IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A Study On The Managerial Role And Organizational Structure On Organizational Effectiveness In The Spinning Mills Of Puducherry Union Territory

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Abstract: The managerial function "organising may be defining and grouping the activities of the enterprise and establishing authority, responsibility and relationship among them. The study focused on the impact of managerial role and socio-economic characteristic on organizational structure and organizational Effectiveness. It used survey method with both primary and secondary source of data. A sample of 75 respondents was taken from employees of spinning mills Statistical tools of like descriptive, correlation analysis were utilised. The study concluded that the managers play a crucial role in organizational effectiveness and lead to a significant increase in organisational Structure with Independent variables.

Index Terms *- Managerial Role, Organizational structure, Organizational Effectiveness*

I. INTRODUCTION

The Indian textile industry is poised to meet the increased global competition in the post 2005 Trade Regime under WTO. The consequent effects of unleashing a flood of imported textiles in India and also making the exports markets for more competitive are being felt by the industry. This industry has a strong multi- fibre raw materials production base, vast pool of skilled personnel, entrepreneurial talent, and good export potential and low import content. Production systems are flexible dynamic and vibrant. However, the industry's diluted on account of technology and supply chain management deficiencies.

Being an organised sector of textile industry has a complete information based on the organisational structure, machinery installations, pattern of production and employment. The composite mill is one where the spinning, weaving and processing facilities are carried out under one roof. Whereas, information based on the unorganised sector on the above yardstick are inadequate and policy planning has so far being based on rough indirect estimation. This unorganised sector is comprised of three major segments, namely; power-loom, handloom and hosiery. In additional that, there are readymade garments, khadi and carpet manufacturing units in the unorganised sector. The power looms and mills are able to go for mass production with better quality products. In spite of the fact that the textile industry could assimilate a high technology levels for better quality production in the market. The Government of India decided to induct 50,000 shuttle less looms and upgrade 2.5 lakhs looms into automatic and semi-automatic power looms in the advent of globalisation (Indian Textile Industry, 2020).

II. REVIEW OF LITERATURE

The researcher reviewed the following previous studies.

The Ph.D., study of Singh (2012), on comparative study of effectiveness of stell manufacturing enterprises. The findings of the study are: effectiveness must be defined from a societal frame of reference. Social, economic and behavioural dimensions were used and effective manager as one which balances its performance in all three dimensions. The study concluded with three dimensional frame work, effectiveness is not defined from the perspective of any single interest group, it allows an assessment of systematic performance by managers itself and it may be applied to both profit and non-profit organisations.

The doctoral study of Kutumbarao (2013) "Management of Central Cooperative Banks". The study limited on organisational structure and management effectiveness. The study also summarised that the personal policies and procedures of the central cooperative banks were absolute, inadequate and ambiguous in several respects. All the higher cadre post were filled in by promotion, hence higher managerial cadre having effective in their positions. Organisation structure is scientific both horizontal and vertical.

Revathi Subramaniam (2015), studied on "A study of hotels in Melbourne with regards to organisational innovations and organisation climate". The study concluded that organisational learning play a significant role in the growth and survival in the workplace today. Innovation is a form of learning and innovation and learning are closely related and for both the concept to exist, climate is an important component in this study.

"Self-Actualisation and Organisational Climate: A Study of Cooperative Bank Managers" studied by Gowri Shankar (2016). The study focused on studying motivational dynamics in terms of Moslowian Self-Actualisation Need theory and its relationship with organisational climate of cooperative banks located in Delhi. The study observed that the perception of managers and their effectiveness establishing the relationship of organisational climate.

An important study was undertaken by Parmer (2017), on "Decision Styles and Organisational Effectiveness". The study covered productivity and adaptability as two important dimensions of organisational effectiveness. Further the productivity was measured in terms of quality of the product, quantity of the product and efficiency with which the production was done. Adaptability was measured in terms of anticipating problems in advance, staying abreact of new technologies, prompt acceptance of solutions and the organisation capacity to cope with temporary unpredictable overloads of work. He also studies how various types of individual needs which he referred them as lower level and higher level needs related to various dimensions of organisational effectiveness.

