

A Biannual Refereed Journal

2021 Volume 20 Number 2 July-Dec.

ISSN 0972-706X

MAHARSHI DAYANAND UNIVERSITY RESEARCH JOURNAL ARTS

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Available at : Office of the Editor-in-Chief
MDU Research Journal ARTS
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Work Bullying and Its Relationship with Conflict Management Style Among Corporate Sector Employees

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.1-8
ISSN 0972-706X
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<http://www.mdu.ac.in/Journals/about.html>

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Abstract

Workplace bullying is a mistreatment of a subordinate or senior at workplace. It is also called physical or verbal abuse by experts which usually takes place when someone is at down position than others. The main aim of the present study is to assess the relationship between workplace bullying and conflict management style among corporate sector employees. For this purpose, a sample of 100 employees having age range of 30-40 years working in multinational companies have been taken belonging to Delhi NCR region. Data was analyzed by using correlational method. Following questionnaires were used for collecting the data i.e., Negative acts questionnaire- revised and Conflict management style questionnaire. A significant relationship was found between bullying at workplace and conflict management.

Keywords: Work Bullying, Management, Conflict management, Corporate

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Workplace bullying is defined as: "Bullying is a phenomenon where an individual is irritated or harassed by another individual. It is a kind of concept in which the person is socially excluded which negatively affects an individual performance on a given task. To call something bullying, it has to be applied to a specific activity, it has to be frequently repeated over a given span of time i.e. for a minimum time period of six months and regularly for a week. Bullying is growing at a very rapid speed in which an individual who is bullied end up being an inferior and becomes the object of regular depressing social acts. Bullying is different from conflict in which an incident occurs in isolation or if the two parties of the same strength are in argument (Einarsen, Hoel, Zapf, & Cooper, 2011)".

Many experts have talked about direct relationship between work bullying and how you try to manage conflict with the help of your personality traits. There are many types of conflict management styles which do have positive and negative effect on bullying behavior. Anderson (1990) and Burton (1987) are of the view that conflict management has a wide importance and it serves as an effort by the status quo to handle the disputes, or to stay away from intensification of conflict.

It has been shown by the evidence that those workers who recognize work incivility are at high vulnerability of developing serious mental health problems (Cortina, Magley, Williams & Langhout., 2001). It is also revealed from the studies that incivility at workplace is negatively related to job satisfaction, it also decreases the willingness of the employee to continue their work in an organization, a decrease in job performance is also seen and lower productivity was found to be significant with work incivility. Work incivility is directly associated to turnover intention and indirectly related with conflict management, loyalty to the organization and job satisfaction (Laschinger, Leiter, Day, & Gilin, 2009; Lim & Lee, 2011).

Problem

The present study assesses the association between work bullying and different conflict management style among corporate sector employees.

Objective :

To study the association between work bullying and different conflict management style among corporate sector employees.

Hypotheses :

There will be a significant correlation between conflict management style i.e., yielding, compromising, forcing, problem solving, avoiding and work bullying among corporate sector employees.

Research Design

A correlational design was used for the present study.

Methodology

Participants: A total number of 100 employees were contacted for a data collection having age range from 30-40 years. A minimum of 5 years' experience was also considered so that their experience can be recorded with the help of a questionnaire. A sample was selected from Delhi NCR region.

Instruments Used

Following tools were used to collect data-

Negative Acts Questionnaire- Revised (NAQ-R): The revised version of NAQ-R was developed by Einarsen, 2009. This questionnaire contains a total of 22 items which are measured on 5-point Likert scale. Highest score and lowest score can be 110 and 22 respectively. Lowest score at this questionnaire indicates that participant have never experienced bullying behavior at workplace and vice-versa. The reliability of scale was found to be 0.93.

Conflict Management Styles: the scale was given by De Dreu, Evers, Beersma, Kluwer and Nauta in 2001. The present scale includes 20 items in a questionnaire related to conflict management. This scale measures five conflict management styles which are problem solving, yielding, compromising, forcing, and avoiding. It is a five-point Likert scale ranging from 1 to 5. The reliability of this questionnaire was found to be 0.68 respectively. s

Procedure

After deciding about the kind of tools for using into this study, a researcher communicated with participants face to face to collect a data in a more detailed way. The employees were made comfortable, and a rapport was established with them. Employees were given questionnaire for the collection of data. later, responses were recorded, and participants were thanked for giving their valuable time and feedback.

Statistical Analysis

A data was analyzed with the help of statistical methods i.e. Descriptive statistics and Pearson product moment method

RESULTS & DISCUSSION

Table 1: *Descriptive Statistics of work bullying, yielding, compromising, forcing, problem solving and avoiding management style among employees of corporate sector (N=100).*

VARIABLES	MEAN	SD
Work Bullying	54.20	19.71
Yielding Management Style	14.79	3.71
Compromising Management Style	5.54	2.15
Forcing Management Style	8.09	3.60
Problem Solving Management Style	14.34	3.30
Avoiding Management Style	5.84	2.28

Table 1 shows the descriptive statistics work bullying, yielding, compromising, forcing, problem solving and avoiding management style among employees of corporate sector. In this table, we can see mean values of work bullying (Mean = 54.20; SD = 19.71), yielding management style (Mean = 14.79; SD = 3.71), compromising management style (Mean = 5.54; SD = 2.15), forcing management style (Mean = 8.09; SD = 3.60), problem solving management style (Mean = 14.34; SD = 3.30) and avoiding management style (Mean = 5.84; SD = 2.28). Rest of the results is shown in table 2.

Graph 1: Showing Mean & SD value of work bullying, yielding, compromising, forcing, problem solving and avoiding management style (N=100)

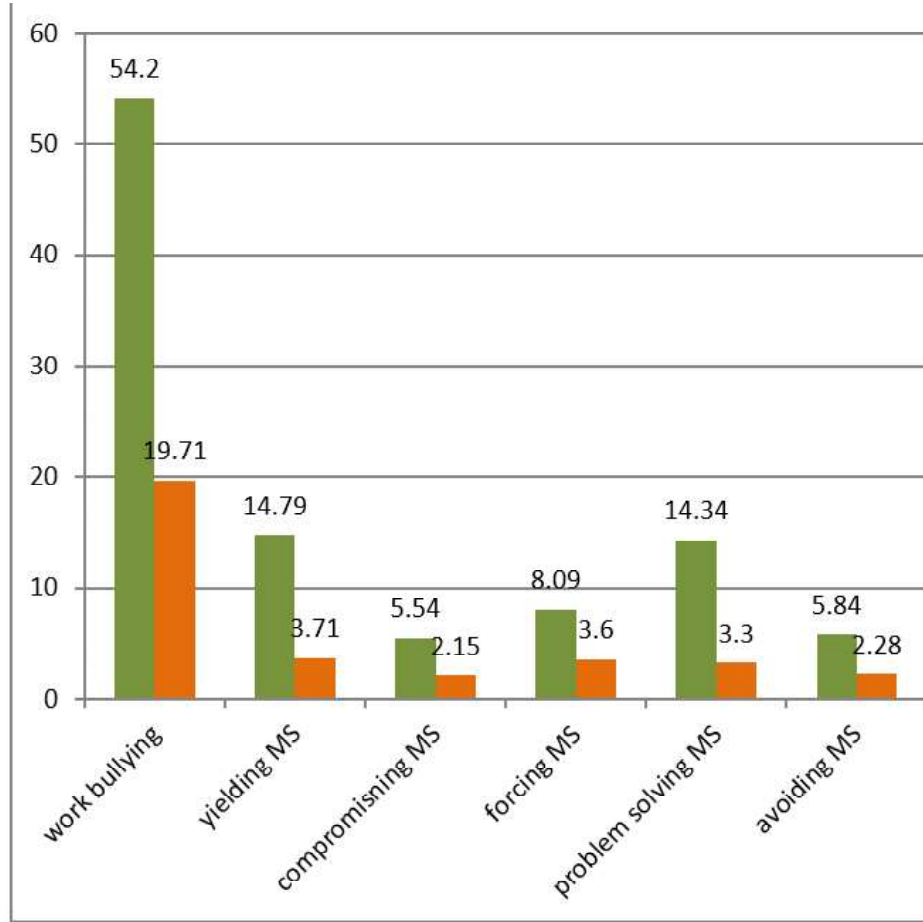


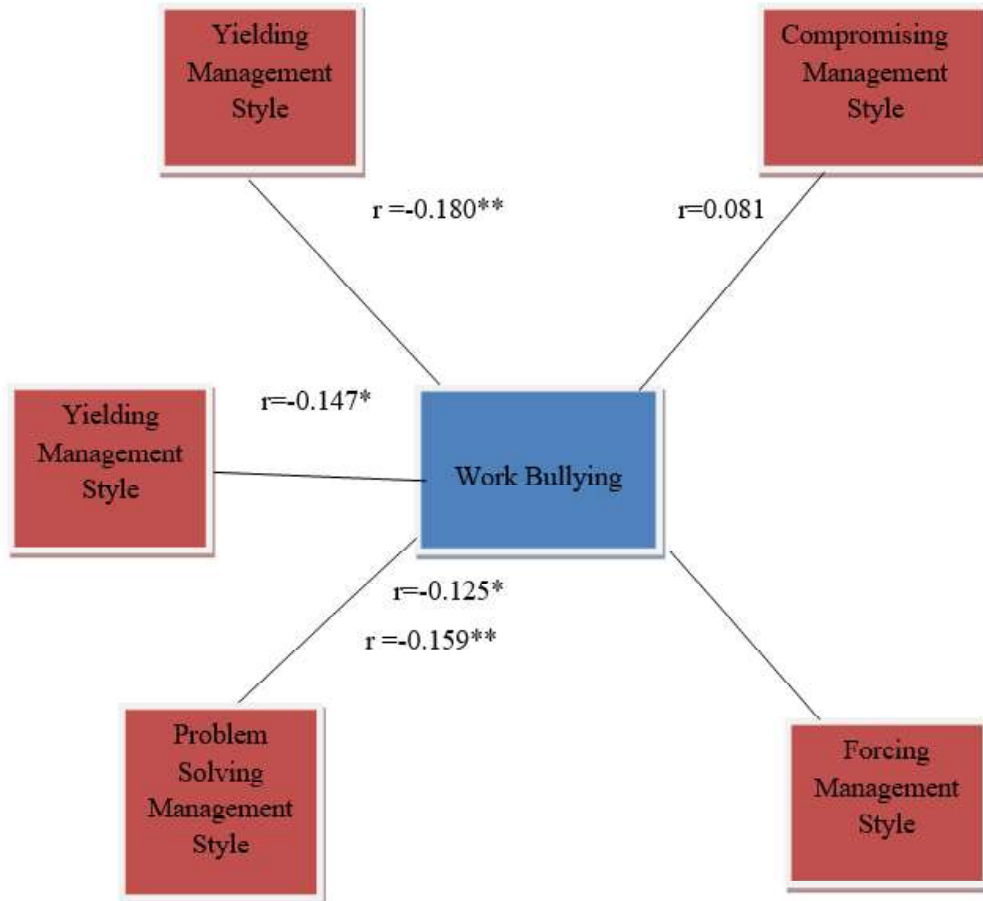
Table 2: Showing Inter Correlational Matrix work bullying, yielding, compromising, forcing, problem solving and avoiding management style (N=100)

Variable	WB	YMS	CMS	FMS	PSMS	AMS
Work bullying	1	-.180**	.081	-.125*	-.159**	.147*
Yielding MS		1	.037	.194**	.062	-.064
Compromising MS			1	-.052	-.029	.908**
Forcing MS				1	.054	-.115*
Problem Solving MS					1	-.079
Avoiding MS						1

**Significant at 0.01 level., MS* stands for Management Style.

It can be observed from the above table that there is a positive relationship between work bullying and avoiding management style ($r = .147, p < 0.05$). There is a significant negative relationship between work bullying and yielding management style ($r = -.180, p < 0.01$), forcing management style ($r = -.125, p < 0.05$), problem solving management style ($r = -.159, p < 0.01$), among corporate sector employees. There is a significant positive association between yielding and forcing management style ($r = .194, p < 0.01$) among corporate sector employees. There is a significant positive relationship between compromising and avoiding management style ($r = .908, p < 0.01$) among corporate sector employees. There is a negative association between forcing and avoiding management style ($r = -.115, p < 0.05$) among corporate sector employees.

It can be said from the above results that different kind of conflict management style are positively as well as negatively related with work bullying. To resist a bullying behaviour, one must follow yielding, forcing and problem-solving management style. Those who focus upon current situation and problem can't be manipulated and abused by senior authority. On the other hand avoiding management style people use to more in problems while working in an organization as they lack confidence and have poor self-esteem.

Graph 2 *Correlates of work bullying.***Implications of the study**

The study of work bullying, and different type of management style was conducted on a small number of participants. This study shows how different kind of management style helps un in dealing with bullying behavior shown by others working in an organization. It also shows that which management style is more effective in coping such kind of daily hassles.

Limitations of the study

- It was a very small study; the sample taken was not very large.
- Some other variables would have been considered i.e. male- female, different age groups.

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Rural Dwellings and House Types among Social Groups in Haryana: A Caste Wise Analysis

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.9-24
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

The present study is based on data collected through primary survey of 1365 sample households selected with the help of stratified random sampling from 39 selected villages in rural Haryana. It is recorded that more than two-third dwellings have one or two rooms, while nearly seven per cent dwellings have five or more rooms. About 38 per cent households of general castes, 57 per cent of other backward castes and nearly 79 per cent households of scheduled castes have dwellings size of up to two rooms. On the whole nearly half of the sample houses are made of semi pucca type while about a little more than two-fifths can be categorized as pucca houses. Complete kutchra houses form nearly nine per cent of the houses. Among the social groups, the general caste population appears to be better off as compared to backward castes and scheduled castes in term of quality of house types. Households with comparatively better socio-economic conditions have own pucca houses in rural Haryana.

Keywords: Population Characteristics, Social Groups, Rural Dwellings and House Types.

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Introduction

A house is one of the three basic needs of the mankind. In a simplistic way, a house is a 'shelter' to live in. It is one of the basic human entitlements which connect its occupant with the society. Its importance varies in various climate conditions, as it provides shelter and protection from the rigors of climate. Type and quality of dwelling units are intrinsically linked with the socio-economic conditions of life of the occupants. Therefore, it is essential to consider the location, architectural style, shape and size, building materials, houses plan, cost, classification and occupancy rate of houses (Mandal, 2001). Several studies (see for instance Brunhes, 1920; Finch and Trewartha, 1946; Unni, 1965; and Kniffen, 1965) have analyzed dwellings in different forms in the western world. The word has been used as a synonym for census house which is defined as 'a building or a part of a building having a separate main entrance from the road or common courtyard or staircase, etc., used or recognized as a separate unit. It may be occupied or vacant. It may be used for a residential or non-residential purpose or both' (Census of India, 2011).

Definition of Household

As per Census of India, 2011, 'a household is a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. There may be a household of persons related by blood or household of unrelated persons or having a mix of both'.

Rural dwelling as a broad theme has been studied by various scholars, such as educationists, economists, demographers, geographers and government organizations etc. Geographers and other scholars have carried out many studies on rural dwellings and house types (see Chamar, 2002; Chamar and Chamar, 2013; Chamar and Chamar, 2019). Recently, Dhanak and Chamar (2021) also examined the clan-wise distribution of rural dwellings, house types based on building materials of Chura caste in Jhajjar district of Haryana state. Primary data were collected from 460 sample households from 15 selected villages with the help of stratified random sampling. The surveyed households are represented by 12 clans among Chura caste. It is found that about three-fifths dwellings have one or two rooms, while nearly seven per cent dwellings have five or more rooms. They also found that more than half of the houses of the sample population are mixed type while about a little more than one-third can be categorized as pucca houses. Complete kutchha houses form barely nine per cent of the houses. Households with comparatively better socio-economic conditions have owned pucca houses among the Chura caste. The Geychand clan appears to be better off in terms of quality of dwellings occupied while the Lauth clan occupied the lowest position in the ladder among Chura caste in Jhajjar district. In the light of the same studies an attempt has been made to examine the caste-wise distribution of rural dwellings

and house types among social groups in rural Haryana.

Objective of the Study

The main objective of the present study is to examine the caste-wise distribution of rural dwellings and house types among social groups in rural Haryana.

Study Area

Haryana is one of the most prosperous states of India. It is a landlocked state and located in the north-western part of India. The state extends from 27° 39' to 30° 55' 5" North latitudes and 74° 27' 8" to 77° 36' 5" East longitudes. The total area is 44,212 km². Basically, Haryana is an agrarian state of the nation. According to census 2011, out of total population of Haryana, about 165.10 lakh persons (65.12 %) live in rural areas comprising 87.74 lakh males (53.15 %) and 77.35 lakh females (46.85 %) persons. The total rural scheduled caste population in the study area is 37.20 lakh (22.53 %) persons.

Source of Data and Research Methodology

The study is based on the primary data collected on the basis of a well-structured schedule and personal interview with the head/ member of the households. The primary data has been collected from 1365 households comprising 975 from scheduled castes category and 390 from non-scheduled castes groups. Data were collected from Ambala, Panipat, Rewari, Rohtak and Sirsa districts that represent the northern, eastern, central, southern, and western parts of the Haryana state respectively. After that 25 households from scheduled castes category and 10 from non-scheduled castes groups have been selected from 39 villages. Thereafter, caste based total households have been bifurcated. The surveyed households are represented by 37 castes comprising 7 from general castes, 17 castes from other backward castes and 13 castes from scheduled castes. Thereupon, caste wise as well as among the social groups number of rooms and house types such as kutchha, semi pucca and pucca were worked out.

Results and Discussion

Population Characteristics

The study is based on data pertaining to 1365 households with a total population of 6796 persons comprising 3582 males (52.71 %) and 3214 (47.29 %) females. It is noted that the Jat, the Brahman, the Jatt Sikh, the Punjabi, the Ahir, the Gujjar and the Kamboj are dominant castes among non-scheduled castes while the Chamar, the Balmiki and the Dhanak are dominant castes among scheduled castes in terms of population. Based on sample households, the total literacy rate is recorded nearly 79 per cent in rural Haryana. The literacy rates vary across the castes and social groups. The highest literacy rate that is about 86 per cent is observed among other backward castes which are almost identical to

that of general castes but much higher as compared to the scheduled castes (76 per cent). The sex ratio is recorded 897 females/1000 males in rural Haryana. The highest sex ratio (909 females/ 1000 males) is recorded among other backward castes followed by scheduled castes (908 females/ 1000 males) and general population (841 females/ 1000 males). The average size of the household in rural Haryana is 5.0 persons, and there is not much of variation in the same across different social groups. It is recorded 4.8 persons per household among general castes, 4.9 persons among other backward castes and 5.0 persons in scheduled castes group. Basic demographic characteristics of the surveyed population are presented in table 1.

Size of Rural Dwellings

Average size of dwelling and percentage distribution of households by size of dwellings for the three broad social groups are shown in table 2. At the aggregate level the average number of rooms for the surveyed households works out to be 2.36. There is a marked variation in average size of dwellings across social groups. As expected, among the 'general castes' the average number of rooms is as high as 4 per household. Other backward castes come next with average size of nearly 3 rooms. Scheduled castes occupy the bottom with just 2 rooms per households. Likewise, the survey reveals that, on the whole, a little less than seven-tenths of the dwellings have a maximum of two rooms. On the other extreme nearly seven per cent of the dwellings have five or more rooms while the rest possess three to four rooms. Here again a marked variation across the three broad social groups can be noticed. While among 'general castes' as much as 22 per cent of the households have five or more rooms, among OBCs and SCs the corresponding figures are only about 9 per cent and 3 per cent respectively.

Table 1
Population Characteristics of Sample Households among Social Groups in Rural Haryana

Population Characteristics	General Castes		Other Backward Castes		Non Scheduled Castes		Scheduled Castes		Rural Haryana	
	(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)	
Sample Households	218	15.97	172	12.60	390	28.57	975	71.43	1365	100.0
Total Population	1057	15.55	840	12.36	1897	27.91	4899	72.09	6796	100.0
Male Population	574	54.30	440	52.38	1014	53.45	2568	52.42	3582	52.71
Female Population	483	45.70	400	47.62	883	46.55	2331	47.58	3214	47.29
Total Pop. (0-6 Yrs)	061	05.77	036	04.29	097	05.11	359	07.33	456	06.71
Male Pop. (0-6 Yrs)	033	54.10	020	55.56	053	54.64	180	50.14	233	51.32
Female Pop. (0-6 Yrs)	028	45.90	016	44.44	044	45.36	179	49.86	223	48.68
Total Pop. (> 6 Yrs)	996	94.23	804	95.71	1800	94.89	4540	92.67	6340	93.29
Male Pop. (> 6 Yrs)	541	54.32	420	52.24	961	53.39	2388	52.60	3349	52.82
Female Pop. (> 6 Yrs)	455	45.68	384	47.76	839	46.61	2152	47.40	2991	47.18
Educated Persons	848	85.14	691	85.95	1539	85.50	3465	76.32	5004	78.93
Illiterate Persons	148	14.86	113	14.05	261	14.50	1075	23.68	1336	21.07
Sex Ratio (Female/1000 Males)		841		909		871		908		897
Child Sex Ratio (Female/1000 Males)		848		800		830		994		957
Household Size (Persons/Household)		4.8		4.9		4.9		5.0		5.0

Source: Field Survey, 2014: Compiled by the authors.

Table 2
Average Size of Dwellings and Number of Rooms among Social Groups

Social Groups	Average Dwelling Rooms	Number of Dwelling Rooms (Per cent)				
		One Room	Two Rooms	Three Rooms	Four Rooms	Five and More Rooms
General Castes	3.56	09.63	28.44	25.23	14.68	22.02
Other Backward Castes	2.73	15.70	41.28	23.84	10.46	08.72
Scheduled Castes	2.03	30.87	47.69	13.85	04.92	02.67
Rural Haryana	2.36	25.57	43.81	16.92	07.18	06.52

Source: Field Survey, 2014: Compiled by Authors.

Caste-Wise Rural Dwellings

The fact that size of the rural dwellings is intimately associated with the economic wellbeing of the people is amply reflected in the above table. Among the 'general castes' the Rajputs and the Jats appear to be the most affluent communities among 'general castes' in rural Haryana. In terms of both the average size dwellings and distribution of households by size they rank distinctly higher than the average for the 'general castes' (please refer to Table 3 and Fig. 1 for caste-wise details). The Brahmins come only next to the Rajputs and the Jats.

Among the other backward castes (OBCs), the intra group inequality in dwelling size is more glaring (Table 4). Among OBCs, the Kamboj, the Ahir, the Sunar, the Gujjar, the Saini and the Dhobi are the most affluent ones with average size of dwellings higher than the average of the OBCs as a whole. Barring only the Dhobi, all of them reported larger proportion of the households with five and more rooms as compared to average for the OBCs. On the other extreme, nine-tenths or more of the dwellings belonging to castes like the Kashyap, the Maniyar, the Jhinwar, the Lohar, and the Muslim have a maximum of two rooms only. Among them, the Kashyap and the Maniyar reported cent percent dwellings up to two rooms only. Obviously, in terms of the socio-economic wellbeing these castes occupy the lowest ladder in rural Haryana (Table 4 and Fig. 2).

