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Labours' Condemnations in Informal Employment: Cases of Handicrafts Industries in Kathmandu Valley

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Abstract

This paper has attempted to explore labours' complaints about who jobs informally the whole time and provisionally in some handicrafts industries in Kathmandu Valley. The technique of PCA method conducted to extract latent factors after loading 9 different observed issues at five-point Likert-scale variables. The outcome of the groups of 'change in the technology' rated best probably 3.25 out of a five-point Likert-scale while groups of 'injury in work time' rated worst probably 3.17 out of a five-point Likert scale. Labours complained about the change in technology and facility work leave were strongly problems in the handicrafts society of labour in Kathmandu Vally.

Keywords. condemnation, handicrafts industries, informal-sector

Introduction

Labour practice in handicraft occupations has been stressed as old as the history of the country (FHAN, 2021). Historically labouring on handicrafts occupations have been practised since the periods of Ramayana and the Mahabharata era. The earthen pots, wood carvings, bronze metal utensils and clothe weaving, and perfumes were developed till the periods of Kautilyas' economy (Bidhyalankar, 1923).

These were kept as major industries until modern industrialization started by machines. Despite global modernization in industrial production, handicraft products are taken too important in the taste and preferences of the local people of the country. The demand for handicrafts products is still found in the local as well as international markets in the sense of cultural purpose and the conservation of old heritage. Since the handicrafts products have been traded in national markets as well as international level appreciably. The volume of trade of handicrafts products reached 448925 thousand Dollars in the export market (Trade Map, 2020). Handicrafts contributed around Rs. 20 billion to its national economy annually (FHAN, 2021). Handicrafts occupations have played an important role to save foreign currency in the country. The occupation has been employing the local people in their homes in the Valley as well as in the country. Further, handicraft occupations help reduce poverty at the local level and prevent the artistic skills of the artisans from generation (Trade and Export Promotion Centre [TEPC], 2021).

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Despite the importance of labouring in handicrafts occupations, the trade and production process of handicrafts products have been blamed on the traditional in sense of technological progress and advanced training. The labouring in such sectors has also kept as informal-sector who employed at the home-based level (ILO, 2004). The labour services that have been defined by the labour force survey of Nepal are informal in the sense of their working places and numbers of employed persons in their enterprises (NLFS, 2008). There have been 22 – 23 lakhs workers employed in non-agriculture informal workers. Among them, more than 50 per cent of women are in handicraft occupations. In the three districts of Kathmandu Valley, 6 to 7 lakhs workers are involved in the informal sectors. Out of them, 50 per cent have been employed in handicrafts occupations (GEFONT, 2019). Much of the informal work has been done for the handicrafts occupations. Many workers in such occupations have been engaged before going to foreign employment. The concentration of young labour in the industries has been kept as a volatile labour force employed in the occupation temporarily. Thus labour statistics in such occupations have not been updated by the entrepreneur and the local level offices. However, the labour attraction in such occupations has not decreased in the contemporary Kathmandu Valley in a disapproval sense. The workers who are employed as whole-time job holders in few occupations have blamed the occupation have been declining by the misunderstanding the government policy initiatives levels. The question still arises: why does not like to change labour acts for their labour rights. Labour organizations are also taken as a central advisor to the government limiting only the ruling parties. The evidence fall hinders to fewer labours in such occupations has been organized and get opportunities of training on the occupational job.

Thus the study has tried to explore the answers to the question of labours condemnations who are employed in the handicrafts industries in the Kathmandu Valley?

The study attempts to explore labours' condemnations who are informally employed in the contemporary handicrafts industries in Kathmandu Valley.

Review of Literature

In an empirical analysis of small-scale manufacturing in the Lima of Chicago, Yamada (1996) observed urban informal employment contributed to the development of the country. Despite the inappropriate statistics, at least one out of five people were employed in the informal sector which supported fulfilling the demand for urban services.

