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A Study on Effect of Employee's Family Atmosphere and their Financial Position on Productivity in Indian Small Scale Manufacturing Industries.

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Abstract: ***This paper examined the impact of employee's family atmosphere and their financial position on productivity in small scale industries (SSI). The extensive literature review revealed that the study of impact of employee's family atmosphere on Productivity in Indian Small Scale Industries (SSIs) has been less addressed and hence this study.***
A research survey instrument was designed ,tested for reliability and responses were collected with a convenient random sample of 383 employees of Indian small scale manufacturing industries. The instrument was tested for reliability with an acceptable Cronbach's alpha of 86%.
The analysis and results of the study revealed that, the employee's family atmosphere, physical and mental health affects the productivity to a high level.
The employees with higher educational qualification than the required qualification and the number of employee's dependents does not affect the productivity.
Key words: Productivity, Employees family atmosphere, financial position, SSIs.

I. INTRODUCTION

Productivity is the ratio or quantitative relationship between output and input. It shows the quantitative relationship between what is produced and what spent to produce. To improve productivity it is necessary to reduce wastage of manufacturing resources like men, material, machine, time, space, capital and many other factors. It can be expressed as human efforts to produce more and more with less and less inputs of resources.

According to Productivity Council, it is an attitude of mind. It is a mentality of progress of the constant improvement of that which exists. It is certainty of being able to do better than yesterday and continuously. It is constant adoption of economic and social life to changing conditions. It is continual effort to apply new techniques and methods. It is faith in human progress. In the words of Peter Drucker productivity means a balance between all factors of production that will give the maximum output with the smallest effort.

On the other hand, according to International Labour Organization, productivity is the ratio between the volume of output as measured by production indicates and the corresponding volume of labour input' as measured by production indices and the corresponding volume of labour input as measured by employment indices.

Productivity is one of the important factors to enhance countries competitiveness in economy and quality of life. Generally, improvement in productivity is associated with a growth in earnings of the employees and ultimately an improvement in living standards. Productivity improvement is a continuous process and not a destination.

II. LITERATURE REVIEW

There are many factors which affects productivity. These are labor related, methods and procedure adopted, motivation, employee-employer relationship, adoption of new equipments and technology and others.

There are different types of productivity. Partial productivity and total factor productivity.

Nowadays, the study of a manufacturing facility's productivity enhancement has become an important area by many researchers and industries. The production activity is the most important component in any generic value chain, to enhance productivity.

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Small scale industries (SSIs) play an important role in modern economies because of their flexibility and ability to innovate. In nearly every country, SSIs play a significant role in providing employment opportunities and supporting large scale manufacturing firms. However, there are not many studies reported in the literature that deal with productivity problems in SSIs.

From the extensive literature review, it was revealed that, most of the researches were on the study of productivity with the combination of Micro, Small, and Medium enterprises (MSMEs). In this paper the attention is given on small scale manufacturing industries. Based on the literature review, the gap in the research was identified and the problem was stated. In connection with the identified problem the objectives were set and hypotheses were framed.

III. PROBLEM STATEMENT

Small scale industry (SSI) is a term which applies to the small entrepreneurs who are engaged in manufacture and production on a micro or small scale. SSI sector plays a major role in India's export performance.

Around 35percent of the Indian export is being contributed by SSI sector. It's necessary to identify and study the factors which affect the productivity. Also it's important to know the relative importance of those factors.

IV. METHODOLOGY

Once the research gap is identified, the problem was stated and the objectives were set. The survey instrument was designed and the responses were collected from 10% of the sample size which is 43.The responses were tabulated and tested for reliability and consistency. The modified survey instrument is used to collect the responses from 383 respondants.The responses were analyzed and concluded. Figure 1 shows the methodology adopted in the study.