The scheduled castes in India have occupied the lowest ladder in socio-economic development. Their condition is particularly worse in the rural areas. Haryana where scheduled castes account for a marginally less than one-fourth of the rural population, is also not an exception. This is also reflected in the size of dwellings belonging to the social group. As already noted above, nearly four-fifths of the households belonging to scheduled castes have only up to two rooms, which is more than twice the share for the general category. Of the total 13 castes from the social group covered under the survey, as many as 8 castes reported less than 2 as the average number of rooms in their dwellings (Table 5 and Fig.3). Castes like the Khatik, the Sansi and the Sapera from the social group

appear to be the poorest. None of the dwellings belonging to these castes has more than 2 rooms. The Doom, the Majhabi Sikh, the Dhanak, the Balmiki and the Odh are only marginally better. However, the Meghwal and the Chamar are relatively better off castes among the group. Nevertheless, the average size of dwellings among these castes from SCs is way below the averages of 'general castes' as well as OBCs.

Table 3
Caste-Wise Number of Dwelling Rooms among General Castes in Rural Haryana

Select Caste	Sample House Holds	Number of Dwelling Rooms (Per cent)					Average Dwelling Rooms
		One Room	Two Rooms	Three Rooms	Four Rooms	Five & More Rooms	
Jat	99	09.09	23.23	26.26	14.14	27.28	4.01
Brahman	57	07.02	36.84	17.54	17.54	21.06	3.37
Jatt Sikh	24	08.33	25.00	33.33	16.67	16.67	3.17
Panjabi	16	18.75	37.50	12.50	18.75	12.50	2.88
Bania	12	16.67	33.33	41.67	00.00	08.33	2.50
Rajput	06	16.67	00.00	33.33	16.67	33.33	4.33
Rai Sikh	04	00.00	50.00	50.00	00.00	00.00	2.50
Rural Haryana	218	09.63	28.44	25.23	14.68	22.02	3.56

Source: Field Survey, 2014: Compiled by Authors.

Table 4
Caste-Wise Number of Dwelling Rooms among Other Backward Castes in Rural Haryana

Select Caste	Sample House Holds	Number of Dwelling Rooms (Per cent)					Average Dwelling Rooms
		One Room	Two Rooms	Three Rooms	Four Rooms	Five and More Rooms	
Ahir	40	02.50	22.50	35.00	20.00	20.00	3.73
Jhinwar	14	35.72	57.14	07.14	00.00	00.00	1.71
Khatri	14	14.29	64.29	07.13	14.29	00.00	2.21
Jogi Nath	11	18.18	54.55	27.27	00.00	00.00	2.09
Kamboj	11	00.00	18.18	27.27	18.18	36.37	4.18
Lohar	11	63.64	27.27	09.09	00.00	00.00	1.45
Nai	11	27.27	36.37	36.36	00.00	00.00	2.09
Saini	10	10.00	40.00	30.00	10.00	10.00	3.00
Gujjar	08	00.00	37.50	25.00	25.00	12.50	3.25
Kumhar	08	25.00	50.00	12.50	12.50	00.00	2.13
Sunar	07	14.29	28.57	14.28	28.57	14.29	3.71
Kashyap	05	40.00	60.00	00.00	00.00	00.00	1.60
Mali	05	00.00	40.00	60.00	00.00	00.00	2.60
Darzi	04	25.00	25.00	50.00	00.00	00.00	2.25
Maniyar	02	00.00	100.0	00.00	00.00	00.00	2.00
Dhobi	01	00.00	00.00	100.0	00.00	00.00	3.00
Muslim	10	00.00	90.00	10.00	00.00	00.00	2.10
Rural Haryana	172	15.70	41.28	23.84	10.46	08.72	2.73

Source: Field Survey, 2014. : Compiled by Authors.

Table 5
Caste-Wise Number of Dwelling Rooms among Scheduled Castes in Rural Haryana

Select Caste	Sample House Holds	Number of Dwelling Rooms (Per cent)					Average Dwelling Rooms
		One Room	Two Rooms	Three Rooms	Four Rooms	Five and More Rooms	
Chamar	527	28.84	45.92	15.94	05.69	03.61	2.12
Balmiki	184	35.87	49.45	08.70	04.35	01.63	1.89
Dhanak	111	34.23	50.45	12.62	01.80	00.90	1.86
Majhabi Sikh	39	28.20	61.54	10.26	00.00	00.00	1.82
Odh	37	37.84	40.54	16.22	05.40	00.00	1.89
Meghwal	23	13.04	34.79	21.74	17.39	13.04	2.96
Bazigar	21	23.81	52.38	19.05	04.76	00.00	2.05
Khatik	09	44.44	44.44	11.12	00.00	00.00	1.67
Sansi	08	37.50	62.50	00.00	00.00	00.00	1.63
Doom	05	60.00	20.00	00.00	20.00	00.00	1.80
Ramdasia Sikh	05	00.00	100.0	00.00	00.00	00.00	2.00
Bawaria	04	25.00	50.00	25.00	00.00	00.00	2.00
Sapera	02	50.00	50.00	00.00	00.00	00.00	1.50
Rural Haryana	975	30.87	47.69	13.85	04.92	02.67	2.03

Source: Field Survey, 2014: Compiled by Authors.

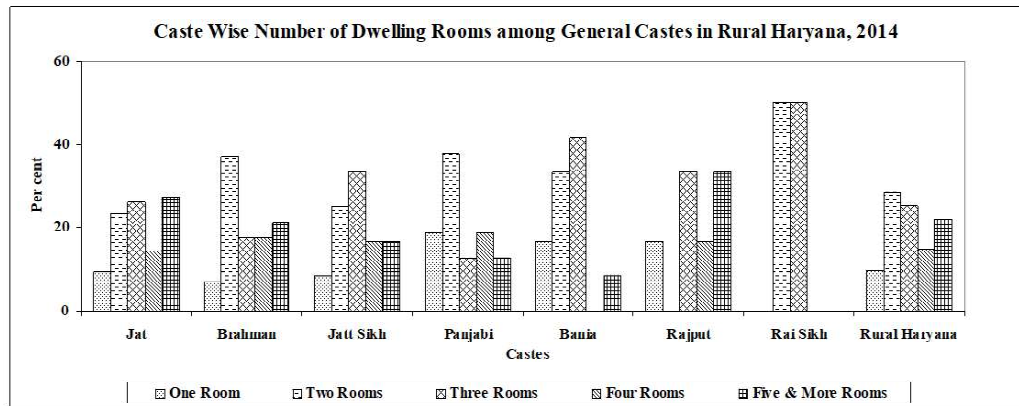


Fig. 1

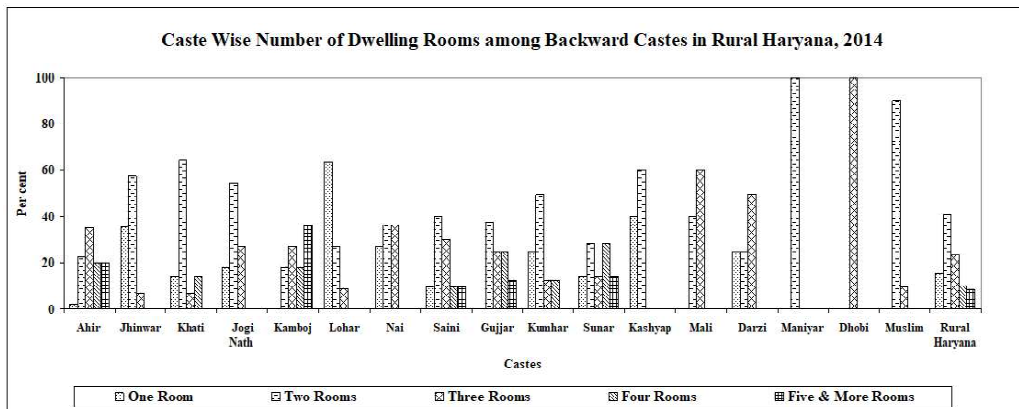


Fig. 2

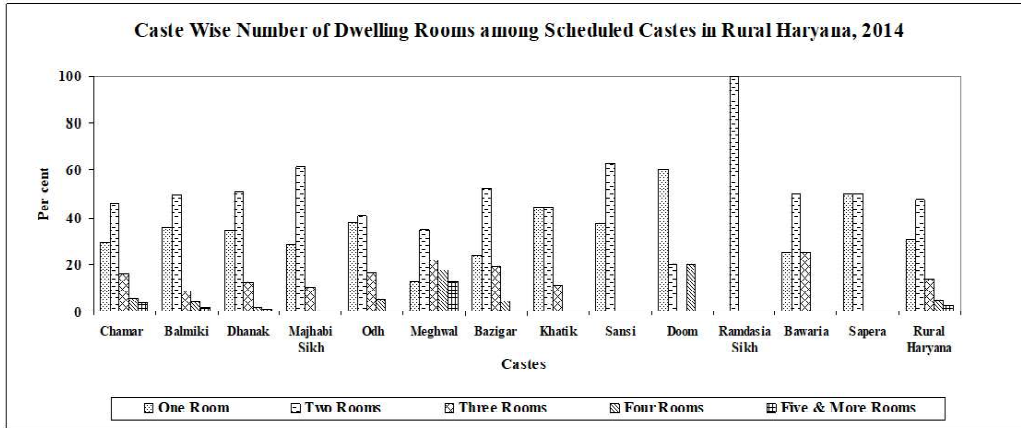


Fig. 3

House Types among Social Groups

The environmental and economic conditions of the people determine the use of building materials (Singh, 1955). Generally, the houses in a rural set up are built by using locally available materials. However, affordability may produce an exception to this afore-mentioned rule. If the owner of a house can afford to bring materials from other areas by bearing the additional cost of transportation, he may construct the house of his choice which is not restricted to locally available materials.

In the rural areas, households belonging to the lowest rung of income groups generally use 'mud bricks' which are cheaper. However, during recent past mud bricks/un-brunt bricks are replaced by 'brunt bricks' among the houses of all social groups in rural Haryana. Based on sample households, the houses broadly divided into three types in the study area. The present discussion on house types among the broad social groups as well as among different castes in these social groups is based on the following categories;

- (I) Kutch House: Mud wall, thatched roof and mud floor represent the kutch house;
- (II) Semi Pucca House: Mud/brunt brick wall, reinforced brick/cement concrete roof and mud/brunt brick floor represent the semi pucca house;
- (III) Pucca House: Brunt brick wall, reinforced brick/cement concrete roof and floor represent the pucca house;

Table 6 shows the percentage distribution of houses of surveyed population under above cited three categories across social groups. At the aggregate level, nearly nine per cent of the houses are kutch. As elsewhere in the country, Kutch houses generally belong to people in low income groups in rural areas of Haryana also. Semi-pucca houses belong to people who occupy middle rung in the ladder of income. Survey data reveals that nearly half of the houses are semi pucca type. Thus, pucca houses account for about 42 per cent

of the total surveyed houses in the study area. Needless to mention that households with relatively better socio-economic conditions in the rural areas possess pucca houses.

Just as in the case of dwelling size, in terms of house types also marked variation across various social groups can be observed. As compared to only a little over 1 per cent among 'general castes' and 3 per cent among other backward castes, kutcha houses account for as much as 11 per cent of the houses belonging to scheduled castes. The contrast becomes more conspicuous when we look at the proportion of pucca houses across these social groups. As noted already, the economically well off families live in pucca houses with better modern facilities. It may be noted that the walls of pucca houses are made with brunt bricks. The roofs made of burnt bricks, stone and reinforced with cement concrete while the floors are built with burnt bricks, cement, tiles and marbles etc. More than four-fifth of the houses of the 'general castes' reflects such pattern. The corresponding figures for other backward castes and scheduled castes are only about 63 per cent and 29 per cent respectively. Finally, semi-pucca houses accounts for 15 per cent among 'general castes', 34 per cent among 'other backward castes' and a whopping 60 per cent among scheduled castes.

Caste-Wise House Types among Social Groups

(I) Kutcha House

Referring back to table 6, it is found that just one per cent houses belonging to 'general castes' are kutcha. Among the surveyed households only 3 houses that belonged to Brahman were kutcha type. Remarkably all other castes from the general social group including the Jat, the Jatt Sikh, the Panjabi, the Bania, the Rajput and the Rai Sikh had no kutcha house (Table 7 and Fig. 4).

Among the other backward castes, the share of kutcha houses at the aggregate level was only a marginally larger than the 'general castes'. However, there existed a marked variation across different castes in the group. The largest percentage share of kutcha house can be observed among the Lohar castes. About one-fifth of the total houses of the Lohar's fall under this category. The Lohars are followed by the Kumhar, the Saini, the Jogi Nath and the Jhinwar castes in that order. It may also be noted that out of the selected 17 castes in the social groups, as many as 12 castes have no kutcha houses (Table 8 and Fig. 5).

The largest share in the category of kutcha houses are seen among the scheduled castes. The situation is particularly worse among some of the castes from this category. For instance, among the Bawaria caste, as much as one-fourth of the total houses fall under this category. The Bawaria caste is followed by the Meghwal, the Doom, the Odh, the Majhabi Sikh, the Bazigar, the Balmiki and the Dhanak castes in that order. All of them

reported a larger share of Kutcha houses than the average at the aggregate level for the group. Only the Chamar caste reports a share that is below the average in the category for scheduled castes as a whole, while the Khatik, the Sansi, the Ramdasia Sikh and the Sapera castes report no kutcha house (Table 9 and Fig. 6). In the wake of poverty, households of this category among scheduled castes are forced to live in poor conditions of life.

(II) Semi Pucca House

So far as semi pucca houses are concerned, such houses generally belong to people with a little better economic condition. It is important to note that among the 'general castes' no semi-pucca houses were reported by castes like the Rajput and the Rai Sikh while a very small share of houses of this type is observed among the Bania and the Jat castes. However, nearly one-third houses belonging to the Panjabi caste were semi-pucca in nature. They are followed by the Jatt Sikh and the Brahman respectively (See also table 7 and Fig. 4).

Among the other backward castes, one comes across a marked intra-group variation in terms of share of houses belonging to this category. The largest share of houses in the category of semi pucca houses are seen among the Muslims characterized by the poorest economic conditions of living among all other backward castes in the study area. They are followed by the Jhinwar, the Kashyap and the Nai castes. More than half of the total houses belonging to these castes are semi-pucca type. (See also Table 8 and Fig. 5). The Kamboj and the Dhobi castes that enjoy a comparatively better economic condition do not live in semi pucca houses.

Similarly, as noted already, a majority of households belonging to scheduled castes are semi-pucca type. All the houses belonging to the Sapera caste are of this type. In terms of share of semi-pucca houses the Sapera caste is followed by the Majhabi Sikh, the Sansi, the Bawaria and the Balmiki castes in that order. The Ramdasia Sikhs who are economically better off as compared to other scheduled castes, have the lowest share in the category of semi pucca houses. (See also Table 9 and Fig. 6). The other castes with smaller share than the average at the aggregate level for all scheduled castes are the Chamar, the Dhanak, the Bazigar, the Odh, the Khatik, the Meghwal, and the Doom.

(III) Pucca House

It goes without saying that families with relatively better socio-economic background can afford to live in pucca houses. Such houses are generally equipped with all modern facilities. As revealed by table 6, more than 83 per cent of the houses belonging to 'general castes' are pucca type. It may be noted that among the Rajput and the Rai Sikh all the houses are pucca. Next to them are the Bania and the Jat castes which have nearly 90 per cent pucca houses. The Panjabi reported the smallest share of pucca houses among all general castes

(Table 7 and Fig. 4). It is noticeable that most of the landowning castes have pucca houses and enjoy higher social and economic status in rural Haryana.

Among other backward castes too there are glaring variations; castes like the Kamboj and the Dhobi have all the pucca houses. They are followed by the Ahir, the Gujjar, the Sunar and the Jogi Nath castes in terms of share of pucca houses. The Jhinwar among OBCs reported the lowest share of pucca houses followed by the Muslim, the Kashyap, the Nai and the Lohar respectively (See also Table 8 and Fig. 5).

It is apparent that households belonging to the scheduled castes occupy the lowest ladder in term of social and economic wellbeing among the social hierarchy in the present modern period also. In the wake of poverty, they are forced to live in a very poor condition of life. Only about 29 per cent of the houses belonging to these social groups are pucca. The Ramdasia Sikh and the Khatik, however, appear to be better off castes among SCs with 80 per cent and 55 per cent houses respectively as pucca. On the other extreme, the Bawaria and Sapera castes do not own any pucca house. In the same vein, the Majhabi Sikh reported only five per cent pucca houses. The conditions of households belonging to the Balmiki and the Sansi castes are only marginally better (See also Table 9 and Fig. 6). The rest of the castes have pucca house above the average among scheduled castes.

Table 6
House Types among Social Groups in Rural Haryana

Social Groups	(Per cent)		
	Kutch House	Semi Pucca House	Pucca House
General Castes	01.38	15.14	83.48
Other Backward Castes	03.49	33.72	62.79
Scheduled Castes	11.28	59.79	28.93
Rural Haryana	08.72	49.38	41.90

Source: Field Survey, 2014: Compiled by Authors.

Table 7
Caste-Wise House Types among General Castes in Rural Haryana

Select Caste	Sample Households	Kutch House	Per cent	Semi Pucca House	Per cent	Pucca House	Per cent
Jat	99	00	00.00	10	10.10	89	89.90
Brahman	57	03	05.26	10	17.54	44	77.20
Jatt Sikh	24	00	00.00	07	29.17	17	70.83
Panjabi	16	00	00.00	05	31.25	11	68.75
Bania	12	00	00.00	01	08.33	11	91.67
Rajput	06	00	00.00	00	00.00	06	100.0
Rai Sikh	04	00	00.00	00	00.00	04	100.0
Rural Haryana	218	03	01.38	33	15.14	182	83.48

Source: Field Survey, 2014: Compiled by Authors.

Table 8
Caste-Wise House Types among Other Backward Caste Population in Rural Haryana

Select Caste	Sample Households	Kutch House	Per cent	Semi Pucca House	Per cent	Pucca House	Per cent
Ahir	40	00	00.00	06	15.00	34	85.00
Jhinwar	14	01	07.14	09	64.29	04	28.57
Khati	14	00	00.00	06	42.86	08	57.14
Jogi Nath	11	01	09.09	03	27.27	07	63.64
Kamboj	11	00	00.00	00	00.00	11	100.0
Lohar	11	02	18.18	04	36.36	05	45.46
Nai	11	00	00.00	06	54.55	05	45.45
Saini	10	01	10.00	03	30.00	06	60.00
Gujjar	08	00	00.00	02	25.00	06	75.00
Kumhar	08	01	12.50	02	25.00	05	62.50
Sunar	07	00	00.00	02	28.57	05	71.43
Kashyap	05	00	00.00	03	60.00	02	40.00
Mali	05	00	00.00	02	40.00	03	60.00
Darzi	04	00	00.00	02	50.00	02	50.00
Maniyar	02	00	00.00	01	50.00	01	50.00
Dhobi	01	00	00.00	00	00.00	01	100.0
Muslim	10	00	00.00	07	70.00	03	30.00
Rural Haryana	172	06	03.49	58	33.72	108	62.79

Source: Field Survey, 2014: Compiled by Authors.

Table 9
Caste-Wise House Types among Scheduled Castes in Rural Haryana

Select Caste	Sample Households	Kutch House	Per cent	Semi Pucca House	Per cent	Pucca House	Percent
Chamar	527	51	09.68	308	58.44	168	31.88
Balmiki	184	23	12.50	128	69.57	33	17.93
Dhanak	111	13	11.71	61	54.95	37	33.34
Majhabi Sikh	39	06	15.38	31	79.49	02	05.13
Odh	37	07	18.92	17	45.94	13	35.14
Meghwal	23	05	21.74	10	43.48	08	34.78
Bazigar	21	03	14.29	10	47.62	08	38.10
Khatik	09	00	00.00	04	44.44	05	55.56
Sansi	08	00	00.00	06	75.00	02	25.00
Doom	05	01	20.00	02	40.00	02	40.00
Ramdasia Sikh	05	00	00.00	01	20.00	04	80.00
Bawaria	04	01	25.00	03	75.00	00	00.00
Sapera	02	00	00.00	02	100.0	00	00.00
Total	975	110	11.28	583	59.79	282	28.93

Source: Field Survey, 2014: Compiled by Authors.

Conclusions

The overall wellbeing of individual or a group of individuals in a community is closely related to the living conditions reflected in the types of houses they live in, and the amenities and space available to them. Scheduled castes are still living in poor conditions as compared to other backward castes and general castes in rural areas of Haryana. They still occupy the lowest position in terms of socio-economic conditions. However, within scheduled castes also inter caste differences in living conditions are quite visible. The Majhabi Sikh, the Balmiki, and Sansi castes occupy the lowest ladder in term of economic conditions. Their houses are mostly kutchha and semi pucca types. On the other hand, the Rajput and the Rai Sikh castes are the most developed group among general castes. Their economic conditions are reflected in the magnitude of pucca houses available to them. The Kamboj, the Dhobi, the Ahir and the Gujjar are living in comparatively better conditions among the other backward castes in rural Haryana. Finally, it is suggested that the government should provide the loan at cheaper rate for constructing their own houses to particularly belonging to deprived scheduled castes and other backward castes persons. Secondly, they should be provided houses under various housing schemes by the government for better conditions which can lead to improvement in their status in rural areas.