Bodla and Afza (1997) had shown the growing situation of the informal sector in the economy of Pakistan. The bureaucratic development model of government couldn't be solved the problems despite the huge amount of foreign aid supporting development. The study showed that 67% economy of Pakistan went under informal sectors of which 91% workforce was untrained. Consequently, Pakistan's productivity was low.

In an empirical analysis by Goto and Mano (2012), problems of the formalizations of the informal sector suffered from the rising cost of production technology facing competition problems in long run in developing economies.

In this concern, Majumdar and Borbor (2013) analysed the social security schemes for the informal workers that showed the government of India could not play an effective role to reduce informal labour services at the policy level which highly impacted decreasing productivity in the nation.

In a study of the size of the informal sector after democracy in Nepal, Salomon and Shrestha (2014) designed the Multiple Indicator multiple Causes Model (MIMIC) to examine the impact of GDP with direct democracy and autocracy regime on a time series basis. Since the share GDP was stood at 43.68%, recently the informal sector has in a declining trend after the democratic rule of law. Further, they stressed the problems that the informal sector engaged in small size economic activities with a low level of production technology and an unskilled labour force in markets.

In a study of the growth process of a developing country, Chattopadhyay and Mondal (2016) examined the Lewisian turning point after investment in the capitalist sector was not matched in long-run equilibrium wages because of the heavy reality of the informal sector in economies.

The literature relating to the empirical study was highlighted through the hypothesis test. The present study concerns the issues of only independent variables and non-parametric test evidence in Kathmandu Valley. Further research can be used the method in addressing other issues in other various informal sectors.

Method

The study method was mixed for studying the informal-sector labour who worked in four handicrafts industries in the Kathmandu Valley: metal crafts, wood carving, pottery work, and Dhaka Clothes weaving. The findings of the study were analyzed based on a quota-sampling technique through the primary data carried out in November and December 2019. The blames of workers was analyzed based on the Principal

Component Analysis (PCA) technique by using designing 9 observed variables to draw new unobserved variables. The study has run 426 sample workers' opinions with the five-point Likert scale coding 5= strongly high, 4 = high, 3 = neither high nor low, 2 = low, and 1 = strongly. The conclusion was summarized through the other open questions of the focus group discussion. The study further has limited the labour employment in the four handicrafts forms located in the three districts of the Kathmandu Valley.

Presentation methods have been assessed on the labours' pocket areas and the demographic attributes, socio-economic attributes, and the perceptions on problematic issues in handicrafts occupations subsequently.

Study Area

This is an analysis of informal-sectors labours employed in four handicrafts industries like metal crafts, wood carving, pottery works, and Dhaka Clothes weavings. These forms of workers dispersed across the three districts of the Valley. However, the study focused on the pocket areas of the labour concentrations viz. the metal crafts workers in Patan Metropolitan – 9 (Chyasal); woodcarvers in Karya Vinayak – 2 (Bungamati) and the Patan – 15 (Satdobato); the Pottery workers in Bhaktapur – 4 (Pottery Square) and Madhyapur Thimi – 5 (Purano Thimi); Dhaka Clothes Weaving workers in Mahalaxmi – 8 (Livu), where 426 sample workers were selected through quota sampling techniques.

Result and Discussion

The Socio-economic Attributes

The workers' average age stood at 34.44 years spanning from the maximum of 67 years old to a minimum of 15 years old which has not normally distributed within the age variable. Out of the 426 sampled workers, male and female workers consisted of 71% and 29% respectively. They were divided into different castes viz. Brahmin, Kshetri, Janajati, Dalit and the Madhesi by 5.2 per cent, 7 per cent, 75 per cent, 2.8 per cent and 9.4 per cent respectively. Similarly, the educational status of workers illiterate and literate stood at 18.5 per cent and 81.5 per cent respectively. Likewise, 20 per cent of workers were unmarried who worked as a single participant and others participated as more than one worker in their occupations. A total of 1484 populations were observed in 426 labours families with an average family size of 3.48 people per family. Recently, 54 per cent of workers migrated from out of Valley with working experience of 11.73 years throughout the workers.

