CHAPTER-V

FINDINGS AND CONCLUSION.
5.1 About the study:

In the field of Sociology world over:

1) Several social thinkers have made attempts to explain the place and importance of Work and Leisure in human life. As a result, in the sociological literature a considerable amount of theory building is made possible explaining the relations between the two (Compensation model, Spillover model and Segmentation model).

2) Beginning from Karl Marx, several social thinkers highlighted the influence of the production technology vis-à-vis the work environment on the job satisfaction / work alienation / burnout / frustration of the workers. Attempts are also undertaken to seek empirical verification on this from time to time.

3) On the other hand, an empirical verification on the leisure time interests, nature and types of activities undertaken by people have also attracted the attention of many social researchers as well as the governments and business organizations.

4) However, a comprehensive exploration connecting the above mentioned three interrelated areas (Production technology - Worker alienation - Leisure behavior) so as to seek an empirical verification on the working of the theoretical models explaining Work-Leisure relations is not addressed significantly.

5) From the practical point of view, such an effort gains significance because of the reason that there is a need to explore the ways and means to mitigate the adverse effects of (worker alienation) of production technology (assembly line production) on the worker, so as to improve their Quality of Work Life. Even though this can be approached through different and varied H.R.D. intervention strategies, the possibilities and advantages of using the Leisure domain for this purpose deserves a serious consideration and hence the present study.

Accordingly, the present empirical study is undertaken to ascertain the relationship between Work and Leisure by way of studying the relationship between Worker alienation, leisure orientation and leisure participation among the industrial workers with particular reference to assembly line production technology.
In this regard the present study is guided by the following three general null-hypotheses:

1. There is no relationship between worker alienation and leisure orientation among the assembly line workers.

2. There is no relationship between the worker alienation and leisure participation among the assembly line workers.

3. There is no relationship between leisure orientation and leisure participation among the assembly line workers.

On the basis of the general null hypothesis, the study is guided by the following categories of specific null hypotheses:

**Category-I**

(i) There is no relationship between the personal variables and the overall worker alienation among the assembly line workers.

(ii) There is no relationship between the personal variables and the dimensions of worker alienation among the assembly line workers.

**Category-II**

(i) There is no relationship between the personal variables and the overall leisure orientation among the assembly line workers.

(ii) There is no relationship between the personal variables and the dimensions of leisure orientation among the assembly line workers.

**Category-III**

(i) There is no relationship between the personal variables and the overall leisure participation among the assembly line workers.

(ii) There is no relationship between the personal variables and the dimensions of leisure participation among the assembly line workers.

**Category-IV**

(i) There is no association between worker alienation and leisure orientation among the assembly line workers with respect to the personal variables.

(ii) There is no association between worker alienation and leisure participation among the assembly line workers with respect to the personal variables.

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The research setting identified to test the hypotheses is a manufacturing industry (FAL Industries Ltd.,) engaged in producing industrial and home products adopting assembly line production technology. It has two production units, one located at Chennai and another at Hosur (Tamil Nadu State). From both the units, the data were collected adopting questionnaire method form a total of 239 permanent male workers drawn based upon judgment sampling (Babbie: 1995)

The data thus collected analyzed through the application of t-test, ANOVA, Chi-square test, Correlation co-efficient and Multiple regression analysis and has given the following results.

5.2 Findings on the personal variables:
The data collected on the 20 personal variables (grouped under five categories viz., Personal characteristics, Social characteristics, Economic characteristics, Political characteristics and Employment characteristics) has given the following findings:

a) On the **Personal characteristics** of the respondents, it has been found that most of the respondents covered by the study are:
   i. Middle aged (above 40 yrs - 60.25%)
   ii. Non-technically qualified (56.90%).

b) On the **Social characteristics** of the respondents, it has been found that majority of the respondents covered by the study are:
   i. Belonging to Hindu religion (87.45%)
   ii. Married (93.72%)
   iii. Living in nuclear family (74.90%)
   iv. Have got a leisure time of 3-5 hours per day (52.30%).

c) On the **Economic characteristics** of the respondents, it has been found that most of the respondents have:
   i. 3-5 dependent members to support their family (74.90%)
   ii. One earning member in their family (79.92%).
   iii. Rs. 5,000- 10,000 familial total monthly income (75.73 %).
   iv. 4-6 member family size (70.71%)
v. Indebtedness (64.02%)
vi. Own motor vehicles (76.57%)
vii. Live in independent (82.43%) as well as in rented houses (73.22%).

d) On the **Political characteristics** of the respondents, it has been found that mostly they have:

i. Moderate (42.26%) or Low (41.84%) level of participation in union activities.

ii. Low level of participation (85.36%) in the outside political activities.

e) On the **Employment characteristics** of the respondents, it has been found that a majority of them:

i. Have more than 10 years of work experience in assembly line production (85.77%)

ii. Spend less than or equal to 1 hour per day for travel to work every day (89.96%).

Thus, from the above it can be inferred that the respondents covered by the study, by their Personal, Social, Economic, Political and Employment characteristics are a typical representation of the workers employed in Indian manufacturing / factory sector.

5.3 Findings on personal variables with regard to worker alienation:

As regard to the testing of the specific null hypotheses viz.,

1. *There is no relationship between the selected personal variables and the overall worker alienation among the assembly line workers."

2. *There is no relationship between the selected personal variables and the dimensions of worker alienation among the assembly line workers."

the application of the t- test and ANOVA, has given the findings that:

1. The personal variable, *age*, with particular reference to *more than 40 years of age* category has a significant relationship with the respondents’ overall worker alienation from work through the
alienation dimensions of *Powerlessness, Isolation* and *Self-estrangement* at work (Table. 4.3.1).

2. The personal variable, **types of education**, even though it does not have a significant influence on the respondents' overall worker alienation from work, in case of *technically qualified respondents*, it has a significant relationship with the alienation dimensions *Powerlessness, Isolation* and *Self-estrangement* at work (Table. 4.3.2).

3. The personal variable, **marital status**, even though it does not have any significant influence on the respondents' overall worker alienation from work, in case of *married respondents*, it has a significant relationship with the alienation dimension *Powerlessness* at work (Table. 4.3.3).

4. The personal variable **type of family**, with particular reference to *joint family* has a significant relationship with the respondents' overall worker alienation from work through the alienation dimensions *Normlessness, Isolation* and *Self-estrangement* (Table. 4.3.4).

5. The personal variable, **number of earning members in the family**, even though it does not have any significant relationship with overall worker alienation from work, in case of respondents with *more than one earning member in the family*, it has a significant influence on the alienation dimension *Isolation* (Table. 4.3.5).

6. The personal variable, **ownership of motor vehicle**, even though it does not have any significant influence on the respondents' overall worker alienation from work, in case of respondents *not owning any motor vehicle*, it has a significant relationship with the alienation dimension *Powerlessness* (Table. 4.3.6).

7. The personal variable, **nature of residence**, does not have any significant relationship with either on the overall worker alienation at work or on any one of the dimensions of alienation (Table. 4.3.7).
15. The personal variable, *monthly total family income*, with particular reference to *above Rs.10, 000 per month* has a significant relationship with the overall worker alienation at work through the alienation dimension *Isolation* at work (Table. 4.3.15).