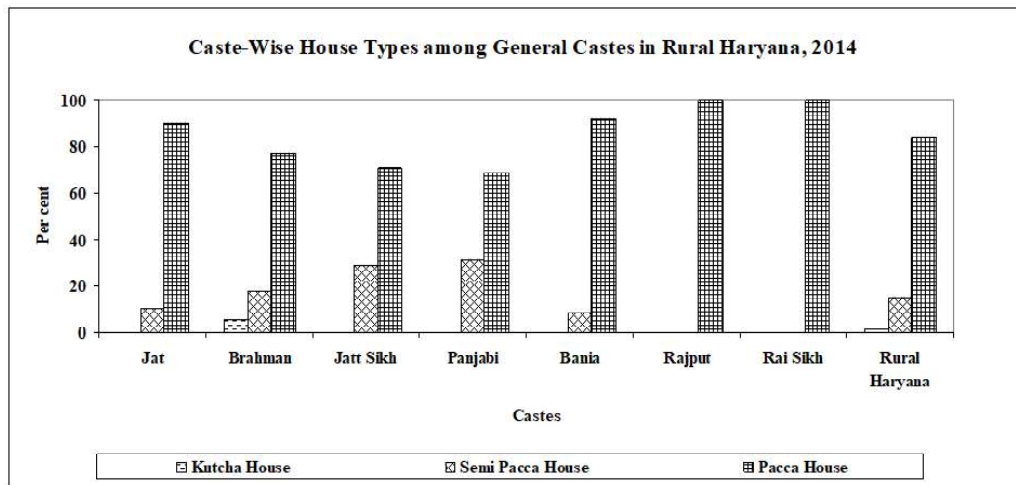


Fig. 4

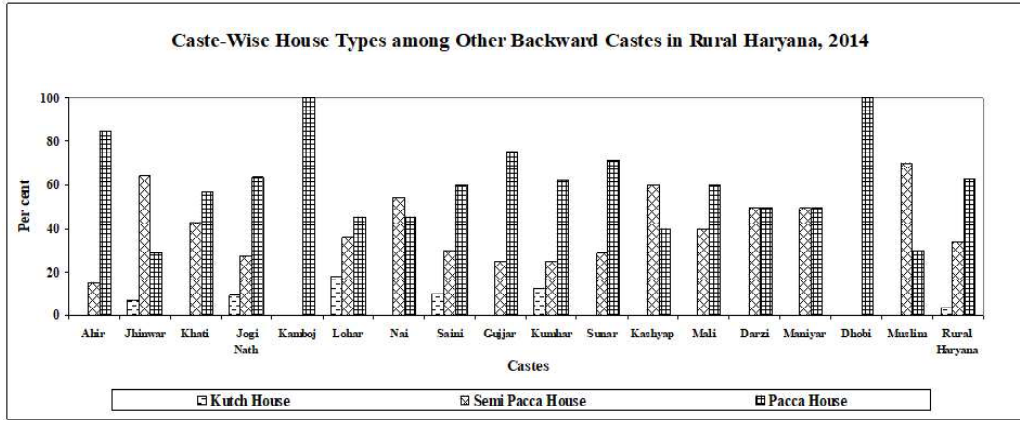


Fig. 5

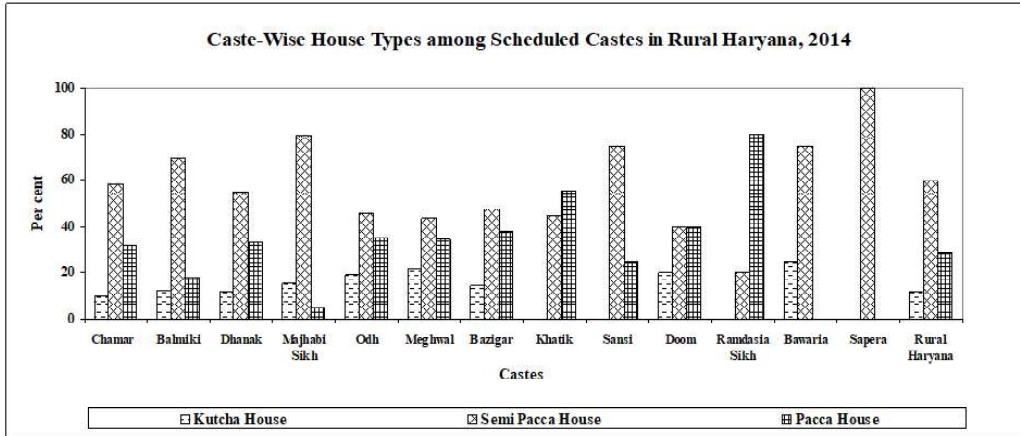


Fig. 6

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Effects of Physical Activity on General Well-Being and Hardiness among Sportspersons

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.25-34
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

In recent years, more emphasis has been put on importance of physical activity. Several studies documented significant association between sedentary behavior and well-being of individuals in general public settings. It was evident that the subjects involved in moderate to vigorous physical activity are reported to have better mental health than the subjects having sedentary life style. The present study addresses the importance of physical activity through comparison between the groups having different level of physical activity. The comparison was made between three groups (Regular Exercise group, motivated (competitive) sports practice group and control group having 30 male subjects in each group. Regular exercise group was found to be most effective in relation to all the parameters of well-being as well as hardiness.

Keywords: Physical Activity, Hardiness, Well-being

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Introduction

A certain amount of energy that is expended in body movements, climbing stairs, pumping vigorously on a swing, running at high speed on treadmill, riding bicycles etc. is called an activity. The energy that is consumed or expended is physical, encompassing prolonged concentration that may induce fatigue and tiredness. Frequent exercise is vital for the prevention of some of the diseases of affluence, e.g. cancer, heart disease, diabetes, obesity etc. Generally, exercises are categorized into three classes on the basis of their global impact on human body i.e. (a) Stretching exercise (b) Aerobic exercise (c) Anaerobic exercise etc. Physical exercise is considered important for maintaining a proper blend of physical fitness i.e. adequate BMI, healthy muscles as well the good wellness, i.e. high psychological wellbeing in terms of mental health. Activity constitutes two components in term of expanding energy i.e. tempo and vigor. Tempo involves the rapid rate of responding. People low at this level are labeled sluggish and slow. While another way of expanding energy is through vigor. It involves the responses of greater amplitude or intensity. It is believed that highly active people need to expand energy whether through tempo or vigor. At the same time, it is found that active people, if somehow are unable to expand their energy, become frustrated and have low wellness.

Achieving a proper state of health is an important goal that everybody aims at to have adequate human functioning at societal levels. WHO (1990) has stated that health is that state which involves not only the absence of diseases or any other physical ailment, but physical, social and mental well-being. Health in physical dimension constitutes autonomic activity like pulse rate, skin temperature, blood pressure, BMI etc. These parameters are very vital for the adequate cardiovascular regulation in human beings. Reflection of autonomic control of heart clearly shows the proper functioning of heart and decrease heart rate variability is a risk factor for cardiovascular mortality. In relation to this physical domain of health is hardiness and well-being which are important organs of wellness.

Hardiness is a blend of attitudes that provides the necessary enthusiasm, motivation and ability to change developmental and environmental stressors into opportunities for self-regulation and promotion. Kobasa coined the term hardiness in 1979, which is abreast with three main components: 1) Control of various life events; 2) Commitment, which means loyalty in our action and 3) Challenge, the extent to which individuals take challenges as opportunities (Kaiseler, Polman and Nicholls, 2009).

This way of functioning, which constitutes commitment, control, and challenge, is believed to enrich oneself cognitively, emotionally and in terms of appropriate behavior leading to high wellbeing. Well-being is a multidimensional construct proposed by Diener in 1999. It focuses on tri-partite structure in the view of life satisfaction, positive and negative

processes. Well-being or wellness is the state of an individual or group in relation to their physical and mental state. A higher score on well-being reflects that a person's mental condition is very positive as well pleasant. There are three classes of theories of well-being and these are, hedonistic theories, desire theories and objective list theories. Hedonistic theories and desire theories are subjective theories. According to them, the degree of well-being of a person depends on the subjective mental states and attitudes of the person. On the other hand, Objective list theories, focus on things which can benefit a person independent of person's subjective attitudes towards those things.

Calfas and Taylor in 1994 conducted meta-analysis and found the larger effects of exercise on anxiety and stress reduction. Physical fitness has an important role in injury prevention also. Sharma & Parveen. (2017) Chow and Louies (2008) showed the buffering effect of physical exercise as lowering down the depression in Children. Yadav, Kumar and Nara in 2012 studied the life satisfaction in relation to happiness as measure of well-being and found its positive role. Nara in 2017 also found positive role of physical exercise in enhancing mental health. Similar research evidence has been substantiated by Singh and Singh in 2017 in relation to work well being.

Though the available empirical evidence shows the relationship between physical exercise and stress reduction but the research evidence in relation to these variables with hardiness and autonomic activity are sparse.

Method:

Design: A multi group design was used to study the variable of physical activity at three different levels, i.e. Regular Exercise group, Motivated (Competitive) sports practice group and control group. The sample comprised of 90 male graduates belonging to an age group of 20-25 years. The sample was divided into three equal groups as each group was having 30 subjects.

- Group I: Comprising of regular exercisers (going for daily regular walk or gym).
- Group II: Constituting sports persons practicing in ground for the competitive event (State/National/University/Inter University Level).
- Group III: Age matched control group (having very easy sedentary life style).

Measuring Tools:

- 1) Buss & Plomin's, Temperamental questionnaire (1998): It deals with the measurement of four different components of temperament, i.e. Activity (A), Emotionality (E), Sociability (S), and Impulsivity (I).. Each of the Parameter has further 5 items separately in the questionnaire.

- 2) General Activity Measures: The measures such as height, body weight, Blood Pressure, Skin temperature, Pulse Rate, Body temperature were measured with the help of electronic instruments. BMI was calculated as per its standard formula, i.e.

$$\text{Body Mass Index} = \frac{\text{Weight in Kg}}{(\text{Height in Meter})^2}$$

- 3) Hardiness Scale (2008): It is developed by Besharat which has 45 items yielding a total score of hardiness as well component wise score, i.e. commitment, control and challenge (15 items for each dimension).
- 4) PGI general well-being scale (Verma & Verma, 1989): There are 20 items which measure the general well-being of a person. The higher score indicates high well-being. It gives measurement on the subscales of anxiety, depression, behavior control and positive affect and gives one total score too. The higher is the score, the better is the mental health of subject.

Procedure:

After establishing a proper rapport with the subjects, all the questionnaires were given to the subjects. Instructions were made explicit to them. Further the answered questionnaires were taken back and scored as per manual. The scores were statistically analyzed by using descriptive statistics, t-test and F-test.

Results and Discussion

The scores obtained on the questionnaires were further processed for meaningful results by calculating their respective descriptive statistics, i.e. Mean and S.D. values for three different groups, i.e. Regular Exercise group (G-I), Motivated group (preparing for competitive event, i.e. G-II) and the control group (G-III) on the 13 different psychophysiological parameters, i.e., Activity, , pulse rate, skin temp, body temperature, diastolic blood pressure, systolic blood pressure, body mass index, well-being, commitment, control and challenge. These results are depicted in table no. 1, t-test was applied to study the difference in Means and S.D's among these three groups in relation to varying nature of physical activity.

Table 1 Mean values & Standard Deviation of regular exercise group (G-I), Competition Motivated Group (G-II) and control group (G-III)

Variables	G-I		G-II		G-III	
	Mean	SD	Mean	SD	Mean	SD
Activity	32.85	4.95	31.95	4.65	30.1	4.42
Pulse Rate	73.25	10.78	75.95	10.78	72.45	10.48
Skin Temp.	27.25	5.12	27.34	4.65	28.27	4.25
Body Temp.	99.1	6.14	99.06	6.10	97.1	6.12
Diastolic B.P	78.91	2.12	77.92	2.10	84.1	2.14
Systolic B.P.	118.5	24.1	119.2	26.9	126.2	25.2
BMI	22.5	2.05	20.5	2.10	24.3	2.12
Well-being	17	5.15	15	4.75	12	4.50
Commitment	40	5.25	38	5.10	32	5.12
Control	38	4.16	36	4.19	36	4.28
Challenge	38	4.12	42	4.20	30	4.24

Table no. 1 clearly depicts the mean and standard deviation scores of all the 13 measures of three different groups, i.e. Group I (Regular exercise group), G-II (Competition Motivated group) and Group-III (Control Group). In terms of activity score, the group I has got highest score i.e. 32.85, followed by group II i.e. competitive group and last by the control group. It means that as far as the amount of physical energy as well as its utilization is concerned, the subjects having regular exercise, whether in terms of expanding their energy in gym or ground, are ahead than the subjects who have high motivation to win once in any competitive sports event. On the other hand, the group III which is encompassing a sample of students who are having sedentary life style are having low energy in terms of input as well in expenditure (30.1 as their mean value). It means that people who go for regular exercise in their daily life schedule are able to motivate and channelize their mental power in a better manner than the people who are in continuous race of winning some competition (at university level/state level etc). While the individuals who have very easy-going life style without any physical activity have partially less efficient means of utilizing their mental faculty. In rest, all the autonomic measures, i.e. skin temperature, body temperature, blood pressure as well BMI, the subjects of group I have been found fully equipped than group II and Group III.

As far as the psychological parameters, i.e. well-being and hardiness is concerned, group I has been found to have highest mean value of psychological well-being, i.e. 17.00,

commitment, i.e. 40 and control & challenge with 38 and 38 scores respectively. On the other hand, the group II belonging to competitive group has scored low on all parameters except challenge. The obtained mean values show that regular exercise groups enjoy better wellness, more control over impulses as well high commitment towards goal achievement. But in case of challenge, the group belonging to competitive group has scored high i.e. 40 followed by group I i.e. 38 and further by group III i.e. 30. This is obvious that since the group II is highly motivated group to achieve some recognition in the competitive event, is responsible for making it stronger and exigent in terms of winning. Further the control group has been found lowest in terms of all measures.

Table no 2 clearly exhibits the F-ratios of these respective measures. In this the F-ratio of well-being, control, commitment and challenge has been found significant. ANOVA was used to analyze the source of variance in those 13 physiological measures.

Table 2: Showing the F-ratio along with their level of significance

Variables Measured	ANOVA (F-Ratio)
Activity	1.294
Pulse rate	0.678
Skin Temp.	1.492
Body Temp.	0.192
Diastolic B.P.	1.686
Systolic B.P.	1.646
BMI	0.412
Well-being	5.62**
Commitment	4.65**
Control	4.42**
Challenge	4.26**

** Significant at 0.01 level with $df = 2, 87$

Further, the measures that show significant F-ratio were compared groupwise, i.e. GI & GII, GI-III, group Ivs GIII with their respective t-values to find out the significance of difference in their means (as shown in table no 3(a), 3(b), 3(c) and 3(d))

Table no 3(a): Mean of well-being and t-value for group comparison

Sr. No.	Nature of Group	Comparison among Groups		t-value
1	Regular Gym/ Exercise group	17.00	5.15	GI vs GII 2.12**
2	Competition Motivated Group	15.00	4.75	GII vs GIII 1.62
3	Control Group	12.00	4.50	GI vs GIII 1.60

** Significant at 0.01 level of significance with $df = 58$, $p < 0.05$

Table no 3 (a) shows the mean and t-values of group comparisons, i.e. group I vs GII, GII vs GIII and GI vs GIII. The highest score on the dimension of well-being has been found of regular exercise group. The obtained findings clearly denote that each of any kind of physical activity on the part of group III i.e. control group which remains partially expanding, no physical energy has low well-being than other two groups. At the same time, it is also confirmed fact that regular workout makes individuals enjoy high wellness in terms of their physical and mental health as well. In 2000, Hassen studied the association between physical exercise and psychological well-being. The results indicated that regular exercise increased the psychological well-being of a person. Fox (2020) reported the positive effect of physical activity on mental wellness.

Table no. 3(b): Mean of commitment and t-value for group comparison

Sr. No.	Nature of Group	Comparison among groups		t-value
1	Regular gym/exercise group	40	5.25	GI vs GII 4.65**
2	Competition motivated group	38	5.10	GII vs GIII 4.21
3	Control Group	32	5.12	GI vs GIII 3.16

** Significant at 0.01 level of significance with $df = 58$, $p < 0.05$

Table no 3(b) clearly exhibits the higher commitment in group I i.e. regular gym goers than competitive motivated group. While the commitment on the part of control group is least. It is also contrary to the general view as normally it is believed that subjects who are preparing vigorously for some competitive event should have more dedication, duty and devotion towards their target but it is not found in case of our subjects.

Table no 3(c): Mean of control and t-value for group comparison

Sr. No.	Nature of Group	Comparison among groups		t-value of $n=58$	
1	Regular gym/exercise group	38	4.16	2.62**	GI vs GII
2	Competition motivated group	36	4.19	2.20	GII vs GIII
3	Control Group	36	4.28	2.21	GI vs GIII

** Significant at 0.01 level of significance with $df = 58, p < 0.05$

The exhibits in table no 3(c) vividly show that the group I dealing with regular exercise group has more control over impulses as well situations that demand rigor and high tempo. Such persons perceive stress as normal and changeable. These people perceive stress not as a threat rather as an opportunity to grow oneself. Mehrparvar and Soltani (2011) found that subjects going for regular exercise are more independent, self-controlled, confident and objective in their approach towards goal orientation.

Table no. 3(d): Mean of challenge and t-value for group comparison

Sr. No.	Nature of Group	Comparison among groups		t-value of $n=58$	
1	Regular gym/exercise group	38	4.12	3.92	GI vs GII
2	Competition motivated group	42	4.20	4.42**	GII vs GIII
3	Control Group	30	4.24	3.62	GI vs GIII

** Significant at 0.01 level of significance with $df = 58, p < 0.05$

Table 3(d) exhibits the highest mean score of challenge in group II i.e. of competitive motivated group which denotes that subjects aspiring to meet some goal either at state or university level in sports take their goal as more challenging, taxing, demanding and exacting. Sandvi, Gjevestad and Johanson (2019) studied the role of physical fitness and exercise on psychological hardiness in police personnel. It was found that those officers who go for regular exercise in terms of dealing and handling criminals and mock drill exercise have been found high on the psychological hardiness in relation to taking their goals as very challenging and testing.

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Workplace Spirituality and Psychological Well-being in Female Bank Executives: A Comparative Study

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.35-44
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

The aim of the present study is to assess and make a comparative analysis between workplace spirituality and Psychological well being in working women of private and public sector banks. For this purpose, a sample of 100 female employees having age range of 27-35 years working in public and private banks (50,50 each) have been taken belonging to Rohtak and Delhi. Data was analyzed by using t-test and co relational method. Following questionnaires were used for collecting the data i.e., Negative acts questionnaire- revised (Einarsen, 2009) and Conflict management style questionnaire (Dreu et.al 2001). There would be a significant difference between workplace spirituality and Psychological well being in female executives of private as well public banking sector. The obtained results reveal the significant differences in both groups on certain dimensions not as such globally. In addition, the relationship between the workplace spirituality and Psychological well being in the banking sector employees was also analysed. Correlational analysis reported the significant association between these two variables supporting that spiritual laden work set up leads to high mental health in women bank executives. The results when dealt individually, the significant positive relationship is found in public sector women bank executive as the obtained correlation value is .65 and .35 respectively supporting the hypothesis.

Keywords: Workplace spirituality, Road map, Life skills, Turnover, Excellence, Well being

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Introduction

In the current era of globalisation, females are growing in every vocation, whether it is teaching, medical, corporate etc. An individual when joins any organisation comes with some psychosocial competencies and interpersonal skills, i.e., Self regulation, decision making, cognitive style, team spirit etc. In addition to this, the most vital competency is the value system i.e. the moral values, ethos that is engrained and inherent in the person's make up as a result of parenting style or the home environment where he/she has been reared up. This spirituality is not only confined to home but also gets reflected at workplace where one is working and called as workplace spirituality. According to Maslow (1970), this man's inherent design or nature is usually not obvious rather hidden. The way a person lives with his sense of interconnectedness with the world through an ability to tap into deep resources inherent in one's nature is workplace spirituality. In western culture, and it means how an individual finds meaning in his work and gets satisfaction and gets self discovery and direction, is the gist of workplace spirituality. In the current world of cut throat competition, we normally talk about the kind of ethos and value system in terms of character strengths present not in human resource employed there but also about the core values engrained in the work set up in terms of management dynamics and cohesiveness that induces in return the high wellness in employees.

Ashmos and Duchon in 2000 identified three components, i.e., inner life, meaningfulness at work and sense of belongingness with community.

Spirituality at work believes in the notion that people's needs for worth and meaning can be achieved through meaningful work. Inner life in workplace, meaningful work, alignment with workplace values, sense of community are being taken as its important dimensions. It works at three levels: individual, group and organisational.

Dehler and Welsh (2003) discriminated clearly between spirit and spirituality as spirit as inherent source of energy and on the other hand, spirituality as the outward expression of that force.

Ashforth and Pratt in 2003 talked about three dimensions of spirituality at work: Holism and harmony, Transcendence and Growth.

Kinjersky and Skrypnek (2006) found its relationship with organisational performance. When a person is having concern towards his co-workers as well community, it is going to have impact upon his/her mental health, i.e. psychological well being (PWB). It deals with two views: Hedonic and Eudaimonic views. Hedonic view states the feeling of subjective happiness and concerning the experience of pleasure. While Eudaimonic view asserts on the well being distinct from happiness. It believes people to live in harmony with their true

self. When one's life pursuits are in accordance with one's deep held values and truly engaged, it is well being. The literature on well being deals with two dimensions for well being, First is subjective well being and another is psychological well being. Subjective well being focuses on person's self assessment related to life events and how it emerges in relation to experiencing pleasure towards life pursuits and positive relations with others in family as well work set up. Keyes et.al in 2000 stated this state as a balance of positive and negative affect as well satisfaction towards life. On the other hand, Psychological well being is multidimensional construct that talks about equilibrium of one's physical, mental, social and spiritual faculty, giving impetus on aspects of self and other domains of life like social, contextual, love with work and life etc. Ryff in 2000 developed model that represent psychological well being as what is healthy, well and fully functioning. This was the view of Neo-Freudian, a blend of ego identity and self acceptance respectively.

There have been various correlates of wellbeing, i.e. Employment, socioeconomic status, Education, age, achievement motivation etc. These correlates are studied extensively as employment and well being is supported by Hinks and Gruen in 2005. Income and well being by Klumb and Lampert in 2004. Noor (1999) supports research evidence of marital status and well being. but how workplace spirituality does correlate is sparsely researched. As females are working and excelling in every vocation especially in banking sector where they are to deal maximally with clients of different temperament. In this context, females working in banking system, i.e. private or public, what workplace spirituality do they carry and how much they differ in the context of their work set up has been endorsed very scanty from research perspective. Taking this perspective in mind, the present study deals with the following :

Problem To make a comparative analysis as well relationship of work place Spirituality and Psychological well being in private and public banking sector women.

Objectives of the Study:

- To study the comparison between work place spirituality and psychological well being in private and public banking sector women.
- To examine the relationship between work place spirituality and psychological well being in private and public banking sector women.

Hypothesis

- There would be significant difference between work place Spirituality and psychological well being in private and public banking sector women.
- There would be a significantly positive relationship between workplace spirituality and psychological well being of women bank executives.

Methodology:-

Design: A two group design followed by co relational design was applied in the present study.

Sample: A total sample of 100 participants (50 women working in private banks and 50 women in public sector banks), from age range of 27-35 years was selected for the present study. All the selected subjects were having 3 to 5 year of job experience at a managerial position. All females were married and reported to have good style of living. A sample was selected from Public banks (SBI and PNB) and Private Banks (Axis and HDFC) of Rohtak and Bahadurgarh .

Instruments Used

Following tools were used to collect data-

1) Workplace Spirituality Scale:

It was developed by Petechsawang and Duchon in 2009 having 32 items. It deals with 4 dimensions, i.e., compassion, mindfulness, meaning full work and transcendence. It is a five point likert types scale ranging from 1 to 5 as 1 is strongly disagree and 5 strongly agree. Responses to negatively scored items are reversed in final scoring as high scores indicating higher workplace spirituality level.

2) Psychological well-being scale:

It was developed by Ryff(1989) measuring the nature wellness of above 25 years of population. Its shortest version having 54 items was used. It is a 6 point likert scale as 1 shows strongly disagree and 6 to strongly agree. It deals with 6 components, i.e. self acceptance, personal growth, purpose in life, positive relations with others, environmental mastery and autonomy. Responses to negatively scored items are reversed in final scoring procedures so that high score indicate high positive psychological functioning.

Procedure:

After deciding about the kind of tools for using into this study, a researcher interacted with participants face to face to collect a data in a more detailed way. The employees were made comfortable, and a rapport was established with them. Employees were given questionnaire for the collection of data. Later, responses were recorded, and participants were thanked for giving their valuable time and feedback.

