Role of Human Information Sources towards Identifying the Factors Responsible for the Development of Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal

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Abstract

Krishnanagar area of West Bengal is very much rich in the terracotta art. It mainly includes clay dolls and clay models. In recent time the art is facing some problems. Some factors are responsible for these problems. The present study is an attempt to find out the factors which are responsible or not for the development of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal. The factors are financial assistance, Market/selling, Training, Raw material, Infrastructure, Information, Packaging & Transportation and Working Space. In the present study, some recommendations are given on the basis of findings.
Keywords: *Terracotta, Clay Dolls, Clay Models, Clay-based Handicrafts, Krishnanagar*

Introduction

Clay as a medium of human expression has been used most widely throughout the world since earliest times. Primitive man's artistic instinct led him to make images of visible objects. Thus, the first creations of all civilizations were made out of clay. Clay has been regarded as the primeval plastic materials. It is readily available, easily tractable and amenable. In the dawn of human sensibility and history, men perhaps first saw the altered state of burnt clay in a forest fire and thus discovered the possibility of making pots with clay and burning them so that they did not disintegrate in water and then used them both for storing and for cooking. Any desired shape can be given to it and it can be harden by the fire. One of the important characteristics of this clay-based artwork is that it can be regarded as the spontaneous handiwork of the simple folk.

1. Backdrop:

Though handcrafts are the second largest sector after agriculture in W.B. having the potentiality of employment generation, the sector is crippled due to lack of exposure in National & International market, lack of proper information, poor financial back up etc. Still numerous artisans are engaged in this artwork and have chosen as their occupation. The state and central Govt. are trying to organize this unorganized sector to enhance the rural economy of these particular cluster areas. In other way, Govt. is also earning huge amount of foreign currencies through exporting of the excellent artifacts. Again it is also ascertained that lion's share of the artisans have no such modern formal training, they just got their skills from their parents traditionally. The skills and tacit knowledge of the parent artisans (Human Information Source) are being transferred to their ancestors in a very informal way. Year after year new artisans are copying this indigenous tacit knowledge from their parents knowingly or unknowingly. Therefore, no such variations in styles and techniques occur in the artifacts. In other side, numerous documentary information sources regarding the different aspects of this artwork are being published in different languages and forms.

Various institutions and corporate bodies are being established to provide training and other helps to the artisans for the product development. Keeping conformity with the institutional sources, a good number of human sources are also coming out. The end users' demands are also increased but they need variations in the artwork. Again, Govt. and NGOs are continuously trying to bridge between artisans' artworks and end-users' need. Keeping all these things in mind, some factors have been chosen, those, which are responsible for the development of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal. The factors are financial assistance, Market/selling, Training, Raw material, Infrastructure, Information, Packaging & Transportation and Working Space. In the present study, the effort has been taken to identify the factors responsible for the product development.

2 Defining the Research Problem and Formulation of Hypothesis:

Before going through the actual study, a pilot study was carried out to the area covered under this study. Based on this pilot study, content analysis of the relevant documents and consultation with the subject experts, the research problems have been identified.

My research question is: How far do different factors responsible for overall product development the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal?

To find out the appropriate answers of the research problem stated above several hypotheses have been formulated. These hypotheses have been tested with the help of appropriate statistical methods. The hypotheses are stated below:

i) There are no significance differences in the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Financial assistance" responsible for Product Development.

ii) In the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Market/selling" responsible for Product Development, there are no such significance differences.

iii) No significance differences in the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Training" responsible for Product Development are present.

iv) There are no significance differences in the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Raw materials" responsible for Product Development.

v) No significance differences in the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Infrastructure" responsible for Product Development are there.

vi) There are no significance differences in the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Information" responsible for Product Development.

	vii) In the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Packaging & Transportation" responsible for Product Development, there are no such significance differences.
	viii) There are no significance differences in the opinions regarding importance of rating given by the human sources (respondents) of different types of the Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal on the factor "Working Space" responsible for Product Development.
3 Methodologies and methods	Purposively the present study covers only the Ghurni area of Nadia district of West Bengal. Again systematic random samples (every 20th item) were taken from the whole artisans of these clusters, where first one has been taken randomly. Therefore, the present study has followed the methodology *"purposive systematic random sampling"*. Fifty seven artisans have been chosen and surveyed. Therefore the sample size (N) is 57. The different methods have been used for data collection, data presentation and data analysis. The structure schedules were used to collect the data from the artisans. These collected data have been presented by the tables and lastly these tabulated data have been analyzed by the Kolmogrove – Smirnov (K.S) test.