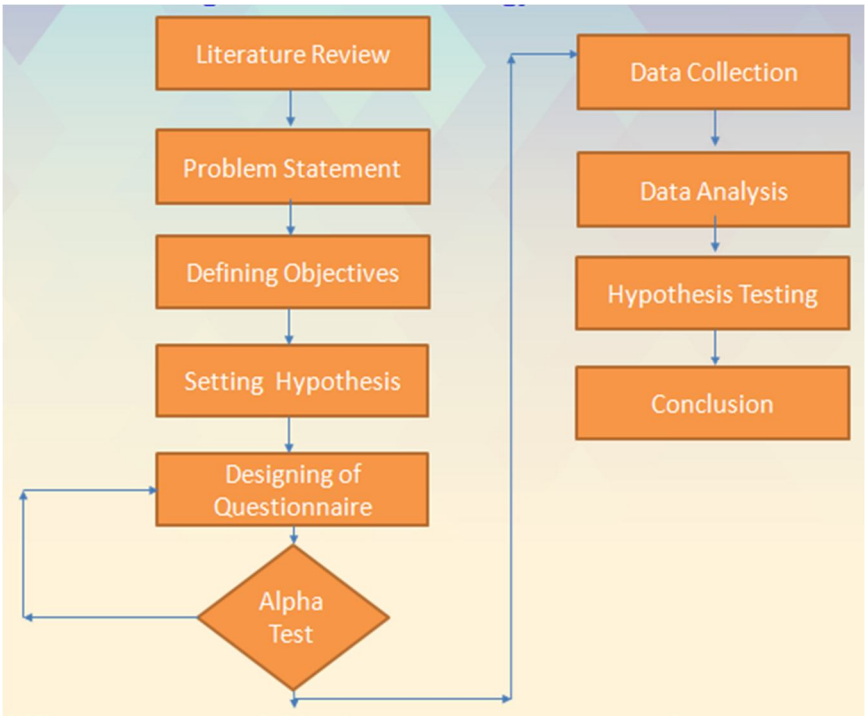


Figure 1: Methodology

V. DATA COLLECTION AND ANALYSIS

The survey questionnaire was passed to the respondents and the responses were collected. The collected responses were analyzed with the help of Visual PLS software where in Chronbach's alpha for different constructs were computed.

A. Hypothesis Testing

The set of questions designed, tested for reliability and respose for the same collected and tabulated. With the help of Dr.Arsham's Statistics software correlation coefficient and corresponding p-values were computed. Based on p-values, the hypotheses were tested. Table 1 shows the summary of hypotheses, question statement, corresponding p-values and conclusion.

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Table 1: Summary of questionnaire, corresponding p-value and conclusion

Hypotheses and Question Statement	P-value	Conclusion
Ho:There is a relation between employees family atmosphere and production rate in the factory. H1: There is no relation between employees family atmosphere and production rate in the factory 1) Employees family atmosphere affects production rate in the factory. a. Strongly agree b. Agree c. Neutral d. Disagree e. Strongly disagree	0.002	Very strong evidence against the null hypothesis
Ho: There is a relation between employee's financial position and productivity. H1: There is a relation between employee's financial position and productivity. 2) Good financial position of employee improves productivity.	0.898	Little of no evidence against the null hypothesis
Ho: There is a relation between employee's excess educational qualification and productivity. H1: There is no relation between employee's excess educational qualification and productivity. 3) If the employee with higher educational qualification than the required improves productivity and quality.	0.507	Little of no evidence against the null hypothesis
Ho: There is no relation between productivity and number of employee's dependents. H1: There is a relation between productivity and number of employee's dependents. 4)If the numbers of dependents of employee are less, productivity improves.	0.992	Little of no evidence against the null hypothesis
Ho: Employee's physical health affects productivity. H1: Employee's physical health doesn't affects productivity 5)Good physical health of employee improves productivity	0.561	Little of no evidence against the null hypothesis
Ho: Employee's mental health affects productivity. H1: Employee's mental health doesn't affects productivity 6)Good mental health of employee improves productivity	0.924	Little of no evidence against the null hypothesis

Ho: Null hypothesis
H1: Alternate hypothesis
The likert scale with 5 to 1 is adopted here.
5- Strongly agree 4- Agree 3- Neutral 2-Disagree 1-. Strongly disagree

VI. RELATIVE IMPORTANCE INDEX

Relative Importance Index (RII) is used to determine the relative importance of quality factors involved in any research studies. The points of likert scale used is equal to the value of W, weighting given to each factor by the respondent. The Relative Importance Index (RII) was calculated by using equation shown below.

