



## "A STUDY OF THEORETICAL FRAMEWORK WITH REFERENCE TO PRICING THE PRICELESS PAINTINGS"

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### ABSTRACT:

*The present paper examines the conceptual framework of priceless painting in literature across. Pricing the priceless is a theoretical question whereas paintings are priced in reality. The research scholars have evolved with theoretical models that works for paintings theoretically.*



**KEY WORDS:** Theoretical Framework, Priceless Painting.

### 1. INTRODUCTION

The The concepts presented here are extracted from the working papers, research article, and group discussions on various aspects of painting market. The theoretical framework is a foundation used to build new framework or model pricing of painting. The conceptual framework of painting market gives the insight into areas of economics of art in general and painting price in specific. The theme wise classification and presentation of conceptual framework is as under.

### 2. REVIEW OF LITARTURE

The Consignments Art Price (CAP): this work present table which shows indirect relationship between the commission fixed and price of the paintings i.e. lower the painting price, higher the percentage of commission and vice versa (Ashenfelter, Orley and Graddy, Kathryn, 2010),.

Theoretical background, there are two theories which explain, as how paintings prices are determined i.e.i) (W.J.Baumol, 1986) and ii) (Marinelli Nicoletta and Palomba Giulio, 2008), have referred to the views of Frey and Pommerehne that the "Natural Price" does not exist for paintings, nevertheless market forces determine the prices for artwork like any other economic goods.

Throsby-1994 has presented a model to study the behaveour of performing artist firms which can be applied to museums. The model is based on the assumption that no separation between the owner and the control of the firm, (Bruno S.Frey and Stephan Meier, 2003).

The unique ideas are to be expressed and externalized, so that the social evolutions can take place and others can understand, reflect, and improve upon them. Such a creativity is appreciated, awarded, rewarded and acknowledged by others in the society (Fischer Gerhard, Giaccardi Elisa, Eden Hal, Sugimoto Masanori and Ye Yunwen, 2005)

### 3. METHODOLOGY

1. Data; The present paper is purely based on secondary data

2. Data Analysis; Simple descriptive method is used to analysis the theoretical frameworks
3. Scope and Limitations; the paper deals with existing literature on pricing the paintings developed across.
4. Objectives of the paper ;
  - a) To study theoretical frameworks for pricing the painting
  - b) To examine models used and developed for pricing the painting

#### 4. FRAMEWORKS ON PRICING THE PAINTINGS

The Hedonic Regression Model (HRM): This model is employed by (Agnello, Richard and Xu, Xiaowen, 2008-06) to examine sub-period effects and to control characteristics of each painting and auction transactions while making comparative study between African American Artists and American Contemporary Artists between 1972 and 2004. The result is price appreciations were higher for African American Artists in both periods as compared to Contemporary American Artists.

The Historiometry Methodology (HM): Economists accept the fact that the price of art reflects the quality and value of art. This view is controversial among historians and public. In order to clarify the fact, Galenson (1997, 1999 and 2001) has made major efforts and concluded saying that there is no much difference among the readings by historians and art critics on quality assessment of art and auction prices. This type of methodology used to assess the value of art is called as 'Historiometry'<sup>1</sup> (Sebastian Edwards, 2004).

The Quantile Hedonic Regression Approach (QHRA): (A.E.Scorcu and R.Zanola, 2010), have used this approach to investigate the role of price slabs in determining the evaluation of art items. This approach was applied to 716 paintings of Pablo Picasso traded in auction houses between 1988 and 2005 across the world.

Regression Approach (OSL Model): According to (A.E.Scorcu and R. Zanola, 2010), OSL (Ordinary Least Squares) is generally used to analyze the relationship between set of collectibles and their corresponding price in art market. This approach depends upon conditional distribution of the dependent variables. According to researchers, QHR Model may have better properties than OSL Model under the presence of heteroschedasticity.<sup>2</sup>

The Capital Asset Pricing Model (CAPM): Art as consumer goods has the aesthetic pleasure, prestige value and money value in the society. As consumer durable goods, painting has its discounted future money value at present. (Richard J. Agnello, 2006) has used Capital Asset Pricing Model (CAPM) to know, the extent of art assets can be created like any other assets and to know the role of art in diversified portfolio in money economy.

The Survey Methodology (SM): (David Throsby and Anita Zednik, 2008) have used survey method to investigate the ways in which people participate in valuing art and other leisure activities through a designed questionnaire. This paper summarizes only raw results whereas the testing of hypotheses and detailed analyses is reported elsewhere.

The Spatial Auto-Regressive (SAR) Model: (Stefan Traub, 2005) has made use of Spatial Auto-Regressive Model to investigate spatial distribution of population, administrative directors, and ticket prices in the field of performing art. SAR is empirically tested and the data supports the model. SAR helps to explain the size and losses in the performing art.

<sup>1</sup> 'Historiometry' is the historical study of human progress or individual personal characteristics by using the statistical tools to explain human genius, behaviour, statements and discourages. 'Historiometry' was used by Belgian Mathematician Adolphe Quetelet in early 19<sup>th</sup> century.

<sup>2</sup> Heteroschedasticity\* means the circumstances in which the variability of a variable is unequal across the range of values of a second variable that predicts it.