Table-1: *Data collected from the artisans of Clay dolls and Clay models of Krishnanagar*

		Clay dolls and Clay models (N=57)			
1	Sex	Male	48	**84.2%**	
		Female	9	**15.8%**	
2	Age	<30	12	**21.1%**	
		30-39	11	**19.3%**	
		40-49	15	**26.3%**	
		≥50	19	**33.3%**	
3	Qualification	Academic	<10	11	**19.3%**
			10	10	**17.5%**
			12	11	**19.3%**
			UG	10	**17.5%**
			PG	5	**8.8%**
			Ph. D	0	**0%**
		Professional	BFA, MFA, etc.	10	**17.%5**
4	Language known	Bengali	57	**100.0%**	
		English	27	**47.4%**	
		Others	23	**40.4%**	
5	Why you need information?	Awareness	37	**64.9%**	
		Up-to-date	30	**52.6%**	
		Day to day need	45	**78.9%**	
6	Types of information channels used.	Formal	Book	35	**61.4%**
			Journal	12	**21.1%**
			Proceeding	0	**0.0%**
			Web	5	**8.8%**
			Others	3	**5.3%**
		Informal	E-mail	12	**21.1%**
			Consulting expert	13	**22.8%**
			Face-to-face	45	**78.9%**
			Meeting/Seminar/Wor	9	**15.8%**

			kshop					
			Parent	52	**91.2%**			
			Private correspondence	9	**15.8%**			
7	Do you use library?	Yes	17	**29.8%**				
		No	40	**70.2%**				

				Strongly Agree (SA)	A	NO	DA	SDA
8	Factors responsible for product development		Financial assistance	5	12	3	20	17
			Market/selling	11	30	0	12	4
			Training	10	22	10	7	8
			Raw material	7	19	2	22	7
			Infrastructure	45	7	1	4	0
			Information	11	22	7	10	7
			Packaging & Transportation	22	19	2	11	3
			Working Space	1	4	3	42	7

				1st	2nd	3rd	4th	5th	6th
9	What type of information do you think more responsible for product development (arrange preferentially)		Marketing and Selling of the products including export	9	8	16	11	4	9
			Financial and other Schemes	5	2	22	6	12	10
			Modern design and techniques of preparation	4	12	3	12	20	6
			Use/application of the products and other aspects	3	9	10	19	7	9
			Clay testing and preparation	23	9	4	5	3	13
			Modern packaging techniques	13	17	2	4	11	10

10	Other occupation	Yes	21	**36.8%**
		No	36	**63.2%**
11	How well you like your work	I hate it	0	**0.0%**
		I dislike it	3	**5.3%**
		I do not like it	10	**17.5%**
		I am indifferent to it	7	**12.3%**
		I like it	7	**12.3%**
		I am enthusiastic about it	19	**33.3%**
		I love it	11	**19.3%**
12	Think about job change?	Yes	5	**8.8%**
		No	37	**64.9%**
		Omitted	15	**26.3%**
13	Work order	Over telephone	45	**78.9%**
		Tender	11	**19.3%**
		E-mail	29	**50.9%**
		Face-to-face	39	**68.4%**
		Anticipation	43	**75.4%**
14	Product price range (in Rs.)	<50	2	**3.5%**
		50-999	37	**64.9%**
		1000-9999	9	**15.8%**
		10000-49000	6	**10.5%**
		≥50000	3	**5.3%**
15	Where you supply/sell?	Market	Local	42	**73.7%**
			National	23	**40.4%**
			International	3	**5.3%**
			Govt. Agency	11	**19.3%**
			Through vendor	39	**68.4%**