Economically, 660 workers participated in the handicrafts occupations either partially or whole-time job holders as in contractors by 4.5 per cent, self-employed by

26.3 per cent, piece- rate workers by 34 per cent and 35.2 per cent of the wage labours. In such occupations with family involvement, workers have allocated their time with an average of 12.67 hours daily basis. On a family basis, workers earned Rs.23417 per month for maintaining their family expenditures with an average of Rs. 20433 per month. The study concluded that workers' income was mostly impacted by daily hours of working on a family basis while monthly expenditure was mostly impacted by the size of the family. Consequently, workers could save low due to low levels of income-earning and high family expenditure for their cost of livelihood life. Further, 14 per cent of workers were organized in any of the organizations and few get training in their occupations. The study thus confirmed that workers' social status becomes low in the sense of economic activities as well as access to any form of organization.

Labours' Condemnations

Labours condemnations have been loaded 9 different issues that workers facing the problems by handicraft sectors labour. For that, workers' opinions on 9 issues have been arranged as-

X_1 = the change in technology, X_2 = the delay in payment, X_3 = the leave facility on work, X_4 = the sick leave, X_5 = the weak working place, X_6 = the negligence of the entrepreneur, X_7 = the getting an injury in working time, X_8 = the cheating by contractor/broker, X_9 = the risk of the handicraft sector

Where perceptions of the observed variables were loaded five-point Likert scale such as 5 was strongly high and 1 was strongly low.

Thus the study hypothesized has settled as-

H_0 = There is no condemnation of labours in four handicraft occupations.

The study started with validity, reliability and factor analysis thoroughly in subsequent analysis.

Variables Frequency

Labours condemnations issues were arranged according to the setting of the observations in ascending order of Likert scale point strongly low to strongly high as in table 1. Workers' opinions on 'strongly low' have the highest of 40 on the observed issue regards to 'X_6'. Similarly, the opinion of 'low' was highest on ' X_7' with a repetition of 142 times. Likewise, the maximum number of 'never' have 201 on observed 'X_2'. Likewise, the opinions of 'high' were 169 on the observed variable 'X_1' and the opinions of 'strongly high' were 89 on the issue of 'X_6' more details are in table 1.

Table 1

Frequency of Likert Scale Variable

Variables	Frequencies				
	Strongly low	Low	Never	High	Strongly high
X1		101	112	169	44
X2		22	201	131	72
X3	7	94	182	124	19
X4	1	53	150	149	73
X5	17	126	124	87	72
X6	40	141	61	95	89
X7	33	142	102	86	63
X8	34	135	72	103	82
X9	18	135	140	91	42
Total responded	150	949	1144	1035	556

Note. 5 = Strongly high, 4 = High, 3 = Never, 2 = Low, 1= Strongly low, the primary data compiled in 2019.

The table1, responses 'never' got highest with 1144 and lowest with 150 for 'strongly low' in aggregate frequency. The respondents replied in 'never' highest in the sense that they told nothing and did not know when their contractor and own-account workers presented asides when the structured interview was conducted. So they replied 'never' or nothing even though they faced problems like the aforementioned 9 issues.

Descriptive Statistics

The descriptive statistics of the variables summarized the mean and standard deviations. The mean got highest on X2 with 3.59 and lowest on X7 and X9 with 3.01 for each other.

Table 2

Descriptive Statistics of the Likert Scale Variables

Variables/statistics	M	Std	N
X_1	3.37	.957	426
X_2	3.59	.827	426
X_3	3.13	.861	426
X_4	3.56	.924	426
X_5	3.17	1.145	426
X_6	3.12	1.325	426
X_7	3.01	1.200	426
X_8	3.15	1.276	426
X_9	3.01	1.047	426

Note : M= Mean, Std. = Standard Deviation and N = Numbers of observations compiled from primary data collected, 2019 .