16. The personal variable, *family size*, does not have any significant relationship with either on the overall worker alienation at work or on any one of the dimensions of alienation (Table. 4.3.16).

17. The personal variable, *indebtedness*, does not have any significant relationship with the overall worker alienation at work or on any one of the dimensions of alienation (Table. 4.3.17).

18. The personal variable, *participation level in union activities*, with particular reference to *low level of participation in union activities* has a significant relationship with overall worker alienation at work through the alienation dimensions *Powerlessness, Meaninglessness* and *Self-estrangement* at work (Table. 4.3.18).

19. The personal variable, *participation level in political activities*, even though it does not have a significant relationship with overall worker alienation at work, in case of *low level of participation in political activities*, it has a significant relationship with the alienation dimension *Meaninglessness* at work (Table. 4.3.19).

20. The personal variable, *work experience*, does not have any significant relationship with either on the overall worker alienation at work or on any one of the alienation dimensions (Table. 4.3.20).

*Thus from the above findings it can be understood that:*

1. The nature of the assembly line production technology / work in assembly line definitely creates the feeling of work alienation among the assembly line workers.
2. Even though, the feeling of work alienation is found among the assembly line workers in all the five alienation dimensions, in particular, it is observed to be more in the cases of two dimensions viz., Powerlessness and Isolation.

3. The alienation in other three dimensions viz., Self-estrangement, Meaninglessness and Normlessness are, however, found to be at a relatively lesser extent.

In this regard, it has also been found that the extent and dimension of worker alienation among the assembly line workers is found varying with respect to the type and nature of the personal variable, summary as given below:

1. With respect to the following six personal variables viz., age group (more than 40 years of age), type of family (nuclear family), ownership of residence (living in own houses), location of industrial unit (Chennai – high urban), monthly total family income (above Rs.10, 000 P.M) and participation level in union activities (low level participation) the assembly line workers are found having overall worker alienation with respect to the dimensions of the personal variable given in brackets.

2. As regards the seven personal variables viz., types of education (Powerlessness, Isolation and Self-estrangement), marital status (Powerlessness), number of earning members in the family (Isolation), ownership of motor vehicle (Powerlessness), time taken for travel (Meaninglessness), number of dependents in the family (Normlessness), participation in political activities (Meaninglessness), even though the assembly line workers are found not having overall worker alienation, they are found having work alienation with respect to the dimensions of alienation mentioned against them in brackets.

3. On the other hand, with respect to the remaining seven personal variables viz., nature of residence, job category, religion, daily leisure time availability, family size, indebtedness, and work experience the assembly line workers are found having no alienation from work either
at the overall level or with respect to any of the worker alienation dimensions.

Thus, from the above given findings, it can be understood that the null-hypotheses stating no relationship between the personal variables and worker alienation cannot be accepted.

5.4 Findings on personal variables with regard to leisure orientation:

As regard to the testing of the specific null hypotheses viz.,

1. "There is no relationship between the selected personal variables and the overall leisure orientation among the assembly line workers."

2. "There is no relationship between the selected personal variables and the dimensions of leisure orientation among the assembly line workers."

The application of the t-test and ANOVA, has given the findings that:

1. The personal variable, **age**, even though it does not have any significant influence on the respondents’ overall Leisure orientation of the respondents, in case of more than 40 years of age category, it has a significant influence on their Fitness orientation (Table 4.4.1).

2. The personal variable, **types of education**, does not have any significant influence on the respondents’ overall leisure orientation as well as on any of its dimensions (Table 4.4.2).

3. The personal variable, **marital status**, even though it does not have any significant influence on the respondents’ overall leisure orientation, in case of married respondents, it has a significant influence on their leisure orientation dimensions- Team orientation and Compensatory orientation (Table 4.4.3).

4. The personal variable, **type of family**, does not have any significant influence on the respondents’ overall leisure orientation as well as on any of its dimensions (Table 4.4.4).

5. The personal variable, **number of earning members in the family**, with particular reference to one earning member in the family, it has a
significant influence on the overall leisure orientation of the respondents through the leisure orientation dimensions—Skill orientation and Social orientation (Table 4.4.5).

6. The personal variable, ownership of motor vehicles, even though it does not have any significant influence on the respondents' overall leisure orientation, in case of respondents owning motor vehicles, it has a significant influence on their Team orientation (Table 4.4.6).

7. The personal variable, nature of residence, does not have significant influence on the respondents' overall leisure orientation as well as on any of its dimensions (Table 4.4.7).

8. The personal variable, ownership of residence, does not have significant influence on the respondents' overall leisure orientation as well as on any of its dimensions (Table 4.4.8).

9. The personal variable, time taken for travel to come to work, with particular reference to less than or equal to one hour of travel time per day, has a significant influence on the respondents' overall leisure orientation through the leisure orientation dimensions—Economic orientation and Spillover orientation (Table 4.4.9).

10. The personal variable, job category, even though it does not have any influence on the respondents' overall leisure orientation, in case of the respondents performing semi-skilled job, it has significant influence on their leisure orientation dimension Economic orientation (Table 4.4.10).

11. The personal variable, location of industry, with particular reference to Hosur (semi-urban), has a significant influence on the respondents' overall leisure orientation through the leisure orientation dimensions—Skill orientation, Achievement orientation, Fitness orientation, Spillover orientation and Social orientation (Table 4.4.11).

12. The personal variable, religion, even though it does not have any influence on the respondents' overall Leisure orientation, the Hindu religion has a significant influence on leisure orientation dimension—
Spillover orientation and the Christian religion has a significant influence on the dimension- Affiliation orientation (Table 4.4.12).

13. The personal variable, daily leisure time availability, even though it does not have a significant influence on the respondents’ overall leisure orientation, in case of less than 3 hours leisure time availability category it has a significant influence on their Skill orientation and Social orientation, whereas in case of 3-5 hours of leisure time availability category, it has a significant influence on their Achievement orientation (Table 4.4.13).

14. The personal variable, number of dependents in the respondents’ family, does not have significant influence on the respondents’ overall leisure orientation as well as on any of its dimensions (Table 4.4.14).

15. The personal variable, monthly total family income, has a significant influence on the respondents’ overall leisure orientation through the leisure orientation dimensions- Skill orientation and Spillover orientation (Table 4.4.15).

16. The personal variable, family size, does not have any significant influence on the respondents’ overall leisure orientation as well as on any of its dimensions (Table 4.4.16).

17. The Personal variable, indebtedness, has a significant influence on the respondents’ overall leisure orientation through the leisure orientation dimensions- Achievement orientation, Spillover orientation and Social orientation (Table 4.4.17).

18. The personal variable, participation level in union activities, even though it does not have any significant influence on the respondents’ overall leisure orientation, in case of moderate and high level union participation categories, it has a significant influence on their Social orientation (Table 4.4.18).

19. The personal variable, participation level in political activities, does not have any significant influence on the respondents’ overall leisure orientation as well as on its dimensions (Table 4.4.19).
20. The personal variable, *work experience*, even though it does not have a significant influence on the respondents' overall leisure orientation, in case of *less than 5 years experience* category, it has a significant influence on the leisure orientation dimension *Fitness orientation* (Table 4.4.20).