"Employee Effectiveness towards Organisation and Management in Urban Cooperative Banks" studied by Akula rajagopalrao (2018). The study covered twenty urban cooperative banks in Bangalore city from 500 respondents/ employees. The study concluded that the bank depends upon their capability, performance, employee's knowledge, skill and behaviours to provide better facilities, services and effectiveness. If the employees of urban cooperative banks more effective in their role, they have a very bright, brilliant, shining, effulgent and splendid future.

The important study conducted by Gupta K.C (2019), on "Organisational and Managerial Effectiveness - A Behavioural Study." The study confined to 14 sugar mills operating their operation in India with 165 managers selected as sample. Ten objectives were framed with hypotheses. Organisation structure, centralisation and formalisations are the important variables of this study. The major findings are: managerial effectiveness on over all basis is positively and significantly correlated with dimensions of organisational effectiveness in the sugar industry. Centralisation an overall basis is negatively and significantly correlated with organisational effectiveness. Formalisation on overall basis is positively and significantly correlated with the dimension of organisational effectiveness in the sugar industry. The major conclusion of the study are: the managerial effectiveness can play a vital role in the improvement of effectiveness of organisation. The study also suggested that centralised organisation structures should be done away with to the extent possible and formalisation should be encouraged for the effective growth of organisations.

Renganathan (2020), undertook "A Study on Indian Banking Sector Organisational Effectiveness and Human Resource Development Challenges." The study observed and concluded that there is need for introduction of new technology, skill building and intellectual capital formation. The banking sector was preferred employer for the educated persons in the industry in additional to civil services. Certain complexities have also developed in the organisation for HRD system. The study also suggested that the chief executives of public sector banks to prepare plans, keeping in view the decisions taken on the recommendations of the organisation top level authorities.

Sayeed (2002), has studied behaviourable variables with performance variables in correlation of organizational effectives. His study elaborates on various attributes of the organisation like internal state of health and managerial characteristics that have strong impact on productivity and effectiveness of the sub-systems of a large bank. The most outstanding feature has been the very revelation of the importance of personal and interpersonal characteristics like managerial value orientation FIRO needs and the leadership styles. These finding point to the needs to maintain a non-bureaucratic style of functioning.

III. PROBLEM DEFINED

The spinning mills in India is spread over throughout the length and width of our country. The socio-geographic conditions in India, particularly in the matter of minimum price of cotton, per acre yield of cotton, varieties of cotton grown are so different that the spinning mills operating in various parts of our country.

There are three types of business organisations in the industrial setup of our country, namely; public ownership organisation, private ownership organisation and cooperative ownership organisation. These three types of organisations differ in the matter of objectives, structure, and pattern of ownership, financing and management. The public sectors are wholly or substantially owned by the Government with a focus on social welfare. Private sector is the oldest and the basic moto of making profit by all means. The exploitation and inequality are increasing day by day in the private sector. The cooperative sector have come into existence only after independence. They are fully owned and financed by the members with prime objectives have to provide satisfactory service to them. These three types of organisations seems to be different in the matter of organisational structures, namely; the public and cooperative sectors appear more formalised and centralised, whereas the private sector does not seems to be so.

IV. OBJECTIVES OF THE STUDY

1. To analyse the influence of socio- economic characteristics on managerial role, organisational structure and organisational effectiveness.
2. To explore the impact of managerial role as well as organisational structure on organisational effectiveness.

V. METHODOLOGY

The study is based on survey method and the unit of analysis is organisational effectiveness in Public, Private and Cooperative Sector Spinning Mills of Puducherry Union Territory. Comparison from each other among three sector spinning mills. i.e., in between Public Sector Spinning Mills vs. Private Sector Spinning Mills, Public Sector Spinning Mills vs Cooperative Sector Spinning Mills and Private Sector Spinning Mills vs. Cooperative Sector Spinning Mills.

Also, correlation coefficient among organisational effectiveness on overall as well as factor-wise and its various factors centralisation overall and its various factors formalisation overall as well as factor wise are computed for spinning mills as a whole and its three sectors, Viz, public, private and cooperative.

The study is used both primary source of data and secondary sources of data. Primary data pertaining to organisational structure, managerial role and to measure behavioural dimensions of organisational effectiveness, organisational structure variables, namely, viz; formalisation and centralisation were collected by using structured questionnaire. The secondary sources of data used in this study consisted of information from published books, journals, magazines, articles, doctoral thesis, byelaws and websites.