Table 2 reveals that averages are similar in some cases however standard deviations are dissimilar. Thus, the possibility of the assumption of a higher variance of observed variables would be satisfied on different items.

The Validity Test

The validity of the observed variables tested on total responded numbers by adding all nine items as: $X10= X1+ X2+X3+ X4+X5+X6+X7+X8+X9$

Where X10 is the row total for the 426 respondents, thus N=426 there are 74 items excluded to 500 on the 'r' table whose value is 0.088 fixed to test validity. The rule of thumb was applied as below-

Valid = When calculated Pearson's coefficient of correlation > r tabled critical value Invalid = When calculated Pearson's coefficient of correlation < r tabled critical value. By using R-table, the person's correlation of coefficient of all the observed factors was greater than the tabulated value of 0.088 significant at .001 level identified chance of being probability wrong was less than 1000% and more. Thus running factor analysis of the observed variables is acceptable.

The Reliability Test

The Cronbach Alpha test of the statistical tool was applied to measure the internal consistencies of the factor-loaded variables or homogeneity of the scales. The measure of ranging from 0 to 1 where 0 indicated no reliability and 1 indicated perfect reliability. The study decided to determine larger the reliability of the test score.

The reliability test of the hypothesis has based on as-

H0: the internal consistency is perfect for the 9 observed variables. The size of the reliability test or Cronbach's Alpha (Table 3).

Table 3

Reliability Statistics

Cronbach's Alpha	Numbers of Items
.876	9

Note.Cronbach'sAlphahasnamedafterLeeJoshep Cronbach(1916-2001) thedatahavebeen compiled from primary data collected in 2019.

In table 3, Cronbach's Alpha has .876 of 9 item loaded variables. It has been interpreted as the coefficient laid .80 to .90 denoting reliability as well or there is a higher correlation among the loaded observed variables. This is useful to predict latent (unobserved) variables.

The Principal Component Analysis (PCA)

The PCA technique of factor analysis was applied to explain the variance in the observed variables in terms of newly unobserved factors indicating a latent factor. For this, the aforementioned 9 condemnations of labour were listed to reduce the dimensionality of the observed variables for constructing a new factor space of unobserved factor of the informal-sector labour in handicraft occupations.

Thus, the factor analysis was conducted for 9 observed issues as recommended by the reliability test of coefficient at .876. The results were obtained through the SPSS as in subsequent analysis. The factor analysis was started from the un-rotated PCA method and fixed numbers of factors, factors to extract 2 with maximum iteration for convergence of 100 and the absolute value of component loading .50 more detail the table 5, and 6 represented total variable explained and component matrix of PCA respectively.

The Kaiser-Mayer- Oklin and Bartlett's Test

The Kaiser-Mayer- Oklin and Bartlett's test showed sampling adequacy of the observed variables which spanned between 0 and 1 and a value close to 1 gives better sampling adequacy where a value of .60 is suggested for the minimum.

H0 = the Kaiser-Mayer- Oklin and Bartlett's test measured sapling is no adequacy or correlation matrix is an identity matrix. In table 4, the first row of the KMO measure of sampling adequacy stood at .862 which is closed to one denoting sampled adequacy was better for the factor reduction.

Table 4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.862
Bartlett's Test of Sphericity		Approx. Chi-Square	2267.667
	Df		36
		Sig.	0.000

Note. KMO and Bartlett test the data compiled in 2019.

In table 4 the sampling adequacy acceptable at Bartlett's test of Sphericity was ($\chi 2$ (36) = 2267.667, $p < 0.001$ indicating Bartlett's Test of Sphericity is statistically significant at less than .001 levels. Thus null hypothesis was rejected and accepted alternative hypothesis and test provided a minimum standard that passed running factor analysis (PCA). Thus, correlations between items were large enough for PCA.

Total Variance Explained

The PCA was based on the output of a two-component solution. In the column of the total variance explained, the Eigenvalue was no longer the sum of the square of loading. Looking at only two rows of Eigenvalues, the cumulative per cent has gone up to 64.678% representing the total amount of variance that could be explained by a given PCA as shown in table 5.