*Thus, from the above it is found that:*

1. The assembly line workers possess a varied types and levels of leisure orientation.

2. Among the different types of leisure orientations, the most prevalent types are found to be (1) *Social orientation* (2) *Skill orientation* (3) *Spillover orientation* and (4) *Achievement orientation*.

3. The other types of leisure orientations are, however, observed to be prevalent at a lesser extent.

The above given findings also give to understand the fact that the type and nature of leisure orientation among the assembly line workers vary with respect to the type and nature of the personal variables as given below:

1. In case of the following five personal variables viz., number of earning members in the family (*one earning member*), time taken for travel to work (*less than or equal to 1 hour*), location of industry (*Hosur – Semi-urban*), monthly total family income (*below Rs. 5, 000*), indebtedness (*highly indebted*), the assembly line workers are found to have a significant overall leisure orientation with specific reference to the personal variable category (given in brackets).

2. As regards to the eight personal variables viz., age group (*Fitness orientation*), marital status (*Team orientation and Compensatory orientation*), ownership of motor vehicles (*Team orientation*), job category (*Economic orientation*), religion (*Affiliation orientation and Spillover orientation*), daily leisure time availability (*Skill orientation, Achievement orientation, and Social orientation*), participation level in union activities (*Social orientation*) and work experience (*Fitness
orientation), even though no significant leisure orientation is found at the overall level, a significant orientation is found with respect to the leisure orientation dimensions mentioned against them in brackets.

3. On the other hand, with regard to the remaining seven personal variables viz., types of education, type of family, nature of residence, ownership of residence, number of dependents in the family, family size and participation level in political activities, the assembly line workers are found to have significant leisure orientation neither with regard to the overall leisure orientation nor on any of its dimensions.

Thus, from the above given findings, it can be understood that the null-hypotheses stating no relationship between the personal variables and leisure orientation cannot be accepted.

5.5 Findings on personal variables with regard to leisure participation:

As regard to the testing of the specific null hypotheses (given below), the findings arrived through the application of the t-test and ANOVA, for better understanding are presented under the following three sub-headings.

1. “There is no relationship between the personal variables and the overall leisure participation among the assembly line workers.”

2. “There is no relationship between the personal variables and the dimensions of leisure participation among the assembly line workers.”

a) Self-sponsored (Legitimate and Tabooed) leisure with respect to personal variables.

1. The personal variable, age, with particular reference to the age group less than or equal to 40 years, has a significant influence on the respondents’ overall self-sponsored leisure participation through the dimensions of self-sponsored (legitimate) leisure participation Entertainment / Literary activities, Community work, Social relations and Self-development activities (Table 4.5.1).
2. The personal variable, **types of education**, even though it does not have a significant influence on the respondents’ overall self-sponsored leisure participation, in case of the non-technical category of respondents, it has a significant influence on the self-sponsored (legitimate) leisure participation dimension - Self-development activities (Table 4.5.2).

3. The personal variable, **marital status** does not have any significant influence on the respondents’ overall Self-sponsored leisure participation as well as on its dimensions (Table 4.5.3).

4. The personal variable, **type of family**, does not have any significant influence on the respondents’ overall self-sponsored leisure participation as well as on its dimensions (Table 4.5.4).

5. The personal variable, **number of earning members in the family**, does not have any significant influence on the respondents’ overall self-sponsored leisure participation as well as on its dimensions (Table 4.5.5).

6. The personal variable, **ownership of motor vehicles**, with particular reference to the respondents owning motor vehicle, has a significant influence on the respondents’ overall self-sponsored leisure participation through the dimensions of self-sponsored (legitimate) leisure participation Entertainment / Literary activity and Social relations (Table 4.5.6).

7. The personal variable, **nature of residence**, even though it does not have a significant influence on the respondents’ overall self-sponsored leisure participation in case of respondents living in apartments / row houses, it has a significant influence on the leisure participation dimension- Family related activities (Table 4.5.7).

8. The personal variable, **ownership of residence**, with particular reference to the respondents living in rented houses, has a significant influence on the respondents’ overall self-sponsored leisure participation through the
dimensions of self-sponsored (legitimate) leisure participation—*Social relations* and *Self-development activities* (Table 4.5.8).

9. The personal variable, **time spent on travel to come to work**, with particular reference to the respondents spending *less than or equal to 1 hour on travel*, has a significant influence on the respondents’ overall self-sponsored leisure participation through the dimensions of self-sponsored (legitimate) leisure participation—*Community work* and *Social relations* (Table 4.5.9).

10. The personal variable, **job category**, does not have any significant influence on the respondents’ overall self-sponsored leisure participation as well as on its dimensions (Table 4.5.10).

11. The personal variable, **location of industry**, with particular reference to the location *Hosur*, has a significant influence on the respondents’ overall self-sponsored leisure participation through all the dimensions of self-sponsored (legitimate) leisure participation viz., *Entertainment / Literary activities, Community work, Social relations, Religious activities, Self-development activities* and *Family related activities* (Table 4.5.11).

12. The personal variable, **religion**, does not have any significant influence on the respondents’ overall self-sponsored leisure participation as well as on its dimensions (Table 4.5.12).

13. The personal variable, **daily leisure time availability**, with particular reference to *3-5 hours of leisure time per day*, has a significant influence on the respondents’ overall self-sponsored leisure participation through the dimensions of self-sponsored (legitimate) leisure participation—*Social relations, Religious activities, Self-development activities* and *Family related activities* and as well through the dimension of *self-sponsored (tabooed) leisure* (Table 4.5.13).
14. The personal variable, *number of dependents in the family*, does not have any significant influence on the respondents' overall self-sponsored leisure participation as well as on its dimensions (Table 4.5.14).

15. The personal variable, *monthly total family income*, even though does not have a significant influence on the respondents' overall self-sponsored leisure participation in case of the respondents with *Rs.5,000- 10,000 monthly total family income*, it has a significant influence on the self-sponsored (legitimate) leisure participation dimension - *Family related activities* (Table 4.5.15).

16. The personal variable, *family size*, with particular reference to family size *more than 6 members*, has a significant influence on the respondents' overall self-sponsored leisure participation through the dimension of self-sponsored (legitimate) leisure participation - *Community work* (Table 4.5.16).

17. The personal variable, *indebtedness*, does not have any significant influence on the respondents' overall self-sponsored leisure participation as well as on its dimensions (Table 4.5.17).

18. The personal variable, *participation level in union activities*, with particular reference to *high level of participation in union activities*, has a significant influence on the respondents' overall self-sponsored leisure participation through the dimension of self-sponsored (legitimate) leisure participation - *Community work, Social relations, Religious activities and Self-development activities* (Table 4.5.18).

19. The personal variable, *participation level in political activities*, even though does not have a significant influence on the respondents' overall self-sponsored leisure participation in case of the respondents with *high level of participation in political activities*, it has a significant influence on the self-sponsored (legitimate) leisure participation dimension - *Community work* (Table 4.5.19).
20. The personal variable, *work experience*, even though does not have a significant influence on the respondents’ overall self-sponsored leisure participation in case of the respondents with *more than 10 years of work experience*, it has a significant influence on the self-sponsored (legitimate) leisure participation dimension—*Family related activity* as well as on participation in *self-sponsored tabooed leisure* (Table 4.5.20).