#	Question		Category	Count	Percentage
		Fair	Local	47	82.5%
			National	11	19.3%
			International	0	0.0%
		Individual tourists from home		25	43.9%
16	Monthly income (in Rs.)	<5000		25	43.9%
		5000-9999		21	36.8%
		10000-24999		7	12.3%
		25000-49999		3	5.3%
		≥50000		1	1.8%
17	Demonstration places of products	Showroom		18	31.6%
		Fair		42	73.7%
		Exhibition		11	19.3%
		Home		16	28.1%
		Others		2	3.5%
18	Have you got financial assistance?	Yes		7	12.3%
		No		50	87.7%
19	Award	Yes		28	49.1%
		No		29	50.9%
20	Training	Yes		16	28.1%
		No		41	71.9%
21	Do you think training is useful?	Yes		23	40.4%
		No		17	29.8%
		No comment		17	29.8%
22	Packaging system used	Thermocol box		4	7.0%
		Pitch board box		13	22.8%
		Wooden box		21	36.8%
		With straw		49	86.0%
		Others		11	19.3%
23	How you learn?	Traditionally		33	57.9%
		Own try		11	19.3%
		Training		3	5.3%
		Art college		10	17.5%
24	Do you know any Govt. scheme?	Yes		27	47.4%
		No		30	52.6%
25	Where are you working?	Home/Own workshop		36	63.2%
		Others workshop		21	36.8%

Source: Primary Data

4. Opinion regarding the factors responsible for product development

Before go through the statistical analysis of data under serial no. 8 in the table-1, to find out the factors responsible for the development of Clay dolls and Clay models of Krishnanagar area of Nadia district of West Bengal, other data collected in this regard presented in the table-1, need to mention. All data regarding the information seeking behaviour of the artisans of Krishnanagar under different serial nos. except serial no-8 of the table-1, have not discussed in detail. For better understanding of the data, percentages are also given side-by-side. In this regard some factors have been considered on the basis of pilot study, experts' opinion and literature review, which are responsible for the overall product development.

These factors are Financial assistance, Market/selling, Training, Raw material, Infrastructure, Information, Packaging & Transportation and Working Space. All the opinions regarding all these factors have been considered. The opinions are graded into: Strongly Agreed (SA), Agreed (A), No Opinion (NO), Disagree (DA) and Strongly Disagree (SDA). In order to know how these factors influences product development, the Kolmogrov-Smirnov (K.S) test has been done.

In this Kolmogrov-Smirnov (K.S) test, the Cumulative Observed Proportion (O) has been calculated based on the observed number. In each case, the Observed Proportions have been calculated by dividing the number of response on each opinion with the total responses on this particular case. Since there are five gradations, each gradation (i.e. 0.20) was assigned as Expected Proportion. The Cumulative Expected Proportion (E) has been calculated on the basis of Expected Proportion. Regarding gradation, the Difference (D) between Cumulative Observed Proportion (O) and Cumulative Expected Proportion (E) has been calculated. The largest Difference (Dmax) has been taken as calculated value for the test of hypothesis.

Table 2: Opinion regarding the factors responsible for product development

Sl.No.		SA	A	NO	DA	SDA
1	Financial assistance	5	12	3	20	17
2	Market/selling	11	30	0	12	4
3	Training	10	22	10	7	8
4	Raw material	7	19	2	22	7
5	Infrastructure	45	7	1	4	0
6	Information	11	22	7	10	7
7	Packaging & Transportation	22	19	2	11	3
8	Working Space	1	4	3	42	7

Source: Primary Data; # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed

4.1 Opinion about the factor FINANCIAL ASSISTANCE responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Financial assistance".
The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Financial assistance". Table- 3 elucidates the opinion of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Financial assistance" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.24912) is greater than the table value (0.180136), the null hypothesis is rejected. Hence there is a significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Financial Assistance".

