

Inefficiency in the market for 'Fine Art': how this market inefficiency promotes 'Art Tourism' in South Africa

Dr Peter Baur

Senior Lecturer

University of Johannesburg, PO Box 524 Auckland Park 2006,

Johannesburg South Africa

peterb@uj.ac.za

Abstract

The market for 'Fine Art' is dominated by institutions and auction houses. These act as gatekeepers by monopolising the primary market. The choice of art as an investment vehicle is based on a combination of expected return and subjective preference. The reason for investing in 'Fine Art' is more than purely for financial gain. There are other more intrinsic factors that are considered as part of the investor decision-making process. This market for 'Fine Art' can be considered largely inefficient. Exclusivity, high prices, institutional based indexes and the overall lack of information are by far the greatest drivers of this market inefficiency. 'Art' prices are usually set in the primary market for 'Fine Art' through the auction process and the auction process should also typically reflect an efficient way of creating shared value. However, the auction process in the primary art market is not efficient and does not create shared value as would occur in a typical free market structure. The systems employed by the auction process in the primary art market is a strategy in itself, giving the impression that there is shared value, and thus distorting prices while simultaneously stimulating investor confidence. This becomes apparent when the price for 'Fine Art' does not necessarily reflect the 'true' value of the respective 'Fine Art' being sold. Thus investors may take advantage of this situation, by traveling across international borders to purchase what they would consider valuable art. In effect, art tourism is driven by market inefficiency in the 'Fine Art' market.

Key Words: Fundamental Market Efficiency, Fine Art, Investor Decision-Making, Financial Markets, Art Tourism.

1. INTRODUCTION

The renowned Thomas Khun was renowned when he suggested in his paper in 1962 on the 'Structure of Scientific Revolution', that those academic theories (which operate differently to the economies that they describe), thrive on contradiction to make any form of scientific progress. (Gilson & Kraakman, 2014). The contradiction being discussed within this paper is that market efficiency, within the 'Fine Art' market, may well be academically ideological but pose a serious practical constraint.

At which point does a seller's profit maximizing behaviour become perfectly aligned with that of society seeking market efficiency? In other words, what would market efficiency entail and does the

market for 'Fine Art' operate in an efficient market environment.

A starting point would propose that 'Fine Art' has a collective value. In other words; should what one investor perceives to be the true discounted value of an art security should also be identical for any other investor who would perceive the exact same value of that particular security? In such a case, given limited informational constraints, the market should operate smoothly and effortlessly in an efficient manner, so as to clear the market by matching all the buyers and sellers within that market.

However, should 'Fine Art' not have any forms of collective value, as 'Fine Art' is in its true sense highly subjective (Baur & Els, 2014), then different investors would

perceive the discounted value of that security very differently. In this case, the market for 'Fine Art' would operate in an inefficient market environment, beset with a quantum of investor specific biases that will drive market rigidities and thus prices would not adjust smoothly and efficiently to clear that market.

For the art market to be efficient, it should meet the same standards that we would apply to other financial markets. This would mean that the prices that prevail in the art market should be an unbiased representation of all other current available information within that market. Yet, it might not be wise to assume that any market for art would operate in a purely efficient manner or operate in a purely inefficient manner. Based on this possible scenario one would wish to explore the degree of the market efficiency that exists within the 'Fine Art' market.

2. FUNDAMENTALS OF MARKET EFFICIENCY

David, Oosterlinck and Szatarz (2013), propose that the art market seems plagued by numerous anomalies which cast serious doubts on market efficiency and thus might not provide a suitable base from which to describe the decisions people make when choosing 'Fine Art' as an investment vehicle. For example, it seems to violate the law of one price, since, in their study they found that similar etchings fetched dramatically different prices when sold in different places. David et.al. (2013) further suggest that efficiency in the 'art market' is impossible to test due to profound data limitations. In another study they found that when using the sale of 'prints' marketed over the 1977–1992 period, they found that while excess returns were auto-correlated positively for a one-year lag, these 'prints' were negatively auto-correlated using a two-year lag. In addition, it was highlighted that by using variance-ratio tests to show that US art auction prices did not follow a 'random walk' over an extended period between 1875 and 1945. However, it was also shown that US art auction prices did

follow a series of 'random walks' from 1945 onwards (David, Oosterlinck, & Szatarz, 2013). In another study by Erdos and Ormos (2010) using the sample period from 1875 to 2008, there was no evidence for or against a pure 'random walk' hypothesis, yet there was evidence of possible structural breaks. (Erdos & Ormos, 2010).

According to David, Oosterlinck & Szatarz (2013) and Dimson & Mussavian (2000), the 'efficient market hypothesis' as proposed by Paul Samuelson in the mid 1960's is a cornerstone of research in finance. Within this paradigm, markets are considered to be efficient if prices reflect all the information available to the market, or, in other words, a market in which all relevant information is impounded into the price of financial assets (Dimson & Mussavian, 2000). Thus, in this context, information efficiency matters to investors for two main reasons. Firstly, investors are very concerned about whether their trading strategies can earn excess returns and so be in a position to 'beat the market'. Secondly, if stock prices accurately reflect all the available information, then any new investment capital will go to an investment that will generate the highest return (Jones & Netter, 2003).

The problem lies within the concept of an 'efficient market hypothesis' and Beaver (1981) proposes this by stating that "...we are currently in possession of a sizable empirical literature, testing this 'ill-defined' concept [of market efficiency]" (Beaver, 1981, p. 35). It is in those early examinations of market efficiency, when examining the stock markets, which showed little evidence against the 'efficient market hypotheses'. In those early studies of market efficiency, any form of inefficiency could have been the result of some changing 'time' varying expected return and decaying 'price-fads' which further challenged market efficiency. In those early studies, inefficiency was also rooted in the existence of noise trading (Erdos & Ormos, 2010).

There are typically several forms of efficiency considered within the literature depending on the information sets that are available, ranging from strong efficiency towards a market with relatively weak efficiency. A strong form of market efficiency proposes that prices reflect all available information, both public and private and that prices instantly reflect hidden or "insider" information. In this strong form, market efficiency is a key factor for investors since it gives investors' confidence in the fairness of market valuation (David, Oosterlinck, & Szafarz, 2013).

In the case of a semi-strong market efficiency, which is a grey area, it proposes that prices reflect all publicly available information to the market. It is here that prices change instantly to reflect new public information. (David, Oosterlinck, & Szafarz, 2013).

