	3,4	3,4	8,5
	Very limited extent	2	3,4	3,4	11,9
	Medium extent	6	10,2	10,2	22,0
	Large extent	17	28,8	28,8	50,8
	Very large extent	29	49,2	49,2	100,0
	Total	59	100,0	100,0	

### Use of e-mail for press-releases and newsletters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No use	7	11,9	11,9	11,9
	Under development	4	6,8	6,8	18,6
	Limited extent	3	5,1	5,1	23,7
	Medium extent	4	6,8	6,8	30,5
	Great extent	15	25,4	25,4	55,9
	Very great extent	26	44,1	44,1	100,0
	Total	59	100,0	100,0	

**Use of a personal website to display artworks**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	5	8,5	8,5	8,5
Under development	4	6,8	6,8	15,3
Very limited extent	4	6,8	6,8	22,0
Medium extent	3	5,1	5,1	27,1
Great extent	19	32,2	32,2	59,3
Very great extent	24	40,7	40,7	100,0
Total	59	100,0	100,0	

**Use of other websites apart from personal website to promote exhibitions**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	9	15,3	15,3	15,3
Under development	10	16,9	16,9	32,2
Limited extent	8	13,6	13,6	45,8
Medium extent	16	27,1	27,1	72,9
Great extent	9	15,3	15,3	88,1
Very great extent	7	11,9	11,9	100,0
Total	59	100,0	100,0	

**Use of other websites apart from personal website to promote individual artists**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	7	11,9	11,9	11,9
Under development	13	22,0	22,0	33,9
Limited extent	6	10,2	10,2	44,1
Medium extent	16	27,1	27,1	71,2
Great extent	15	25,4	25,4	96,6
Very great extent	2	3,4	3,4	100,0
Total	59	100,0	100,0	

**Enhancement of personal website with cookies and the creation of profiles.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	11	18,6	18,6	18,6
Under development	5	8,5	8,5	27,1
Limited extent	8	13,6	13,6	40,7
Medium extent	13	22,0	22,0	62,7
Great extent	13	22,0	22,0	84,7
Very great extent	9	15,3	15,3	100,0
Total	59	100,0	100,0	

**Use of social media to promote and/or retail**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	37	62,7	62,7	62,7
Under development	10	16,9	16,9	79,7
Limited extent	4	6,8	6,8	86,4
Medium extent	2	3,4	3,4	89,8
Great extent	2	3,4	3,4	93,2
Very great extent	4	6,8	6,8	100,0
Total	59	100,0	100,0	

**Receiving online orders**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	22	37,3	37,3	37,3
Under development	13	22,0	22,0	59,3
Limited extent	10	16,9	16,9	76,3
Medium extent	5	8,5	8,5	84,7
Great extent	5	8,5	8,5	93,2
Very great extent	4	6,8	6,8	100,0
Total	59	100,0	100,0	

**Selling products via personal website**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	28	47,5	47,5	47,5
Under development	11	18,6	18,6	66,1
Limited extent	10	16,9	16,9	83,1
Medium extent	2	3,4	3,4	86,4
Great extent	6	10,2	10,2	96,6
Very great extent	2	3,4	3,4	100,0
Total	59	100,0	100,0	

**Selling products via personal website**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No use	28	47,5	47,5	47,5
Under development	11	18,6	18,6	66,1
Limited extent	10	16,9	16,9	83,1
Medium extent	2	3,4	3,4	86,4
Great extent	6	10,2	10,2	96,6
Very great extent	2	3,4	3,4	100,0
Total	59	100,0	100,0	

**Receiving payments through e-commerce**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No use	45	76,3	76,3	76,3
	Under development	6	10,2	10,2	86,4
	Limited extent	5	8,5	8,5	94,9
	Medium extent	2	3,4	3,4	98,3
	Great extent	1	1,7	1,7	100,0
	Total	59	100,0	100,0	

**Aftersale: status of orders can be tracked by customer on personal website**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No use	36	61,0	61,0	61,0
	Under development	11	18,6	18,6	79,7
	Limited extent	6	10,2	10,2	89,8
	Medium extent	4	6,8	6,8	96,6
	Great extent	1	1,7	1,7	98,3
	Very great extent	1	1,7	1,7	100,0
	Total	59	100,0	100,0	