Relative Importance Index (RII) $=\frac{\sum w}{AXN}$

Where, W = weighting that is assigned to each variable by the respondent, A = highest weight and N = total number of respondents. For this part of the questionnaire, the five-point Likert scale of 1 to 5

5- Strongly agree 4- Agree 3- Neutral 2-Disagree 1-. Strongly disagree

The Relative Importance Index (RII) value ranges from 0 to 1 with 0 not inclusive. It shows that higher the value of RII, more important the sustainable criteria and vice versa.

The comparison of RII with the corresponding importance level is measured from the transformation matrix as proposed by Chen et al. (2010). According to author, derived importance levels from RII are as follows:

Table -2: Importance Level from RII

High (H)	0.8 < RII < 1.0
High-Medium (H-M)	0.6 < RII < 0.8
Medium (M) < RII < 1.0	0.4 < RII < 0.6
Medium-Low (M-L)	0.2 < RII < 0.4

VII. RESULTS AND DISCUSSION

The analysis and results of the study revealed that 59% of respondents opinion was that, the employees' family atmosphere affects the productivity in SSIs.77% of respondents opinion was that financial position of employee doesn't have effect on productivity. 85% of respondents opinion was that the employee with higher educational qualification than the required qualification does not affect the productivity.74% of the employees response is that there is no relation between productivity and the number of employees dependents.74% of the respondents said that, if the employees is with good mental health ,then productivity improves. Table 3 shows the RII summary.

Table 3: Relative Importance index (RII) summary

Sl No.	Criteria	RII	Importance level
1	Mental health	0.80	High
2	Family atmosphere	0.68	High Medium
3	Numbers of dependents	0.41	Medium
4	Financial position	0.38	Medium low
5	Higher educational qualification	0.32	Medium low

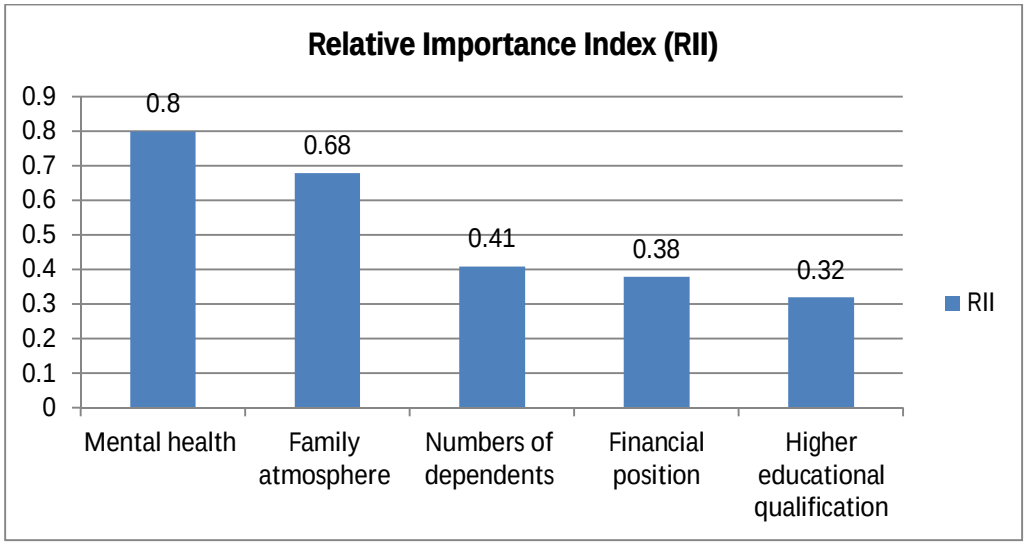


Figure 2: Graphical representation of RII

From the above statistics it's revealed that employee's mental health and family atmosphere and has greater impact on productivity and criteria like employee's financial position, higher education and number of dependents have less impact on productivity. Figure 2 shows the RIIs of the different factors considered for the study.