SAMPLING

First Stage

In this stage, selection of spinning mills involved. Present study is confined to spinning mills in the Puducherry Union Territory. There were seven spinning mills operating their functioning, of which six spinning mills have been selected. Due to non-availability of data and administrative reasons one spinning mills eliminated. Therefore, the sample of spinning mills are 6 in numbers, namely; 1) Swdeshee Bharathee Textile Mills Ltd.., Puducherry (Public Sector), 2) Sri Bharathi Mills Ltd., Puducherry (Public Sector), 3) Soundaraja Spinning Mills Ltd., Nedungadu Karaikal (Private Sector), 4) Sree Rajeshwari mills Ltd., Thennagudi Karaikal (Private Sector), 5) Pondicherry Cooperative Spinning Mills Ltd.., (SPINCO) Tirubuvanai Puducherry (Cooperative Sector) and 6) Jayaprakash Narayanan Cooperative Spinning Mills Ltd.., Karaikal (Cooperative Sector).

Hence, the sampling included in the six spinning mills promoted and managed by private sector, public sector and cooperative sector in the Puducherry Union Territory.

Second Stage

In this stage, selection of respondents involved. The managerial cader employees working in the private sector, public sector and cooperative sector spinning mills were selected as respondent's i.e..,

1. Swdeshee Bharathee Textile Mills Ltd.	---13
2. Sri Bharathi ltd.,	---13
3. Soundar Raj spinning Mills Ltd.,	---15
4. Sree Rajeshwari milk Ltd.,	---11
5. Pondicherry cooperative spinning Mills Ltd..,	---10
6. Jayaprakash Narayanan cooperative spinning Mills Ltd..,	---13
TOTAL	75

Thus, the total number of respondents are 75 in numbers from the managerial cadre employees.

VI. INSTRUMENTATION

The primary data was collected through a questionnaire administered on managerial cadre employees of spinning Mills, the details of which are given below:

Section 1

Under this section to collect personal and professional information about managerial cadre employees regarding their age, qualification, total experience, experience of the present mill in which they are working, functioning with which they are associated, positions held by them and their hierarchy level in the spinning mills.

Section 2

This section has been used to measure organisational and effectiveness in terms of eight behavioural dimensions / factors developed by Dr.N.Dixit, Professor of Organisational Behaviour IIM, Lucknow. This is a tried and validated scale (appendix).

Section 3

This section has been used to measure two important dimension of organisational structure viz, centralisation and formalisation. For this purpose to separate scales have been used which are tried and validated scale (appendix).

There are 7 statements for measurement of formalisation and each statement provides 5 choices on the pattern of Likert's Five Points Scale in ascending order. So the minimum score can be (7x1) =7 and the maximum score can be (7x 5) =35. The range of score is 7 to 35 for one respondent.

VII. STATISTICAL TOOLS USED

The data collected through questionnaire were reduced to tables for better understanding, analysing and interpretation. Keeping in view the objectives as well as nature of the study descriptive, correlational, inferential and predictive statistics were used for analysis of the data. Means and standard deviation for each of the variables were computed. One sample independent t-test and one way analysis of variance (one way ANOVA also called F test) were applied for compare the respondents socio- economic characteristics.

The F test was also applied to compare the managerial role, organisational structure variables of centralisation and formalisation. To ascertain the reliability of the items in the scale measuring managerial role and organisational effectiveness, Reliability Items Analysis with cronbach Alpha coefficient was applied. For organisational effectiveness, Principal Components Method of Factor analysis also used. Karl Pearson's coefficients of correlations were computed among different variables of centralisation, formalisation and organisational effectiveness. Regression analysis has been used to predict organisational effectiveness through the variables of centralisation and formalisation.

VIII. MAJOR FINDINGS AND RESULTS

1. Analysis of Managerial Role and Organisational Structure on Organisational Effectiveness

To arrive at clear understanding of organizational effectiveness, it becomes necessary to identify the factors pertaining to organizational structure and managerial role that have influence on it (organizational effectiveness). Moreover, identifying the crucial organizational structure and managerial role indicators of organizational effectiveness would help the spinning mills to pay attention to these indicators in order to improve the effectiveness of their organizations. So, here in this chapter, an attempt has been made in this direction. The multivariate statistical analyses, namely multiple regression and canonical correlation, are used to the managerial role and organizational structure factors contributing to organizational effectiveness. The results of regression for one of the eight organizational effectiveness dimensions with managerial role factors.