However, when considering a weak form of market efficiency, only past and current prices are considered so that when examining a weakly efficient market, the current return to the security is unrelated to past returns of that security. In this form of efficiency, the availability of public and private information is very limited. The auction market for 'Fine Art' could be an example of weak efficiency, due primarily to microstructural and psychological factors as suggested by Baur and Els (2014) and as highlighted by the works of David, Oosterlinck and Szafarz (2013) who suggest that it would be structurally impossible for 'Fine Art' prices which are often determined by the auction process to be efficient (David, Oosterlinck, & Szafarz, 2013). The market does not necessarily show efficiency by virtue of having a large number of buyers. Market efficiency also depends on whether the items auctioned are also in limited supply (Chakraborty & Shyamalkumar, 2014). While the demand for 'Fine Art' as an investment vehicle might be limited due to lack of knowledge, so too is the supply limited.

In another study by Mei and Moses (2005) which investigated the impact of price

estimates on the setting of art prices from a behavioural perspective, it was shown that the price estimates made by the auction houses were biased upwards, which impacted on investor decision-making because investors have high estimate which resulted in higher sales price which generated lower future returns (Erdos & Ormos, 2010). Furthermore, inefficiency in the auction process is due to sellers setting minimum transaction prices on the artworks for which there is a monopolistic market structure and also due to the possibility of an unlimited upper price (David, Oosterlinck, & Szafarz, 2013). Mei and Moses (2005) argued further that the upward bias was persistent over a 30 year period due to agency problems and the fact that with all the given experience, rational learning could not eliminate this problem (Erdos & Ormos, 2010).

Market inefficiency is thus rooted in the market mechanism (David, Oosterlinck, & Szafarz, 2013). Frey (1997) also strongly claims that the information imperfections are a prominent cause of irrational behaviour, leading towards very weak market efficiency (Frey, *Art Markets and Economics: Introduction*, 1997). Keynes (1936) suggested that all sorts of information need to be considered when making investment decisions, and this idea is captured within the very nature of market speculation and investor overreaction (Erdos & Ormos, 2010).

Fundamental market efficiency assumes that investors are always rational, implying that, on average, the population is correct and when new information becomes available, people will update their expectations appropriately so that investors will have the 'correct' price when they purchase securities in a competitive financial market. Entrenched within this concept is an underlying theme, namely: 'informational efficiency' which means that prices respond reasonably quickly and effortlessly to new information about the product or the security (Gilson & Kraakman, 2014).

This poses a new question, is an efficient market price also fundamentally efficient? A part of the answer is provided by Gilson and Kraagman (2014), who validate that informational efficiency and fundamental efficiency is most certainly related. They suggest that even though it may be difficult to observe fundamental efficiency, it is very possible with a degree of certainty to predict that investments which are more information efficient also display a strong sense of fundamental efficiency (Gilson & Kraakman, 2014).

3. INFORMATION AND MARKET EFFICIENCY

In a perfect market, all information, both public and private, is relevant to determining a security's fundamental value, and is freely available to the investor and is rationally considered in the decision-making process. The transmission mechanisms by which that information comes to be reflected in the securities' market price is incorporated smoothly without any friction or resistance. This would suggest that fundamental efficiency and informational efficiency should operate side by side. However, real 'value' information is not always fully available to the market and the mechanisms of market efficiency operate within an environment which is beset with exogenous shocks and endogenous rigidities. This poses a problem when analysing such a situation. The problem presents itself in that the market price for the product or security is observable while the fundamental value of that security is not clearly apparent (Gilson & Kraakman, 2014).

There appears to be a trade-off between private and public information. The more public information available, the greater the consensus is between the investors regarding the value of any particular asset. An information efficient price may converge within the context of fundamental efficiency as the market price changes. As the non-public information become public, or if frictions associated with the mechanism by which information

becomes reflected in price becomes reduced (Gilson & Kraakman, 2014). In other words, information efficient prices converge as beliefs around the value of the asset reaches greater consensus. However, the greater the private information associated with that asset and the more barriers that exist when gaining access to such information, the larger the consensus gap become.

Private information has two components; one component is the information regarding the market environment and another component of information about the core characteristics that are inherent within each item relating to the security that is traded. This is the knowledge that is held by any specific investor relating to the asset or security traded. This information, as presented in the work of Brunnermeier (2005), propose that, narrowly defined, unrelated long run private information is the prerogative of the investor and is captured within the knowledge base of the investor. This knowledge aids the investor in identifying and using short run signals in the decision-making process (Brunnermeier, 2005).

Information is a very powerful component of market efficiency. For example, the misuse of information, as in the case of insider trading reduces the informational efficiency of prices in the long run (Brunnermeier, 2005) which in turn reduces market efficiency. Singer (n.d.) proposes that within the market for 'Fine Art', using the theory of consumer choice does not fully hold based on the grounds that perfect knowledge does not exist, and thus proposing the problem of market inefficiency (Singer, Microeconomics of the Art Market). Art value itself is based on the ability of investors to analyse the probability of potential for returns to the investment, which then supports the concept of a subjective pricing structure. This concept is supported by Singer (n.d.) who suggests that within the model of consumer choice there should be the question of imperfect knowledge with respect to the characteristics of the asset or security. This 'private' information is

dependent on factors such as experience, levels of schooling, the socio economic environment of the individual investor, etc. Ehrlich Shin and Yin (2010), refers to the private information (or 'human capital') inherent in the investor as the 'home bias'. Home bias determines the success of an investor in terms of choosing an investment that provides desired returns, and is a function of their own private information or knowledge (Ehrlich, Shin, & Yin, 2010).

There are two types of 'human capital', namely 'specific' human capital and 'general' human capital, both of which operate within the investor's decision-making process simultaneously. Firstly, specific human capital relates to an investors endowed or predetermined knowledge that enhances the investor's ability to assimilate information about individual assets. Secondly, there is general human capital, which relates to predetermined knowledge that increases the investor's efficiency in assimilating private information for assets across the board Both the general human capital and the specific human capital act as a form of efficiency parameters that will enable the investor to form private forecasts which influences the decision-making ability of the investor (Ehrlich, Shin, & Yin, 2010).

Gyntelberg, Loretan, Subhanij and Chan (2009) explain that the impact of this human capital (private information) on the markets is noticeably large, even when looking at investment decisions in assets such as foreign exchange and other capital markets. Yet the influence of specific human capital could be very different across the different markets. For example, private information will have a very direct impact on the choice of microeconomic assets such as on stocks or equities, but the transmission mechanism to a macroeconomic variable, such as the exchange rate. This occurs through a very indirect process. Such an investor may choose to trade through an investment company. (Gyntelburg, Loretan, Subhanij, & Chan, 2009). In an idealistic perfect market, all information is

instantly reflected in prices that are fundamentally efficient and also show high levels of information efficiency. However, in real markets, prices should typically reflect public information quite quickly. Private information which is costly to acquire enters the price structure a lot more slowly, often not at all. Prices in markets without effective arbitrage will incorporate public information a lot slower (Gilson & Kraakman, 2014).

