Chapter 5

Conclusion, Recommendations and Policy Implications/Significance of the Research

The exquisite art of miniature painting in India goes back in origin to Buddhist illustrated manuscripts belonging to the Pala period in Nepal and the Eastern part of India beginning from the 8th to the 11th century AD. Some Jain manuscripts found in Gujarat and in Rajasthan, which date back to the 11th century AD, also give us insights into the practice of such manuscript illustrations in those regions.

These Pala and Jain manuscripts, apart from their portraiture of religious literature, covered many divergent topics such as astrology, medicine, mythology, etc. These manuscripts were abundantly illustrated, and were mostly written on palm leaves and strung together to form a complete volume. Apart from their use as books for prayers and reading, these were also widely used as presents and gifts during marriages between royal families and coronation ceremonies of rulers.

The Mughal Rule in India, however, brought a completely different grade of intricacy, sophistication and refinement to this art form. Under these Mughal Monarchs, this art of miniature painting reached its high point and zenith.

Both the first two Mughal Rulers- Babur and Humayun- were great connoisseurs of literature and art. However, they could not build and sustain a proper atelier during their relatively short and reigns due to their frequent and intermittent military campaigns. They were, however, instrumental in bringing two most versatile Persian Miniature artists, Abdus Samad and Mir Sayed Ali to India, from the Safavid -Persian
Court. The works of these two artists would go on to have a significant influence on the art of miniature paintings in the successive Mughal Courts in India.

Akbar, Jahangir and Shah Jahan, who successively ascended the Mughal Throne after Humayun, were instrumental in building the most significant ateliers under their reigns, with some of the most prominent miniature artists like Manohar, Basavan, Ustad Mansoor, Bichitar, Murad and Balchand flourishing under their benevolent patronage. These artists and their ateliers produced some of the most significant works of those times like the Akbarnama, Razamnama, Baburnama, etc., which were all commissioned by these Mughal Monarchs.

The miniature painting scene and the artists shifted their focus to the various Rajput Courts in Rajasthan and the Hill or Pahari States of Northern India, with the decline of the Mughal Empire. As a result, quite a few important Miniature Schools of painting – like the Marwar, Mewar, Amer, Kangra, Hadoti, Chamba, Basholi, Punjab, and Garhwal – Schools, started flourishing under the rules of these Rajput Kingdoms. For quite some time though, the Mughal influence was still prevalent, though each school subsequently developed its own distinctive feature and characteristic.

These paintings as well as manuscripts covered various activities and subjects - from court scenes, flora and fauna, religious literature, royal processions, jewelry, textiles, to elaborate hunting and equestrian scenes. However, the most captivating and riveting depictions were the elaborate and brilliantly executed portraits of the sovereigns, their courtiers and nobles, which not only open a window to the traditions, culture, and the practices of those times, but also throw light on the magnificent reigns of those royal patrons.
The approach to the research was through a thorough Review of Literature which included various studies on the subject by experts in the field of miniature paintings. The review also included various significant Art Market Reports and Art Publications and Literature across geographies and Markets, with studies focusing on various genres of art, investments and areas of study. The Review went through more than 150 Research Papers and related publications from 1989 to 2019, and around 57 of them form a part of this study.

Apart from delving into the background and history of the miniature painting movement in India, the study also explored “Art as an Investment,” and its relation with various other investments avenues. The review of literature explored various asset classes similar to paintings, i.e. wine, sculptures, photographs, etc. and delved into the concept of Art as a tool for risk and portfolio diversification.

Return on art as an investment, and the various variables which affect the price and valuation of art formed one of the main areas of our Literature Review. Based on these reviews, and the opinion of experts, a list of around twelve to thirteen variables were arrived at. These variables then formed the main basis of formulating our questionnaire and further analysis.

The review of Literature also delved into several techniques used in previous studies regarding Interviews, Sample Design, Expert Opinion, and determining Optimum Sample Size, etc.

As our study focused quite significantly on pricing of artworks in auctions, our Literature Review also made an attempt at understanding the Auction Process in depth. The strengths and weaknesses of the auction process was studied basis previous research work carried out on the subject.
Finally, our review of literature studied the various analytical tools, and statistical techniques used by previous experts in arriving at art price indices, and value of art. The study of literature gave us an insight that some important tools which helped in deriving art price indices included Regression Analysis, Hedonic regression, Repeat Price Regression and Mixed Model Analysis of Variance (ANNOVA) were some of the statistical tools used in previous studies by experts.