There are three regression models of analysis undertaken. The first one is the base model with all three managerial role factors in the independent set. The next two models, called subset models, are run successively

after dropping least significant independent variable in order to find out the model of best fit. The model with high adjusted R^2 value is considered to be the model of best fit and the independent variables with significant beta (estimated coefficients) in the best fitted model are found to be the crucial factors in influencing the organizational effectiveness.

2. Managerial Role and Organisational Effectiveness

Managers, being stimulated to increase organizational effectiveness, are initiating change with the expectation to motivate others to do more than they originally intended, and often even more than they thought possible. Managers perform various roles in a business organization. Very often they arise as a result of existence of certain behaviour patterns which function in external and internal environment of the company and are related with position of a given person in the organization's structure. One can therefore distinguish many different typologies of managerial roles in the enterprise. So, effectiveness of an organization is highly related to various roles of the employees in the managerial cadre in the organization. Hence, it becomes important to evaluate the role of employees in the managerial cadre on the effective functioning of an organization. So, identifying the effect of managerial roles on each dimension of the organizational effectiveness has been taken for analysis.

IX. RESULTS AND DISCUSSIONS

The managerial role factors are crucial for setting goals and objectives effectively in the spinning mills of Puducherry, are evaluated through multiple regression analysis and the results of the analysis are presented in the given below table.

TABLE NO -1
MANAGERIAL ROLE AND ORGANIZATIONAL EFFECTIVENESS IN SETTING GOALS AND OBJECTIVES

(N=75)

Dimensions of Managerial Role	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	3.8238*** (6.37)	3.8336*** (6.47)	4.0735*** (7.09)
Figurehead	0.0331 (0.16)		
Leadership	0.1834 (1.10)	0.1990 (1.47)	
Liaison	-0.3162 -(1.49)	-0.3007 -(1.59)	-0.1766 -(1.04)
R^2	0.0437	0.0434	0.0145
Adjusted R^2	0.0033	0.0168	0.0168
F Value	1.08^{NS}	$1.63^{™}$	1.08^{NS}

Source: Primary Data Figures in parenthesis are 1-Values.
***Significant at 1% level, NS - Not Significant

It can be observed from results of base, first subset and second subset model that the F values for all three models are insignificant indicating that none of the three models with managerial role factors could be fitted significantly. Moreover, except intercept term, all the estimated coefficients are insignificant. Thus, it become apparent that setting goals and objectives for organizational effectiveness is independent of the figurehead, leadership and liaison roles of the managers in the spinning mills in the of Puducherry Union Territory.

TABLE NO - 2
MANAGERIAL ROLE AND ORGANIZATIONAL EFFECTIVENESS IN UTILIZATION OF RESOURCES

(N=75)

Dimensions of Managerial Role	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	1.7581*** (4.37)	1.6763*** (5.24)	1.4598*** (5.30)
Figurehead	-0.1381 -(1.01)	-0.1588 -(131)	
Leadership	0.6130*** (5.48)	0.6105*** (5.51)	0.5116*** (6.27)
Liaison	-0.0483 -(0.34)		
R^2 Adjusted R^2 F Value	0.3664 0.3397 13.69***	0.3654 0.3478 20.73***	0.3503 0.3414 39.36***

Source: Primary Data Figures in parenthesis are 1-Values.
***Significant at 1% level.

From the comparison of first and second subset model, it is apparent that the presence of figurehead role could increase the explanatory power only to fractional part (0.3478-0.3414 = 0.0064). So, the second subset model with only one managerial factor is appropriate for final inference. In the second subset model, the coefficient of the leadership role, 0.5116 is highly significant at 1 per cent level (t 6.27). This variable alone could explain 34.14 per cent of the variance in organizational effectiveness in utilization of resources.

Therefore, it is concluded that the organizational effectiveness in utilization of resources tend to go up with increase in leadership role among managers in spinning mills at Puducherry.