The Regression Model (RM): The Regression Model (RM) is used to calculate the hedonic price function, the gradients of which are the implicit prices of the attributes, and reflected in the consumer's marginal rate of substitution among attributes. (Nauro F. Campos and Renata Leite Barbosa, 2008).

An Index Number Theory (INT): Generally, this theory is employed to compare the various methods which are used to measure the trends in auction prices. Such an index is constructed either by Bilateral Index (Two Periods) or by Multilateral Index (Longer Periods). There are two indices which are frequently used to study the sequential auctions of multiple objects i.e. 1) Arithmetic Mean of Ratio (AMR) and 2) Ratio of the Sums of Prices (RSP) (Olivier Chanel and Stephanie Vincent, 2004).

The Hedonic Regression (HR): "Paintings are heterogeneous goods. They are traded for their characteristics. Such goods are called 'Hedonic Goods'. The technique designed to analyze price variations of such goods due to changing characteristics of goods is called 'Hedonic Regression (HR)'. This method was introduced by Court in 1941 and later revived by Griliches in 1971. (O. Chanel, L.A. Gerard-Varet and V. Ginsburgh, 1994)"

## 5. FRAMEWORKS ON INVESTMENT IN PAINTINGS

The Repeat Sale Regression (RSR): (Jiangping Mei and Michael Moses, 2002) have used this model to investigate fluctuation in the value of assets over a period of time. This model is used by Robert C. Anderson, Goetzmann and Pesando to study art market. The RSR is based on the price relatives of the same painting that controls for different quality of assets. It does not lack arbitrary specification of a hedonic model. The model is used to estimate an annual index of art prices of repeat sales between 1875 and 2000.

**The Artprice Global Index (AGI):** The performance and analysis of art market can be done by using various indices; one of them is Artprice Global Index (AGI). This index is used by (Daiva Jureviciene and Jekaterina Savicenka, 2011) to analyze art market in various countries and the different types of art by comparing art prices. By comparing the Artprice Global Index (AGI) with shares, commodities, and forex, one can conclude that the art does not show much of dynamic variations and sudden correlations.

The Art Market Research Index (AMRI): The Art Market Research Index is widely used by the leading institutions like Christie's, Sotheby's, the British Inland Revenue Services and The New York Federal Reserve's concerned with art prices along with other sources such as *the Financial Times*, *Wall Street Journal*, *The Economist*, *Business Week*, *The Art Newspaper* and *Handelsblatt*. The study found that the returns on paintings are much lower and risk much higher than conventional investment market, (Andrew C. Worthington, Helen Higgs, 2004).

## 6. FRAMEWORKS ON ART MARKET

The Repeat-Sale Regression (RSR) and Hedonic Regression Models (HRM): (Geraldine David and Kim Oosterlinck, 2012), have used RSR and HRM to study "War, Inflation, Monetary Reforms and the Art Market-The Belgian Art Market 1944-1947". RSR is used to study the prices of individual art objects traded at two different time periods. HRM used is used to price regress on various features of the objects traded during study period.

The Artistic Power Value (APV) Metrics: (Ventura Charlin and Arturo Cifuentes, 2013) have introduced APV metric in art market to estimate art price on the bases of per unit of area (Dollar per square centimeter). The print makers, artisans, digital printing firms, and poster designers have started quoting the prices by using this model. The APV metric is not to negate individuality of each painting. It's an attempt to synthesize the monetary value of paintings and to make comparison easier.

The Art Market Price Index (AMPI): This paper has used Hedonic Regression to construct the Art Market Price Index (AMPI) to study the growth of China art market. This method was used by Frey and Pommerehe (1989), Buelens and Ginsburgh (1993), (Renneboog and Spaenjers, (2011) and many others to study art market in different regions in different periods. The investigators have used this methodology because the sample does not identify the repeat sale of China artworks which are descriptive in nature (Jia Guo, 2012).

Market definition and Structure- Monopolistic Competition in Art market: The painting market is historically characterized by competition in price between differentiated paintings with entry procedures. The art guilds were organized by the local artist with entry fees in places like Venice, Rome, or Florence to establish the painting transactions. The painters had adopted price discriminations and focused on heavy advertisements. The mobility of painters was effective not only because artists used to move easily in and around Italian art centers but also because artists used to get good commissions. (Federico Etro and Laur Pagani, 2010) concluded that there exists Monopolistic Competition in art market.

The Payments to Artists Database Method (PAD): The Getty Research Institute has established a unique dataset "the Payments to Artists Database" (PAD) to record the payments directly made to artists in primary art market during XVII century. The PAD is used to explain the matched employer-employee dataset (Patron-Painter Dataset). PAD is a typical arrangement between the artist and patron (a person who gives financial support) about the variables like number, artist name, title of the work, subject, object, dimension, the number of figures, patron's name, payments date, price paid etc (Federico Etro, Silvia Marchesi and Laura Pagani 2013 )

## 7. CONCLUSIONS

This paper dealt with conceptual framework on painting price, investments, art market used by academicians and experts to study art market in general and painting in specific. The researchers have used various statistical and mathematical tool and techniques to develop models or approaches in the field art market. The statistical models and approaches developed by the researchers have yielded results.

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