Table- 3: Factor (Financial assistance) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	Strongly Agree (SA)	5	0.087719298	0.087719298	0.2	0.2	0.11228
2	Agree (A)	12	0.210526316	0.298245614	0.2	0.4	0.10175
3	No Opinion (NO)	3	0.052631579	0.350877193	0.2	0.6	0.24912
4	Disagree (DA)	20	0.350877193	0.701754386	0.2	0.8	0.09825
5	Strongly Disagree (SDA)	17	0.298245614	1	0.2	1	0

Source: Primary Data; # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed
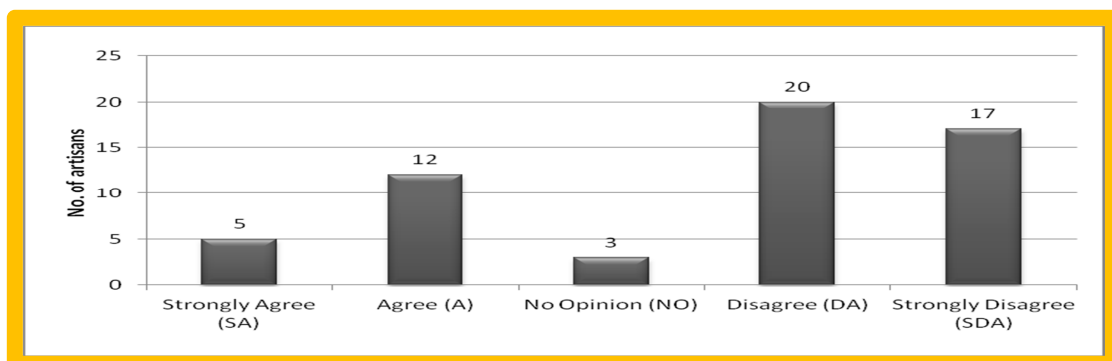

Figure-1: Distribution of opinions of the artisans regarding the factor (Financial assistance) responsible for product development of Clay dolls and Clay models of Krishnanagar

Again from the modal value in the Figure-1 it may be established that, the more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards disagreeing "Financial Assistance" as the factor responsible for product development.

Table- 4: Factor (Market/selling) responsible for product development of Clay dolls and Clay models of Krishnanagar

l. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	(SA)	11	0.192982456	0.192982456	0.2	0.2	0.00702	
2	(A)	30	0.526315789	0.719298246	0.2	0.4	0.319298	
3	(NO)	0	0	0.719298246	0.2	0.6	0.119298	
4	(DA)	12	0.210526316	0.929824561	0.2	0.8	0.129825	
5	(SDA)	4	0.070175439	1	0.2	1	0	

Source: Primary Data;   *# SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed*

4.2 Opinion about the factor Market/selling responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Market/selling".
The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Market/selling". Table- 4 elucidates the opinions of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Market/selling" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.319298) is greater than the table value (0.180136), the null hypothesis is rejected. Hence there is a significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Market/selling".
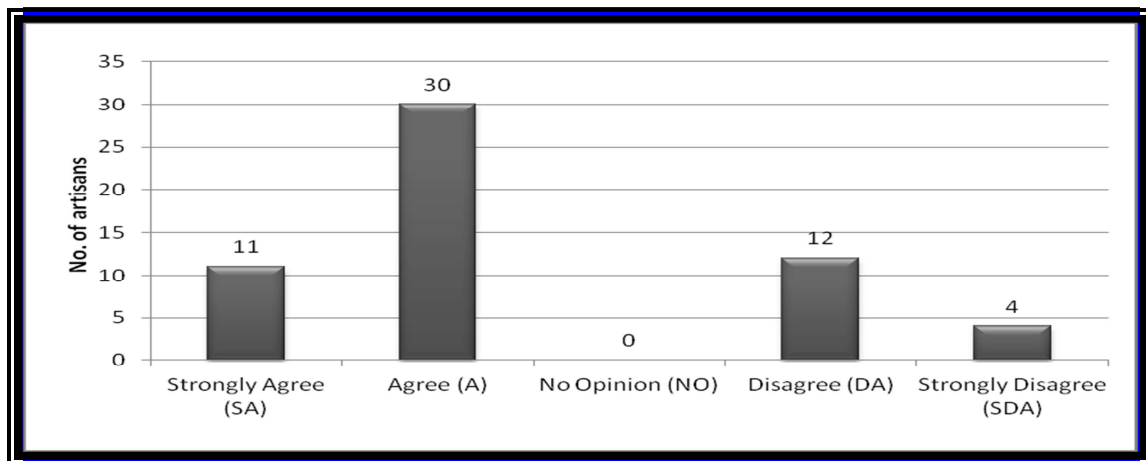