A problem which seems to persist here is that the notion of rationality is not more supported within the context of private information. The choice of investing in the 'Fine Art' market, as mentioned earlier is highly subjective and therefor very dependent on the level of private information held by the investor. In other words, consensus beliefs (the idea that the information provided to an investor will be interpreted in the same way by all investors) does not hold. According to Jarrow and Easley (1983), there is a link between efficient consensus beliefs and informational efficiency. If investors have efficient consensus beliefs, then the information within the market is efficient and consensus belief equilibria exist. However, this may be in conflict with market efficiency. While consensus beliefs equilibria may be efficient, they do not exist unless investors are endowed with rational expectations (Easley & Jarrow, 1983), and this makes measuring this phenomenon of the incorporating the role of private information into any study extremely difficult. Also, within real markets, informational efficiency is only a relative concept. Depending on the level of rigidities, market prices will reflect very different kinds of information with greater or lesser levels of 'relative efficiency' (Gilson & Kraakman, 2014). This is because information requires a degree of interpretation and interpretation of information is a function of meaning and beliefs.

4. ART, BELIEFS AND MEANING

The 'Fine Art' market is an excellent example of the role that private

information plays in determining price relationships. Art is in itself an expression of a collection of signs and symbols arranged in a specific pattern so as to create a reflection of meaning. Because symbols are specifically designed to carry meaning, symbols are chosen to be aesthetically impressive and semantically relevant within a contextual social framework. Values and beliefs are shaped over time from the 'interpreters' personal experience (Brighenti, 2007).

'Fine Art' is unique from many of the other securities in that it contains many different levels of aesthetic and fundamental meaning. Unlike a typical security, 'Fine Art' can be held for reasons other than gaining greater returns at some future date. As such, while it may hold some future value, it is often purchased for very personal, individualistic and appealing reasons and the choice of one item over another is a function of the knowledge or experience inherent in the investor. Candela and Scorcu (1997) support this argument by suggesting that the market price of an art object depends much on other fundamental issues such as social valuations rather than on the cost of production. Social norms and beliefs as well as cultural habits are strongly held by people in society. From this perspective it is possible to identify certain fundamental values. While market prices might provide suitable information about equilibrium values, the prices for art could be related to the evaluation of other assets. In this context, 'fads' are also sometimes present in the market for 'Fine Art'. However, in the long run, on an *ex-post* basis, they are distinguishable from fundamental values (Candela & Scorcu, 1997).

Experience is a construct of a collection of conflicts, family culture, and social communities through which we interact within our environment. It is within our environment that we gain knowledge and experience. Social beliefs are shaped by the collective influence of our cultural history as constructed within society. History is further interpreted by individual beliefs and values, which creates a

personal framework from which we construct some form of meaning of those symbols and signs derived from the environment in which we live. According to work done by Brighenti and Andrea (2007), meaning is a personal interpretation of what we ourselves would experience based on our knowledge that we have acquired through our interaction with our environment (Brighenti, 2007).

Interpreting the information that exists within the environment so as to create any form of meaning enables investors to develop and use their creative powers to make the best possible investment decision (Ritzer, 1996). The use of and the interpretation of private information is made by linking new information with individual cognitive structures that exist within the memory to create meaning. Baur and Els (2014) examine how this 'private' information can be understood. Emotions, sensations, motives, needs, imagination, perceptions and memory are integral parts of our cultural cognitive schema. Also, reasoning, memory, emotions, motives and personality form interpretive systems that use private information to generate meaning. Meaning gets manifested into a decision which is an expression of an interpretation of the information that is available to us. It is the nature of the interpretive activities which implies that the environmental and cognitive aspects of our reality are entwined. Our interpretation of the information from our environment may not have the same influence or meaning to all the decision-makers in the same way (Baur & Els, 2014). In other words, private knowledge and public information should not be seen as exclusively interdependent.

While public information and private information may be independent, they are not exclusive. A bridge may exist between the use and interpretation of private knowledge and public information. Haralambos (1985), emphasised that meaning is imposed onto the individual by society so that it may constrain members to act in a certain predictable way (Haralambos, 1985). When making an

investment decision, individuals do not assume a meaning to an asset, but rather meaning is derived or constructed by individuals through the process of social interaction (Baur & Els, 2014). And this is often done by constructing rules or institutions of investment that investors can use when constructing their own investment decisions. Ironically, without these rules or institutions, market efficiency might not be possible.

5. CREATING AN INSTITUTIONAL FRAMEWORK

Overall, Chanel, Gerard-Varet and Ginsburgh (1996) suggest that the market for 'Fine Art' is less than efficient as can be shown by the infrequent trades and individualised transactions (Chanel, Gerard-Varet, & Ginsburgh, 1996). Coffman (n.d.) too mentions that prices of 'Fine Art' tend to fluctuate randomly, where supplies may be fixed, demand may fluctuate unpredictably as tastes change, and in turn, art prices may also appear random. The issue lies with knowledge about the art market, especially for 'Fine Art'.

The art market can span two extremes, one been highly organised and predominantly international. The other part of the market has very different characteristics, namely; the informal market, lesser researched in academic literature than the formal art market (auctions). The informal art market is greatly disorganised, almost invisible, and asymmetrical (Coffman). This is evident in the lack of reliable price information for art in the secondary market where deals are struck between artists, galleries and collectors, and such information is very difficult to collect (Candela & Scorcu, 2001).

Another problem is in creating some form of pricing index from which to establish relationships and consensus across the market. It is often cited that the information provided within art indexes could be just short on meaningful, as mentioned by Chanel et.al. (1996), and they argue that

the repeat sales method (which is necessary to determine a change in value of the investment) does not avoid the heterogeneity problem since results on homogeneous repeat sales are aggregated into an index and imply a different meaning. Also, as mentioned by Candela and Scorcu (2001), due to different arrangements in the market, the price dynamics of similar objects might differ within the market, despite the buyers and sellers often being the same (Candela & Scorcu, 2001). Ashenfelter and Graddy also mention that a problem within structuring an accurate index lies in the uniqueness of the many art objects that are auctioned and the effect that the auction process also has on price. Furthermore, the effects of economic conditions such as during booms and busts can greatly influence the overall art price index (Ashenfelter & Graddy, 2003). Because the correct set of characteristics inherent in the 'Fine Art' industry is not always known, it is extremely difficult to control for possible non-temporal determinants of price variations (Chanel, Gerard-Varet, & Ginsburgh, 1996).