*Thus, from the above it can be understood that:*

1. The assembly line workers are found to have a reasonable extent of leisure participation in the category of self-sponsored (legitimate) leisure.

2. In this category, the predominant dimensions / areas of their participation are found in the cases of *Entertainment / Literary activities, Community work, Social relations, Self-development activities, Family related activities and Religious activities.*

3. On the other hand, the participation of the respondents, in the category of self-sponsored (tabooed) leisure is found to be very limited and restricted.

Further, the choice and level of their participation in the Self-sponsored (legitimate) leisure is also found varying with respect to the type and nature of the personal variable, as given below:

1. Eight personal variables viz., age of the respondents (*less than or equal to 40 years*), ownership of motor vehicle (*owing motor vehicle*), ownership of residence (*rented*), time taken for travel to work (*less than or equal to 1 hour*), location of Industry (*Hosur — semi-urban*), daily leisure time availability (*3-5 hours per day*), family size (*more than 6 members*), and participation level in union activities (*high level of participation*) have a significant relationship with the overall self-sponsored leisure participation of the assembly line workers with respect to the category of personal variable given in brackets.
2. As regards to the five personal variables viz., types of education (Self-development activities), nature of residence (Family related activities), monthly total family income (Family related activities), participation level in political activities (Community activities) and work experience (Religious activity, Family related activity and Tabooed leisure), even though they are found not to have any significant relationship with overall self-sponsored leisure participation, they do have a significant relationship with the self-sponsored leisure participation in its dimensions mentioned against them in brackets.

3. On the other hand, the remaining seven personal variables viz., marital status, type of family, number of earning members in the family, job category, religion, number of dependents in the family and indebtedness are found to have no significant relationship neither with the overall self-sponsored leisure participation nor on any of its dimensions among the assembly line workers.

b) Institutional leisure participation with respect to personal variables (Table 4.5.1 to 4.5.20):

1. The participation of assembly line workers in the intuitional leisure is found to be extremely limited.

2. The choice and level of the respondents’ participation in institutional leisure is also found varying with respect to the type and nature of the personal variables, details as given below:

   (i) Five personal variables viz., age (less than or equal to 40 years), ownership of motor vehicle (owning motor vehicle), location of Industry (Hosur. semi-urban), religion (Hindu) and participation level in union activities (high level of participation), with respect to the category of the variable given in brackets, are found to have a significant relationship with the respondents’ participation in institutional leisure.

   (ii) A large number of fifteen personal variables viz., types of education, marital status, type of family, number of earning members in the family, nature of residence, ownership of residence, time taken
to travel to work, job category, daily leisure time availability, number of dependents in the family, monthly total family income, family size, indebtedness, participation level in political activities and work experience are found to have no significant relationship with the respondents participation in institutional leisure.

Thus, from the above given two category of findings, it can be understood that the null-hypotheses stating no relationship between the personal variables and leisure participation cannot be accepted.

5.6 Findings on the association between key variables after controlling the personal variables:

The relationship between the three key variables (worker alienation, leisure orientation and leisure participation), ascertained (through the application of Chi-square test), through the testing of the following specific null hypotheses viz.,

"There is no association between worker alienation and leisure orientation among the assembly line workers with respect to the personal variables,"

"There is no association between worker alienation and leisure participation among the assembly line workers with respect to the personal variables,"

has given the following findings:

a) Association between worker alienation and leisure orientation with respect to the personal variables (Table 4.6.1):

1. As regards the personal variable types of education (non-technical / technical), it has been found that there is an association between worker alienation and leisure orientation with respect to the category non-technical educational qualification.

2. As regards the personal variable religion (Hindu, Christian and Muslim), it has been found that there is an association between worker alienation and leisure orientation with respect to the category Hindu.

3. As regards the personal variable indebtedness (highly indebted / moderately indebted / not indebted), it has been found that there is an
association between worker alienation and leisure orientation with respect to the category *not indebted*.

4. As regards the personal variable **nature of residence** (*living in independent house / apartments or row houses*), it has been found that there is an association between worker alienation and leisure orientation with respect to the category *living in apartment and row houses*.

5. As regards the personal variable **ownership of residence** (*living in own house / rental house*), it has been found that there is an association between worker alienation and leisure orientation with respect to the category *living in own house*.

6. As regards the personal variable **participation level in union activities** (*low level of participation / moderate level of participation / high level of participation*), it has been found that there is an association between worker alienation and leisure orientation with respect to the category *low participation in union activities*.

7. As regards the personal variable **participation level in political activities** (*low level of participation / moderate level of participation / high level of participation*), it has been found that there is an association between worker alienation and leisure orientation with respect to the categories *low and moderate participation in political activities*.

8. As regards the personal variable **work experience** (*less than 5 years of experience / 5-10 years / more than 10 years of experience*) it has been found that there is an association between worker alienation and leisure orientation with respect to the category *more than 10 years of work experience*.

**From the above given findings it can be inferred that:**

i. There is an association between worker alienation and leisure orientation with respect to the eight personal variables viz., types of education (*non technical*), religion (*Hindu*), indebtedness (*not indebted*), nature of residence
living in apartments and row houses), ownership of residence (living in own house), participation level in union activities (low participation in union activities), participation level in political activities (low and moderate participation in political activities), and work experience (more than 10 years of work experience) given in brackets.

ii. There is no association between worker alienation and leisure orientation with respect to the remaining twelve personal variables viz., age group (less than or equal to 40 years and more than 40 years of age); marital status (married and unmarried); type of family (joint family and nuclear family); daily leisure time availability (less than 3 hrs / 3-5 hrs / more than 5 hrs); number of dependents in the family (less than or equal to 2 dependents / 3-5 dependents / more than 5 dependents); number of earning members in the family (one earning member / more than one earning member); monthly total family income (below Rs. 5,000 P.M / 5000-10000 P.M / above 10000 P.M); family size (less than or equal to 3 members / 4-6 / more than 6 members); ownership of motor vehicle (owning motor vehicle / not owning motor vehicle); time taken for travel (less than or equal to 1 hour per day / more than 1 hour per day); job category (skilled / semi-skilled); location of industry (Chennai / Hosur).

b) Relationship between worker alienation and leisure participation with respect to the personal variables (Table 4.6.2):
Regarding the association between the other two key variables viz., worker alienation and leisure participation with respect to the personal variables it has been found that:

1. As regards the personal variable age group (less than or equal to 40 years / more than 40 years), it has been found that there is an association between worker alienation and leisure participation with respect to the category more than 40 years of age.

2. As regards the personal variable types of education (technical / non-technical), it has been found that there is an association between worker alienation and leisure participation with respect to the category non-technical.
3. As regards the personal variable *religion* (*Hindu / Christian / Muslim*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *Hindu*.

4. As regards the personal variable *marital status* (*married / unmarried*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *married respondents*.

5. As regards the personal variable *type of family* (*joint family / nuclear family*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *nuclear family*.