Statistical Analysis:

A data was analyzed with the help of statistical methods i.e. descriptive statistics and Co relational statistics'-test and Pearson product moment method was applied to analyse the data statistically.

Results and Discussion:

The present study is aimed to study the difference as well the association between workplace spirituality and psychological well being of women executives in private and public banks.

Table no.1.1 and 1.2comprises of Mean and Standard deviation scores of work place spirituality and psychological well being of women executives in private and public banks respectively.

TABLE 1.1 : Mean and SD of the work place spirituality(WPS) of women executives in private and public banks

WPS	Private Bank		Public Bank		t
	Mean	SD	Mean	SD	
Compassion	15.29	2.34	15.69	2.32	1.98**
Mindfulness	22.34	3.67	21.98	4.29	2.67**
Engaging work	27.80	3.12	25.80	4.12	2.74**
Meaningful work	26.20	2.89	27.34	2.44	1.78*

**p<.01, *p<.05

WPS:Work place spirituality

The above table clearly shows that the mean and SD of private bank personnel is 15.29 and 2.34 respectively on compassion and these are 15.69 & 2.32 (Mean and SD) respectively in public sector. the obtained t value on compassion is 1.98 ,i.e. care and concern is high in public sector female executives than private banks. This is found statistically significant at .01 level. On the other hand, private sector female personnel in banks are found to have significant mind fullness, i.e., engrossed at present and not future oriented or other distractions as well more engaged in achieving targets and set goals .Similar trend can be seen in their mean and SD values (Mean =22.34 ,SD=3.67 in private ,Mean=21.98,SD=4.29 in Public Bank). But as far as more meaningfulness as well sense of satisfaction and feel of vigour is concerned, it is found statistically high in public sector female bank employees(Mean =26.20 SD=2.89 in private, Mean=27.34 ,SD=2.44 in public)

TABLE 1.2 : Mean and SD of the psychological well being of women executives in private and public banks.

PWB	Private Bank		Public Bank		t
	Mean	SD	Mean	SD	
Autonomy	34.12	2.34	36.12	2.32	2.45**
Environmental mastery	38.78	3.63	36.24	4.24	2.68**
Personal growth	38.67	3.34	39.24	3.12	2.46**
+ve relations with others	36.23	3.15	40.24	4.12	2.78**
Purpose in life	38.29	3.23	42.28	2.73	2.24**
Self acceptance	39.12	2.66	42.13	2.45	3.12**

**p<.01,*p<.05

Table 1.2 clearly denotes that as far as autonomy is concerned, it is high in public sector banking system which means that in this set up, female executives are more abreast with decision making and responsible position than private banks and it is further increasing their personal growth and more cohesiveness in making strong bonding with people around them. At the same time ,public sector banks are providing the environment to their workers where they are realizing their potentials and finding life more goal oriented as well purposeful. In case of environmental mastery, the private banking sector is ahead as it is focusing more on strong competition, facing more ups and downs in terms of catching and handling clients and meeting targets as set by your own self as well delegated to the authorities.

Further, the secondary objective of investigating the relationship between workplace spirituality and psychological well being of all 100 female employees was studied. The calculated value of correlation was .68 which was found significant at .01 level that signifies that the presence of workplace spirituality, i.e. compassion, honesty, meaningfulness in work enhances the psychological well being of person in terms of personal growth, goal orientation in life as well autonomy. Pawar in 2016 found that the popularity of Workplace spirituality is increasing day by day in HRM. Similar results have been endorsed by Garg in 2017 giving due importance to the spirituality in the domain of teaching as well medical

professionals. This value laden system is enabling human resource to grow personally as well professionally. After the global co relational analysis, the secondary objective of the present study was investigated through individual analysis of women bank executives separately of public sector and private sector. Kinjerski and Skrypenk in 2004 reported the positive relationship between spirit at work and employee wellness and organisational performance.

TABLE 1.3 : Interco relation matrix of the workplace spirituality and psychological well being of women executives in Public banks.

Variable	WPC	PWB	
Public Bank	WPC	1.00	.65**
	PWB		1.00

** p<.01

Table 1.3 explicitly shows the correlation between workplace spirituality and psychological well being in women bank executives in public sector. The obtained value of correlation is .65 which has been found highly significant positively at .01 levels. It clearly shows that the public sector banks laden with high values and core cardinal principles of work values are enabling to make their female employees psychologically healthy and consequently excelling the organisational growth.

TABLE 1.4 : Intercorrelation Matrix of the Workplace spirituality and psychological well being of women executives in Private banks.

Variable	WPC	PWB	
Public Bank	WPC	1.00	.35*
	PWB		1.00

*p<.05

Table 1.4 clearly exhibits the relationship between workplace spirituality and psychological well being in women bank executives in private sector. The obtained value of correlation is .35 which has been found significantly positive at .05 level. It clearly shows that the private sector banks are target oriented and do have some core signature values but their principles are not making employees or human resource working over there to feel more good and productive in relation to their mental health. The reason may be attributed to the fact that private sector banks have less job security as well they have more orientation towards short term goals that may be not taking organisation to level of excellence at par.

Emerging trends:

*Scores on workplace spirituality has been found high on public sector banks than private banks . Similar trend has been observed in case of psychological well being too in case of public sector banks.

*Significant relationship has been found between workplace spirituality and psychological well being of female bank executives.

*Private sector banks have been found to have high workplace spirituality than private sector banks as their female executives are reporting high mental health

Implications:

Work is an essential part of our life. Workplace spirituality helps us to facilitate our self discovery and to have personal security as well sense of personal accomplishment. Since an employee spends more than 60 % b of his daily life time in his or her work set up, their work environment is very crucial in determining their quality of life as well psychological well being resulting in to global wellness. The present study has lot of behavioural implications in the current corporate world especially in relation to women employees. Since the females have to manage a balance between their family and work set-up, the need of an hour for employer or the management is to hold life skills workshop in banking sector time to time as to increase their spiritual quotient which would consequently increase their psychological well being and it would be able to help an organisation to excel in terms of their turnover. The realisation of one's potential at organisational as well personal level is highly contributing to the excellence of the work set up as well an employee at its own. Policymakers and Board members of management at higher level need to incorporate such programs in their future **Road map** designed for next five years. Life skill programmes need to be organised time to time at different hierarchical levels so that level of personal efficacy as well attachment towards work set up is enhanced ,contributing to high organisational output.

Limitations:

- The sample is small. The better findings would have come if the large sample would have been taken as well from more cities of Haryana.
- The sample taken is only comprised of female bank executives. In this aspect ,gender differences would have fetched better findings if male executives would have been taken.
- Some potentially relevant variables especially in the context of women such as sexual harassment, work family conflict should have been taken care of for more meaningful results.

- Since it is purely quantitative study, qualitative narratives should have been taken.
- The present study is not causal. It would have led more significant deliberations if regression analysis would have also been done

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Personal Learning Environment in the Digital Scenario: A Primordial Approach

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.45-56
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

This paper tries to clarify and echoes the varying roles of the Personal learning environment in the digital scenario. E-learning is a technology that supports teaching and learning via an increasing need for distance education . E-Learning becomes a pivotal source of expansion and studying in education. This paper provides a pathway and directions so that maximum students researchers and teachers to create and engrossed in e-Learning program. Blended learning, Distributed learning, Network learning, Virtual Learning, Cohort Learning, and Web learning helps to understand the concept of Massive Open Online Course with a Technology-based system. This paper covers the different roles of E-learning and Connectivisim MOOC providers in the digital environment.

Keywords: E-learning, B- learning, M-learning, MOOC, Active Learning, xMOOC

Paper type: Conceptual paper

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Conceptual Framework: E-learning is playing an imperative and pivotal role in the digital era. The E-learning concept is not a new one it started from the official recognition of education by correspondence from 1883 to 1891 by the Chautauqua College of Liberal Arts (Bizhan, 1997). "E-Learning platforms have become one of the top ten current information technology issues in higher education (McGee 2003)". Apparently technology has been triggered by innovations and interactive programs like MOOC, etc. "Miller has rightly said that humans have limited short-term memory capacity. Information should be fragmented and learners should construct their knowledge. Growing demand for higher education resulted in the educational services market appearance, where universities became competing stakeholders in the educational content distant delivery area. (N V Ivleva 2015)". "Poole (2005) postulates We live in the aeon of transforming Universitys and in the age of globalization and technological change, higher education institutions are expected and increasingly pressured to adapt transformation strategies in order to accommodate the demands of contemporary learners by creating new courses and offering flexible learning (p. 196)".

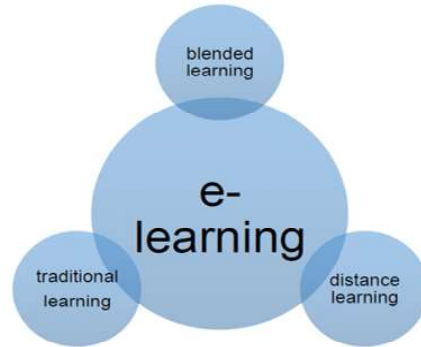
"M-learning is the subset of e-learning and the e-learning is a macro concept and it includes the mobile learning as well as online environments". Quinn (2000: 1 of 4) pointed out that "M-learning is e-learning through mobile computational devices: Palms, Windows CE machines, even your digital cell phone."

"Sa' nchez-Prieto et al. (2016) stated that m-learning is a method of learning which is directly linked to the e-learning and it belongs to the independent typology, where teaching and learning process can have an electronic context online Learning includes mobile learning, e-gaming, online communities, and Learning Management system."

According to Duderstadt et al. (2002) "e-learning is used in the study environments to learn with a special importance of the web to describe a wide range of applications of electronic technologies, namely, TV, radio, CD-ROM, DVD, cell phone, Internet, etc".

According to **Quinn (2000)** "Mobile learning is learning through mobile computational devices".

Sharples (2005), defines "M-learning as a process of coming to know, by which learners in cooperation with their peers and teachers, construct transiently stable interpretations of their world."



Learning Model

(Elliott Masie as cited in Behera, 2013: 67).

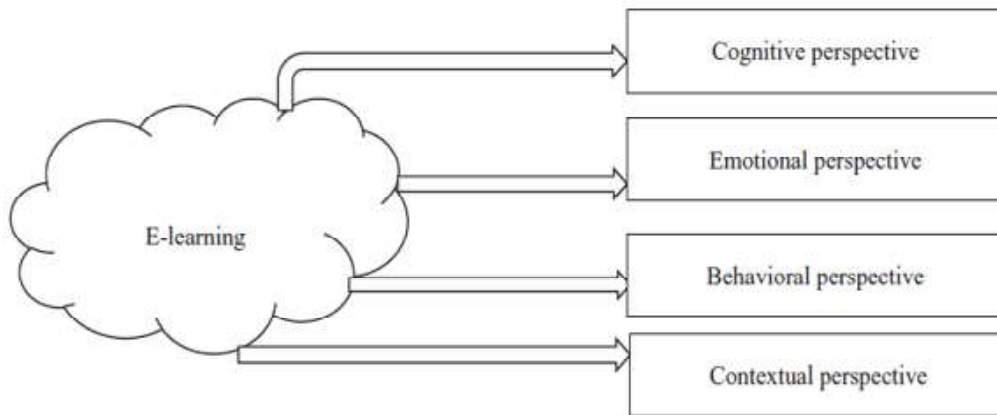
Definitions of e-Learning:

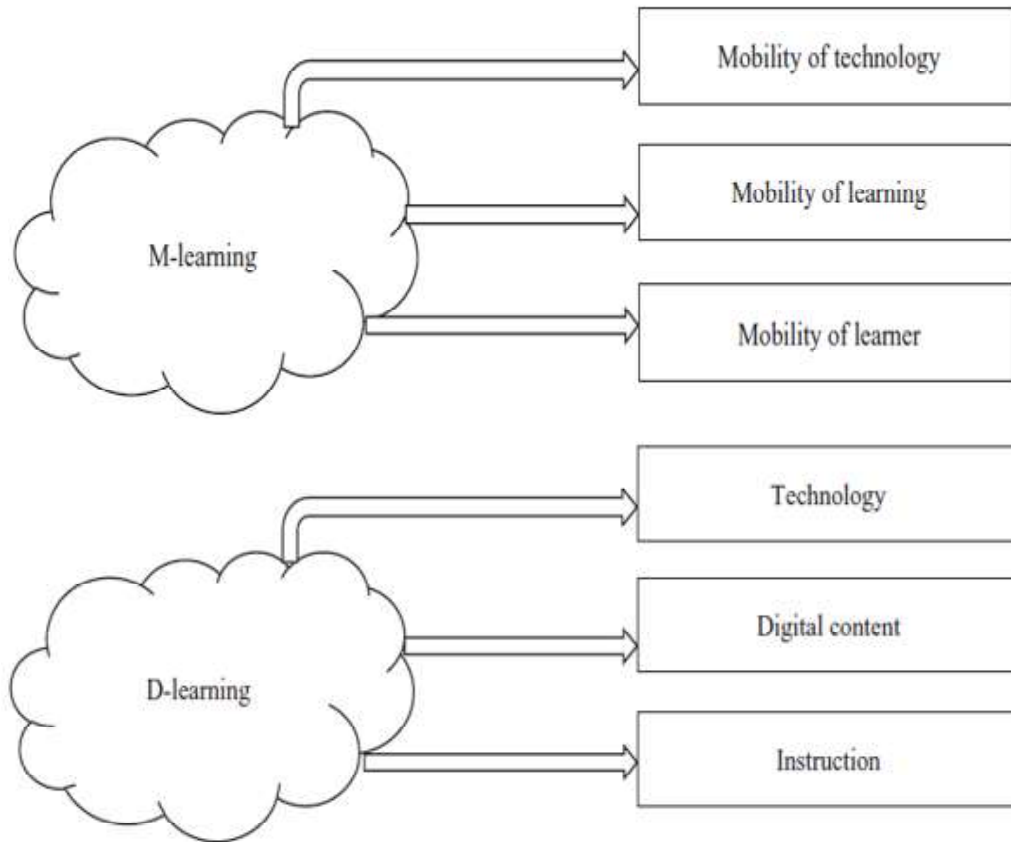
"E-learning refers to the use of computer network technology, primarily over or through the internet, to deliver information and instructions to individuals"

"E-learning as the experience dimension of e-learning, which includes such factors as engagement, curiosity, simulation and practice"

"Openness is the only means of doing education: if there is no sharing, there is no education" (Wiley, 2010).

Fundamental perspectives of e-Learning adopted from El-Hussein and Cronje (2010: 17).





El-Hussein and Cronje (2010: 17).

Collaborations Online Learning together in the Community:

"Online instructors cannot deliver knowledge until or unless online learners must seek it out." "Styers, 2004, p.61." Collaboration means any online course that bases its theoretical foundation on constructivism. Different prolific authors like Piaget (1969); Jonassen. et.al.(1995); Kazmer (2000); Brookfield emphasized, and delineated the following points:

1. Development of critical thinking skills
2. Learning community
3. Reflection
4. Transforming Learning
5. Co-Creation of Knowledge
6. Collaboration supports the creation of community
7. Performance coaching and Management

8. Social Constructivist context

9. Career development

Terminology and Abbreviations used in MOOC Content:

1. **OEP-** Open Network Practices

2. **ONL-** Open Network Learning

3. **OER-** Open Education Resource

4. **CMOOC-** Connectivist Massive Open Online Course

5. **SCORM-** Sharable Content Objects reference module

6. **MOODLE-** Modular Object- Oriented Dyanmic Learning Environment

7. **BYOD-** Bring Your Own Device

8. **SAAAS-** Software as a Service

9. **SOAP-** Simple Object Access Protocol

10. **ADL-** Advanced Distributed Learning

11. **LTI-** Learning Tools Interoperability

12. **OLI-** Open learning Initiative

13. **NPTEL-** National programme on technology Enhanced Learning.

Pioneer of MOOC Program in Personal Learning Environment:

"The term MOOC (Massive Open Online Course) was coined in 2008 by George Siemens (University of Texas Arlington) and Dave Cormier (UPEI), who facilitated their first online course with hundreds of participants distributed geographically, while the content, communication and collaboration were hosted by a large variety of social media platforms." Initially MOOCs were based on connectivist principles and supported by emerging technologies that facilitated peer to peer interaction and made it possible to collaborate and share resources on an unimaginable scale. cMOOC was used in "Connectivism and Connective Knowledge" (CCK08) (Downes, 2008, 2011). "The National Research Council Canada (NRC) has been conducting research on MOOCs since 2009 and has also proposed a framework for conducting research in the area of Personal Learning Environments (PLEs), including MOOCs as a particular instance of PLE (Kop & Fournier, 2013)". "The challenge of analyzing Big Data is coping with abundance, exhaustivity and variety, timeliness and dynamism, messiness and uncertainty, high relationality, and the fact that much of them are generated with no specific question in mind or are a by-product of another activity" (Kitchin, 2014, p.1).

"Behaviourism, cognitivism and constructivism are the three broad learning theories most often utilised creating instructional environments (Siemens,2005)". "Massive Open Online Courses (MOOCs) are a rather new development in the field of e-learning and distance education, which gaining more and more popularity. Compared to traditional courses, MOOCs are larger in scale, are globally accessible and have no restriction on participation (Adamopoulos, 2013)".

6C'S Learning A Pragmatic Framework for 2nd Generation E-Learning Projects:

1. Coaching
2. Culture & Attitude
3. Content
4. Computer Infrastructure
5. Concept
6. Coordinates & Control

6C'S Learning of Education in A Personal Learning Environment:

1. Critical Thinking
2. Collaboration
3. Communication
4. Creativity
5. Citizenship
6. Character Education

Types of Online Searching in E-Learning Perspectives:

1. **Full text searching:** Full text search is a mechanism searching in through electronic learning. It asserts each and every field of the database and extracted all those words which match a isolate or single computer stored with in a full text databases.
2. **Truncation Searching:** It described and conducted for different forms of a word having the same common root, e.g we search library* then all the records will be retrived where term 'Library' appears complete or part if any mention.
3. **Visual searching:** It is a searching system in which search engines helps to retrieve desired information. These search engines provide information through visual information like Web pages screen shorts. Different optical search engines are-
 1. **Web Nocular (www.Webnocular.com)**
 2. **Simploos ([http:// beta.simploos.com](http://beta.simploos.com))**

3. **Slikki (www.slikk.com)**
4. **RedZ (<http://redz.com>)**
5. **Yometa (www.Yometa.com)**
4. **Range searching:** It is an information Retrieval technique, which allows searchers to select records in data ranges e.g Greater than>, Less than<, Equal to =, Greater than or equal to >=, Less than or equal to <= and others.
5. **Federated searching:** It is a technique used when searching across heterogeneous data sources. Federated search allows a single query request assisted by search engines database. Federated search solutions are powerful tools for e-commerce; custodian can quickly search through different choices of products.
6. **Advanced searching:** It provides different tools and mechanisms to get pinpointed and exhaustive search strategies to the user. Advanced search techniques entail large list of items alongwith multiple parameters. Search list if contents parameters can be
 1. Name
 2. Author
 3. ISBN
 4. ISSN
 5. Year of Publication
 6. Citation Indexing
 7. Accession number
 8. Linear
 9. MARC
 10. Location
7. **Microblogging searching:** It is the primary social media platform for users to post short messages from personal updates, questions and content of interest. The Microblog service provider is twitter.
8. **Proximity searching:** It is a technique which allows the searcher to represent the distance of two terms from each other. It explains the separately matching term occurrences within a specified distance, e.g "e-journals used in libraries," and more match words are 'Libraries used in e-journals'. Simply say that proximity searching helps find out more approach words instead of single queries in the web world. In the web of science database we can use different search strategies for used databases.

E-Journals and E-Books Aggregators and Databases

1. **Ebscohost**
2. **Proquest**
3. **Lexis-Nexis**
4. **Metadex**
5. **Silver platter**
6. **Ovid**
7. **Highwire press**
8. **Informatics (J- Gate)**
9. **E-Theses Online Service (EThOS)**
10. **Directory of Open Access Journals**
11. **Web of Science**
12. **Scopus**
13. **PubMed**
14. **ERIC**
15. **IEEE Xplore**
16. **Science Direct**
17. **Royal Society of Chemistry (Bibliographic Database)**
18. **Credo Reference**
19. **Corporate Aggregators like Factiva and Bloomberg**
20. **Portal cum Aggregator, e.g Biomednet.**

Various Massive Open Online Course Connectivity Provider:

1. **Swayam:** Swayam is an acronym that means "study webs of active learning for young aspiring minds". It is a Platform launched by the Ministry of Human (MHRD). The objectives are to provide and facilitate the best teaching-learning resources for all arduous online learners.
2. **Coursera:** Coursera is the most online education MOOC provider and consists of pre recording materials. It is freely available on mobile application and most videos can be downloaded in mobile.
3. **edX:** edX is an online course on asserted a variety of subjects from ancient to modern. It comprised like Ancient Greek History, European art History, Human evolution and

- many more. It is also engaging video lectures, dynamic graphics and Virtual quizzes. edX courses are asserting Courseware, CourseInfo, Discussion, wiki, and textbook.
4. **Future Learn:** It is an online education based in the United Kingdom, Popularly known as Massive Open Online Course Class. It also covered various subjects like History, Language, Law, Politics & Society, Psychology & Mental Health and Business & Management.
 5. **Class2Go:** Class2Go is a new massive open online course developed by a Stanford team. The objective of this program is to improve the effectiveness of the online and offline lessons.
 6. **Iversity:** Iversity is a Berlin- Based on line education platform. Course is accessible to anyone to enrol and participate. iversity.org officially launched the MOOC platform online in October 2013. The speciality of this course is Instructor, and course participants can interact with each other in discussion forums.
 7. **Udacity:** Udacity has been designed for highly accessible through its Web-based content delivery. It promotes programming and development, Artificial Intelligence, Cloud Computing, DataScience, Bussiness etc. It is an American for profit education`organization founded by Sebastin Thrun, David Stavens and Mike Sokolsky Denotation based massive open online course.
 8. **Drupal:** Drupal is available free open source web content system. Drupal is free to download and modify, extend the platform. It carries out object-oriented programming pattern and PHP best practices. Drupal 9 was released on June 3, 2020 and students can be benefitted high-level terminology and Integrating of external services.
 9. **NovoEd:** NovoEd described is the online learning platform on a learning environment, reputation systems, and algorithm design. It is a platform in which umpteen students have accessed lectures, domain have accessed lectures, and domain knowledge through various experts.
 10. **Canvas Network:** Canvas Network is the online learning platform for an educators. It is developed by education technology company benefitted by Open Education Resources; it slacken the gap, and break down barriers to the learning Community.
 11. **Open Sap:** OpenSap is developed and provided by Sap in cooperation with Hasso Plattner Institute (HPI). It includes Data Science, Big Data, Sap Cloud, Digital transformation.
 12. **NPTEL:** National programme on Technology Enhanced Learning. It has started online courses in Electrical, Mechanical, Computer Science, Ocean Engineering, Management, Music, and Humanities.

13. Teachmeet: Librarians learn from each other with the help of blatant techniques. Basically, it is a technique or platform in which teachers share classroom experiences as well as develop brainstorming sessions in the teaching mode.