The efficiency of an art price index can best be stated by applying the concept of Louargand and Mcdaniel (n.d.), who suggesting that the index should, at any time, be an unbiased representation of all the available information that exists within the market (Louargand & McDaniel, Price Efficiency in the Art Auction Market). This may not be impossible to achieve as institutional arrangements may differ between the auction market and sales within the secondary market.

Thus an index may be biased towards the auction price and not be influenced greatly by activities within the secondary market. Candela and Scorcu (2001) show that the auction market is often centralized, transactions are laid out in sequence following the sale order of the auction catalogue and the price is rather flexible. In the secondary market we can see that the transactions are decentralized and prices are fixed and often set by the supplier (Candela & Scorcu, 2001).

6. THE ROLE OF THE AUCTION PROCESS FOR THE 'FINE ART' MARKET

Auction prices are important for the market in that auction prices form a benchmark from which to compare prices within the secondary market (Candela & Scorcu, 2001). Ashenfelter and Graddy (2003) suggest that the auction system is a key component in determining the 'value' of 'Fine Art' and the efficiency of the auction system is a primary key in determining the cost of creating and distributing works of art. It is important to note that the auctioneer can also have an influence on the market price through factors such as; commission, experts opinion, pre-sales estimates, auction set reserve prices and the impact of sequential sales. For example, when a painting that is been auctioned is not sold at the first auction, it may lose value in subsequent auctions (Ashenfelter & Graddy, 2003).

The word auction comes from the Latin derivative of *'auctio'*, which means, 'to ascend'. The two major auctioneers of 'Fine Art' have been the English houses of Sotheby's and Christie's (Christie's was founded in 1766). The English auction system developed, practiced and refined many of the details of the modern auction protocols used today and the two auction houses are considered the dominant forces in the auction market for art (Ashenfelter & Graddy, 2003). Ellison, Fudenberg and Mobius (2004) mention that Christie's and Sotheby's have jointly and unchallenged, dominated the art market for over a century (Ellison, Fudenberg, & Mobius, 2004).

Ashenfelter and Graddy (2003) suggest that the value (opinion) of art is established by public auction, either directly through an actual sale, or indirectly through reference to other sales. The mechanism of the auction system is critical in determining public's preferences and tastes as the efficiency of the auction system is a key determinant in establishing a market price and then distributing the works of art (Ashenfelter &

Graddy, 2003). Auctioneers support their value (opinion) prior to the auction by providing information to potential investors. Such information could include the artist's name, the artist's date of birth and date of death, the artist's nationality, the dimensions of the painting, the medium of the work, the condition of the art, and if the art work has been signed or not. Another additional piece of information that may also influence the market are the potential price range estimate for the art been auctioned (Ekelund, Ressler, & Watson, 1998).

However, for reasons mentioned earlier, the interpretation of the prices set at auctions should be taken with great care. (Ashenfelter & Graddy, 2003). Furthermore, as suggested by Candela and Scorcu (1997), the price that is paid at auction reflects more than just a market price. 'Fine Art' holds a private value component due to the investor's personal tastes. 'Fine Art' is transferred to the bidder with the highest monetary appreciation for its intrinsic characteristics. Investors tastes for 'Fine Art' tend to change slowly and the investor's portfolio of 'Fine Art' tends to increase slowly too.

Because of almost certain capital loss, the resale of 'Fine Art' within a short period of time is usually unlikely. Moreover, the short run supply curve for art is highly inelastic, because of the very limited supply for art. In addition, information asymmetry (private information) varies between investors, there are also high auction fees coupled with restrictions on arbitrage, because short selling is impossible (Candela & Scorcu, 1997). Therefore, auction prices might not reflect the 'true' value of the 'Fine Art' been auctioned. Yet, inefficiency is not only driven by the auctioneer. The investor too can play a role and as proposed by Chakraborty and Shyamalkumar (2014), the bidders act in a strategic manner, and are not always price takers (Chakraborty & Shyamalkumar, 2014).

Louargand and McDaniel (n.d.) suggest that auction pricing is inherently inefficient

because price range estimates which the auction house estimates for each item of art auctioned are intentionally biased downward. The estimated selling price range which the auctioneers supply in their catalogues for each item of art is set at a price that is artificially low in order to induce bidders to join the auction process. This process of setting prices artificially low is also supported by the need of the auctioneer to satisfy the seller's desire to achieve a suitable price (Louargand & McDaniel, Price Efficiency in the Art Auction Market). Ekelund, Ressler and Watson (1998) also show that the higher the reserve price relative to the 'true' market value of the work, the greater the chance of the work been auctioned from not finding a buyer (Ekelund, Ressler, & Watson, 1998).

The auction system is far from perfect. Auction houses themselves can pose market rigidities by making art exclusive to predetermined buyers and sellers. Institutions (both private and public), social norms and society created standards can all act as gatekeepers to prevent the auction process from been efficient. Often prices set in the auction process do not reflect the value of the asset been sold. Entry and exit from the market is thus constrained limiting the supply of art and the demand for art to an elected few. The nature (or the elasticity) of the supply curve too can influence the way in which prices are determined within an auction process.

Online auctions (dating back to 1995) and the role of the internet add some new value to the auction process. In a report by Turban (2010), suggest that online auctions provide for a larger pool of buyers and sellers than contemporary auction processes. Yet, online auctions are not necessarily more efficient, and the existence of barriers to entering the bidding process can still acts as a hindrance to market efficiency (Turban, 2010).

7 SHARED 'VALUE' AND THE PRICE OF ART

Defining a market, and especially when it comes to the more conventional view, is in effect, any place where a buyer and seller meet. Art is very different from other investments in that art embodies culture, environment, personal values and belief systems. Olav Velthuis (2005) describes the complexity of a market for 'Fine Art' by explaining that the traditional markets tend to alienate artists from their work, their labour, and their patrons. The market itself fails to distinguish the artistic values of the artist by 'changing' art into a pure commodity or an investment vehicle. Velthuis (2005) suggests that it is the price mechanism, which typically is working as an invisible hand clearing the market and simultaneously reduces all the qualities of the art into quantities expressed by the price. Thus the market may commensurate what is considered to be incommensurable (Velthuis, 2005, p. 3). The markets for 'Fine Art' should be described as cultural 'constellations', where people perform ritualised exchange involving a variety of symbols that transfer meanings through exchange with each other. These people are infused through complex social processes to such a degree, that it may be very difficult to separate market from culture (Velthuis, 2005).