6. As regards the personal variable *daily Leisure time availability* (*< 3 hours per day / 3-5 hours / > 5 hours per day*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *less than 3 hours of leisure time per day*.

7. As regards the personal variable *number of dependents in the family* (*less than or equal to 2 / 3-5 / more than 5 dependent members*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *3-5 dependent members in the family*.

8. As regards the personal variable *number of earning members in the family* (*one / More than one*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *one earning member in the family*.

9. As regards the personal variable *monthly total family income* (*below Rs.5000 / 5000-10000 / above 10000 per month*), it has been found that there is an association between worker alienation and leisure participation with respect to the category *Rs. 5000-10000 income per month*.

10. As regards the personal variable *family size* (*less than or equal to 3 / 4-6 / more than 6 members*), it has been found that there is an association
between worker alienation and leisure participation with respect to the category less than or equal to 3 members family size.

11. As regards the personal variable **indebtedness** (highly indebted / moderately indebted / not indebted), it has been found that there is an association between worker alienation and leisure participation with respect to the category highly indebted.

12. As regards the personal variable **ownership of motor vehicles** (owning / not owning), it has been found that there is an association between worker alienation and leisure participation with respect to the category owning motor vehicle.

13. As regards the personal variable **nature of residence** (independent house / apartments and row house), it has been found that there is an association between worker alienation and leisure participation with respect to the category living in Independent house.

14. As regards the personal variable **ownership of residence** (owned / rented), it has been found that there is an association between worker alienation and leisure participation with respect to the category living in owned houses.

15. As regards the personal variable **participation level in union activities** (low / moderate / high), it has been found that there is an association between worker alienation and leisure participation with respect to the categories low and moderate level of participation in union activities.

16. As regards the personal variable **participation level in political activities** (low / moderate / high), it has been found that there is an association between worker alienation and leisure participation with respect to the category low level of participation in political activities.

17. As regards the personal variable **work experience** (less than 5 yrs of experience / 5-10 / more than 10 years of experience), it has been found that there is an association between worker alienation and leisure
participation with respect to the category more than 10 years of work experience.

18. As regards the personal variable time taken for travel (less than or equal to 1 hour per day / more than 1 hour per day), it has been found that there is an association between worker alienation and leisure participation with respect to the category less than or equal to 1 hour per day.

19. As regards the personal variable job category (skilled / semi skilled), it has been found that there is an association between worker alienation and leisure participation with respect to the skilled Job category.

20. As regards the personal variable location of industry (Chennai / Hosur), it has been found that there is an association between worker alienation and leisure participation with respect to the category Hosur (semi urban location).

Thus, from the above given findings, it can be inferred that:

There is an association between worker alienation and leisure participation with respect to all the twenty personal variables viz., age group (more than 40 years of age), types of education (non-technical), religion (Hindu), marital status (married), type of family (nuclear family), daily leisure time availability (less than 3 hours of leisure time), number of dependents in the family (3-5 dependent members in the family), number of earning members in the family (one earning member), monthly total family income (Rs. 5,000-10,000 income per month), family size (less than or equal to 3 members family size), indebtedness (highly indebted), ownership of motor vehicles (owning motor vehicle), nature of residence (living in independent house), ownership of residence (own house), participation level in union activities (low and moderate level of participation in union activities), participation level in political activities (low level of participation in political activities), work experience (more than 10 years of work experience), time taken for travel (less than or equal to 1 hour per day), job category (skilled job category), location
of industry (Hosur - semi urban) with respect to the variables given in brackets.

5.7 Findings on correlation between the key variables:
The correlation analysis used to ascertain the correlation between the key variables has given the following findings.

A) Findings of correlation between worker alienation and leisure orientation (Table 4.7.1):
A significant negative correlation is found between the overall worker alienation and overall leisure orientation (-0.193) of the respondents. In specific, a significant negative correlation is found between dimensions of worker alienation - Meaninglessness (-0.273), Isolation (-0.136), and self-estrangement (-0.167) and the overall leisure orientation. Further in particular, the significant negative correlation found between the dimensions of leisure orientation and dimensions of worker alienation with respect to:

a. Skill orientation and all the five dimensions of worker alienation-
   Powerlessness (-0.186), Meaninglessness (-0.260), Normlessness(-0.253),
   Isolation (-0.305) and Self-estrangement(-0.275).

b. Achievement orientation and the two dimensions of worker alienation -
   Meaninglessness (-0.180) and Isolation (-0.131).

c. Economic orientation and the Meaninglessness (-0.152) dimension of worker alienation.

d. Spillover orientation and all the five dimensions of worker alienation-
   Meaninglessness (-0.303), Normlessness (-0.143), Isolation (-0.137), Self-
   estrangement (-0.217).

e. Social orientation and all the five dimensions of worker alienation-
   Powerlessness (-0.239), Meaninglessness (-0.296), Normlessness (-0.242),
   Isolation (-0.183), Self-estrangement (-0.301).

Thereby, from the study it has been found that:

(i) When there is an increase in the overall leisure orientation among the assembly line workers, there will be a decrease in the overall worker alienation.
(ii) In specific, when the overall leisure orientation increases, there will be a decrease in worker alienation through its dimensions of *Meaninglessness, Isolation and Self-estrangement*.

(iii) In other words, if there is an increase in leisure orientation in its dimensions viz., (i) *Skill orientation*, (ii) *Achievement orientation*, (iii) *Economic orientation*, (iv) *Spillover orientation* and (v) *Social orientation*, there will be a decrease in worker alienation.

**B) Findings on correlation between worker alienation and leisure participation**

(Table 4.7.2):

1) As regards the *dimensions of worker alienation* and *dimensions of self-sponsored (legitimate) leisure participation*, the significant negative correlation is observed with respect to:

   a) *Entertainment / literary activities* and the four dimensions of worker alienation- *Powerlessness* (-0.300), *Normlessness* (-0.172), *Isolation* (-0.200) and *Self-estrangement* (-0.191).

   b) *Community work* and all the five dimensions of worker alienation- *Powerlessness* (-0.325), *Meaninglessness* (-0.281), *Normlessness* (-0.278) and *Self-estrangement* (-0.391).

   c) *Social relations* and all the five dimensions of worker alienation- *Powerlessness* (-0.320), *Meaninglessness* (-0.180), *Normlessness* (-0.192), *Isolation* (-0.301) and *Self-estrangement* (-0.223),

   d) *Religious activities* and four dimensions of worker alienation- *Powerlessness* (-0.161), *Normlessness* (-0.137), *Isolation* (-0.213) and *Self-estrangement* (-0.170).

   e) *Self-development activities* and four dimensions of worker alienation- *Powerlessness* (-0.395), *Normlessness* (-0.175), *Isolation* (-0.287) and *Self-estrangement* (-0.278).

   f) *Family related activities* and the *Isolation* (-0.185) dimension of worker alienation.

2) In case of participation in *self-sponsored (tabooed) leisure activities*, a significant positive correlation is observed with respect to the *Normlessness* dimension of worker alienation.
3) In case of participation in institutional leisure activities a significant negative correlation is observed with respect to the three worker alienation dimensions viz., Powerlessness (-0.269), Isolation (-0.266) and Self-estrangement (-0.161).