Pros and Cons of MOOC Programmes in a Digital Learning Environment:

No doubt MOOC has been designed in such a way so that maximum arduous users mushrooming and benefited online training. "Personal Learning Environment in CMOOCs enhances learner autonomy and creates a space for them to aggregate, remix, repurpose, content, reflect and share their learning experiences". Courses are available an international and global level it helps improve pedagogical techniques and advanced knowledge- based skills.

"MOOCs are online courses that allow participants free access, unrestricted participation and well structured. The European Association of Distance Teaching Universities (EADTU) defines MOOCs as online courses designed for large numbers of participants, accessible anywhere by the Internet, open to everyone without entry qualifications and offer a full/ course experience online for free".

In spite of these advantages, there are some pitfalls because students are not perfect in a language not handy and flexible with Information technology gadgets. Interacting online programs, students faced so many serpentine queries and gratification towards these questions are quite low. Poor internet connection also creates technical problems and stress for online learners. Intellectual property and Financial issues are also pesky obstacles in M-learning courses. "A good many researchers have observed high dropout rates and low engagement of most MOOC learners (Krukier, Muratova, Saltykova 2014)". Technical courses need physical hands-on practical exposure and it is very complex for Civil, Mechanical and Electrical subjects. Sometimes students feel obfuscation and isolated due to the lack of social interaction.

Concluding Remarks:

"Vaughan and MacVicar (2004) concluded that e-learning is doomed for failure when learner's cultural needs are not carefully considered. Therefore, the need to take into consideration access to infrastructure and accruing costs". Technology-based companies disagree with the notion that they are plundering academia. E-learning has become a legacy in india and launched many new programmes like e-VidyaBharti and e-Arogya Bharti. E-learning has given the immaculate concepts in the teaching- learning aura. We are Living in a time where MOOC programs help the staggering success and nurture hidden facts among the front of researchers. Jawaharlal Nehru University Launched an Organic chemistry MOOC program to improve Master's students of Science. E-Learning

is a first gambit through MOOC program, it provides the right platform for ardent users. No doubt the internet has provided untrammelled and mammoth information with the help of e-learning platforms, still we could not underestimate and ignor of the relevancy of print media in libraries as well as the web in the digital world.

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Rohtak and its Historicity : With Special Reference to Archaeological Expedition

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.57-72
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

The present trend in the study of history and culture is not familiar with the 'when and where' but 'how and why' of the actual reasons behind the events. Understanding the past that is unlike present is a complex process. The aim of the study is to determine factors responsible for the expansion, dispersal, diffusion and migration of cultures in this area and to produce a complete picture of the past history based on archaeological evidence as well as literary aspect of the region from the earliest times to 1200 A.D.

Keywords: Archaeology, Culture, Dispersal, Diffusion, Migration

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Introduction

Rohtak is a city in the Indian state of Haryana as well as the administrative headquarters of the district. In 1824 when Rohtak was declared as the district headquarter, the general administration of the town and also the district is enthroned in the Deputy Commissioner. It is traditionally believed that the city was built and named after the Panwar king Rohtash/Rohtas/Rohitas (Rohtak District Gazetteer 1910 : 1). Another thinking of its name the word Rohtak appears to be the corrupt form of Rohitaka, which occurs in the Maitrayani Samhita as the name of the tree *Andersonia/Tecoma undulata* (Rohitaka), locally known as Rohira (Maitrayani Samhita : 3.1.3). According to another legend, it is said that before the city came into existence the area was covered with Rohida trees and hence the name Rohtak. The name Rohitaka is, however, well known in early literature. According to the Puranic literature, foundation of Rohtak was laid by Rohitasva (Son of king Harischandra), 33rd descendent of Manu Vaivasvata, because of this its name is derived from Rohitapura, Rohitaka or Rohita (Harivansa Puran : 1.13.26).

The Jaiminiya Brahman and Pancavimsa Brahmana (Pancavimsa Brahmana : 14.3.12) also indirectly refer to Rohtak. Panini, the grammarian, uses Kula suffixes to form place names. Therefore, Rohitakuliya referred to in the Brahmana speaks of the story concerning Rohitaka (Rohtak).

A multiple mounds having archaeological importance were there when it was declared as 'Protected Area' in 1920, nowadays the area of the site has been occupied by several families unlawfully time to time. Therefore no mound has been left due to advancement of colonisation of city or urbanization. After the declaration as protected mound it is very unlawful for archaeological perspective as well as historical importance of the present city.

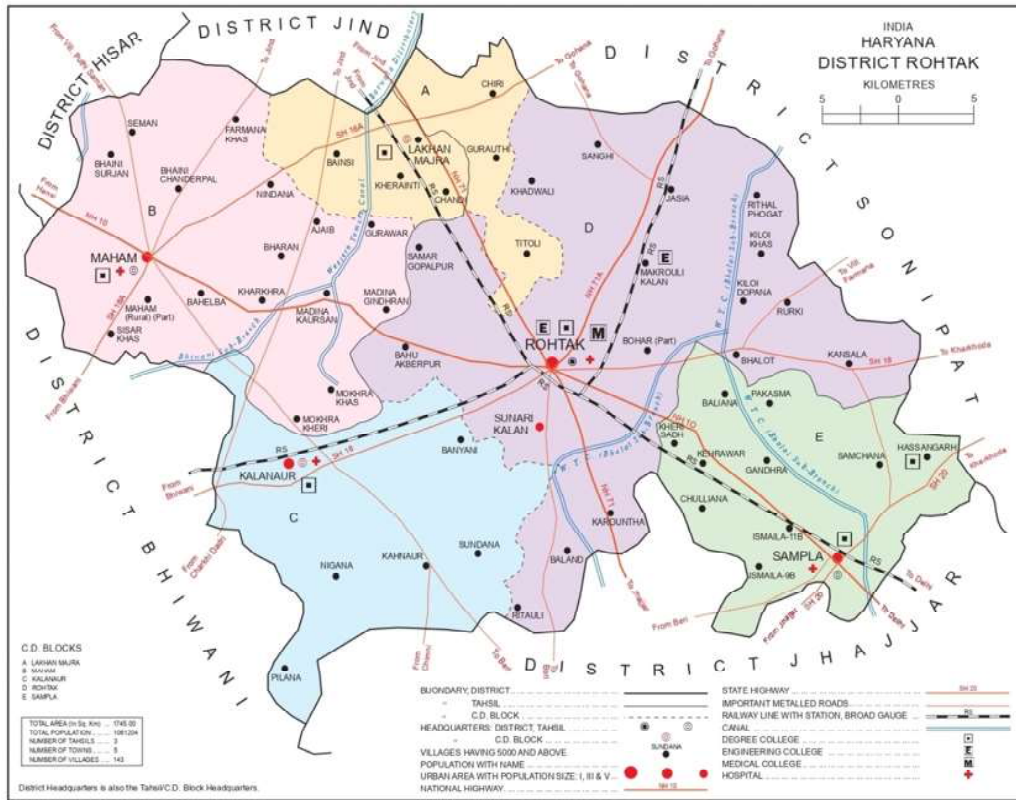


Figure 1 : District Map of Rohtak (After District Census Handbook 2011)

Geographical Setting

Rohtak district is located in the south-east of Haryana and to the north-west of the national capital Delhi. The area of the district is 1668 sq km. It lies between latitude 28 ° 40 '30 "N to 29 ° 05' 35" N and longitude 76 ° 13 '22 "E to 76 ° 51' 20" E. It is surrounded by district Jind in the north, district Sonapat in the north-east, district Jhajjar in the south-east, district Dadri in the south-west, district Bhiwani in the west and district Hisar in the north-west. It is the only district in Haryana that does not touch the boundaries of the other state. The district headquarters is one of the eight identified priority cities in the National Capital Region (NCR). It is located on National Highway No. 09 (Old National Highway 10). It has a total area of 166847 hectares. According to the 2011 census report the population of the district was 1058683. Rohtak district is the sixth most populous city of Haryana with a total population of 417355 as per census report 2011. It has a literacy rate of 84.08%.

Study Area

The present trend in the study of history and culture is not familiar with the 'when and where' but 'how and why' of the actual reasons behind the events. Understanding the past

that is unlike present is a complex process (Pawar 2012 : XII). Being aware of the material remains and their contexts, it is difficult to explain their past. The archaeologist adopts various ways of knowing the past such as: - comprehensive survey and excavation of the area for better understanding and explain its historical objectivity. But these ways or material remains can be brought to light only when extensive explorations and excavations are done, which is unfortunately not happening to large extent. The present work aims is collection and study of all available archaeological as well as literary data for the reconstruction the past history of the Rohtak city from the earliest times to c. 1200 AD. For that author conducted explorations of 20 Kilometre peripheral of Modern city of Rohtak.

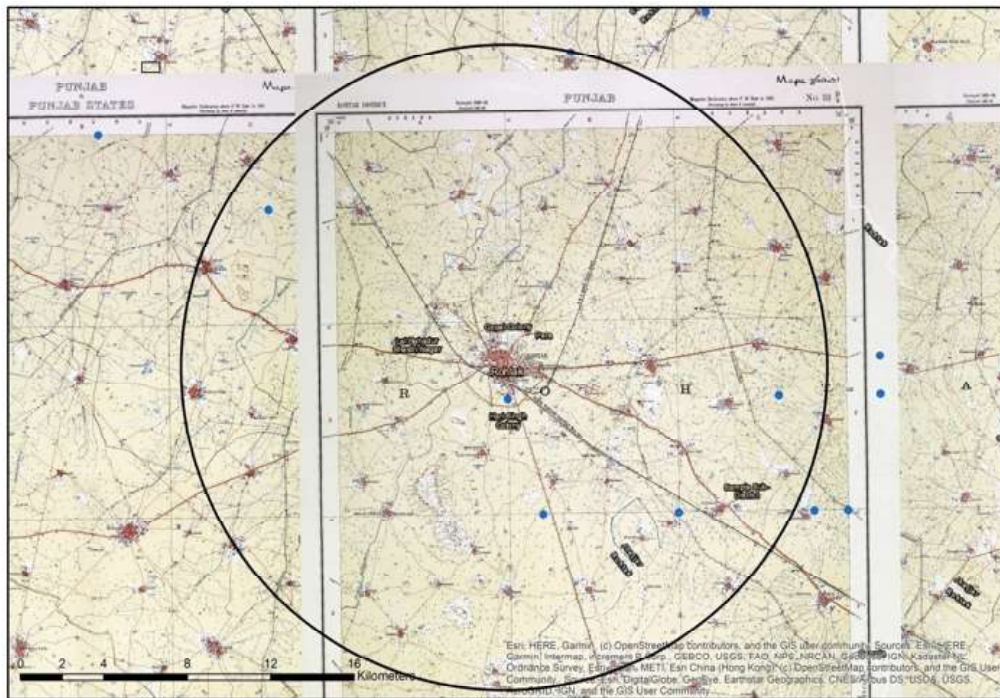


Figure 2 : Map of the Study area

Origin and History of the District

Rohtak is a city as well as the administrative headquarters of the district. Traditionally it is believed that the city was built and named after the Panwar king Rohtash/Rohtas/Rohitas (Rohtak District Gazetteer 1910 : 1). It is believed that the word Rohtak derives from or after that his name. The name Rohtasgarh still applies to the two old ruined cities of Rohtak city. One, which is located in the north corner of the present city, it is called Khokhrakot/Lalpura and another one east of the city, which is called Asthal Bohar (in front of Baba Mastnath University, Rohtak). Khokhrakot/Lalpura, here we find the complete sequence of cultural starting from Painted Grey Ware (PGW) to Gupta period are found.

After that the ancient site of Khokhrakot (Lalpura) deserted and shifted to another place, front of Baba Mast Nath University Asthal Bohar (which is also called Khokhrakot, near Asthal Bohar railway station) east of the present town. Here we find the archaeological remains of early medieval period only, and later on the habitation was shifted to present Rohtak, area between Bhiwani stand and circular road near Khokhrakot here we find the archaeological remains of medieval and late medieval period down to present times. The archaeological excavation of Khokhrakot (Rohtak) was first carried out in 1879 by the then District Administrative Officer Mr. Wood. Archaeological excavation revealed three phases (deposition) of early material culture, the first phase representing the ruins of a wall, ceramics tradition as well as bone and broken iron antiquities, the second phase yielded the remains of grains *Jowar (Sorghum bicolor)* and an image obtained from a small room. Whereas the third phase is represented by coins obtained from a small pot of clay which Hornley (1881 : 71-72) describes as the end of the Saka rule. After that declaration of "Protected Area" department of archaeology also took a trail excavation on it but the results of excavation were never published. The area under examination was colonised during the proto-historic period when for the first time the Chalcolithic agricultural community, named Harappan civilization occupied the region as early as 4th - 3rd millennium B.C. During the course of exploration peripheral of modern district 27 sites have been revealed the remains of that particular civilization. Only two sites excavations report have been published with all details namely Girawad (Figure : 3) and Madina (Figure : 4).

The character tradition of pottery unearthed from the excavation of Girawad shows that this character tradition is similar to Hakra tradition (Mughal 1997) can be seen with some regional variations such as in surface treatment, decoration and size. Although some of the character traditions are similar in character to those unearthed from Siswal (Surajbhan 1972 : 42-59). Therefore, the excavator has named the Girawad pottery tradition as Ghaggar regional Hakra culture tradition (Shinde et.al. 2008 : 77-158).

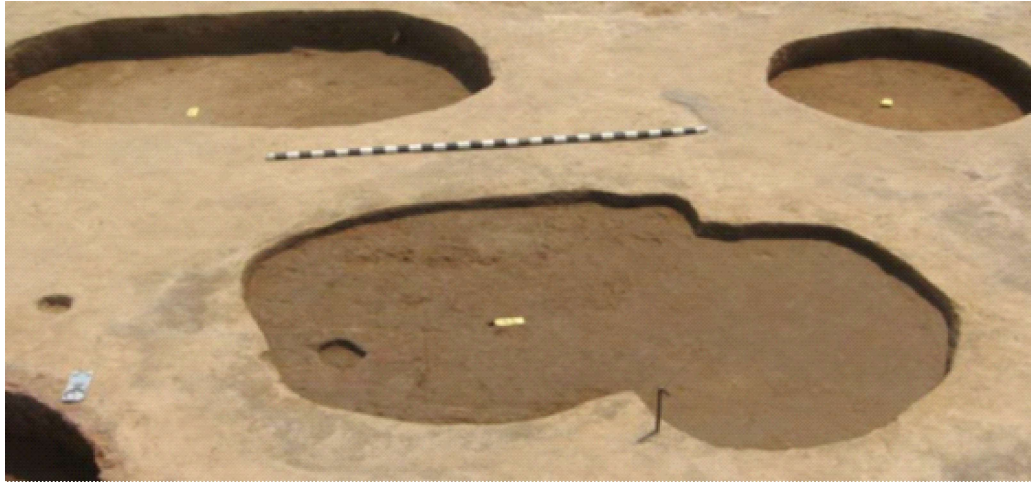


Figure 3 : Girawad Excavation : Pit-dwelling Complex (After Shinde et.al. 2008 : 114)



Figure 4 : Madina Excavation Cross section of the excavation trench ZD1, from north (After Manmohan Kumar 2009 : 88)

Excavation at Balyana-I, during the course of explorations in the year of 1972, Silak Ram (then Research Scholar Kurukshetra University Kurukshetra) and J.S. Nigam

(Archaeological Survey of India) conducted a trial trench excavation at the site for better understanding the cultural history of the region. Course of excavation Pre-Harappan Kalibangan and PGW pottery were found throughout the excavation. But it does not mean in any way that this digging established a new hypothesis pointing to that the pre-Harappan Kalibangan and the Painted Grey Ware using people lived in the same houses. It is likely that after the pre-Harappan had abandoned the site, it was re-occupied by the Painted Grey Ware using people but they, too, lived for a short time and moved somewhere else leaving it deserted (Silak Ram 1972 : 45-47).

During the course of exploration 20 (Figure : 7) out of 62 (32.25% of total sites) sites were revealed the only 20 Kilometre peripheral of the modern district of Rohtak that means the area was well populated during late phase of Harappan time period. All type of antiquities were found course of the exploration.

After that the area came under the spell of the Aryanisation and it proves on the archaeological and literary basis. Excavation at Khokharakot by Department of History, Maharshi Dayanand University, Rohtak, under the direction of Silak Ram and assisted by Manmohan Kumar and Amar Singh. The excavation was started with the aim of its cultural sequence of the site along with its various aspects such as material remains and structural remains and many more. But the unearthed material of the excavation have still not been published, only some details are laying in the Indian Archaeological Review (IAR 1986-87: 34-36). Two trenches namely as KKT-I and KKT-II were taken up for archaeological excavation. Four fold culture sequence was identified by the excavators. The period-I (layers 44 to 36) was recognized as Painted Grey Ware (PGW) tradition with a total deposit of 1-60 m. These peoples were first who settled here on natural soil. Period-II (layers 35 to 28) was belong to the tradition of the Northern Black Polished Ware (NBPW) or newly people who introduced first time in the area. The total deposit of Period-III is 3.50 meters, which is divided into three phase:-1) pre-Kushan, 2) Kushan and 3) post-Kushan. Period-IV deals with the Gupta period. During the excavation ruins of a bricks temple of Gupta period which was situated on the structure of Kushan period also unearthed (IAR 1986-87: 34-36).

During the course of exploration 20 sites of PGW (Figure : 8), 3 sites of Grey ware and 8 sites of Black Slipped Ware culture were found. In the absence of excavation report of Khokhrakot (some material from excavation housed in the department of History and Archaeology, Museum, MDU, Rohtak) and result obtained from Madina excavations were the main material to throw light on the cultural history of the region. On the basis of housed material and report of Madina excavation and material found from exploration conducted by author proved that PGW using people lived in *Kuchcha* houses and were pastorals and

agriculturist. Generally historian and archaeologist both were agreed that PGW using people and time period of Mahabharata was same. On the literary basis the city is found in the Mahabharata as Rohitaka at three places, i.e. in Udyoga Parva as Rohitakaranya (forest covered by the army of the Kurus), Rohitaka in Vanaparva (in reference to Karna's *Digvijaya*) and Rohitaka in Sabha Parva (a place conquered by Nakula) described as a very rich, beautiful and prosperous town abundant in kine and beloved of the God Karttikeya (Sabha Parva : 32.4-5). Nakula defeated the Mattamayurakas of Rohitaka. The Mahamayuri also makes a reference that Karttikeya was the Yaksha of Rohitakas and Kapila of Bahudhanyaka.

Buddhist literature also refers to Rohtak as an important town of north India. The Vinaya Pitaka also refers to Lord Buddha's visit to Rohitaka alongwith his pupil Ananda. He started his journey from Hastinapur, and lastly reached Rohitaka and had a talk with Yaksh Chakrapani. The town was also visited by famous physician Jivaka, on his way from Taxila to Mathura (Gilgit Text III : 2 & 33-35). Similarly the Jain Canonical literature indirectly refers to Pudhavivadinasya garden of Rohidiya, (Modern Rohtak) a religious and holy place of Dharma Yaksha where lord Mahavira also visited on several occasions (Jain 1947 : 326-28). These references show that the time of Buddha and Mahavira, the peripheral area of the city was important that is way they visited Rohtak. These literary references are also corroborated by archaeological evidences unearthed from excavations of Khokhrakot and explorations conducted by several scholars which is housed in archaeological Museum at the department. Revealed the pottery type of Northern Black Polished Ware (NBPW) and Punched-Marked coins from Khokharakot and nearby area from explorations (villages like Baland, Kharkhara, Bishan etc.) attested that the city was a part of the vast Maurya empire through it had lost its political importance. Aftermath the Mauryan it passed into the hands of Sunga and then to the Indo-Greeks, who ruled over this vast region. Tarn is of opinion that the territories of the republics of Yaudheyas, Odumbara and Kunindas were included in the kingdom of Indo-Greek king Manander (Rapson 1982 : 575). From city area of Rohtak, coins of about 16 kings are found of which Agathodes, Amyntas, Antialcides, Antimaches, Appopodotus, Diomedes, Heliodes, Hermaues, Lysias, Menander, Philoxenus, Polyxeus, Strato and Zoilus are prominent. Apart from these coins a few terracotta coin moulds of Manander were also found from Khokhrakot which are now housed in the archaeological Museum of the Department of History and Archaeology, M.D.U. Rohtak. The archaeological evident proved that the area of city was conquered by the Greeks and they ruled it over a long time. After the Indo-Greeks the area came under the Sakas whose king Maues put to end the Greek rule around Mathura and whole of the Punjab and Haryana was part of his empire (Chaudhary

1953 : 437). Similarly Rajuvula and Sodasa, the Saka ruler of Mathura during 1st century A.D., ruled over the Haryana region and their coins are found from a number of sites. After the fall of the Indo-Greeks, the Yaudheyas became prominent and they established their capital and mint at Khokhrakot in C. 2nd-1st century B.C. and issued coins of bull-elephant type having the legend "*Yaudheyanam Bahudhanyake*". Such coins are found from the site and some are found in the stratified deposits during the excavations at the site by the department of History, M.D.U. Rohtak. Earlier, Birbal Sahni (1945) found a large number of moulds during the excavations 1936 and later on Swami Omanand (1979) acquired such coins moulds alongwith seals and sealings, inscriptions and the art and architectural remains from here which are now housed in the Gurukul Museum Jhajjar, Jhajjar.

During the 1st century A.D. the Kusana conquered a vast areas of the north India and ruled over it for more than a century. The area under the present study also past into the hands of Kusanas, this is evident from the finding of Kusana coins from the whole area such as in explorations by the various M.Phil and Ph.D. scholars. In the excavation at Khokhrakot revealed a number of coins namely Kanishaka, Huvishka and Vasudeva (Annual Reports of ASI 1881: 71-72) and other material already discussed above. Maha Mayuri and Divyavadana (Vaidya 1959 : 67-68) the work of 3rd and 4th century A.D. describe the ancient city of Rohtak in some details : "The region around Rohitaka is said to be a vast stretch of golden land adorned by shadowy trees with fruits and flowers. It is densely populated by large number of people who were prosperous, happy and sufficient in food. The great city of Rohitaka, 12 Yojanas in length and 7 Yojanas in breadth, is surrounded by 7 fortifications contained 62 gates, hundreds of thousands of buildings, having different roads, courtyards, markets and shops."

The Yaudheyas continued to rule over this area till the time of the Samudra Gupta, who conquered nine republics during his digvijay and Yaudheyas were one of them. After this Yaudheyas lost their independence for ever. The city of Rohtak under Yaudheyas was so famous both in the north and south that the author of Surya Siddhanta, a 4th century work on astronomy, include Rohtak among the famous place lying in south-north line between Sri Lanka, Avanti, Rohitaka, Sannihita (a lake in Kurukshetra) and the Himalayas as one of the places situated on the straight line from Ceylon to Mount Meru (Misra 1955 : 32). About 510 A.D., Rohtak passed into the hands of Hunas (Fleet 1988 : 158-61). But it is interesting that only one coin of Huna found from Khokhrakot (Rohtak). But in the 6th century A.D. Rohtak came under the Puspabhutis of Thanesar as evidenced by the discovery of Harshavardhana's Copper seal from Sonapat, a place about 40 KM from here.