Far from being an aggregate of agents operating in isolation, the cultural art field comprises of a set of systems made up of interrelated agents and institutions. These are functionally demarcated by their division of labour (of production and diffusion of cultural goods). Besides 'Fine Art' being considered as simply a commodity that has a commercial value, 'Fine Art' is also a symbolic good, ensuring a specific cultural value (Bourdieu, 1985).

According to Zorloni (2005), that part of the market, through which art is sold and distributed, consists of the auction houses and dealers who purchase art from both the galleries or directly from the artists. The main centres for the trade of art are in

New York and London, as measured by auction house turnover and by the number of galleries dealing in contemporary art. Other cities hosting primary auction houses that are considered capable of attracting international prices are Paris, Rome and Cologne (Zorloni, 2005).

The art market consists of a primary and secondary market. Whilst the primary market is made up predominantly of the auction houses, the secondary market is relatively competitive, with an abundant supply of art, where entry and exit into and out of the market is rather unrestricted. It's in the secondary market that competition is based more on the variety of art available, and less on the price of the art. This is in stark contrast to the primary market which is more concentrated with restrictive entry, with some artists being contracted into certain art galleries (Zorloni, 2005).

What is Important here, is that unlike other restricted markets where the barriers of entry benefit the sellers, often at the expense of buyers, in the art market, the buyers and sellers are equally interested in maintaining restrictions so as to maintain the higher prices and potential profits (Zorloni, 2005).

A market is efficient if a price exist within the market that reflects all of the available information. For example, a market in which all relevant information is impounded into the price of financial assets would show a degree of efficiency (Dimson & Mussavian, 2000). Information efficiency is important to people making an investment, because investors are concerned about earning excess returns. If stock prices accurately reflect the available information, then any new investment capital should generate a higher return (Jones & Netter, 2003). In the market for 'Fine Art' the investor relies on the auction process to determine that price.

When the auction house considers 'Fine Art' for auction, it determines price estimates or 'guesses' the potential selling

price. The 'agent' requires a reserve price and the gap between the selling price and the reserve price is referred to as the 'window'. This window is important in quantifying market perceptions. In a study by Ekelund, Ressler and Watson (1998), when looking at the price estimated by the auction house when selling Latin American art, it was shown that there was an upward bias. Price bias predicted by the auction houses are skewed and that the auction houses estimated prices above that of the market price (Ekelund, Ressler, & Watson, 1998). Price estimates are a rather new phenomenon, as auction houses did not have price estimates before 1973. In order to attract individual collectors, auction houses started providing price estimates for all artworks (Mei & Moses, 2004).

Price estimates produced through the auction houses are biased upwards as these upward price estimates impact on investor decision-making. Investors require a high estimated return and thereby encouraging higher participation in the market and therefore further adjusting expectations of investors (Erdos & Ormos, 2010). Sellers often set higher minimum prices on the artworks. When the auction houses act in a monopolistic manner by limiting available information, they are in a position to influence the market (David, Oosterlinck, & Szafarz, 2013). Mei and Moses (2004) argued further that the upward bias is mainly due to institutional factors. Given all the experience and rationality of the investors, little can be done to eliminate the effects of this problem (Erdos & Ormos, 2010). As the upward bias remains persistent, it becomes more obvious that auction house set price estimates that are affected by the institution and, in addition, some investors do not have sufficient information to make an educated guess and simply buy into the price given (Mei & Moses, 2004). This implies that decision-making in the 'Fine Art' market does not adhere to the neo-classical view of rationality.

Given the importance of rationality to modern economics, numerous studies

have examined the empirical validity of rationality, highlighting evidence of bounded rationality or, as referred to in this paper, 'information inefficiency'. For example, investors in 'Fine Art' do not discount sufficiently the incentives provided by auction houses to manipulate the information they provide. This is not only true for auction houses. Securities analysts are often biased in their forecasts and recommendations. Stock recommendations typically favour buyers over sellers and the forecasts for earnings are generally overly optimistic, particularly for the future long term horizons. Supply side analysts also customarily manipulate investment advice in response to investment pressures in order to temporarily inflate stock prices. These biases are the result of agency problems inherent within the institutions (Mei & Moses, 2004).

Institutions are inclined to manipulate information so as to encourage investment, to maintain access to information, or simply to stimulate trading. Because of the very nature of 'Fine Art', its dependency on culturally and socially set standards, the very strong heterogeneity of 'Fine Art' coupled with infrequent trading, makes it difficult for individuals to accurately evaluate 'Fine Art'. Price estimates are important for investors who will set price expectations based on the information provided. Auction houses typically are in a favourable position to affect investor expectation (Mei & Moses, 2004).

The problem of price estimates is made more complex, as suggested by Gilson and Kraakman (2014), who explain that available information about the 'true value' is not always fully understood. This is because the market is plagued by endogenous rigidities (for example, the price indexes provided by institutions) and also exogenous shocks (for example, stock market volatility). So, as market price for a product might be observable, the fundamental value is not clearly apparent to the investor (Gilson & Kraakman, 2014). Much of this difference

between market price and fundamental value is driven by the way in which prices are established in the auction process.

When analysing price indexes or rankings of art prices, investors often overlook those factors which are not always clearly apparent in the price index. This could include the commission paid to the auction houses, reserve prices, seller commission, and buyer commission, and set taxes. All of these would have an impact on the decision-making of investors (Ashenfelter & Graddy, 2003). Yet, none of these price factors have any influence on the fundamental value of the 'Fine Art' been sold.

8 SPILL-OVER INTO THE SECONDARY MARKETS

The link between the primary and secondary market is through the art dealer who has a degree of influence within the market. While direction of causality is important and would otherwise have to be tested in a subsequent paper, it might be worth assuming that the dealer will act in both directions between the primary and secondary art market. Zorloni (2005) mentions that in some instances, the auction houses can also behave as 'free-riders'. This is most apparent when marketing and promoting the artist is often in the hands of the dealers, but to the benefit of the auction houses (Zorloni, 2005).

Dealers themselves may create a syndicate by promoting a certain type of artist, art or technology associated with the creation of that art. However, this type of monopolistic behaviour tends to be short lived as new schools of art evolve at a substantial rate, or as tastes and preferences of the market for art may change. Art is unlike other commodities produced.