Figure-2: Distribution of opinions of the artisans regarding the factor (Market/selling) responsible for product development of Clay dolls and Clay models of Krishnanagar

Again, from the modal value in the Figure-2 it may be established that, the more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards agreeing, "Market/selling" as the factor responsible for product development.

Table- 5: Factor (Training) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	(SA)	10	0.175438596	0.175438596	0.2	0.2	0.02456
2	(A)	22	0.385964912	0.561403509	0.2	0.4	0.161404
3	(NO)	10	0.175438596	0.736842105	0.2	0.6	0.136842
4	(DA)	7	0.122807018	0.859649123	0.2	0.8	0.059649
5	(SDA)	8	0.140350877	1	0.2	1	0

*Source: Primary Data;   # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed

4.3 Opinion about the factor TRAINING responsible for Product Development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Training".

The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Training". Table- 5 elucidates the opinions of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Training" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.161404) is less than the table value (0.180136), the null hypothesis is accepted. Hence there is no significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Training".

Table- 6: Factor (Raw materials) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	(SA)	7	0.122807018	0.122807018	0.2	0.2	0.077193
2	(A)	19	0.333333333	0.456140351	0.2	0.4	0.0561404
3	(NO)	2	0.035087719	0.49122807	0.2	0.6	0.1087719
4	(DA)	22	0.385964912	0.877192982	0.2	0.8	0.077193
5	(SDA)	7	0.122807018	1	0.2	1	0

*Source: Primary Data;   # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed

4.4 Opinion about the factor RAW MATERIALS responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Raw materials".

The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Raw materials". Table- 6 elucidates the opinions of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Raw materials" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.1087719) is less than the table value (0.180136), the null hypothesis is accepted. Hence there is

no significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Raw materials".

Table- 7: Factor (Infrastructure) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	(SA)	45	0.789473684	0.789473684	0.2	0.2	0.5894737
2	(A)	7	0.122807018	0.912280702	0.2	0.4	0.5122807
3	(NO)	1	0.01754386	0.929824561	0.2	0.6	0.3298246
4	(DA)	4	0.070175439	1	0.2	0.8	0.2
5	(SDA)	0	0	1	0.2	1	0

Source: Primary Data;   *# SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed*

4.5 Opinion about the factor INFRASTRUCTURE responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Infrastructure". The null hypothesis is that there is no significant difference in the importance of ratings given by the respondents on "Infrastructure".

The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Infrastructure". Table- 7 elucidates the opinions of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Infrastructure" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.5894737) is greater than the table value (0.180136), the null hypothesis is rejected. Hence there is a significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Infrastructure".
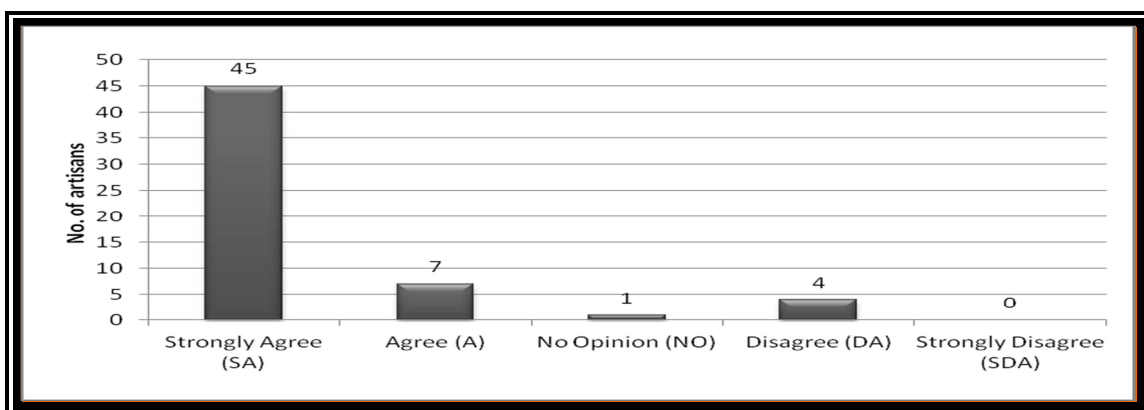