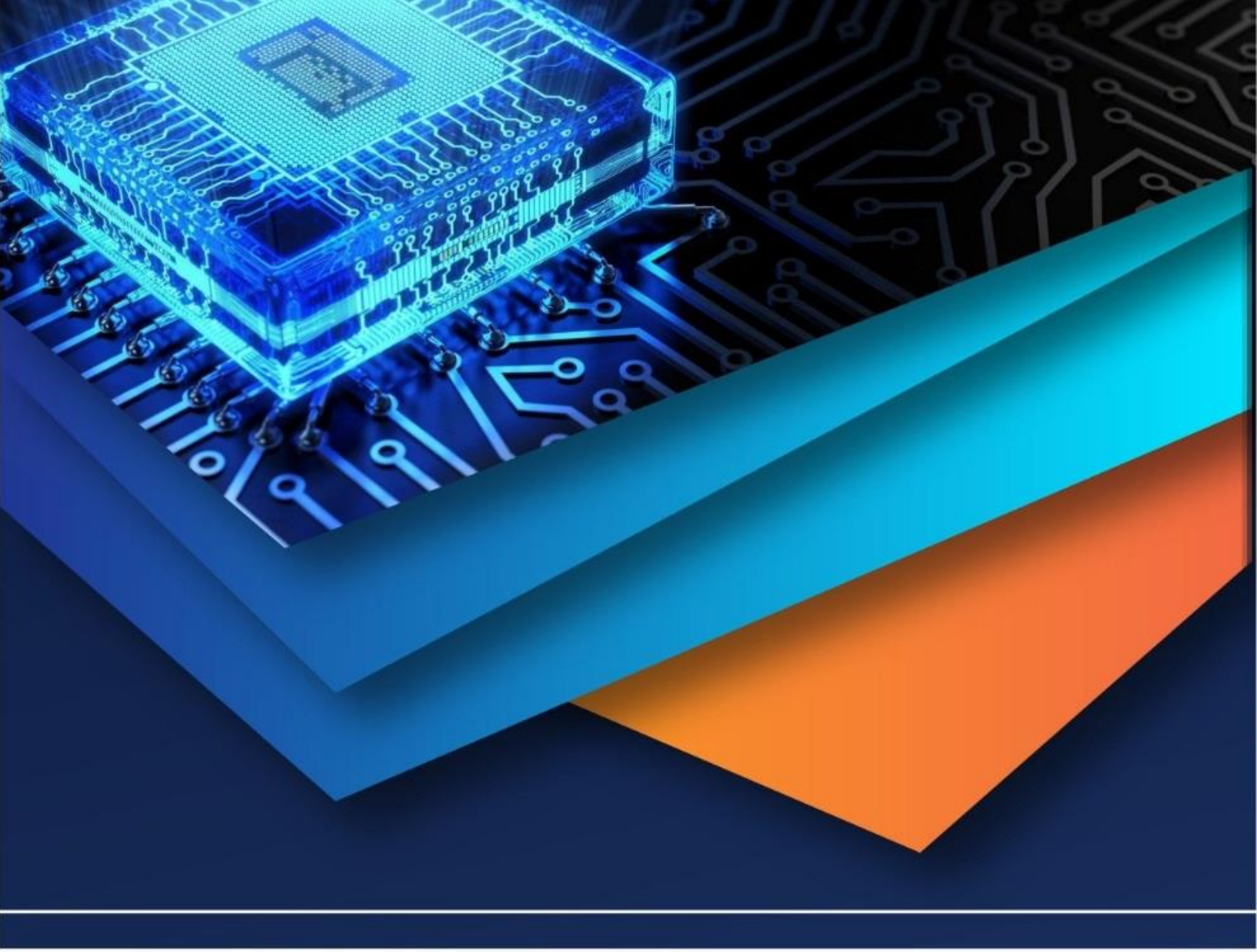
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