After the decline of Pushpabhutis, Rohtak and adjoining area was ruled by the Gurjara-

Pratiharas whose powerful monarch Mihirbhoja (836-890 A.D.) established his mint here. Archaeological excavation at Garhi Bohar/Asthal Bohar (2nd Khokhrakot) is comprises of hundreds of crucibles, coin moulds, moulds of beads, etc. On the basis of the structural remains, antiquities, the site which is datable to the Gurjara-Pratihara period. Occurrence of crucibles and moulds in profusion suggest that the site was used as Mint (IAR 2013-14: 39 & 44). Messers W.E. Purser and Herbert Charles Fanshawe "*Land Revenue Settlement*" report of 1880 states that during the 9th and 10th centuries, many Rajput clans as well as Jat communities peoples came to here for settle. (District Census Hand Book 2011: 7).

Indirect references to the prosperity of the city and the region is recorded by Somadeva Suri (10 century A.D.) in his Yasastilaka Champu and Pushpadanta (a court poet of Maharaja Krishnaraja, 10th century A.D.) also give a vivid picture of Yaudheyas country (Shastri 1960). Kalhana's Rajatarangini also refers to the Rauhitaka country (Stein 1961 : 120-21). During the 11th and 12th century A.D. the city of Rohtak seems to have lost its importance. On the other hand, we have Hansi and Delhi as the strongholds of the Chauhan-Tomara rule. Prithviraja-III, the Chauhan ruler, is said to have rebuilt the town and the fort of Rohtak.



Figure 5 : Fort of Rohtak (Source : Internet)

But it was soon destroyed by Muhammad Gori in 1194 A.D (Imperial Gazetteer of India Vol.I : 263). The town of Rohtak is not mentioned by the earlier Mahummadan historian, and it can be presumed that the town had lost its ancient glory and fame by the end of the 12th century A.D.

Conclusion

Archaeology is an important source for the reconstruction of the human past of a region where written records of the ancient period are rarely available. When the written records started appearing even then the importance of archaeology does not diminish and then these evidences are used for corroboration purpose. As a result of this effort 67 sites were explored, indirect references to the prosperity of the city peripheral area. The glory of the area started with 4th Millennium B.C. when Ist urbanization's people settled here for a long period upto 12th century AD. Some of the sites found by the author have rich archaeological potentialities and if excavated these can throw valuable light on the history and culture of this region.

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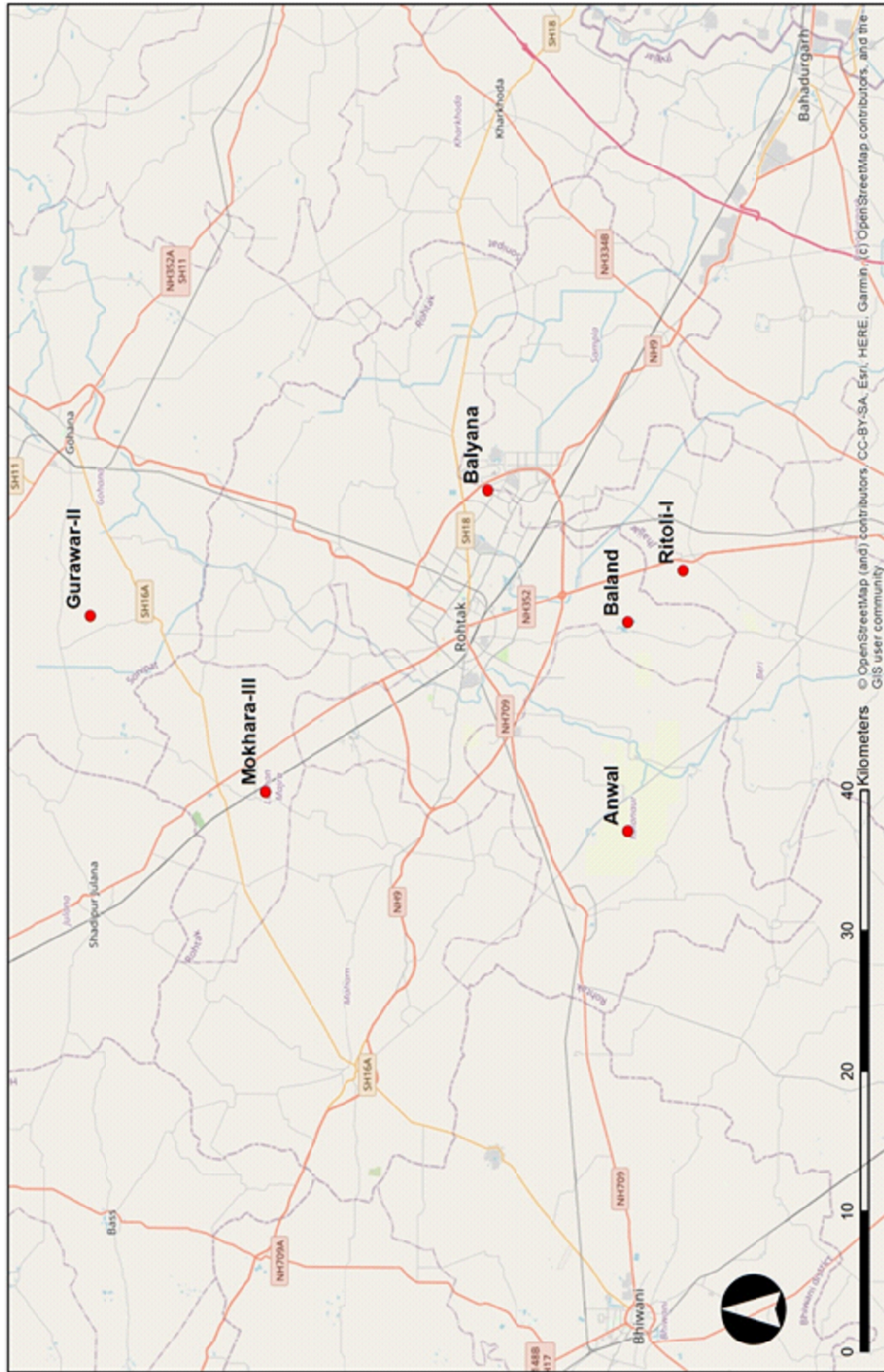


Figure 6 : Early Harappan Sites of Study Area

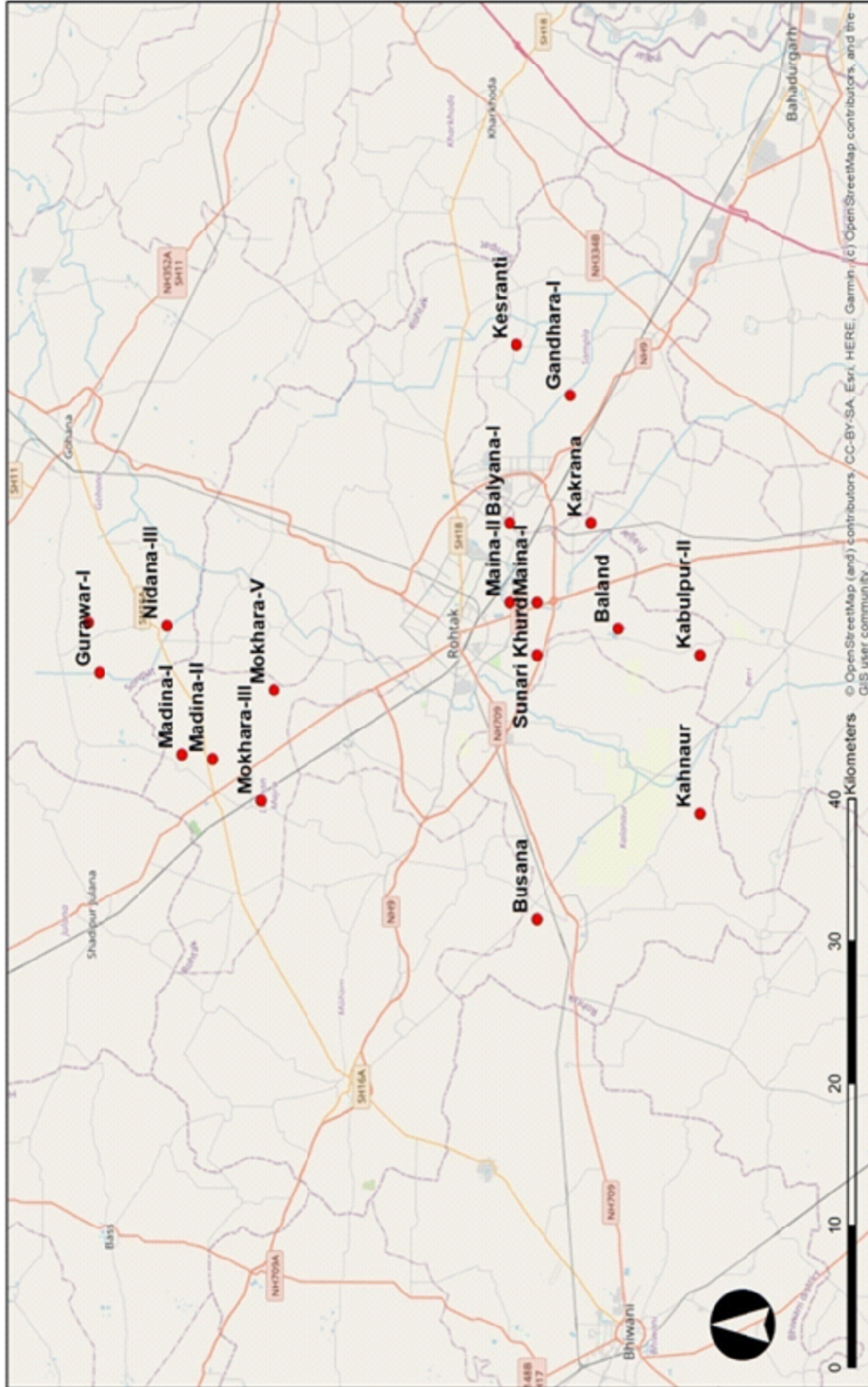


Figure 7 : Late Harappan Sites of Study Area

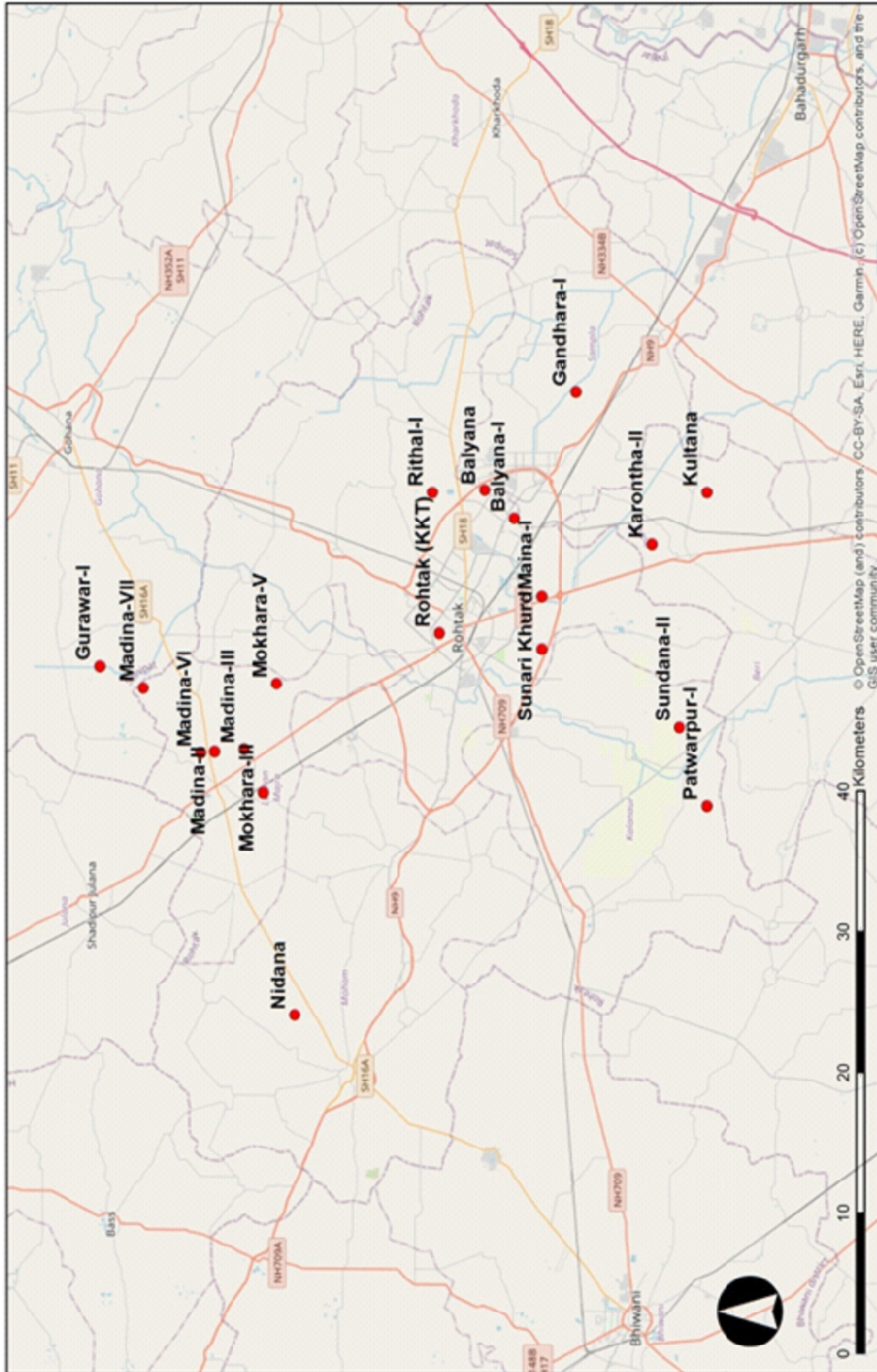


Figure 8 : PGW Sites of Study Area

**The Chishtis Attitude Towards Sama:
An Exploration of *Fuwaid-ul-Fuad*
and *Khair-ul-Majalis***

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.73-82
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

*The sama (Musical assembly) was one of the major components of south Asian Sufism. It was prevalent in the Chishti Sufic tradition since their advent in the Indian subcontinent. Sama literally means listening to chanted or recited poetry which stirs mystical emotions and renders rejoice to the heart. However, the faction of ulema frowned upon sama as they considered it as "a transgression of shariat." The present paper explores *Fuwaid-ul-Fuad* and *Khair-ul-Majalis*, the two most prominent *Malfuzat* of Chishti Sufis, to examine the significance of sama as a mystical practice and to understand how Chishti scholars depicted sama as a mystical and devotional aspect of Sufism. It also highlights prescribed etiquettes of sama in the light of various classical literature, i.e. *Ihya-ul-Ulumuddin*, *Kashf-ul-Mahjub*, and *Awarif-ul-Maarif*. Sama was also a bone of contention between Sunni ulema of hanafi school and Chishti Sufi. I argue that through criticising sama, ulema attempted to intrude in the Sufic space. The present section also examines how Sufi responded to the challenge presented by ulema related to sama.*

Keywords: *Sama*, Chishti Sufis, etiquettes of *sama*, *malfuzat*, a bone of contention.

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South Asian sufi authors produced a plethora of literature during the 14th century. Based on their distinctive features, these texts have been divided into various genres of Sufi literature i.e., *tazkirah* (hagiography), *maktubat* (letters) and *malfuzat* (discourses). During the 14th century, *malfuzat* emerged as an authoritative and normative genre of Sufi literature. *Malfuzat* (pl. of *malfuz*) played a significant role in understanding the various facets of Sufism. *Fuwaid-ul-Fuad* and *Khair-ul-Majalis* are among the pre-eminent *malfuzat*. *Fuwaid-ul-Fuad* comprises the conversations of Shaikh Nizamuddin Auliya (d.1325) and was compiled by Amir Hasan Sijzi (d.1328). It is comprised of 188 assemblies compiled during the course of fourteen years, i.e. 1308-1322, in an arbitrary pattern. *Khair-ul-Majalis* comprises the discourses of Shaikh Nasiruddin Chiragh-i-Dilli (d.1356) and was compiled by Hamid Qalandar in 1354. It is comprised of one hundred assemblies.

Sama as a Mystical and Devotional Practice

The Chishti Sufis looked at *sama* as an auspicious activity and considered it as a devotional and mystical aspect of Sufism. They hold that Sufi's heart would conjure up with the beats of *sama* if he leads on the mystical path and possesses sensitivity towards others. *Fuwaid-ul-Fuad* provides that "divine mercy" bestows during the *sama* that the entire ambience turned out to be devotional. Based on distinctive features, Chishtis divided *sama* into two categories, i.e. *hajim* (invasive) and *ghair-i-hajim* (non-invasive). The former left a profound impression on the body of the listener. "For instance, on hearing a voice or a line of poetry, one experiences great agitation. This is called invasive *sama*, and it cannot be experienced." In non-invasive *sama*, "one is drawn out of one's self." This distinction implies that for Chishtis *sama* represented one of the devotional aspects of Sufism that ultimately sets fire in the heart of Sufi, which acts as "a divine path the proceeds to God."

The Chishti Sufis perceived *sama* as one of the significant aspects of Sufism. *Awarif-ul-Maarif*, which was one of the popular books of the mystic circle, clarifies that "sweet sounds" and "harmonious melodies" of *sama* alleviates Sufis from sadness and disappointment of the monotonous mystical path. It also helps in avoiding distraction from worldly affairs and materialistic desires. *Awarif-ul-Maarif* also provides *sama* helps Sufi to remain aloof from lust and the dirt and pollution of heart.

Khair-ul-Majalis provides that *sama* renders rejoice to the heart and offers to heal to the pain. In the same connotation, Shaikh Nasiruddin Chiragh-i-Dilli narrated that once upon a time there was a king. He had a son who falls ill. He had enormous pain in his stomach. King called doctors and philosophers to cure him. However, all of them were not able to figure out any ailment. Eventually, one day that boy died. After the death of his son, the King asked doctors to tear apart his stomach to determine the illness. When the stomach was ripped out, a stone was discovered. The King as memoranda mends a ring of the

stone. One day King organized a *sama* to pay homage to his son. When *qawwalan* played *sarood* the ring started melting down. The philosophers said that your son had a stone in his stomach if he would have heard *sama* that stone would have melted down in his stomach. It must be remembered that *sama* is a medicine for all the pain.

Sama also emphasised the aloofness of the materialistic thing. In one assembly, Amir Hasan Sijzi confessed that *sama* profoundly influenced him that he gets an ecstatic feeling, and ultimately he refrained from worldly affairs and worldly people.

Fuwaid-ul-Fuad provides that once Shaikh Qutbuddin Baktiyar Kaki (d.1235) attended the *sama* at the *majlis* of Shaikh Ali Sakri. There a *Qawwal* recited a panegyric

Kushtagan-i khanjar-i taslim ra
Har zaman as ghayb jaani-i digar ast

The victims of the dagger of submission
Get a new life from the unseen every moment.

Shaikh Qutbuddin Kaki got deeply influenced by that Persian couplet which he repeated continuously for a couple of days. Ultimately, he got intensified for the next couple of days, and eventually, he expired. This episode shows that *Chishti* Sufis considered *sama* as a significant aspect of mysticism. It is evident that for *Chishtis* *sama* was not just musical assembly commenced for the amusement. Instead, it was a divine path to achieve union with God.

The primary objectives of the *sama* were to attain "ecstasy" (*wajd*). It was considered by the Sufis that one can attain ecstasy (*wajd*) by "concentration of thought, recollection (*dhikr*) and other innocent methods of autohypnosis, also by music, singing and dancing."

Rules and Regulations of *Sama*

Fuwaid-ul-Fuwad and *Khair-ul-Majalis* provide various rules and regulations related to *sama*. It is interesting to examine these rules in the light of classical literature, *i.e.*, *Ihya-ul-Ulumddin*, *Awarif-ul-Maarif*, and *Kashf-ul-Mahjub*. It is pertinent to examine these classical texts since they left an enormous influence on the *Chishti* Sufis of the sultanate period. It appears that *Chishti* ideology was influenced by the teachings of Imam Ghazali. Raziuddin Aquil holds that "Chishti tradition was a part of Sunni Islam and followed Imam Ghazali's interpretations of the shariat when attempting to wed theology with mysticism and condemning rationalists or philosophers." Therefore, it is interesting to understand Imam Ghazali's views on the rules and regulations of *sama*. Imam Ghazali in his work asserts that prophetic traditions permitted *sama* lawful under certain conditions and circumstances. The conditions when *sama* was lawful are mentioned below: (1) It was

lawful for a mystic while pilgrimage from one place to another. (2) *Sama* was allowed to the warriors at the battlefield to boost the morale of the soldiers. (3) *Sama* was lawful in a moaning situation, particularly during death and calamity. (4) *Sama* was allowed to perform during marriage, festivals and birth ceremonies. (5) *Sama* was lawful if it expressed love for God. Ghazali also stipulated conditions when *sama* was not permitted. (1) The performance of women and beardless boys was unlawful in the *sama*. (2) Wine drinking and intoxication during the musical assembly were prohibited. (3) Musical instruments like *Majamir*, *Autar* and *Kubah* were allowed. However, *daf*, *nai* and other instruments were unlawful. (4) The vulgar talk and obscenity were not permitted." (5) "An immoral desire in mind" during *sama* was unlawful. Listening to *sama* beyond the limit was not allowed.

Abul Hasan Ali bin Usman Hujwiri's *Kashf-ul-Mahjub* was the earliest Sufi Persian literature compiled in the Indian Subcontinent. It profoundly influenced the early Sufis of the sultanate period. It is interesting to mention here that Hujwiri supported *sama* while he derived his ideology from Shaikh Baghdadi who represented the conservative strand of Sufism. However, by the time of Shaikh Muhammad bin Hasan Khattali, spiritual preceptor Hujwiri, this order started considering *sama* "as a means of heightening their cosmic consciousness." *Kashf-ul-Mahjub* provides that *sama* should be a spiritual urge and should not be performed for entertainment pursuits. The people who listen to *sama* should be capable enough to receive "divine influence". The "divine influence" should not be received forcefully or if he is not having "divine influence" he should not be forced to receive it. When a person is engrossed in an ecstatic state, he should not be disturbed. The singer should not be praised or reprimanded for his singing. Those who are new to the mystical path of *sama* should refrain from it. A singer should be an esteemed person, and his heart should remain aloof from materialistic things.

Amir Khurd and Amir Khusrou were contemporary Shaikh Nizamuddin Auliya and Shaikh Nasiruddin Chiragh-i-Dilli. Therefore it is interesting to highlight their views of *sama*. Amir Khusrou was fond of *sama*, and his writings show that he had a keen interest in music; his writings also reflect his immense knowledge of music and musical instruments. Amir Khusrou in his *masnavi* *Hasht Bihisht* depicted the story of the lady character Dilaram who chose to become an expert in music instead of "achieving physical prowess to impress the King, Bahram Gur." In *Nuh Sipihir*, Amir Khusrou asserts that some foreign musicians arrived in India. They introduced new traits to South Asian music; however, they did not contribute to the basic principles. *Ijaz-i Khursav*, "a miscellany of epistles and prose piece," in his second section, stressed musical topics. In which he emphasised various musical instruments, and he also highlighted that various musicians thronged the Delhi sultanate from central

Asia. These musicians competed with Indian Artists. Turmati Khatum was among the prominent musician.