TABLE NO - 3
MANAGERIAL ROLE AND COORDINATION AND INTEGRATION

(N=75)

Dimensions of Managerial Role	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.3406*** (4.99)	2.4622*** (5.26)	
Figurehead	0.5274*** (3.31)	0.6720*** (5.12)	
Leadership	0.2048 (1.57)		
Liaison	-0.3733** -(2.24)	-0.3561** -(2.12)	
R^2 Adjusted R^2 F Value	0.3011 0.2715 10.19***	0.2768 0.2567 13.78***	

Source: Primary Data Figures in parenthesis are 1-Values.
**Significant at 5% level, ***Significant at 1% level.

There are only two models; one is the base and another is first subset model in the tables, as running another subset model does not arise as the estimated coefficients of both explanatory variables in first subset model are significant at required hypothetical level. Further, the explanatory power of first subset model in the absence of leadership role has come down to 25.67 per cent from 27.15 per cent in the base model.

From the comparison of adjusted Rf value between base and first subset model, it becomes apparent that the base model with all three explanatory variables is the best fitted. Therefore, base model is considered for final inference. In the base model, the coefficient of leadership role is insignificant while that of figurehead

(P=0.5274, t = 3.31, p<0.01) and liaison (p = -0.3733, t = -2.24, p<0.05) roles are significant with positive and negative signs respectively.

It is concluded that the coordination and integration tend to be effective with remarkable increase in figurehead role and notable decrease in liaison role among managers in spinning mills at Puducherry.

TABLE NO - 4
MANAGERIAL ROLE AND ORGANIZATIONAL EFFECTIVENESS IN EMPLOYEE COHESIVENESS

(N=75)

Dimensions of Managerial Role	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.9046*** (6.89)	2.8881*** (6.93)	
Figurehead	-0.0556 -(0.39)		
Leadership	0.4210*** (3.60)	0.3947*** (4.16)	
Liaison	-0.3005** -(2.01)	-0.3266** -(2.46)	
R^2	0.1995	0.1978	
Adjusted R^2	0.1657	0.1755	
F Value	5.90***	8.88***	

Source: Primary Data Figures in parenthesis are t-values.
**Significant at 5% level; **Significant at 1% level.

An observation of the table shows that no second subset model is required as the estimated coefficients of all the explanatory variables in the first subset model after dropping figurehead role (whose coefficient is insignificant in the base model) are significant at required hypothetical level. It is understood that the fit of the both base and first subset model is significant with 16.57 per cent and 17.55 per cent of the explained variances after adjusting for degrees of freedom respectively. From the explained variance after adjusting for degrees of freedom, it is clear thin the first subset model in the absence of figurehead role is the model of best fit and appropriate for final inferences. In the selected first subset model, the coefficient of leadership role is positive and significant at 1 per cent level (P = 0.3947, t = 4.16, p = 0.01) and that of liaison role is negative and significant at 5 per cent level (p = - 0.3266 t = - 2.46 P< 0.05)

Therefore, it is found from the above picture that the employee cohesiveness tends to be highly effective with significant increase in leadership role and decrease in liaison role among managers in spinning mills in the U.T. of Puducherry.

TABLE NO -5
MANAGERIAL ROLE AND ORGANIZATIONAL EFFECTIVENESS IN TEAM ORIENTATION

(N = 75)

Dimensions of Managerial Role	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.8452*** (6.58)	2.8956*** (6.81)	2.3981*** (7.07)
Figurehead	0.3551** (2.42)	0.4151*** (3.48)	0.2806*** (2.88)

Leadership	0.0849 (0.71)		
Liaison	-0.2947* -(1.92)	-0.2876* -(1.89)	
R^2 Adjusted R^2 F Value	0.1504 0.1145 4.19***	0.1445 0.1207 6.08***	0.1022 0.0899 8.31***

Source: Primary Data Figures in parenthesis are 1-Values.
Significant at 10% level, **Significant at 5% level, ***Significant at 1% level.