On the basis of the review of literature, the study identified the following research gaps:

1. That there has been miniscule research which has been conducted on the Indian Art Market in general, and Miniature Art and Antiquities in particular;

2. Lack of a prescribed and well defined regulatory framework for the art markets, has made the market less transparent. Therefore, the need for an art-exchange or authentication agency would definitely go a long way in expanding the market.

3. With almost no defined model/criteria under which art works are being priced, the development of a pricing model for the valuation of art works and antiquities, shall result in greater transparency in art related transactions.

On the basis of the Research Gaps identified above, the study identified the research questions, which were mainly to identify the variables that influence the valuation of miniature paintings in India, and what are the views of various experts regarding such variables and their effect on the prices of such paintings. The period selected for this study was mainly focused on, but not limited to, the miniature paintings schools
that were prevalent in Rajasthan and North India between the Sixteenth and the Twentieth Centuries.

As mentioned earlier, on the basis of the Literature Review and discussion with Experts, the main factors that significantly affect the valuation of miniature paintings were identified.

Once the research questions and variables were identified, the study proceeded to identify and clearly outline the Research Objectives. These objectives were identified as:

1. To study the determinants of valuation of miniature paintings in India with special reference to miniature paintings in Rajasthan and North India.

2. To study the difference in the valuation criteria of various categories (Art Galleries, Artisans, Investors, and Museums, etc.) of experts in the form of determinants.

3. To arrive at a Valuation Model for Miniature Paintings in Rajasthan and North India for the Period 16th Century to the 20th Century.
Findings and Conclusions based on the Objectives Identified

The main objectives of this Research were threefold- namely, to study the various determinants of valuation of miniature paintings in India with special reference to Rajasthan and North India. To study the difference in the valuation criteria of as perceived by different categories of experts (Art Galleries, Artisans, Investors, Museum Directors, Art Scholars, etc.) in the form of determinants. and to arrive at a Valuation Model for Miniature Paintings, mainly for Rajasthan and North India for the Period 16th Century to the 20th Century.

Objective 1: To study the determinants of valuation of miniature paintings in India with special reference to miniature paintings in Rajasthan and North India: Post finalization of the Research Objectives, and based on past Literature Review and Expert Views, the Research Methodology which was selected was descriptive and exploratory in nature. Both qualitative as well as quantitative techniques have been used, and as in-depth interviews were conducted. A detailed questionnaire so prepared was filled up by mostly personal interaction with the experts. Most of these questions in the questionnaire were to some extent open-ended, where the changes, suggestions and personal opinions of the experts could be incorporated. The so developed questionnaire, otherwise was closed ended, as the data which was to be collected could be used for quantitative and statistical analysis.

The major finding from the Literature Review and Pilot Testing resulted in the author identifying twelve different variables/determinants which affect the prices of miniature paintings. These were Provenance, Authenticity, Published/Previously Exhibited Works, School of Painting, Period, Size of the painting, Medium and Type of Work, Condition of the Work, Rarity, Artist, Signed/Unsigned or Attributed/Ascribed
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Works, Subject matter of the Painting, and Previous Sale Record. As the study was mainly concentrated to the experts based in the North Indian States, hence the first objective of the study was met.

Objective 2: To study the difference in the valuation criteria of various categories (Art Galleries, Artisans, Investors, and Museums, etc.) of experts in the form of determinants: The Sample Method used was Purposive, and the target respondents consisted of experts like Art Dealers, Art Historians, Artists, Gallery Owners and Miniature Painting Collectors. The author had defined the category of experts while submitting of the Research Proposal.

A sample size of 21 was fixed on the basis of past literature review which suggested that a saturation can be reached at a sample size of 16 to 30. As the experts are all experienced, busy, and highly proficient in their fields of study, we had to keep in view their availability, and also the time considerations while determining the sample size. As explained earlier, quite a few literature studies have conducted which pointed out regarding the flexibility of the likely sample size and ‘theoretical saturation’ (Glaser 1978, Silverman 2010, Strauss, et. al 2006).