Thereby, as regard to the correlation between worker alienation and leisure participation among the assembly line workers is concerned, the study has come out with the findings that:

(i) When there is an increase in the self-sponsored (legitimate) leisure participation on its seven dimensions viz., Entertainment / literary activities, Community work, Social Relations, Religious Activities, Self-development Activities, Family related activities, there will be a decrease in worker alienation.

(ii) When there is a decrease in the self-sponsored (tabooed) leisure participation, there will be decrease in worker alienation mainly through its dimension Normlessness.

(iii) When there is an increase in the institutional leisure participation, there will be decrease in worker alienation through its dimensions Powerlessness, Isolation and Self-estrangement.

C) Findings on correlation between leisure orientation and leisure participation with respect to worker alienation (Tables 4.7.3, 4.7.4, 4.7.5, 4.7.6):

1) As regards the relationship between the respondents’ overall leisure orientation and overall leisure participation, no significant correlation is observed in the cases of the following three overall categories viz.,

(i) Overall leisure orientation and self-sponsored leisure (legitimate and tabooed) participation.

(ii) Overall leisure orientation and self-sponsored leisure (tabooed) participation.

(iii) Overall leisure orientation and institutional leisure participation (Table 4.7.3)
However, the relationship between overall leisure orientation and overall leisure participation with respect to worker alienation (high alienation, average alienation and low alienation) has indicated that (Table 4.7.4, 4.7.5, 4.7.6):

1. There is a significant positive correlation between the overall self-sponsored leisure participation (legitimate and tabooed) and overall leisure orientation in the case of high alienation.

2. There is no significant correlation between the overall leisure orientation and overall self-sponsored (tabooed) leisure participation in cases of low, average and high alienation.

3. There is a significant and positive correlation between the institutional leisure participation and overall leisure orientation in case of high alienation.

Thereby, the study has come out with the significant finding that:

(i) There exist a significant and positive correlation between the respondents’
   a. Overall leisure orientation, and overall self-sponsored (legitimate and tabooed) leisure participation, and
   b. Overall leisure orientation and institutional leisure participation
   with respect to high alienation.

(ii) When there is an increase in,
   a. Overall leisure orientation and overall self-sponsored (legitimate and tabooed) leisure participation,
   b. Overall leisure orientation and institutional leisure participation
   among the assembly line workers, the feeling of worker alienation arising out of the nature of the assembly line job, particularly in the case of high alienation, can be mitigated.

(iii) In case of high alienation, it has an influencing effect on the leisure behavior of the respondents and vice versa.

2) As regards the relationship between the six dimensions of self-sponsored (legitimate) leisure participation and the overall leisure orientation, a significant
positive correlation is found only with respect to the self-sponsored (legitimate) participation dimension Social relations (0.153 / Table 4.7.3).

This has given the finding that when the respondents’ overall leisure orientation increases there will be an increase in their participation in Social relations activity dimension of self-sponsored (legitimate) participation.

However, as regards the relationship between overall leisure orientation and the self-sponsored (legitimate) leisure participation with respect to worker alienation (high alienation, average alienation and low alienation), the study has given the findings that there is a significant positive correlation with respect to the five dimensions of self-sponsored (legitimate) leisure participation viz., Entertainment and Literary activities (0.366), Community work (0.391), Social Relations (0.507), Religious activity (0.340), and Self-development activities (0.382) and Overall self-sponsored Leisure orientation (0.542) in case of high alienation (Table 4.7.6)

Thereby the study has come out with the significant finding that:

(i) High alienation has an influencing effect on the leisure behavior of the respondents with respect to self-sponsored (legitimate) leisure participation and overall leisure orientation through the five dimensions of leisure participation viz., Entertainment, Community work, Social relations, Religious activity, and self-development activities.

(ii) In other words, it can be stated that by enhancing the respondents’ participation in the five self-sponsored (legitimate) leisure participation dimensions viz., Entertainment, Community work, Social relations, Religious activity, and Self-development activities, the feeling of worker alienation arising out of the nature of assembly line job particularly in the case of high alienation, can be mitigated.

3) As regards the relationship between the dimensions of self-sponsored (legitimate) leisure participation and the dimensions wise analysis of leisure orientation has given the findings that:
a) A significant positive correlation is found between the **Skill orientation dimension** of leisure orientation and all the **six dimensions of self-sponsored (legitimate) leisure participation** viz., Entertainment (0.142), Community Work (0.129), Social Relations (0.219), Religious activities (0.168), Self-development activities (0.244), Family related Activities (0.157) (Table 4.7.3).

This has given the finding that when the respondents’ Skill Orientation increases, their participation in self-sponsored (legitimate) leisure in its dimensions Entertainment, Community work, Social relations, Religious activities, and Self-development activities will be increasing.

However, with respect to the worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate) leisure participation and the Skill orientation dimension of leisure orientation, has given the finding that there is a positive significant correlation with respect to the five self-sponsored (legitimate) leisure participation dimensions viz., Entertainment (0.433), Community work (0.268), Social relations 0.422), Religious activities (0.265) and Self-development activities (0.350) in the case of high alienation (Table 4.7.6).

**Thereby the study has come out with the significant finding that:**

(i) High alienation has an influencing effect on the leisure behavior of the respondents with respect to **self-sponsored (legitimate) leisure participation and the Skill orientation dimension of leisure orientation** through the five dimensions of leisure participation viz., Entertainment, Community work, Social relations, Religious activities and Self development activities.

(ii) In other words, it can be stated that by enhancing the respondents’ Skill orientation and their participation in five self-sponsored (legitimate) leisure participation dimensions viz., Entertainment, Community work, Social relations, Religious activities and Self development activities, the feeling of worker alienation arising out of the nature of assembly line job, particularly in the case of high alienation, can be mitigated.
b) A significant positive correlation is found between three *dimensions of self-sponsored (legitimate) leisure participation* viz., Social Relations (0.139), Self-development activity (0.159) and Family related Activities (0.128) and the *Achievement orientation* dimension of leisure orientation (Table 4.7.3)

This has given the finding that when the Achievement orientation increases, the participation in self-sponsored (legitimate) leisure in its dimensions Social relations, Self- development activity and Family related activities would increase.

However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate) leisure participation and the Achievement orientation dimension of leisure orientation, has given the finding that there is a positive correlation between:

   a. *Family related activities* dimension of self-sponsored (legitimate) leisure participation and the *Achievement orientation* in case of low alienation.

   b. *Self-development activities* (0.282) dimension of self-sponsored (legitimate) leisure participation and the *Achievement orientation* in case of high alienation.

*Thereby the study has come out with the significant finding that:*

(i) Average alienation has an influencing effect on the leisure behavior of the respondents with respect to their *self-sponsored (legitimate) leisure participation* and the *Achievement orientation* dimension of leisure orientation through the leisure participation dimension Family related activities.

(ii) High alienation has an influencing effect on the leisure behavior of the respondents with respect to their *self-sponsored (legitimate) leisure participation* and the *Achievement orientation* dimension of leisure orientation through the leisure participation dimension Self-development activities.