Figure-3: Distribution of opinions of the artisans regarding the factor (Infrastructure) responsible for product development of Clay dolls and Clay models of Krishnanagar

Again from the modal value in the Figure-3 it may be established that, the more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards agreeing "Infrastructure" as the factor responsible for product development.

Table- 8: Factor (Information) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	(SA)	11	0.192982456	0.192982456	0.2	0.2	0.0070175
2	(A)	22	0.385964912	0.578947368	0.2	0.4	0.1789474
3	(NO)	7	0.122807018	0.701754386	0.2	0.6	0.1017544
4	(DA)	10	0.175438596	0.877192982	0.2	0.8	0.077193
5	(SDA)	7	0.122807018	1	0.2	1	0

Source: Primary Data;   # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed

4.6 Opinion about the factor INFORMATION responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Information". The null hypothesis is that there is no significant difference in the importance of ratings given by the respondents on "Information".

The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Information". Table- 8 elucidates the opinions of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Information" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.1789474) is less than the table value (0.180136), the null hypothesis is accepted. Hence there is no significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Information".

Table- 9: Factor (Packaging & Transportation) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl. No.	Opinion	Observed Number	Observed Proportion	Cumulative Observed Proportion (O)	Expected Proportion	Cumulative Expected Proportion (E)	D= |O-E|
1	(SA)	22	0.385964912	0.385964912	0.2	0.2	0.1859649
2	(A)	19	0.333333333	0.719298246	0.2	0.4	0.3192982
3	(NO)	2	0.035087719	0.754385965	0.2	0.6	0.154386
4	(DA)	11	0.192982456	0.947368421	0.2	0.8	0.1473684
5	(SDA)	3	0.052631579	1	0.2	1	0

Source: Primary Data;   # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed

However, there are no data to validate these contentions. On the contrary, the experience of development in the states in South India where reservation in more deeply entrenched and the percentage of reservation is much more than 50%, proves that   human resources from the backward castes could unleash their productive energy for economic growth as they came to terms with modern education. It has been well established by the level of development across other cities in India that reservations actually have contributed to nation-building besides generating more competitiveness   and productivity among the stake holders in an ambience of social harmony and justice.   In India, the system of reservation provides a mechanism of peaceful transformation of the cast-centered society and a redefinition of merit.

4.7 Opinion about the factor PACKAGING & TRANSPORTATION responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Packaging & Transportation". The null hypothesis is that there is no significant difference in the importance of ratings given by the respondents on "Packaging & Transportation".

The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls/Clay models of Krishnanagar on the factor "Packaging & Transportation". Table- 9 elucidates the opinions of the artisans of Clay dolls/Clay models of Krishnanagar responded regarding the factor "Packaging & Transportation" responsible for product development.