As mentioned earlier, a structured questionnaire had been made for conducting the interviews with the experts. Literature Review was the source of the first draft of the questionnaire, which was subsequently refined and updated post content validity and face testing in consultation with experts. This draft was administered on a Pilot Group of Experts, post which certain changes were incorporated basis their suggestions and views. One major change that was incorporated in the questionnaire was that respondents were given an option to mention any value other than the range which was
already mentioned in the questionnaire. This added a touch of flexibility and sturdiness to the interview process.

The survey and filling up of the questionnaire helped in understanding the thought processes of the experts, and various criteria which were expressed by them to be important parameters which would affect the pricing of miniature paintings. This helped in fulfilling our second objective of the study.

Objective 3: To arrive at a Valuation Model for Miniature Paintings in Rajasthan and North India for the Period 16th Century to the 20th Century: As the research was based on mainly unexplored areas of pricing of miniature paintings where some of the areas where undefined, based on the above facts and literature review, it was found that most past studies had used Multi Criteria Decision Modeling Methods. Accordingly, this study selected Grey Relational Analysis as the technique to be utilized for carrying out the analysis and ranking of the various variables identified earlier. As mentioned earlier, one of the other reasons for selecting GRA is that it is very effective in solving problems involving small sample sizes.

Also, with smaller sample sizes, where we use less rigourous information from the sampled data, we have selected the Kruskal-Wallis H Test (which is, in a way, an alternative to the one-way ANOVA). This Test based upon the assumption that the random set of variables is continuous and can be measured on an ordinal scale. This Test is generally used to examine the variance in the mean returns of the two populations. It follows a Chi-Square distribution based on k-1 degrees of freedom. It uses ranks of the data given, rather than the continuous and the measurable on an ordinal scale. The K-W H test actually measures the degree by which the actual mean ranks are different
from the expected values. If the difference is quite significant, then we reject the null hypothesis.

**Analysis conducted for arriving at the Third Objective of the Study**: The collected data from interviewing the experts was analyzed to find the extent to which they affect the valuation of miniature paintings.

The various variables like Authenticity, Provenance, etc. have been ranked using GRA. Similarly, the different Painting Schools, like Mughal, Bundi, Kota, etc. have been assigned ranks on the basis if the weightage given by the experts. Similar ranking and weightage have been arrived at for all the given variables like Subject Matter, Artist Signature, Period, etc.

The ranking so obtained above, have further been examined across various categories of respondents. For this, we have analyzed the basic demographic characteristics of the experts, like their profession, age, and experience, etc. The Kruskal-Wallis H-test has been used to understand the difference in the rankings between these various groups.

As discussed earlier, the price or valuation of a miniature painting may be affected from the value obtained through our base model above due to various reasons mentioned in the questionnaire which are mainly Questions 4 to Question 11. These questions have been used to simulate the valuation of the miniature paintings.

Hence, the price which was estimated through response to Question 12 have been simulated by ranks obtained by different variables, different Schools and different Subject Matters to arrive at a fair value of a miniature painting. Post this, this price is adjusted for possible variations due to factors mentioned in Question 4 to 11).
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Hence, on applying the GRA on all the twelve variables the responses of the experts are normalized as per GRA procedure and the results so obtained through deviation sequence have been used to arrive at the final coefficients of Grey relational co-efficient and grade.

On the basis of the ranking so obtained, for the 12 variables, a work Signed by an Artist is given highest weightage, closely followed by Authenticity, School and Rarity. This implies that if a miniature painting is signed by a renowned artist, it adds value to the work. On similar lines, if a painting is authenticated from a prominent source, or it belongs to some recognized School of miniature painting, or is rare, then again their importance while calculating the value of a painting is relatively high. On the contrary, the Size of a Painting and its Previous Sale Record were ranked at the lowest end of the table by experts. One of the reasons assigned by experts for a low importance being assigned to previous Sale Records is the fact that this study is to identify an intrinsic value of a painting, and hence, should not be affected, or influenced by past sale records.

The Kruskal-Wallis H test is applied to find out if there is any significant difference in ranking of the variables by the experts on the basis of their profession, age, and experience. The Test indicated that there indeed was no significant difference in rankings assigned to the variables by the experts on the basis of their profession, age and experience. As seen above, the p-value derived for chi-square test is more than 0.05 except for the case of Size, where the ranking given by experts on the basis of their age was different.