(iii) In other words, it can be stated that in case of average alienation, by enhancing the Achievement orientation through the participation in Family related
activity; and in case of high alienation, by enhancing the Achievement orientation through the Self-development activity the effects of worker alienation, with particular reference to average and high alienation, can be mitigated.

c) There is only a negative correlation observed between the five dimensions of self-sponsored (legitimate) leisure participation and Energy orientation dimension of leisure orientation as given below (Table 4.7.3). This has given the finding that when the Energy orientation increases, the participation in self-sponsored (legitimate) leisure will not be increasing. However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate) leisure participation and the Energy orientation dimension of leisure orientation, has given the finding that there is no positive correlation between any of the dimensions.

Thereby the study has come out with the significant finding that:

Low alienation and average alienation have a significant but negative influencing effect on the leisure behavior of the respondents with respect to the five dimensions of self-sponsored (legitimate) leisure participation and Energy orientation dimension of leisure orientation and high alienation has no significant influencing effect. In other words the study has given the finding that the enhancement of self-sponsored (legitimate) leisure participation through the Energy orientation dimension of leisure orientation will not mitigate the feeling of worker alienation.

d) No significant correlation is observed between all the six dimensions of self-sponsored (legitimate) leisure participation and the Team orientation dimension of the leisure orientation (Table 4.7.3). This has given the finding that when the Team orientation increases, the participation in self-sponsored (legitimate) leisure will not be increasing. However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate) leisure participation and the Team orientation dimension of leisure orientation, has
given the finding that there is no positive correlation between any of the dimensions.

Thereby the study has come out with the significant finding that:

Low alienation and average alienation have a significant but negative influencing effect on the leisure behavior of the respondents with respect to the five dimensions of *self-sponsored (legitimate) leisure participation* and *Team orientation* dimension of leisure orientation, where as, high alienation has no significant influencing effect.

In other words the study has given the finding that the enhancement of *Self-sponsored (legitimate) leisure participation* through the *Team orientation* dimension of Leisure orientation will not contribute to mitigate the feeling of worker alienation.

e) A significant positive correlation is observed between the dimensions of *self-sponsored (legitimate) leisure participation* and *Affiliation orientation* only with respect to the *Social relations* dimension of leisure participation (0.157) dimension of self-sponsored leisure participation. (Table 4.7.3).

This has given the finding that when the Affiliation orientation increases, the participation in self-sponsored (legitimate) leisure in its dimensions Social relations, would increase.

However, with respect to the worker alienation (low alienation, average alienation and high alienation), the correlation between the *dimensions of self-sponsored (legitimate) leisure participation* and the *Affiliation orientation dimension of leisure orientation*, has given the finding that there is a positive correlation between Entertainment (0.270), Community work (0.358), Social relations (0.431), Religious activities (0.362) and Self development activities (0.318), dimensions of self-sponsored (legitimate) leisure participation and the *Affiliation orientation* in case of high alienation (Table 4.7.6).
Thereby the study has come out with the significant finding that:

i) High alienation has an influencing effect on the leisure behavior of the respondents with respect to their *self-sponsored (legitimate) leisure participation* and the *Affiliation orientation* dimension of leisure orientation through the leisure participation dimensions- Entertainment, Community work, Social relations, Religious activities and Self development activities.

ii) In other words, it can be stated that in case of high alienation, by enhancing the Affiliation orientation through the participation in the leisure participation dimensions- Entertainment and Literary activities, Community work, Social relations, Religious activities and Self development activities, the effects of worker alienation, with particular reference to high alienation can be mitigated.

f) No significant positive correlation is observed between the *dimensions of self-sponsored (legitimate) leisure participation* and *Fitness orientation* dimension of leisure orientation. (Table 4.7.3).

This has given the finding that when the Fitness orientation increases, the participation in self-sponsored (legitimate) leisure will not be increasing.

However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the *dimensions of self-sponsored (legitimate) leisure participation* and the *Fitness orientation dimension of leisure orientation*, has given the finding that there is no significant positive correlation between in the cases of low / average / high alienation.

Thereby the study has come out with the significant finding that:

iii) Low / average / high alienation have no influencing effect on the leisure behavior of the respondents with respect to their *self-sponsored (legitimate) leisure participation* and the *Fitness orientation* dimension of leisure orientation.
iv) In other words it can be stated that in cases of low / average / high worker alienation, the enhancement of both leisure orientation through its dimension Fitness orientation and any of the dimensions of leisure participation will not mitigate worker alienation.

g) A significant positive correlation is observed between the dimensions of **self-sponsored (legitimate) leisure participation** and **Economic orientation** dimension of leisure orientation only with respect to **Social relations** (0.196) dimension of leisure participation (Table 4.7.3)

This has given the finding that when the Economic orientation increases, the participation in self-sponsored (legitimate) leisure in its dimension Social relations, would increase.

However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the **dimensions of self-sponsored (legitimate) leisure participation** and the **Economic orientation dimension of leisure orientation**, has given the finding that there is a positive correlation between **self-sponsored (legitimate) leisure participation** in its dimension **Social Relation** and the **Economic orientation dimension of leisure orientation** (0.359) in case of **high alienation**. (Table 4.7.6)

**Thereby the study has come out with the significant finding that:**

(i) High alienation has an influencing effect on the leisure behavior of the respondents with respect to their **self-sponsored (legitimate) leisure participation** and the **Economic orientation** (0.359) dimension of leisure orientation through the leisure participation dimension Social relations (Table 4.7.6).

(ii) In other words, it can be stated that in case of high alienation, by enhancing the Economic orientation through the participation in Social relations activity the effects of worker alienation with particular reference to high alienation can be mitigated.
h) No significant positive correlation is found between the dimensions of self-sponsored (legitimate Leisure) participation with respect to Compensatory orientation dimension of leisure orientation (Table 4.7.3).

This has given the finding that when the Compensatory orientation increases, the participation in self-sponsored (legitimate) leisure will not be increasing.

However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate) leisure participation and the Compensatory orientation dimension of Leisure orientation, has given the finding that there is a positive correlation between Social Relations (0.348) and Family related activities (0.278) dimensions of self-sponsored (legitimate) leisure participation and the Compensatory orientation in case of high alienation.

Thereby the study has come out with the significant finding that:

(i) High alienation has an influencing effect on the leisure behavior of the respondents with respect to their self-sponsored (legitimate) leisure participation and the Compensatory orientation dimension of leisure orientation through the leisure participation dimensions Social Relations and Family related activities (Table 4.7.6).

(ii) In other words, it can be stated that in case of high alienation, by enhancing the Compensatory orientation through the participation in Social relations and Family related activities, the effects of worker alienation, with particular reference to high alienation can be mitigated.

i) A significant positive correlation is observed between the dimensions of self-sponsored (legitimate) leisure participation and the Spillover orientation dimension of leisure orientation only in the case of Social relations dimension of self-sponsored (legitimate) leisure participation. (0.130) (Table 4.7.3).
This has given the finding that when the Spillover orientation increases, the participation in self-sponsored (legitimate) leisure in its dimensions Social relations would increase.