Table 5

Total Variance Explained Showed Two-Component Solution

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.68	52.04	52.04	4.68	52.04	52.04	4.11	45.67	45.67
2	1.13	12.63	64.67	1.13	12.63	64.67	1.71	19.00	64.67
3	.995	11.05	75.734						
4	.770	8.551	84.286						
5	.471	5.237	89.523						

6	.376	4.179	93.701
7	.238	2.649	96.350
8	.183	2.033	98.383
9	.146	1.617	100.00

Note. Extraction Method: Principal Component Analysis**.** The Data was compiled in 2019.

In table 5, each component showed a quality score which is called an initial Eigenvalue. Only components with high Eigenvalues with at least one are likely to be represented a real underlying factor. Applying a simple rule of thumb there were only two components an Eigenvalue at least 1 and other components that a low-quality score was not assumed to represent the real trait underlying 9 issues. The low components were not considered in factor extraction.

Component Matrix of Rotated PCA

The technique of rotated PCA was applied to identify factor representation in common. The technique is used to remove cross-loading of issues in a component matrix with a maximum iteration for convergence of 100, at fixing a minimum loading value of 0.50.

Table 6

Component Matrix of Rotated PCA

Items/components	Component	
	1	2
X8	.920	
X5	.867	
X6	.865	
X7	.821	
X9	.816	
X4	.764	
X2		
X1		.723
X3		.503

Note. Extraction Method: Principal Component Analysis. a. 2 components extracted the data compiled in 2019.

There were two new factors extracted, six issues of condemnations in factor first and two issues in factor second from higher correlation to lower one. The problem of the cross-loadings was removed in table 6 and the identification of variables loaded in a new factor.

The rotated component matrix table 6 showed the first components to label X_{ist}: injury in work time (X_7), negligence of entrepreneur (X_6), cheating by contractor/ broker (X_8), weak working place (X_5), risk of handicraft occupation in future (X_9), and sick leave (X_4).

Again the second component to label X_{2nd}: Change in technology (X_1) and work leaves (X_3).

The Factor Rating Scale

The descriptive statistics table 7 has shown the addition of the latent factors after labelling them X_{ist} for the first factor and X_{2nd} for the next factor. Where X_{ist} has shown the latent factor after being reduced from the other six observed components while X_{2nd} has the latent factor of the two observed factors. The new factors have the same as 5 points Likert scale. Thus computed the mean of these new factors has shown the same 5-point Likert scales as the input variables. This has allowed to the conclusion that the new factor X_{2nd} or the groups of 'change in the technology' rated best probably 3.25 out of 5 points Likert scale and X_{ist} or groups of 'injury in work time' rated worst probably 3.17 out of 5 points Likert scale as more details in table7.

Table 7

Descriptive Statistics of Newly Factors

Factors/rating scale	N	Min	Max	M	Std.
X_{ist}	426	2	5	3.17	.988
X_{2nd}	426	2	5	3.25	.710

Note. N = Numbers of observations, Min = Minimum, Max = maximum, M= Mean and Std = Standard Deviation.

Table 6 reveals that the latent factor X_{2nd} or Groups of technology change answered the research question as to the strongest latent factor. Thus labours' condemnations have been high in the change in technological factors as well as the unavailability of leave facility working time in all four handicrafts occupations. The result may be altered for further studies when other issues have loaded in factors to be extracted.

Conclusion

The study has tried to examine the labour main condemnations in the handicraft occupations through the factor analysis and gave conclusions that in the present context workers in these sectors have low economic status being low technological skill and knowledge. The labour concentration has simply literate with less assessed of organizations by labour unions and mostly untrained situation. In open replies, they exposed their opinions that they were unaware of the modern technology for which they may be loosed their occupations. Further, workers have loosed occupation when they took leave on the job for certain occasions. Concerned agencies' attention has turned to solve these condemnation issues as a wall note of this study.

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