On similar lines, rankings and weightage of the twenty six Miniature Painting Schools were obtained by applying GRA. The higher the rank given by an expert to a particular School, it indicated that a painting from that school was more valuable. The
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ranking so obtained indicates that the experts have assigned the highest weightage to the Basholi School, followed by the Mughal, Guler/Jasrota, Kangra, and Bikaner Schools respectively. On the other side of the table, we had the Nathdwara School, Jaipur, Company, Jammu/Bahu, and Uniara School, which were given the least rankings by the experts on the basis of their likely valuations.

In addition to above, further analysis was made to know the difference in ranking of all 26 schools based on the profession, age and experience of the respondents. The results of Kruskal-Wallis H test have been given in Table 14, Table 15 and Table 16. The chi-square values obtained through Kruskal-Wallis H test have shown that there is no significance difference in the ranking on various art schools of miniature paintings on the basis of profession of experts, age of experts and experience of experts. Only one case was identified where Nathdwara School showed different rankings on the basis of age. It means, the experts from different age group have given significantly different rankings to this school.

On analyzing Question No. 3, which involved Subject Matter of the Miniature Paintings, the experts ranked these thirteen main subject matters on the basis of their relative importance from the point of view of their valuation. The GRA Analysis shows that the experts assigned the highest importance to a Court Scene as a Subject Matter, followed by Royal Procession, Battle Scenes, Mythological Subjects, and Hunting Scenes in the order of preference. On the other hand, Daily Chores, Standing Portrait, and Sitting Portrait were ranked the lowest having secured the least weightage from the experts.
The K-W H Test which was used to identify difference in the rankings of different subject matter of miniature paintings on the basis of the profession, age and experience of the experts found only three instances, i.e. Sitting Portrait, Hunting Scene and Mythological Subject, where the experts gave different rankings on the basis of age. For all the remaining subject matters, no significant difference was noticed in the ranking by the experts on the basis of three demographic criteria mentioned above.

The study then proceeded to analyze the change in the Base Price of a Miniature Painting on the basis of various conditions. These had been mentioned through question numbers 4, 5, 6, 7, 9, 10 and 11. The results showed that a signed sketch/drawing/painting increases its price by an average of 25% from the base price, whereas an attributed/ascribed work price may increase by 17%. Similarly, if the work is rare, its price may go up by as high as 25%, while an important Subject Matter may hike the price by up to 14% on an average. A previously exhibited/published painting may result in the base price going up by 14%.

On the contrary, experts have assigned a significant value to the condition of a painting, and if the painting is not in a good condition, its Base Price may go down by almost 26% on an average.

Finally, the point of sale, the background of the seller, and his standing plays a major part in arriving at the valuation of a Miniature Painting. As experts pay a lot of importance to the Provenance and Authenticity of the work being sold, this area helps us in identifying the effect of these parameters on the value of miniature paintings. A sale being conducted by a registered auction house, royal/prominent collector, renowned gallery, a work registered with the ASI, private dealer, increases the value of a painting by 25%, 23%, 18%, 16% and 8% respectively.
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As we have noticed, all the above variables, parameters, rankings and weightages have been integrated and considered to come out with a model which can predict an approximate value of a miniature painting. This is a very comprehensive model which has been attempted to be worked out, and has taken into consideration almost all variables which may have an effect on the valuation of a miniature painting. The model is based on views and suggestions gathered from renowned experts in this field, and thorough discussions and rationale have been provided for each and every view provided by them. For the first time, such a large number of variables have been taken, ranked, weightages assigned, which has helped in arriving at this model, which is the final Objective of this Study.

**Theoretical Implications of the Study:** The Theoretical Implications of the Research can be gauged from the fact that through rigorous Literature Review, and interaction and interviews with Award Winning Artists, Museologists, Gallery Owners and Scholars, the study has been able to identify twelve major variables that have an impact on the pricing of miniature paintings. Previous studies in this field had limited themselves to four to five variables at the maximum. The author has visited eight cities across the country to meet these experts, and has been able to obtain views from Padma Award and National Award Winning Artists. Experts at major centres of Miniature Painting, including the Bharat Kala Bhawan, Jnana-Pravaha, Mehrangarh Fort Museum, Maharaja Man Singh Pustak Prakash, etc. have been visited and information gathered from these interactions have provided a completely different dimension to the research work.

Similarly, this study is the only one of its kind in the Indian context where an attempt has been made to derive the intrinsic valuation of miniature paintings. The
study has ranked the various Schools in the order of importance. Various variables have been ranked, on the basis of their likely impact on valuation, and important aspects of valuation – such as condition of the works, and difference in valuation between the pricing of paintings and drawings have been discussed in the study.