However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate) leisure participation and the Spillover orientation dimension of leisure orientation, has given the finding that:

(i) High alienation has an influencing effect on the leisure behavior of the respondents with respect to their self-sponsored (legitimate) leisure participation and the Spillover orientation dimension of leisure orientation through the leisure participation dimensions Community work (0.254), Social relations (0.331), Religious activity (0.309) and Self-development activities (0.271).

(ii) In other words it can be stated that in case of high alienation by enhancing the Spillover orientation through the participation in Community work (0.254), Social relations (0.331), Religious activity (0.309) and Self-development activities (0.271), the effects worker alienation with particular reference to high alienation can be mitigated.

j) A significant positive correlation is observed between the dimensions of self-sponsored (legitimate) leisure participation viz., Entertainment (0.140), Community work (0.399), Social relations (0.258), Religious activities (0.128), Self-development activities (0.158) and Social orientation dimension of leisure orientation.

This has given the finding that when the Social orientation increases, the participation in self-sponsored (legitimate) leisure in its dimensions Social relations, Self-development activity and Family related activities would increase.

However, with respect to worker alienation (low alienation, average alienation and high alienation), the correlation between the dimensions of self-sponsored (legitimate)
leisure participation and the Social orientation dimension of leisure orientation, has
given the finding that there is a positive correlation between:

(i) Community work (0.360), Social Relations (0.294) and Self-
development activities (0.268) dimensions of self-sponsored
(legitimate) leisure participation and the social orientation in case of low alienation.

(ii) Community work (0.228), dimension of self-sponsored
(legitimate) leisure participation and Social orientation
dimension of leisure orientation in case of average alienation.

(iii) Community work (0.523), Social Relations (0.311) and Self-
development (0.265) activities dimensions of self-sponsored
(legitimate) leisure participation and Social orientation
dimension of leisure orientation in case of high alienation.

Thereby the study has come out with the significant finding that:

(i) Low alienation has an influencing effect on the leisure behavior
through the three dimensions of leisure participation viz., Community
work, Social relations and Self-development activities.

(ii) Average alienation has an influencing effect on the leisure behavior
through the leisure participation dimension community work.

(iii) High alienation has an influencing effect on the leisure behavior
through the three dimensions of leisure participation viz., Community
work, Social relations and Self-development activities.

From the above given findings with respect to the results of the correlation analysis
given above, clearly establish the fact that:

1. The nature of assembly line job results in worker alienation.

2. Worker alienation resulting from the nature of assembly line job has a
definite influence on the leisure behavior (leisure orientation and leisure
participation) of the respondents.
3. While, low alienation has no influence on the leisure behavior of the respondents, the average alienation has some influence. On the other hand, the high alienation has a significant influence on the leisure behavior of the respondents and vice versa.

4. Alienation resulting out of the nature of the assembly line work has more influence on the respondents' choice / participation in self-sponsored (legitimate) leisure than the participation in institution sponsored leisure or in self-sponsored (tabooed) leisure.

5. As a result, the participation in self-sponsored (legitimate) leisure yields more influence on mitigating / reducing the feeling of work alienation as compared to the respondents' participation in institutional leisure and self sponsored (tabooed) leisure.

6. As regard to the interconnection between "Assembly line work - Worker alienation - Leisure orientation / participation," is concerned, the feeling of work alienation that is bound to arise out of the nature of the assembly line work is concerned, there is a possibility of mitigating / reducing its effects on the worker by increasing / reducing the appropriate leisure orientation and leisure participation dimensions.

7. In particular, the study results indicate that the enhancement of the respondents leisure orientation on its dimensions with particular reference to: Skill orientation, Achievement orientation, Economic orientation, Spillover orientation and Social orientation; and their participation in case of self-sponsored (legitimate) leisure on its dimensions with particular reference to: Participation in Entertainment / literary activities, Community work, Social Relations, Religious Activities, Self-development activities and Family related activities will be contributing to mitigate the effects of worker alienation.
Further from the theoretical point of view the study results has rendered support to:

1. Capitalistic mode of production and the industrial production technology viz., Assembly line (or) Mass scale (or) Small batch production technology results in worker alienation from work.

2. There is a definite relationship between the two domains “Work – Leisure” in the life of the assembly line workers.

3. As regard to the verification of the theoretical models explaining the relations between “Work and Leisure”, the study renders an overwhelming support to the Spillover model. It is also observed rendering limited support to the Compensatory model. On other hand, the third model (i.e.) Segmentation model is not supported by the study.

5.8 Findings based on multiple regression analysis:

a) Dependant variable overall leisure orientation (Y) on the independent variable worker alienation (X) on its dimensions has given the finding that the overall variation of the dependent variable leisure orientation increases when the work alienation dimensions Self-estrangement and Meaninglessness increases on the job.

b) Dependent variable overall leisure Participation (Y) on the independent variable worker alienation (X) on its dimensions has given the finding that overall variation of the dependent variable leisure participation increases when the work alienation dimension Powerlessness increases on the job.

c) Dependent variable overall worker alienation (Y) on the independent variable leisure orientation (X) on its dimensions has given the finding that overall variation of the dependent variable overall worker alienation can be reduced when the respondents’ leisure orientation in its dimensions Social orientation, Fitness orientation, Economic orientation, Skill orientation and Team orientation increased in the leisure domain of the workers.
d) Dependent variable overall worker alienation (Y) on the independent variable leisure participation (X) on its dimensions has given the finding that the overall variation of the dependent variable overall worker alienation decreases through Tabooed activities, Community work, Family related activities and Religious activity.

5.9 Conclusions:

Thus, from the findings given above it can be concluded that worker alienation is not a mere theoretical concept. As advocated by Karl Marx, in the context of the capitalistic system as well as due to the nature of the modern industrial work (with particular reference to the assembly line work) it is an empirical reality too. Further, the link between the work alienation and leisure behavior is also obviously observed.

These two important findings of the present study indicate the fact that the alienating effects of the modern industrial work can be reduced with the appropriate leisure intervention strategies and thereby the employee engagement in work can be increased.

Today, in the industrial organizations, in order to reduce worker alienation vis-à-vis to increase the employee engagement, several HRD intervention strategies such as job enrichment, job enlargement, job rotation, quality circles, small group activities (Kaizen), self-managing teams etc., are attempted world over. But, the usages of leisure time and leisure interests of the employees are not paid sufficient attention as it deserves.

In fact from the findings of the study it is understood that by influencing and enhancing the employee leisure orientation on its dimensions viz., Social orientation, Fitness orientation, Economic orientation, Skill orientation and Team orientation and by providing necessary opportunities and as well enhancing the employee leisure participation on its dimensions with particular reference to Community work, family related activities and religious activity the worker alienation can be properly dealt with.
5. The study has focused only the industrial workers (blue collar). However, there is ample scope for studying all the categories of employees coming under white-collar workers and executive categories depending upon the type of technology employed in their work.

6. The study has focused only one type of manufacturing industry. It can be replicated in other types of manufacturing industries as well to validate the findings arrived by the present study.

7. The present study started with a set of null-hypotheses has given the findings that that there is scope for developing appropriate research hypotheses with respect to the variables under study and to conduct more focused study in this area in future.