The table value at 95 per cent confidence level is equals to $1.36 / \sqrt{57} = 0.180136$. As the calculated value ($D_{max} = 0.3192982$) is greater than the table value (0.180136), the null hypothesis is rejected. Hence there is a significance difference in the importance of ratings given by the artisans of Clay dolls/Clay models of Krishnanagar on "Packaging & Transportation".
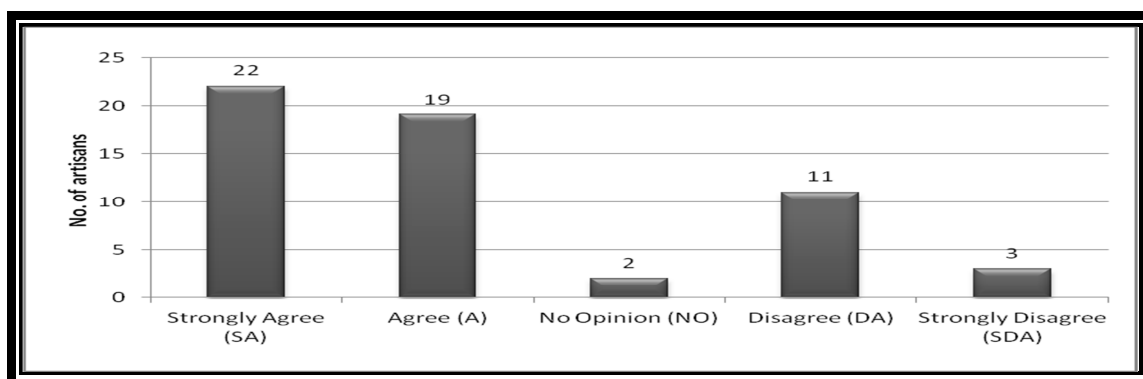

Figure-4: Distribution of opinions of the artisans regarding the factor (Packaging & Transportation) responsible for product development of Clay dolls and Clay models of Krishnanagar

Again from the modal value in the Figure-4 it may be established that, the more opinions of the artisans of Clay dolls/Clay models of Krishnanagar are towards agreeing "Packaging & Transportation" as the factor responsible for product development.

Table- 10: Factor (Working Space) responsible for product development of Clay dolls and Clay models of Krishnanagar

Sl.	Opinion	Observed	Observed	Cumulative	Expected	Cumulative	D= |O-E|

No.		Number	Proportion	Observed Proportion (O)	Proportion	Expected Proportion (E)	
1	(SA)	1	0.01754386	0.01754386	0.2	0.2	0.1824561
2	(A)	4	0.070175439	0.087719298	0.2	0.4	0.3122807
3	(NO)	3	0.052631579	0.140350877	0.2	0.6	0.4596491
4	(DA)	42	0.736842105	0.877192982	0.2	0.8	0.077193
5	(SDA)	7	0.122807018	1	0.2	1	0

Source: Primary Data;   # SA= Strongly Agreed; A= Agreed; NO= No Option; DA= Disagreed; SDA= Strongly Disagreed

4.8 Opinion about the factor WORKING SPACE responsible for product development

The Kolmogrov-Smirnov (K.S) test has been done taking only the factor "Working Space". The null hypothesis is that there is no significant difference in the importance of ratings given by the respondents on "Working Space".

The null hypothesis is that there is no significance difference in the importance of rating given by the respondents of Clay dolls and Clay models of Krishnanagar on the factor "Working Space". Table- 10 elucidates the opinions of the artisans of Clay dolls and Clay models of Krishnanagar responded regarding the factor "Working Space" responsible for product development.