Amir Khurd in *Siyar-ul-Auliya* dedicated a complete chapter on *sama*. *Siyar-ul-Auliya* provides that Shaikh Nizamuddin Auliya described four kinds of musical practices, i.e. (1) *halal* (lawful) (2) *haram* (forbidden) (3) *makruh* (abominable), and (4) *mubah* (permissible). The musical assembly dedicated to God was known as *mubah* (permissible). On the other, *makruh* (abominable) *sama* was based on worldly affairs. Shaikh Nizamuddin Auliya categorized worldly affair-based *sama* as *haram* and God-centric *sama* as *halal*. Amir Khurd also described the characteristics of the singer (*musma*)- he must be an adult, and he should not be a young boy or girl. The participant of *sama* should be exuberated with the love and devotion of God. The content of the *sama* must not be vulgar and obscene. Regarding musical instruments, it had been mentioned that *chang* and *rabab* were prohibited. Amir Khurd also described Shaikh Fakhruddin Zarradi, who wrote a text on *sama*. Zarradi mentioned that *sama* must have listened with utmost patience. During the *sama*, members of the audience should not look around; instead, they should focus on music. *Sama* also prohibited any form of body movement along with dance and clapping. *Fuwaid-ul-Fuad* and *Khair-ul-Majalis* provide that Chishti Sufis categorically prohibited musical instruments in the *sama*. Musical Instruments like *daf* (reed pipe), *nai* (flute), and *rubab* (rebeck) were not allowed in the *sama*. The playing of the musical instrument was unanimously (*ijma*) considered devoid of *shariat*. It is interesting to know that these musical instruments were prohibited by the Sufis however, despite this restriction, Sufi musical instruments were in use. In an assembly, Shaikh Nizamuddin Auliya laments that despite the restriction musical instruments were in parlance. He holds that playing musical instruments during *sama* was a violation of the *shariat*.

Gisu Daraz provides who should be the participant of the *sama*. According to him, *sama* was not meant for layperson. It was meant for an intelligent person (*sahib-i-firasat*) or already on the mystical path. Gisu Daraz provides the conditions regarding the time and place of organising *sama*. It is recommended to listen to *sama* during the sunlight. The ideal time of the *sama* once all the duties of religious and social affairs are done. According to Gisu Daraz, "*sama* should not be performed in an open space where the wind blows or where the voice might echo." *Sama* should not be performed in the mosque or public gatherings or in marriage ceremonies.

It is popularly considered that Suhrawardis, unlike their Chishti counterparts, remained aloof from the musical assembly. *Fuwaid-ul-Fuad* provides that Shaikh Shihabuddin Suhrawardi never listened to the *sama* in his entire life. On occasion, Shaikh Awhad organised a *sama*, where Shaikh Shihabuddin Suhrawardi brought singers for it. When

sama was about to start Shaikh Shihabuddin Suhrawardi settled at one corner for his prayer, and he remained there till the *sama* got over. He had profoundly engrossed into his prayer and remained oblivion of *sama*. Perhaps, for this reason, it has been considered that Suhrawardis remained aloof from *sama*. However, if one takes a close look at the specific episodes of Suhrawardis history it would come out that Suhrawardis also had inclinations toward *sama* for example, Shaikh Hamiduddin Nagauri, a Suhrawardi saint, was zealous of *sama* during the sultanate period. *Siyar-ul-Auliya* provides that Shaikh Hamiduddin Nagauri played an important role in popularising *sama* in Delhi.

Once Abdullah Rumi visited to the *khanqah* of Shaikh Bahauddin Zakariya. He said to him that once he performed a *sama* in the front of Shaikh Shikhabuddin Suhrawardi. Shaikh Bahauddin Zakariya was also inclined toward *sama* and derived to hear *sama*. At night, along with his friend Abdullah Rumi, they came inside the *hujrah* (small room) and bolted it inside. After completing their prayers at night. Shaikh Bahauddin Zakariyya asked Abdullah Rumi to sing to *sama*. They were so much engrossed in the *sama* that Shaikh Bahauddin Zakariya started the whirling dance. Later on, the Shaikh left the room without having dinner. In the morning attendant of Shaikh Bahauddin Zakariya arrived and gave clothes and 20 *tankas* to Abdullah Rumi.

In another episode, Ilmuddin Suhrawardi, a grandson of Bahauddin Zakariya defended Shaikh Nizamuddin Auliya at the court of Giyasuddin Tughlaq when *mazhar* was issued against him for participating in *sama*. Moreover, we have conclusive evidence of the commencement of *qawwali* in the presence of prominent Suhrawardi saint Shaikh Bahauddin Zakariya. Therefore it is not fair to assert that Suhrawardis remained aloof from *sama*. However, in the present section, the emphasis has been made mainly on the Chishti Sufis.

Amir Hasan Sijzi contradicted to himself. At one point he had asserted that Suhrawardi Sufis remained aloof from *sama*. On the other, he had given examples where Suhrawardis Sufis expressed their interest in the music.

Ideological Conflicts for *Sama*

The Delhi sultanate witnessed an ideological conflict for *sama* between Sufis and *ulema* and between *ulema* of *Shafai* and *Hanafi*. Traditionally *ulema* and Sufis were poles apart in their ideology as *Fuwaid-ul-Fuad* provides that *ulema* represented the strand for "reason" and on the other Sufis represented "love". The *Ulema*, in general, had an acrimonious relationship with the Sufis as they hold that certain Sufi practices were a deviation of the path of *shariat*. In the eyes of *ulema* *sama* was one such practice. *Fuwaid-ul-Fuad* provides that Qazi Hamiduddin Nagauri faced challenges from the *ulema* because of his inclination towards *sama*. However, Qazi Hamiduddin Nagauri zealously

followed the *sama*. Once there was a *mahfil-i-sama* near *kushak-i-safeed* (white palace) where eminent personalities like Qutbuddin Baktiyar Kaki also arrived. There was a Maulana Ruknuddin *Samarqandi* who was a stern critique of *sama*. He came to know about it and he along with his friends decided to prevent it. Later, Hamiduddin Nagauri came to know that Mawlana Ruknuddin *Samarqandi* along with his friends were coming to that place. As a plan, he called the landlord of the house and ordered him to leave this place and to hide far away. He then told me to keep the doors open and to continue the *sama*. When Mawlana Ruknuddin *Samarqandi* reached the house, he inquired about the owner of the house when he did not find him and went back to his place. As per the law, it was not allowed to enter the house without the permission of the landlord.

There was a *qazi* who was well known to Qazi Hamiduddin Naguri asked him if he had also signed the document. The Qazi accepted that he had also signed that document Hamiduddin Nagauri got disappointed and asserted that "these muftis who have signed the verdict against *sama* are to me, still in the womb of their mother. And you though born are still a child."

We have numerous instances of contestation between Sufi and *ulema* over *sama*. It could be understood by an episode when *ulema* under the headship of Shaykhzadah Hussam al-Din Jam (or Farjam) conspired against Shaikh Nizamuddin Auliya. *Mazhar* was issued for his involvement in *sama* during the period of Sultan Giyasuddin Tughlaq. He was called to the imperial court where he defended himself by giving references from *ahadis* to justify the practice of *sama*. However, the *ulema* "refuse[ed] to listen to him and said: "We want the verdict of Imam Anu Hanifa, not a tradition of the prophet." When the entire situation turned bitter then Shaikh Ilamuddin, a grandson of Shaikh Bahauddin Zakariya, came out in the rescue of Shaikh Nizamuddin Auliya. Shaikh Ilamuddin said that *sama* is not permissible for those who participate in it for the purpose of sheer entertainment. While on the other, *sama* is permissible for those who considered *sama* as a mode to seek union with God. He further added that he visited to Baghdad, Damascus and Rum, and he never witnessed anyone preventing Sufis from indulging in *sama*. Ultimately Sultan Giyasuddin Tughlaq "bade the Shaykh farewell with respect and honour." This episode implies that Chishti Sufis were facing a severe challenge from the *ulema* who wanted to prevail orthodoxy in the sultanate of Delhi.

During the Tughlaq period, the ideology of Ibn Taimmiya (d. 1328 CE) had also intruded into the sultanate period. Ibn Taimmiya was a Hanbalite scholar who believed that the "Quran should be interpreted literally and not by a reason." He strongly condemned *sama*? and categorised it into three parts (1) "lawful *sama*" (2) "permissible *sama*" and (3) "unlawful *sama*". As a scholar of the Quran, it seems as Ibn Taimmiyyia used Quranic verses to

declare *sama* as lawful. However, it is interesting to mention here that Ibn Taimmiya used tradition, instead of Quranic verses, to substantiate his argument that *sama* was unlawful. He argued that listening to music was not in the tradition of the Prophet and his companions as Abu Bakr mentioned *sama* as "the commotion of the devil." While in support of *sama* he quoted the Quranic verses 8:2 which reads as "Those only are believers who, when God is mentioned, their heart quake, and when His signs are recited to them, it increases them in faith." *Fuwaid-ul-Fuad* and *Khair-ul-Majalis* provide various episodes highlighting the hostile relationship between the *ulema* and Chishti Sufi. *Fuwaid-ul-Fuad* highlights the contestation between Shaikh Fariduddin and *qazi* over *sama*. There was a *qazi* who registered a complaint at *Shaikh-ul-Islam* against Shaikh Fariduddin and his followers for performing *sama* and mystical dance at the mosque. However, *Shaikh-ul-Islam* refused to register complaints against him. It seems as it was a false allegation against Shaikh to deteriorate his image. *Fuwaid-ul-Fuad* and *Khair-ul-Majalis* provide that Chishtis Sufis also recited *Hindwi* songs in the *sama* which played a significant role in the syncretic tradition in the composite society of the Delhi sultanate. However, Sufis were reprimanded for singing *Hindwi* songs because *ulema* wanted them to sing *Quranic* verses only. For example, once Shaikh Ahmad Nahrwani was directed by Faqih Madhaw to avoid singing *Hindwi* songs and emphasized the singing of *Quranic* verses only. *Fuwaid-ul-Fuad* provides that the contestation became extremely severe and that *ulema* became aggressive and violent. They openly started criticizing Sufis for *sama*. *Khair-ul-Majalis* also provide that there was an entanglement between Sufi and *ulema* over *sama*. We also know the fact that during the period of Shaikh Chiragh-i-Dilli ideology of Ibn Taimmiyya also influenced the Delhi sultanate. Therefore, *Khair-ul-Majalis* also provides that Sufis were confronting stern criticism during Shaikh Nasiruddin Chiragh-i-Dilli. The sultanate of Delhi also witnessed the ideological differences between the *ulema* of *Shafi's* and the *ulema* of *Hanafi* school. *Fuwaid-ul-Fuad* provides that contrary to the *Hanafi* school, *Shafi's ulema* considered *sama* along with daff (drum) and *chaghanah* as permissible practice. It reflects that during the sultanate period there was an ideological difference between various groups.

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Economics and Efficiency in Tomato Produce under Poly-House and Open Field Cultivation in Haryana

Maharshi Dayanand University
Research Journal ARTS
2021, Vol. 20 (2) pp.83-92
ISSN 0972-706X
© The Author(s) 2020
<http://www.mdu.ac.in/Journals/about.html>

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Abstract

Poly-house cultivation technology plays an important role in the field of Horticulture sector. In Haryana, poly-house farming was started in 2010 under National Horticulture Mission by Horticulture Department of the state. The main objectives of the study were to estimate resource use efficiency of tomato cultivation and economic analysis of tomato produce under poly-house and open field cultivation. The study was based on primary as well as secondary data. In present study purposive sampling has been used. Primary data was collected with the help of pre-tested questionnaire by personal visits made to each sampled poly-house and open field farmer in the four selected districts. The results implies that the sum of elasticity coefficients was 1.98 for poly-house tomato, which showed increasing return to scale. On the other hand, the sum of elasticity coefficients was 0.423 for open field tomato, which showed decreasing return to scale for open field tomato. So, it can be state that poly-house farming of tomato was more viable as compared to open field cultivation and government should encourage farmers to adopt poly-house farming.

Keywords: poly-house, open field, economics and efficiency.

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Introduction

Poly-house cultivation technology plays an important role in the field of Horticulture sector. According to NHB, "Poly-house is a framed structure made of galvanized iron (GI) pipes / mild steel (MS) angle with protective shade made up of polythene used for growing high value agricultural products. It is semi-circular, square or elongated in shape. Temperature, humidity, ventilation of air is controlled by the equipment fixed in the poly-house". In Haryana, poly-house farming was started in 2010, under National Horticulture Mission. Engindeniz S. and Gul A. (2009) in their study analyzed the soilless and soil-based greenhouse cucumber production in Turkey. The purpose of the study was to evaluate the cost and return of soilless greenhouse cucumber production. It was an experimental study which was conducted in a polyethylene covered 384 sq. m. Greenhouse; it was situated in Menderes in Turkey that was the most important place for cucumber production. The study concluded that the income depended on the crops and environmental conditions. In greenhouse production cost was higher than open-field cultivation. Due to increase in greenhouse cucumber production prices decreased, so, growers were negatively affected from greenhouse technology in Turkey. And in an another study, Engindeniz S. and Tuzel Y. (2006) also analyzed the organic greenhouse lettuce production in Turkey. The purpose of the study was to evaluate the economic feasibility of organic poly-house lettuce in Turkey. It was an experimental study, which was conducted in Menderes in Turkey. The study revealed that lettuce income was high in controlled environment conditions. In protected structure cost for organic cultivation were higher than open-field cultivation in Turkey. Ghanghas B.S. and Mukteshwar R. (2015) in their study examined the problems of poly-house farming in Haryana state. The aims of the study were to find out the suitable crops under poly-house cultivation and also studied the problems and prospects of poly-house cultivation in Haryana. The study was based on primary data, which was collected from randomly selected districts (Hisar and Rohtak) of Haryana state. Twenty-five growers were selected from each district. The study concluded that multiple cropping enhanced the productivity and production of crops under poly-house. The study revealed that the farmers faced many constraints such as explosion of insects, poor quality of cladding material, lack of cold storage facility and blowing wind storm in Haryana state. Mitra S. and Yumus M. (2018) in their study made an attempt to determine the efficiency of tomato growers in Mymen singh district of Bangladesh. The objective of the study was to analyze efficiency level factor effecting efficiency of farmers. The study was based on primary data collected from randomly selected 60 farmers through a pre-tested questionnaire. The study concluded that tomato producers were not adequately efficient. Farmer's education, training and adoption of improved seeds had positive effect on grower's efficiency while age had negative effect.

Objectives of the Study

To estimate resource use efficiency of tomato cultivation and economic analysis of tomato produce under poly-house and open field cultivation.

Research Methodology

To fulfill the above said objectives the present study was based on primary as well as secondary data. In the present study, purposive sampling has been used. On the basis of secondary data, I have selected four districts with highest no. of farmers doing poly-house cultivation, from the state of Haryana. Name of the selected districts are - Karnal, Panipat, Sonapat and Rohtak. Information regarding poly-house farming was got from Horticulture Department and review of literature. I have selected 50 farmers (25 Poly-house farmers and 25 Open field farmers) from each district on the basis of availability. Primary data has been collected with the help of pre-tested questionnaire by personal visits made to each sampled poly-house and open field farmer in the study area. To analyze the data Cobb-Douglas Production Function has been used for efficiency analysis

Mathematically, the Log-Linear regression model is represented as

$$\ln Y_i = \ln b_0 + b_1 \ln X_1 + b_2 \ln X_2 + b_3 \ln X_3 + b_4 \ln X_4 + b_5 \ln X_5 + b_6 \ln X_6 + b_7 \ln X_7 + u_i$$

Where,

Y_i = Value of production of tomato (rupees/acre)

X_1 = Value of seed cost in rupees

X_2 = Value of fertilizer cost in rupees

X_3 = Value of pesticides cost in rupees

X_4 = Value of electricity cost in rupees

X_5 = Value of labor cost in rupees

X_6 = Crop duration in months

X_7 = Crop harvesting starts after sowing seeds (in days)

U_i = error term

Simple statistically tools like average, percentage, B: C ratio, MVP, MFC and r (efficiency ratio) was also used to compare and explain the results properly. To analyze economics of tomato produce under poly-house and open field cultivation benefit cost ratio was applied in the present study.

$$B: C \text{ Ratio} = \text{Total Revenue} / \text{Total Cost}$$

$$r = \text{MVP} / \text{MFC}$$

where,

r = Efficiency ratio

MVP = Marginal value product of a variable input.

MFC = Marginal factor cost (Price per unit input).

The decision rule for the efficiency analysis was as:

$r = 1$; Efficient use of resource

$r > 1$; Underutilization of resource

$r < 1$; Overutilization of resource

Results and Discussion

Table 1

Economics of Tomato cultivation in Poly-house and Open Field

(In Rupees)

Variables	Poly-house	Open field
Land preparation cost	3167	3512
Bed preparation cost	1382	1355
Seed cost	13945	6440
Fertilizer cost	20050	11163
Pesticide cost	17660	13407
Irrigation cost	3065	2430
Labor cost	72300	22793
Mulching/ Weeding cost	10470	9257
Other cost*	24575	9293
Total variable cost	166612	79650
Production (in quintal)	287	195
Price	1654	764
Gross revenue	474698	148980
Gross returns	308086	69330
Cost of production (per Qtl)	580.53	366.49
B: C ratio	2.85	1.87

Source: Field Survey

*(Twines, staking, packing material, bamboo and incidental charges)

Table reveals the economics of tomato cultivation in poly-house and open field conditions in Haryana state. The price of poly-house tomato is more than double as compare to open field tomato. The reason of high prices of poly-house tomato is fresh- and healthy-looking

products and their availability in off season also. In the same way production and gross revenue of poly-house tomato is also high as compared to open field. The reason of high gross returns is high production and high market prices of poly-house tomato. In poly-house, tomato production is 287 quintal per acre which is greater than open field tomato production. The reason of higher production is long duration of tomato crop and its vertical farming in poly-house, which increased number of fruits per plant. So, the benefit cost ratio of poly-house tomato (2.85) is high than open field tomato (1.87). The table also reveals that total variable cost is higher in poly-house farming than open field farming. Among the total variable cost, the share of labour cost is very high followed by fertilizer and other cost. In poly-house farming practices, there is a great need of skilled and permanent labour, while in open field cultivation mostly farmers used their family labour, it is the main reason for high labour cost in poly-house farming. The reason of high cost of fertilizer is that poly-house farmers used different varieties of expensive fertilizers and more quantity of fertilizers due to long duration of tomato crop. All these reasons made poly-house farming of tomato profitable and economic viable for farmers in Haryana. The study concludes that poly-house farming of tomato is more beneficial for poly-house farmers as compare to open field farmers.

Table 2

Return to Scale in the Production of Tomato under Poly-house Cultivation

Variables	Regression coefficients	Standard Error	t-values	P value
Regression Constant	.513	.916	.560	.591
Land preparation	.107	.301	.355	.732
Bed preparation	-.042	.372	-.112	.913
Seed	-.390	.213	-1.836	.104
Fertilizer	.793	.333	2.379	.045*
Pesticide	-.221	.099	-2.238	.056*
Irrigation	1.027	.422	2.431	.041*
Labour	.573	.190	3.021	.017*
Mulching/ weeding	-.272	.204	-1.336	.218
Other costs	.400	.304	1.315	.225
Returns to Scale ($\sum b_i$)	1.98			

$$R^2 = 0.917$$

** Significant at the 0.01 level

* Significant at the 0.05 level

Return to scale in the production of tomato under poly-house farming is explained in table. In the above table, the coefficient of multiple determinations (R^2) is 0.917 revealing that the production function model is a good fit and about 91 percent of the variation in tomato production is influenced by the exogenous variables included in the model. The regression coefficient of fertilizer is 0.793 for poly-house tomato, which is positive and significant at 5 percent level of confidence indicating that 1 percent increase in expenditure of fertilizer would expend the production of tomato by 0.793 percent. The elasticity coefficient of pesticide is -0.221 for poly-house tomato, which is negative and significant at 5 percent level of confidence indicating that 1 percent increase in expenditure of fertilizer would decrease the production of tomato by -0.221 percent. The seeds and pesticides are more expensive and are used by poly-house farmers, that is why an increase in the expense on the variable leads to a decrease in the production of tomato under poly-house farming. The regression coefficient of irrigation and labour is 1.027 and 0.573 for poly-house tomato, which is positive and significant at 5 percent level of confidence indicating that 1 percent increase in expenditure of irrigation and labour would increase the production of tomato by 1.027 percent and 0.573 percent respectively. The sum of regression coefficients is 1.98 which shows increasing return to scale. This is mainly due to labour, fertilizer and irrigation. The result reveals that the production of tomato under poly-houses is profitable with increased expenses on some factors of production in Haryana state.

Table 3
Resource Use Efficiency in Poly-house Tomato Production

Sr. No.	Variable Inputs	Coefficient Value	$r = MVP/MFC$
1.	Seed	-.390	-13.23
2.	Fertilizer	.793	18.86
3.	Pesticide	-.221	-5.79
4	Irrigation	1.027	158.94
5.	Labour	.573	3.63

Source: Field Survey

Table interprets resource use efficiency in poly-house tomato production in Haryana state. The table shows that the efficiency ratio (MVP/MFC) for fertilizer, irrigation and labour is more than one. It indicates that these resources are underutilized. On the other hand, efficiency ratio of seeds and pesticides is less than one. It indicates that these resources are overutilized. To ensure optimum use of resources in poly-house tomato production, expenditure on seeds and pesticides is required to decrease. On the other hand, expenditure

on fertilizer, irrigation and labour is required to increase under poly-house farming in Haryana state.

Table 4

Return to Scale in the Production of Tomato under Open Field Cultivation

Variables	Regression coefficients	Standard Error	t-values	P value
Regression Constant	3.312	1.048	3.160	.005
Land preparation	-.464	.287	-1.617	.122
Bed preparation	.416	.196	2.116	.047*
Seed	-.174	.096	-1.799	.087
Fertilizer	-.300	.206	-1.460	.160
Pesticide	.297	.113	2.621	.016*
Irrigation	.033	.137	0.244	.810
Labour	.221	.041	5.419	.000**
Mulching/ weeding	.070	.026	2.682	.014*
Other costs	.324	.173	1.871	.076
Returns to Scale ($\sum b_i$)	0.423			

$R^2 = 0.857$

** Significant at the 0.01 level

* Significant at the 0.05 level

Return to scale in the production of tomato under open field farming is explained in table. In the above table, the coefficient of multiple determinations (R^2) is 0.857 revealing that the production function model is a good fit and about 85 percent of the variation in tomato production is influenced by the exogenous variables included in the model. The regression coefficient of expense on bed preparation and pesticides is 0.416 and 0.297 in tomato produce in open field cultivation. It is positive and significant at 5 percent level of confidence indicating that 1 percent increase in expenditure on bed preparation and pesticides would increase the production of tomato by 0.416 percent and 0.297 percent respectively. The elasticity coefficient of expenditure on labour is 0.221 in tomato produce in open field cultivation. It is positive and significant at 1 percent level of confidence indicating that 1 percent increase in expenditure on bed preparation would increase the production of tomato by 0.221 percent. The regression coefficient of expenditure on mulching/ weeding is 0.070 in tomato produce in open field cultivation. It is positive and significant at 5 percent level of

confidence shows that 1 percent increase in expenditure on mulching/ weeding would increase the production of tomato by 0.070 percent. The sum of elasticity coefficients is 0.423 which shows decreasing returns to scale. This is mainly due to land preparation, seeds and fertilizer. The result reveals that tomato production under open field cultivation is not as profitable as tomato produce under poly-house farming in Haryana.