Art itself is not constrained by legal patents, franchises or exclusive rights to resources (except and very seldom, under

certain conditions) or secret technologies. However, it is the syndicate behaviour of dealers that often insures a positive-sum game, albeit at the cost of the artist (Singer, RIVALRY AND EXTERNALITIES IN SECONDARY ART MARKETS, 1981). This can be further explained by showing that there is a mutual interest that exists between buyers and sellers of "establishment" art with the aim of restricting the entry of substitute art products. This collusion that is present between the buyers and sellers which restrict the trade of art can be best explained by highlighting the buyers' utility function, which in effect reflects the supply curve of the seller (Singer, PHENOMENOLOGY AND ECONOMICS OF ART MARKETS: AN ART HISTORICAL PERSPECTIVE, 1988). Hutter, Knebel, Pietzner and Schafer (2007) suggests that art dealers have developed a strategy of raising the market value of art by changing the preferences of consumers with respect to the fixed supply of the 'Fine Art'. The standard price theory is expanded to account for adjustments for factors in the market such as distance to the market, the lack of suitable information, the quality of the art, economies of scale, etc., After these factors have been considered a single equilibrium price remains (Hutter, Knebel, Pietzner, & Schafer, 2007). The dealers maintain the price through the subjective adjustments which ultimately act as a barrier.

Collectors of art are also involved in creating barriers to entry and maintaining the syndicate behaviour, by persistently overpaying for art. This way the collector creates entry barriers for other collectors and therefore has a monopoly of "intellectual appeal". Under certain conditions, this constitutes an optimal strategy for the collector, therefore in the classical case, entry into the market of new artists may reduce the distribution of investment and drive potential gains (or rents) to zero and create an environment which is highly competitive (Singer, RIVALRY AND EXTERNALITIES IN SECONDARY ART MARKETS, 1981). These rents should not just be seen as

purely financial. Rents could be seen as the benefit to the investor or consumer through the gain of viewing the art. Thus, in this light, a consumer may pay for enjoying the art while been totally unaffected by changes in the art price (Frey & Eichenberger, On the rate of return in the art market: Survey and evaluation, 1995). Overpayment has the effect of limiting the artists' production and flow of art into the market (Singer, RIVALRY AND EXTERNALITIES IN SECONDARY ART MARKETS, 1981).

Art which is acquired by museums is no longer considered a competitive item and thus has no more influence on the supply of art. This is in stark difference to the art which is held by other collectors, which by virtue of always been available to the market has the effect of diminishing the 'scarcity-value' of the art (Singer, RIVALRY AND EXTERNALITIES IN SECONDARY ART MARKETS, 1981). Collecting art for personal gain is equivalent to taking art out of the market, which may reduce the 'rent', as the art is not available for anyone else's benefit but that of the collector. Both the museums and collectors (corporate or private) often under represent contemporary artistic activity and in this case the perceptions of the value of the art might change as the art becomes better understood and when the market prices are not more distorted by the role of institutions in the 'Fine Art' market (Singer, PHENOMENOLOGY AND ECONOMICS OF ART MARKETS: AN ART HISTORICAL PERSPECTIVE, 1988).

For the artist, there is no escaping the rigidity of the art market. This cannot be better explained than through the words of Bourdieu (1985), stating that "the end of dependence on a patron or on an art collector increases the liberty of artists". Yet this liberty is purely formal which constitutes the submission of the artist to the laws of the market. The artists are reminded of this ridged market through sales and other forms of pressure, explicit or diffuse, exercised by the art-dealers (Bourdieu, 1985). While the artist

exercising his talent in the secondary market might feel free of any influence from the primary market, he is still subjected to all kinds of constraints imposed by the primary art market. This could include the type of art that is demanded and the price been paid for that art. It's not purely about likes and dislikes, tastes or preferences. The secondary market is a shadow of the primary market, and reflects the dominating forces of the institutional standards and expectations selected and driven by that market.

It is very difficult to express this dynamic other than through the words of Pierre Bourdieu (1985), who highlights that the artist in the secondary market is enslaved through collective judgments made through the public interpretation of the meaning of the art and also through the objective sanctions imposed through the degree of recognition and fulfilment. The field of art condemns the artist to a career of uncertainty, for without the acceptance of the institution, often brilliant and successful artists suffer the threat of damnation by the system.

The value of the art is attributed to the art, through the system, which position, awarded to the artist in the system is only entitled to within the hierarchy of cultural legitimacy. The value of the artist is attributed either recognition or exclusion in relation to their peers or in relation to "the institutions of consecration" (Bourdieu, 1985, p. 18). Unfortunately, the majority of artists do not enjoy much commercial success.

Plattner (1998) argues that the artist produces art because it is the way in which the artist creates identity for himself. Many artists support themselves through other careers, but the drive to produce art is not driven by the market (Plattner, 1998). This represents a clear cut case of market failure. It is this situation that allows for the growth of 'Art Tourism'. 'Art Tourism' allows both the artist in the secondary art market and the buyers of 'Fine Art' to mutually benefit.

9 FINDINGS AND DISCUSSION

This paper examined the role of market efficiency in the 'Fine Art' industry. The concept of market efficiency itself is complex to say the least. Rather than attempting to define it, this work narrows the concept down to its most prominent constituent, namely; the availability of information. Information of the market constitutes two forms, private information which is the personal knowledge of the investor about the asset or security traded, and public information, which relates to shared information about the assets or securities across the market. The greater the degree of private and public information, the greater the likelihood that market efficiency exists.

The problem with 'Fine Art' as an alternative investment is that the value inherent in the investment is highly subjective, which is highlighted by the consequence of the poor market performance of the 'Fine Art' industry. The subjectivity of 'Fine Art' is captured in the intrinsic value that an investor sees in the investment. This value is not perceived by the investor as purely financial as in the case of a 'typical' market security. The choice of such an asset depends much on the 'meaning' that the potential investor can derive from such an investment in combination with any potential return. 'Meaning' in this context is a function of one's individual beliefs, and that in turn is a product of one's social and cultural environment.

Beliefs themselves are institutionalised by creating rules and standards of engagement that investors can use as benchmarks within the decision-making process. These rules are reflected in art rankings through published indexes that are presented by different agencies and auction houses. A large component of these indexes relates to the number of sales and trades of the respective artists. Other factors also are included, but may play a lesser or greater degree of importance. The market is typically asymmetrical with regards to the

information. There is a primary international market which is represented by the auction houses such as Sotheby's and Christie's. It is here that prices may reflect 'value'. However, there is also a secondary market where the decisions made to buy and sell are lost to literature based on poor levels of information, data and understanding. It is known that the prices made on the primary market may have a spill-over onto the secondary market.