The table value at 95 per cent confidence level is equals to 1.36 / √57 = 0.180136. As the calculated value (Dmax = 0.4596491) is greater than the table value (0.180136), the null hypothesis is rejected. Hence there is a significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Working Space".
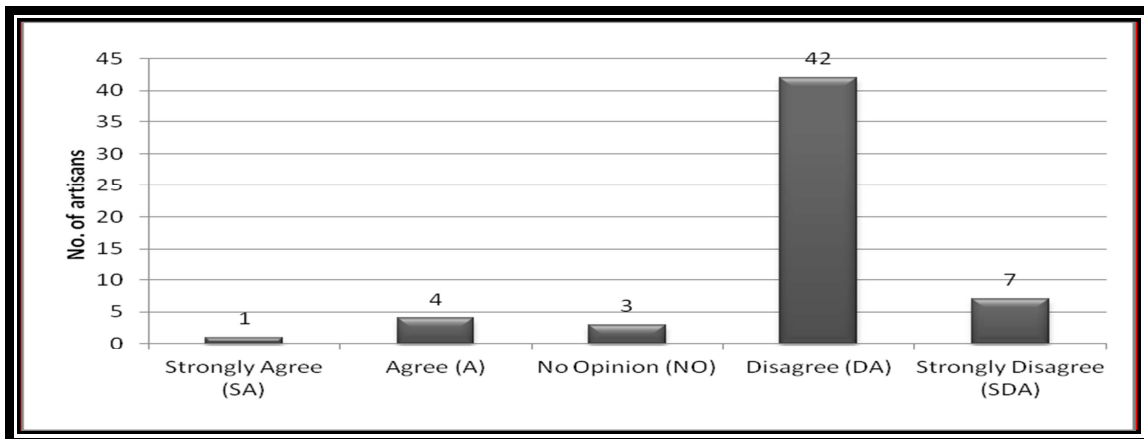

Figure-5: Distribution of opinions of the artisans regarding the factor (Working Space) responsible for product development of Clay dolls and Clay models of Krishnanagar

Again from the modal value in the Figure-5 it may be established that, the more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards disagreeing "Working Space" as the factor responsible for product development.

5. Findings

a) Majority of the artisans are male (84.2%).

b) Artisans are of various age groups, but the artisans of group of ≥50 years are slightly higher (33.3%) in proportion in compare to other age group.

c) Artisans are of various educational standards. Artisans having professional qualification are 17.5% of the total artisans.

d) Majority of the artisans are Bengali speaking, but besides Bengali 50% also knows the English language.

e) Majority of the artisans get information from their parent and face-to-face communication.

f) Approximately 30% artisans use library.

g) Approximately 37% of the artisans have other occupation along with this artistic work

h) Majority of the artisans do not want change their job

i) The products' price range is in between Rs. 50 to Rs. 999 for majority of the artisans

j) Majority of the artisans sell their artifacts in local fairs and markets

k) The monthly income of the majority of the artisans is less than Rs. 10000.00

l) Majority of the artisans have not got financial assistance

m) Majority of the artisans have not received formal training. 28.1% have gone through the training.

n) Majority of the artisans use pitch board box, wooden box and with straw for packaging purpose

o) The more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards disagreeing "Financial Assistance" as the factor responsible for product development.

p) The more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards agreeing, "Market/selling" as the factor responsible for product development.

q) There is no significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Training".

r) There is no significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Raw materials".

s) The more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards agreeing "Infrastructure" as the factor responsible for product development.

t) There is no significance difference in the importance of ratings given by the artisans of Clay dolls and Clay models of Krishnanagar on "Information".

u) The more opinions of the artisans of Clay dolls/Clay models of Krishnanagar are towards agreeing "Packaging & Transportation" as the factor responsible for product development.

v) The more opinions of the artisans of Clay dolls and Clay models of Krishnanagar are towards disagreeing "Working Space" as the factor responsible for product development.

6. Recommendations

1. Seminars and awareness programme should be organized to instigate female to come with this art work

2. The frequent training needs to arrange for the aged artisans, and later these aged artisans would transfer their skill or tacit knowledge to the younger artisans

3. Necessary steps should be taken to enhance marketing/selling of the handicrafts

4. Infrastructural development should be required in the cluster areas

5. Special looks should be given towards proper packaging and transportation of the crafts

7. Conclusions

Handicrafts constitute an important segment of the decentralized/unorganized sector of our economy. Originally, started as a part time activity in rural areas, it has now gradually transformed in flourishing economic activity due to significant demand over the year. It not only provides general employment to a vast segment of craft persons in the Krishnanagar area of the district Nadia of West Bengal but also generates substantial foreign exchange for the country. Therefore needs to develop this industry. If we implement the recommendations come out from the present study, the clay dolls and clay models of Krishnanagar area of the district Nadia as well as West Bengal would be developed in all respect.

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