Table 5
Resource Use Efficiency in Open field Tomato Production

Sr. No.	Variable Inputs	Coefficient Value	r = MVP/MFC
1.	Seed	-.174	-3.97
2.	Fertilizer	-.300	-3.97
3.	Pesticide	.297	3.28
4	Irrigation	.033	1.98
5.	Labour	.221	1.37

Source: Field Survey

Table interprets resource use efficiency in open field tomato production in Haryana state. The table reveals that the value of efficiency ratio (MVP/ MFC) is less than one for seed and fertilizer. This implies that expenditure on seed and fertilizer in tomato production under open field cultivation is over utilized. So, it is required to decrease expense on seed and fertilizer under open field cultivation. On the other hand, efficiency ratio of pesticide, irrigation and labour is greater than one. This implies that pesticide, irrigation and labour are underutilized. To ensure optimum use of resources in open field tomato production, expense on pesticide, irrigation and labour is required to increase.

Conclusion

The study concluded that prices and production of poly-house Tomato were high as compare to open field tomato in Haryana. In the same way gross returns were also high for poly-house products in comparison of open field tomato. The reason of high prices of poly-house tomato was fresh- and healthy-looking products and their availability in off season. On the other hand, long duration of crop was the reason of high production under poly-house farming. In case of poly-house farming, total variable costs were also high due to long duration of crop, farmers were used more quantity and expensive varieties/ quality of inputs. B: C ratio was also high for poly-house tomato production in Haryana state. The study found that under both types of farming practices seed was the single input, which was found over utilized while irrigation and labour were found underutilized in tomato production in Haryana state. The results implies that the sum of elasticity coefficients was

1.98 for poly-house tomato, which showed increasing return to scale. On the other hand, the sum of elasticity coefficients was 0.423 for open field tomato, which showed decreasing return to scale for open field tomato. So, it can be state that poly-house farming of tomato was more viable as compare to open field cultivation and government should encourage farmers to adopt poly-house farming.

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Visibility of Handloom Products in Market of Rohtak City

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Research Journal ARTS

2021, Vol. 20 (2) pp.93-106

ISSN 0972-706X

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<http://www.mdu.ac.in/Journals/about.html>

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Abstract

There are retail shops or showrooms selling primarily handmade cloth in two forms, ready-made garments (stitched) and loose fabric (unstitched), in almost every city of Haryana state. In Rohtak city the market of handloom made fabric is dominated by retail outlet affiliated to Khadi and Village Industries Corporation (KVIC), a shop by FAB INDIA through franchise and a shop by SUTRA, a Non-Governmental Organization (NGO), the total shops only three in number, especially for handloom products. But most of the people happen to buy machine made stitched and un-stitched clothes, mechanically produced by machines in Industries, in place of handmade clothes or garments. This paper is to draw attention towards addressing some of the problems faced by customers that reduces the chances of footfall or inconvenience faced in purchasing handloom products. With this, an attempt has been made to know whether they are aware of the advantage of handmade products over machine made. To accomplish this objective, information was collected from 385 customers living in Rohtak city. It was found that most people are aware of the merits of handmade fabric and shows signs of affinity towards it, but the lack of variety through design, art and fabric, and the price, disappoints to a larger extent. Neither the location of the shops was found favorable nor was there present any such personality at the shop who bears a good understanding of 'State of the Art' or work experience in this domain and who's presence could itself justify that people ought to have handmade products. When people visit these shops, the opinion of the people starts forming, they rarely return to these shops.

Keywords: Handloom products, Rohtak, Market, Shops, location, Customers

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Introduction

People have desires for handmade products but couldn't satisfy, as only a little is met, therefore, it was found important to conduct a survey in search of the reasons behind the outcome. What kind of shops catches the eye of the customers when they visit market in Rohtak city to purchase clothes for consumption? Is there exists any handicraft shops, if yes, what is their number? What articles do they sell and where are these shops located in the city. Do people living in Rohtak possess information about merits of handicrafts, enough that people show interest in handloom products especially the attire?

Clothing is selected according to the geographical, physical, social, technical requirements. Cotton is being used to weave fabric, since the Harappan period. (*Nath 2019*) One can found description of weavers even in ancient literature i.e., Vedic literature. (*Mallick 2018*) Every state of India has its own identity in handmade textile. Production spans across India where some places are known for fabric due to distinct character and flavor, for example, Patola style in Tussar of Orissa, Paithani saree of Paithan in Maharashtra, Pashmina of Kashmir, Kanchipuram in Tamil Nadu. Famous for Kalamkari in Andhra Pradesh, Chanderi, Jamdani, Banaras, Gadwal and Balaramapuram (Kerala), a handloom product from Gujarat's Ajrakh, is also very famous for saris. Eight meters long wonder-wear for women like Banarasi, Maheshwari, Paithani, Lucknow's Chikankari and Chanderi - besides 15 types of ethnic Indian saris, the embroidery of Kutch, Phulkari is typical of Haryana and Punjab. Most of the fabric in these states acquired the status of 'Geographical Indication Tag'. For example, see the table given below (**Table 1.1**)

It is known from the above that the know-how or skill passed on from generation to generation, as traditions. Historically, craftsmen in India have been making hundreds of designs or motifs and patterns in the weaving of such items. India is rich in variety of handmade textiles. There is a lot of physical and literary evidence which gives details of a wide range of items. All over India, shops are present in the market to sell these items of crafts and arts. In north India, 'Suraj Kund International Crafts fair at Surajkund', Faridabad, that is organized annually, has been one of the biggest centres of attention that draws people from distant places as well, an events that promotes and celebrates the richness of handicrafts, besides other prominent places known for market of handloom products in capital city, New Delhi. Also, the Artisans from different states are being invited during Gita Mohtasva celebrations, where handmade clothes from different states made available to be sold.

Handloom fabrics have a unique character that made it supreme over fabrics made by other means. The handicrafts, hand spinning and hand paintings of the artisans of India are famous all over the world. The handmade textile made in India is being sold in 125 countries.

According to the Ministry of textile (2013), products from India accounted for 95% of the total handmade clothing sold in the world. During 2002-2003, the total export of handloom products and handloom cloth products was around 2633.26 cores. A handloom product on the one hand preserves the skills and on the other provides employment to the people. It is the second largest industry in India and after agriculture; the handloom sector provides the largest employment of 12 million workers (*Hambe 2012*). The government has also launched several schemes like Handloom Marketing Assistance, Handloom Bazaar and Indian Handloom Brand with the aim of creating skills and employment.

Literature review

Handloom is a priceless piece of heritage and an example of prosperity that has been kept alive by skilled weavers. (*S. Ulaganthan 2017*) Consumers are not much aware about handloom products. Most of the people of Tamil Nadu do not even know about the traditional cloth of Shalwais. (*Kumudh & Rizwana 2013*) Ethnicism and patriotism have a positive effect on consumer preference for handloom products, but consumers are more attracted to foreign products, mostly the younger generation. (*Costa et al 2018*) Mostly customers cannot distinguish handloom products from other mill manufactured products. (*Gayatri & Kinslin 2016*) And they do not know about the benefits of wearing them in tropical climate. (*Vyshnavi & Nair 2020*) The situation is different in respect of hand woven Kota Doria sarees. Female consumers whose age is between 30 to 45 years and family income not less than Rs.15000 per month are aware of the originality of the Doria pattern but the knowledge of Geographical Indication Patent is very less. Kota Doria and Banarasi sarees are the most preferred amongst floral mode of design, woven patterns, multicolor combinations and hand embroidered and hand woven sarees. (*Agarwal and Luniya 2009*) The lack of innovations in variety, design and material is not attracting much of the customers towards handmade fabrics (*Paul et al (2017)*). One of the major reasons for not buying handloom products is limited colors. (*Rizwana 2015*) There is a need to create proper awareness tools to increase awareness about handloom products. (*Pargai & Jahan 2016*) The younger generation should look as target customers to increase the sales of handloom products. (*Sivasakthi & Basariya 2019*) Use of social media to develop consumer awareness of handloom products can be beneficial (*Humbe 2012*) But word of mouth is the most influential force as compared to magazine, banner, TV, newspaper (*Malmaraugan 2008*) If the government helps the artisans to buy raw materials, then the price of the product will come down, which will increase the consumer's tendency towards these products (*Jothi 2020*). The Government of India should provide proper training and market information to the weavers to develop and improve their productivity so that they can produce handloom textiles, handloom products as per the needs of the customers. (*Jain*

and Jera 2017) The overall satisfaction of the customers depends on the product. (Acharyulu & Anumala (2015) Work done by scholars remained a stepping stone in carving out new schemes by the government. 30 State Khadi and Village Industries Boards (KVIBS), KVIC and 2000 Khadi Institutions, Khadi Stores/Buildings affiliated to the State KVIB Supported by an extensive network of 7050 sales outlets and 250 training centers of KVIC/State KVIBs, are spread across the country (Busenna & Reddy).

Statement of the problem

One or more retail stores affiliated to or run by Khadi and Village Industries Commission (KVIC) are located in almost every city of Haryana state. One can locate a retail outlet run by KVIC, apart from a branded showroom like FabIndia and a retail shop run by NGO SUTRA in Rohtak city. Cloth from different states that could be distinguished by geographical Indication is available at retail shop of KVIC, besides food and cosmetic products. In segment of handloom textiles, various genres of stitched and un-stitched garments is primarily made available for purchase at retail shop of FabIndia brand. It also sells a few items other than fabric such as crockery, food and cosmetic products. Similarly, the shop run by NGO Sutra is known mainly for selling unstitched fabric that hails from different parts of the country popular for the kind of handloom product. Despite the presence of various shops selling various kinds of handmade fabric and publicity, people prefer to buy non-handloom or clothes with synthetic fiber. International crafts fair organized at Suraj Kund in Faridabad and a craft fair on the occasion Geeta Mahotsav is held annually, by keeping single most objective in mind to promote handicrafts and handlooms in State but the footfalls at above stated shops reflects a gloomy picture.

Objectives of the study

1. To study the awareness of the consumer towards the merits of handloom products.
2. To understand about the attributes that causes customers to purchase cloth from a particular shop.
3. To find out the factors discouraging the purchase of handloom products.

Hypothesis

1. H₀: There is no significant association between demographic variable (education, Age) and influencing factor to buy product from a particular shop.

Research Methodology

The nature of this research presentation is descriptive. The data were collected using a five-point Likert scale structured questionnaire. The period for collection of primary data is from March 2021 - August 2021. The study area is Rohtak city of Haryana. The sample size is determined by Cochran's (1977) formula $\{n = \frac{Z^2pq}{e^2}, p = q = 0.5, e \text{ is the desired}$

level of precision (the margin of error), P is the (estimated) proportion of the population which has the attribute in question, is 1 - p, Z is confidence coefficient, The z-value is found 1.96 on 5% from Z table. $((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 385$. 384 handloom customers were mailed with a structured questionnaire. Secondary data was collected from magazines, books, newspapers and websites as required. Data is measured on a five point scale (strongly disagree =1 to strongly agree =5. IBM SPSS Statistics 28 software was used to analyze the data.

Findings

General profile of respondents Table 1.2

The above table shows that 18.4% of the total 385 respondents were below 20 years of age, 39.9% of the respondents were in the age group of 21 - 30 years, 23.9% of the respondents 30 - 41 years of age and 23.9% of the respondents were over 41 years of age. The distribution of respondents by occupation shows that 35.8% are students, 21.1% are self-employed or have any occupation, 16.9% are professionals or job holders and 26.2% are housewives/husbands. As per the amount received as their monthly income, 41% earn less than Rs 50000, 24.2% earn between Rs 51000 -100000, 10.9% earn between Rs 20100000-200000 and 23.9% earn more than Rs 200000.

1. To study the awareness of the consumer towards handloom product.

Table 1.3

As per Table 1.3 the mean of all the statements is greater than 4 which show that all the consumers are aware about the handloom product.

2. To understand about the attributes that attracts a customer to purchase cloth from a particular shop

Table 1.4

Most of the consumers buy non-branded machine made clothes; five statements are used to find out why they buy a product from a particular shop.

Table 1.5

A reliability test is done to know the consistency, authenticity and consistency of the data. This test helps us to measure how well the test can be performed on the available data. In Table 1.6 we see that Cronbach's alpha is used to measure the reliability of the data. The data has a .689 which is accepted as having a good reliability for the performance of statistical tools.

H0: There is no significant association between income and influencing factor to buy product from a particular shop.

H1: There is a significant association between income and influencing factor to buy product from a particular shop.

Table 1.6

The p - value for the non parametric kruskal wallis test of statistic is more than 0.05 which was a evidence to accept the null hypothesis.

H0: There is no significant association between age and influencing factor to buy product from a particular shop.

H1: There is a significant association between age and influencing factor to buy product from a particular shop.

Table 1.7

The p - value for the non parametric Kruskal wallis test of statistic is less than 0.05 so, we reject the null hypothesis .hence, we accept the alternative hypothesis that 'there was a significant relation between age and influencing factor to buy product from a particular shop.'

3. To find out the factors that is responsible for not purchasing of handloom product. Table 1.8

The consumer is most familiar with Khadi Clothing Store and the least known about Sutra Shop.

Table 1.9

The above table shows that customers consider high price of handloom products as the biggest problem.

Limitation of the study

The study is confined to Rohtak district only. The prevailing conditions may vary from place to place.

Discussion

There are only three shops that could be identified for selling specifically the handloom products in market of Rohtak city.

KVIC retail shop:

Khadi is not a new word, almost everyone is familiar but very few people buy clothes from Khadi Bhandar located in Rohtak city.

Fab India:

Less number of people than the above knows about brand Fab India and a retail shop in Rohtak city. The owner of the shop here told that most of his customers are educated people and when it comes to sales, people buy organic food and cosmetic products more than clothes.

Sutra:

Far less number of people than the above two shops know about a retail shop by the name of Sutra, runs by NGO, in which the villagers do not even know about its presence. Textiles and clothes are made from artisans living far and belong to different states of the country, which items are brought to this shop and sold. But mostly women's clothing is available. Their customers are also mostly highly educated people. Sutra uses the social media application 'Whatsapp' to communicate with their designated customers to sell the product.

The handmade products available in Rohtak city are available at reasonable prices. A customer who buys a product from showroom of a brand can easily buy a handloom product as well. But still there are more sales of machine made branded products. Machine Made Cloths has suitable location of the showroom and the products are well displayed, the design of the shop, ample space, and they also have more variety available. The shop that sells machine made clothes, the customers go to, they benefit from the location of the shop in such a way that the shop stands out in comparison to other shops, the customers in the market reach the shop easily or comfortably, Located on the main road, other textile or clothing shops are present in clusters or queues. Talking about handloom shops, the location of Khadi and Sutra is such that they are visible only when looked carefully after searching. Neither the products are well displayed in these shops, the variety is also very less as compared to machine made clothes. Fab India's location and display are well but they have less variety.

Despite being aware of the product, the reason most of the customers do not buy is that the opinion of the people has been formed that there is no showroom in Rohtak selling handloom products rich in variety or displayed well and the price at which clothes are being sold is not reasonable. The first thing that impress the customers is aesthetic appeal, the lack of which disappoints customers when they visit the above three shops, so the customers turn away from these shops and deflected to other shops selling machine made. Customers who are aware of the quality of handloom products may ignore the aesthetics to some extent, over make of clothes that gives comfort.

Conclusion

Despite the awareness about handmade clothes, the reasons for which most of customers

do not buy from the showroom of handloom clothes in Rohtak are as follows. Location is not suitable, variety is poor, display of the products is not appropriate, nor the designing of the shop is favorable. First of all there should be a showroom with more variety and it should be at a right place like showrooms of W, Aurelia, Cantabil, and Pantaloons. Whether the customer is aware of handlooms or not, the customer first catches aesthetic qualities in the object. Until the customer does not use it, he/she cannot get acquainted with the quality of the handmade product.

Recommendations:

- 1) The shops selling handicrafts cloth should be in cluster.
- 2) The shop should be at such a place where it increases the chances of visibility.
- 3) The clothes should be displayed well; the design of the shop should be friendly.
- 4) Variety of clothes should be enough so that customers tend to buy more clothes.

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TABLE 1.1

State wise List Of Geographical Indication Tag In Handloom	
STATE	OBJECT
Andhra Pradesh	Srikalahasthi Kalamkari, Kondapalli Bommalu, Machilipatnam Kalamkari, Venkatagiri Sarees, Mangalagiri Sarees And Fabrics.
Assam	Muga Silk of Assam (Logo), Muga Silk
Bihar	Applique – Khatwa Patch Work of Bihar, Sujini Embroidery Work of Bihar , Bhagalpur Silk
Chhattisgarh	Champa Silk Saree and Fabrics
Gujarat	Tangaliya Shawl, Surat Zari Craft, Kachchh Shawls, Patan Patola, Kutch Embroidery
Himachal Pradesh	Chamba Rumal , Kinnauri Shawl
Jammu & Kashmir	Kani Shawls, Kashmir Pashmina
Karnataka	Mysore silk, Kasuti Embroidery sarce, Navalgund Durries, Molakalmuru Sarees
Kerala	Cotton Fabrics
Madhya Pradesh	Chanderi Fabric, Bagh Prints of Madhya Pradesh, Maheshwar Sarees & Fabrics
Maharashtra	Solapuri Chaddar, Solapur Terry Towel, Paithani Sarees and Fabrics
Odisha	Kotpad Handloom fabric, Orissa Ikat, Khandua Saree and Fabrics, Gopalpur Tussar Fabrics, Dhalapathar Parda & Fabrics, Sambalpuri Bandha Saree & Fabrics, Bomkai Saree & Fabrics, Habaspuri Saree & Fabrics, Berhampur Patta (Phoda Kumbha) Saree& Joda
Rajasthan	Kota Doria, Sanganeri Hand Block Printing, Kota Doria (Logo), Phulkari, Bagru Hand Block Print, Thewa Art Work
Tamil Nadu	Salem Fabric, Kancheepuram Silk, Bhavani Jamakkalam, Madurai Sungudi, Salem silk, Kovai Cora Cotton, Arani Silk, Pattamadai Pai ('Pattamadai Mat'), Nachiarkoil Kuthuvilakku ('Nachiarkoil Lamp'), Chettinad Kottan, Toda Embroidery, Thanjavur Veenai
Telangana	Pochampally Ikat, Silver Filigree of Karimnagar, Gadwal Sarees
Uttar Pradesh	Lucknow Chikan Craft, Agra Durrie, Farrukhabad Prints, Lucknow Zardozi, Moradabad Metal Craft, Saharanpur Wood Craft
West Bengal	Baluchari Saree, Santipore Saree, Dhaniakhali Saree
Haryana, Punjab, Rajasthan	Phulkari

Table 1.2

Table 1.2 Demographic Data Collection Of Consumers			
Demographic parameters	Range	Consumer data in numbers	Percentage (%) Analysis
Age	Below 20	71	18.4
	21 – 30	146	37.9
	31 – 40	76	19.7
	above 41	92	23.9
	Total	385	100.0
Occupation	Home maker	101	26.2
	Students	138	35.8
	Self Employed/Business	79	21.1
	Professional/Job Holder	65	16.9
	Total	385	100.0
Monthly House hold Income	Below Rs. 50,000	158	41.0
	Rs. 51,000 – Rs. 1,00,000	93	24.2
	Rs. 1,00,000 – Rs. 2,00,000	42	10.9
	More than 2,00,000	92	23.9
	Total	385	100.0

Table 1.3

Table1.3 Awareness About Following Dimensions Of Handloom Products					
STATEMENTS	N	MINIMUM	MAXIMUM	MEAN	RESULT
1. I am aware of the benefits of handloom Products for the environment.	385	1	5	4.32	Strongly Agreed
2. I am aware handloom products are beneficial for health.	385	1	5	4.39	Strongly Agreed
3. I am aware handlooms products help reduce unemployment.	385	2	5	4.41	Strongly Agreed
4. I am aware handloom products helps boost country's economy.	385	2	5	4.52	Strongly Agreed
5. I am aware handloom products are helpful to Save electricity.	385	1	5	4.29	Strongly Agreed
6. I am aware of point of purchase (shop) for handloom Products in Rohtak.	385	1	5	4.22	Strongly Agreed
7. I am aware of variety of Product which are available in Rohtak	385	1	5	4.12	Strongly Agreed
Valid N	385				

Table 1.4

Table 1.4 Which shops do you like to visit to purchase cloth (stitched and unstitched) in Rohtak.		
SHOPS	FREQUENCY	PERCENT
handloom	78	20.3
Branded shop	165	42.9
Non branded but machine made cloth shop	142	36.9
Total	385	100.0

Table 1.5

Table 1.5 Reliability Statistics	
1. Price of the product	.689
2. Quality, Variety and Range of products	
3. User convenient design of store and display of items	
4. Owner's background or personnel profile	
5. Location/Place of store	

Table 1.6

Table 1.6 Hypothesis Test Summary			
Null Hypothesis	Test	Sig. ^{a,b}	Decision
The distribution of <i>attributes</i> is the same across categories of Monthly House hold Income.	Independent-Samples Kruskal-Wallis Test	.057	Accept the null hypothesis.
a. The significance level is .050. b. Asymptotic significance is displayed.			

Table 1.7

Table 1.7 Hypothesis Test Summary			
Null Hypothesis	Test	Sig. ^{a,b}	Decision
The distribution attributes is the same across categories of age.	Independent-Samples Kruskal-Wallis Test	<.001	Reject the null hypothesis.
a. The significance level is .050. b. Asymptotic significance is displayed.			

Table 1.8

Table 1.8 Which shop of handloom do you know about		
SHOPS	FREQUENCY	PERCENT
KHADI	210	54.5
FAB INDIA	102	26.5
SUTRA	73	19.0
TOTAL	385	100.0

Table 1.9

Table 1.9 Problems You Face While Purchasing Handloom Products					
STATEMENTS	N	MINIMUM	MAXIMUM	MEAN	RANK
Price is very high	385	1	5	3.59	I
Relatively less to choose between articles	385	1	5	3.55	II
Ease of reach i.e., location of shop is not convenient or not at prime location.	385	1	5	3.50	III
Fabric, color and designing of stitched cloths (excluding motifs) is not according to customer's choice	385	1	5	3.41	IV
Display and presentation of articles is not consumer convenient	385	1	4	3.33	V
Valid N	385				

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