Institutions (such as the auction houses) dominate over the primary 'Fine Art' market. They act as gatekeepers from the demand side by making the market for 'Fine Art' exclusive and also may influence the supply side by determining which artists may be traded through the auction process. Thus these institutions act in a monopolistic fashion, limiting the supply and generating high returns from premiums paid by the suppliers and the investors of the art. Vincent van Gogh in 1874, reflected that the institutions for 'Fine Art' were no more than an industry of organised thievery.

The question asked in this study is unfortunately flawed. The literature consulted in this study alludes to 'weak' market efficiency within the primary market for 'Fine Art'. However, the question should read: "How deep is the inefficiency that exists in the market for 'Fine Art'".

In an editorial article published in 1907, it was stated that, "at present the acumen in these matters seems to lie principally with the dealers. There is no doubt that the competition of the last few years, coupled with an improved apparatus of reference and increased facilities of travel, has made the chief dealers far better judges than they were in the past. Even 10 years ago, the private collector might hope to compete with them in the sale room, and snatch a victory by superior knowledge. Now the position is fast been reversed, and the dealer has learned his business so well that the private collectors chance of a bargain has immensely diminished.

This is not wholly a disadvantage. It may make collecting less of a sport, but it certainly makes it more stable as a pursuit" (The Burlington Magazine Publications Ltd, 1907, p. 135).

Frey and Eichenberger (1995) mention that the rate of return on 'Fine Art' is lower than the return for typical investments in other financial assets. This is mainly due to the higher risk that is present in the market for 'Fine Art'. Because 'Fine Art' also yields an additional 'psychic' return from owning and viewing the art, information and knowledge pertaining to that market for 'Fine Art' is essential (Frey & Eichenberger, On the rate of return in the art market: Survey and evaluation, 1995). This information that is required to make a suitable investment decision for 'Fine Art' is often rather asymmetrical, with the bulk of the information been held by art dealers, investors and auction houses.

The primary international market is represented by the auction houses such as Sotheby's and Christie's. There is also a secondary market where the decisions made to participate in the market are improperly understood due to the lack of sufficient information or data, despite the assumption that prices set on the primary market have a spill-over effect onto the secondary market. Institutions, such as the auction houses, galleries, investment houses, all have a dominating effect over the primary 'Fine Art' market (Baur P. W., 2014). Markets for 'Fine Art' are often institutionally manipulated. This creates vast areas to exploit market imbalances which lead to greater gains, but also lead to greater losses. A thorough analysis of the behaviour of decision-making by investors into 'Fine Art' is indispensable in understanding developments in the art market. This too depends significantly on institutional determinants (Frey & Eichenberger, On the rate of return in the art market: Survey and evaluation, 1995) such as, which artists should be promoted, the type of 'Fine Art' that would be presented in the market, the potential for return and the cultural and historical significance of the artist, etc.

Quite idealistically Velthuis (2005) describes a market environment in which “artists, collectors, and dealers mutually construct the ‘landscapes of meaning’ that they inhabit (Velthuis, 2005, p. 5)”, and thus the shared value of art is created through the role of institutions. These institutions also act as gatekeepers. This has already been indicated to, in an early study by Schneider and Pommerehne (1983), which highlighted that the price for ‘Fine Art’ and its evaluations are very tightly linked to the existing art establishment. They further question the degree of competitiveness that exists within the market for ‘Fine Art’ (Schneider & Pommerehne, 1983). These institutions possibly also affect the supply for ‘Fine Art’ by determining which artists may be traded through the auction process. Typically, these institutions act in a monopolistic fashion, limiting the supply in order to generating high returns from premiums paid by the suppliers and the buyers of ‘Fine Art’. Vincent van Gogh in 1874 reflected that the trade done by auction houses for ‘Fine Art’ was no better than organised theft (Foulsham, 2005, p. 8).

Social ‘beliefs’ are institutionalised through the process of creating rules and standards used as benchmarks that are reflected in art rankings through published indexes presented by rating agencies and auction houses (Baur P. W., 2014). Many of these indexes relate to the number of sales and trades made for respective works of art during the auction process. However, when analysing the market, major obstacles exist, influencing the efficiency in the art market. Pesando (1993), outlines the problem of not been able to accurately track the prices of individual works over a period of time. Furthermore, the estimated price indexes do not always reflect the ‘buy-in rate’ or the proportion of lots that had not been sold. This tends to underestimate the volatility of bid prices (Pesando, 1993).

Evidence exists of ‘weak’ market efficiency within the primary market. This is supported by others, such as Pesando

(1993) who suggest that investment into the art market may be less efficient and compares quite unfavourably to investments into the more traditional financial markets. Chanel, Gerard-Varet and Ginsburgh (1996), who also suggest that the art market is less than efficient as proven by the number of infrequent trades and transactions (Chanel, Gerard-Varet, & Ginsburgh, 1996). This being in stark contradiction to the work of Louargand and McDaniel (1991), who stated in their research findings that both the art professionals and the art collectors alike believe that buyers and sellers tend to approach the auction process assuming that they are entering into a ‘fair game’ (Louargand & McDaniel, PRICE EFFICIENCY IN THE ART AUCTION MARKET, 1991).

In this case, there must be some underlying reason for investors believing in the efficiency of the market while operating in a market that tends towards greater inefficiency and thus uncertain returns. It’s not only the auction house price estimates that are affected by agency problems. Investors in ‘Fine Art’ are often too willing to believe what they have been told (Mei & Moses, 2004). Art investors, similar to those that invest in the more common stocks, may be influenced into believing that prices may rise to ‘unsustainable’ levels, yet still continue to buy into the belief that the ‘suggested’ short run prospects for continued gains should be sufficient to compensate for any market risk (Pesando, 1993).

Institutions have far reaching implications across the primary market in which they are established and deep into the secondary market over which they have an influence. The primary sector of the ‘Fine Art’ market sets prices using the auction process to create a ‘shared value’. Here prices are established and controlled based on the information that the institutions hold. This shared value creates investor confidence, reducing risk in an otherwise highly risky market environment. Dealers and collectors tap into the primary sector, and investors are told what to

believe. The syndicate behaviour of the collectors and dealers create a monopolistic environment which is protected through the role of the institutions which act as the gate-keepers, further supporting investor confidence. These institutions are made up of the auction houses, universities, up-market galleries, and in some cases even art museums.

This market behaviour penetrates through to the secondary market, and influences the art produces through price mechanisms, which is realised by the 'Art Tourist'. The 'Art Tourist' may anticipate a potential return on their investment. The artists trapped within the secondary art market become the slaves to the market mechanism, producing art for the sake of been creative, but not receiving the rewards that are shared amongst those in the primary art market. This keeps the supply of talent under control, while the very artists themselves often become the judges of their own peers, while the primary art market establishes a ranking.