The GRA methodology used for analyzing the data and for ranking and assigning weightages to various variables and determinants may be used in the future to study such valuation methods for other collectibles too. The Model has ensured that strict statistical normalization processes have been followed while analyzing responses and efforts have been made to rule out biases on the basis of demographic parameters such as age, experience, profession, etc. The predictive valuations have been created an option, where the future value of the painting may be calculated taking into consideration inflation.

**Managerial Implications:** The Managerial Implications, which also includes financial implications, of this Research are likely to be felt by various stakeholders. As pointed out earlier, due to a lack of transparency in arriving at correct valuation and pricing of miniature paintings, the market for such artifacts has not grown in the manner in which it should have.

A robust Valuation and Pricing Model would greatly bridge this gap. Not only would be of immense help to collectors and investors, but it could greatly benefit Academia, Auction Houses and Galleries, and Museums.

For **Art Collectors**, finding an indicative valuation of any painting would greatly help them in the bidding process, as it would give them an idea about the extent to which the said work is over or underpriced as per the given estimates. It would also
prevent over paying for paintings, given the fact that most of the estimates being provided are based on past experience of the seller/s, and not on the basis of any statistical analysis/model. This will also help collectors to get a more realistic value for their collection, thereby reducing the ambiguity that presently exists in the sale-purchase and pricing of such works of art.

For the **Auction Houses, Galleries and Art Dealers**, this model would add as a tool to calculate the lower and higher estimates for works which they put up for sale, thus bringing a uniformity and openness with which such sales take place. As mentioned earlier, the same process employed for finding an estimated price for miniature paintings, can be used for pricing and valuation of other collectibles and works of art.

For **Independent Art Advisors and Professionals**, this will be a tool to advise their clients in a more systematic and professional manner. With the inclusion of impact of inflation on such works of art, it may help them to estimate the future value of collections, thereby giving a more realistic valuation to their clients.

For **Museums, Galleries, Archives and Government Institutions**, which have a sizeable amount of their funds allocated for purchase of antiquities, paintings and artifacts, this would act as a tool to price their purchases more appropriately and with more transparency. As in the case with individual collectors, this model would help museums and galleries in arriving at a fair valuation of their collections. This would help in better accounting practices and record-keeping being followed, and would greatly reduce the dependence on assumptions and estimates in arriving at prices/valuations.

Last but not the least, this model would greatly help in bringing the whole art world closer and in agreement regarding pricing and valuation of works. It may pave
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the way for creation of a uniform Art Exchange, where art could be more freely and
transparently traded across geographies.

Also, very importantly, this model could be extended to Modern and Contem-
porary Art Works and other group of Collectibles, so that a semblance of transparency
could be arrived at.

**Limitations of the Study and Scope for Future Research**

**Limitations of the Study**

The study has certain limitations and further scope in this Research, and the
same have been pointed out below.

1. Due to difficulty in arranging meetings with experts due to their busy schedules
and because they are spread across geographies, the study has been conducted
on Indian Miniature Paintings, and has been constrained mainly to the North
Indian Schools.

2. All the experts who have been interviewed belong to India.

3. The present model derived above can give an estimated or approximate price
for an art work. As all of us understand, each work of art is unique in itself, and
therefore putting an exact value to it may not be always possible. Also, the im-
portance for a particular artwork may be more for one particular collector/gallery
than the other. Hence, the intrinsic value of an art work calculated in the
thesis above may not necessarily always be the same as the price realized in
auctions or private sales, as some collectors may be ready to pay more for some
particular works, or the price of a particular work may go up due to extreme
rarity or due to the frenzy of the bidding process. However, the thesis does help
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us in arriving at an approximate intrinsic value of old miniature paintings in India.

Scope for Future Research

1. The study could be made wider by including more Schools and sub-Schools.

2. Purchasing power parity of different countries can be built in into this model, which can make this more universally acceptable and applicable across geographies.

3. The scope of the study could be enhanced to include experts, auction houses, galleries and muselogists from abroad, so as to get a more comprehensive perspective and view.

4. This study could be emulated for finding valuations of similar collectibles- like contemporary works of art, watches, coins, sculptures, jewelry, etc.

The author is in the process of developing the above pricing model into a website, and subsequently into a mobile based application, for which a patent would be filed in due course.