References

- Ashenfelter, O., & Graddy, K. (2003). Auctions and the Price of Art. *Journal of Academic Literature*, *XLI*, 763-786.
- Baur, P. W. (2014). Market Efficiency, Fact or Fiction in the Art Industry. Johannesburg: University of Johannesburg.
- Baur, P., & Els, G. (2014). Using a behavioural approach to analyse the suitability of cartoons as a vehicle for teaching and learning in finance. *African Journal of Hospitality, Tourism and Leisure*, *3*(1), 1-25.
- Beaver, W. (1981). Market Efficiency. *The Accounting Review*, *56*(1), 23-37.
- Bourdieu, P. (1985). The Market Of Symbolic Goods. *Poetics*, *14*, 13-44.
- Brighenti, A. (2007). Visibility A Category for the Social Science. *Current Sociology*, *55*(3), 323-342.
- Brunnermeier, M. (2005). Information Leakage and Market Efficiency. *The review of Financial Studies*, *18*(2), 417-457.
- Candela, G., & Scorcu, A. (1997). A Price Index for Art Market Auctions. *Journal of Cultural Economics*, *21*, 175-196.
- Candela, G., & Scorcu, A. (2001). In Search of Stylized Facts on Art Market prices: Evidence from the Secondary Market for Prints and Drawings in Italy. *Journal of Cultural Economics*, *25*, 219-231.
- Chakraborty, I., & Shyamalkumar, N. (2014). Revenue and efficiency ranking in large multi-unit and. *Journal of Mathematical Economics*, *50*, 12-21.
- Chanel, O., Gerard-Varet, L.-A., & Ginsburgh, V. (1996). The relevance of Hedonic Price Indices: The Case of Paintings. *Journal of Cultural Economics*, *20*, 1-24.
- Coffman, R. (n.d.). *Art Investment and Asymmetrical Information*. University of Idaho.
- David, G., Oosterlinck, K., & Szafarz, A. (2013). Art market inefficiency. *Economics Letters*, *121*, 23-25.
- Dimson, E., & Mussavian, M. (2000). Market Efficiency. *The Current State of Business Disciplines*, *3*, 959-970.
- Easley, D., & Jarrow, R. (1983). Consensus Beliefs Equilibrium and Market Efficiency. *The Journal of Finance*, *38*(3), 903-911.
- Ehrlich, I., Shin, J. K., & Yin, Y. (2010). Private Information, Human Capital, and Optimal "Home Bias" in Financial Markets. *NBER Working Paper Series*, 15668.
- Ekelund, R., Ressler, R., & Watson, J. (1998). Estimates, Bias and "No Sales" in Latin-American: Art Auctions, 1977-1996. *Journal of Cultural Economics*, *22*, 33-42.
- Ellison, G., Fudenburg, D., & Mobius, M. (2004). Competing Auctions. *Journal of*

the European Economic Association, 2(1), 30-66.

Erdos, P., & Ormos, M. (2010). Random walk theory and the weak-form efficiency of the US art auction prices. *Journal of Banking and Finance*, 34, 1062-1076.

Foulsham. (2005). *Through the eyes of Vincent Van Gogh*. London: Arcturus Publishing Limited.

Frey, B. (1997). Art Markets and Economics: Introduction. *Journal of Cultural Economics*, 21, 165-173.

Frey, B., & Eichenberger, R. (1995). On the rate of return in the art market: Survey and evaluation. *European Economic Review*, 39, 528-537.

Gilson, R., & Kraakman, R. (2014). Market Efficiency after the financial crisis: Its still a matter of information costs. *Virginia Law Review*, 100, 313-375.

Gyntelburg, J., Loretan, M., Subhanij, T., & Chan, E. (2009). *Private Information, Stock Markets, and Exchange rates*. Asia and Pacific: Bank for International Settlements.

Haralambos, M. (1985). *Sociology: Times and Perspectives* (Second ed.). London: Unwin Hyman.

Hutter, M., Knebel, C., Pietzner, G., & Schafer, M. (2007). Two games in town: a comparison of dealer and auction prices in contemporary visual arts markets. *Journal of Cultural Economics*, 31(4), 247-261.

Jones, S., & Netter, J. (2003). *The Concise Encyclopedia of Economics: Efficient Capital Markets*. Retrieved 05 03, 2014, from <http://www.econlib.org/library/Enc/efficientcapitalmarkets.html>

Louargand, M., & McDaniel, J. (1991). Price Efficiency In The Art Auction Market. *Journal of Cultural Economics*, 15(2), 53-65.

Louargand, M., & McDaniel, J. (n.d.). *Price Efficiency in the Art Auction Market*.

Massachusetts Institute of Technology & Suffolk University.

Mei, J., & Moses, M. (2004). Vested Interest and Biased Price. *The Journal of Finance*, 1454.

Pesando, J. (1993). Art as an Investment: The Market for Modern Prints. *The American Economic Review*, 83(5), 1075-1089.

Plattner, S. (1998). A Most Ingenious Paradox: The Market for Contemporary Fine Art. *American Anthropologist*, 100(2), 482-493.

Porac, J. F., Thomas, H., & Baden-Fuller, C. (1989). Competitive Groups as Cognitive Communities: The Case of Scottish Knitwear Manufacturers. *Journal of Management Studies*, 26(4), 389-399.

Ritzer, G. (1996). *Sociology Theory* (Fourth ed.). Singapore: mcgraw-Hill.

Schneider, F., & Pommerehne, W. (1983). Analyzing the market of works of contemporary fine arts: An exploratory study. *Journal of Cultural Economics*, 2(2), 41-67.

Singer, L. (1981). Rivalry And Externalities In Secondary Art Markets. *Journal of Cultural Economics*, 5(2), 39-57.

Singer, L. (1988). Phenomenology And Economics Of Art Markets: An Art Historical Perspective. *Journal of Cultural Economics*, 12(1), 27-40.

Singer, L. (n.d.). *Microeconomics of the Art Market*. Indiana University Northwest.

The Burlington Magazine Publications Ltd. (1907). The Trend of the Art Market. *The Burlington Magazine for Connoisseurs*, 11(51), 135-136.

Turban, E. (2010). *Auctions and Bidding on the Internet*. Long Beach, USA: California State University.

Velthuis, O. (2005). *Talking Prices*. Princeton University Press.

Zorloni, A. (2005). Structure of the Contemporary Art Market and the Profile of Italian Artists. *International Journal of Arts Management*, 8(1), 61-71.