The results of the first subset model, it is found that there has been significant improvement in the overall model fit (Adjusted R^2 becomes 0.1207). As statistical significance of the estimated coefficient of liaison role is marginal, second subset regression model is run after dropping this variable to ascertain whether there would any improvement in the explanatory power. But it is understood from second subset model that explanatory power of the model has come down in the absence of liaison role. Hence, first subset model with high adjusted R-is considered as the mode of best fit. In the selected model, the estimated coefficients of both explanatory variables, figurehead role ($p = 0.4151$, $t = 3.48$, $p < 0.01$) and liaison role ($p = - 0.2876$, $t = -1.89$, $p < 0.10$) are significant but with positive and negative signs respectively. Hence, it is deduced from the first subset regression model that the organizational effectiveness in team orientation tends to increase with increase in figurehead role and decrease in liaison role. It is concluded that the organizational effectiveness in team orientation tend to increase with increase in figurehead role and decrease in liaison role among managers in spinning mills in the Puducherry Union Territory.

TABLE NO - 6
MANAGERIAL ROLE AND ORGANIZATIONAL EFFECTIVENESS IN ADAPTING TO EXTERNAL CONDITIONS

(N=75)

Dimensions of Managerial Role	Regression Model		
	Basic	**Subset 1**	**Subset 2**
Intercept	2.2722*** (4.07)	2.4949 *** (5.61)	2.2524*** (5.91)
Figurehead	-0.2344 - (1.24)	-0.1779 -(1.06)	
Leadership	0.4094*** (2.64)	0.4162*** (2.70)	0.3054*** (2.71)
Liaison	0.1316 (0.67)		
R^2 Adjusted R^2 F Value	0.1106 0.0730 2.94**	0.1051 0.0802 4.23**	0.0912 0.0788 7.33***

Source: Primary Data Figures in parenthesis are t-Values.
Significant at 5% level; ***Significant at 1% level,

It is understood from the table that the adjusted R^2 value of the first subset model, 0.0802 is higher than that of base (Adjusted $R^2 = 0.0730$) and second subset model (Adjusted $R^2 = 0.0788$). Further all three models are significant (F values are significant). As the first subset model is fitted significantly and adjusted R value is higher than that of other two model, the first subset model is selected for final inference.In the selected first subset model, the coefficient of figurehead role is negative but insignificant while the estimated coefficient of Leadership role is positive and significant at 1 per cent level ($p = 0.4162$ $t = 2.70$ $p < 0.01$). This reveals the fact that organizational effectiveness in adapting to external conditions is influenced positively by leadership role of the managers in the presence of negligible decline in their figurehead role.

It is concluded that the organizational effectiveness in adapting to external conditions is influenced positively by leadership role of the managers in the presence of negligible decline in their figurehead role in spinning mills in the Puducherry Union Territory.

It is concluded that striving for accomplishment of goals and objectives in the organization, becomes higher when there has been a remarkable increase in the leadership role of the managers in the spinning mills in the U.T. of Puducherry

3. Canonical Correlation Between Managerial Role and Organizational Effectiveness

Canonical correlation analysis is the most generalized member of the family of multivariate statistical techniques. It is directly related to several dependence methods. Similar to regression, canonical correlation's goal is to quantify the strength of the relationship between the two sets of variables (independent and dependent). This technique is used in this study to determine whether two sets of variables are independent of one another or, conversely, determining the magnitude of the relationships that may exist between the two sets. The canonical correlation analysis is very much useful in explaining the nature of whatever relationships exist between the sets of dependent (organizational effectiveness) and independent (managerial role and organizational structure) variables, generally by measuring the relative contribution of each variable to the canonical functions (relationships) that are extracted.

Redundancy index produced by this analysis reveals the amount of variance in one set of variables that can be explained by the variance in the other set. This index serves as a measure of accounted-for variance, similar to the R^2 calculation used in multiple regression. The interpretation of the results is mainly based on canonical weights (same as standardized coefficients in multiple regression analysis) and canonical loadings (structure matrix, the one like factor loadings in factor analysis). The canonical correlation analysis used here for exploring the relationships among multiple independent variables associated with managerial role and organizational structure and multiple dependent variables pertaining to organizational effectiveness. The results of the canonical correlation analysis eliciting the effect of managerial role variables on organizational effectiveness variables are presented the below two table.

TABLE NO - 7
CHI-SQUARE TEST WITH SIGNIFICANCE OF OVERALL MODEL FIT FOR CANONICALCORRELATION BETWEEN MANAGERIAL ROLE AND ORGANIZATIONAL EFFECTIVENESS

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
1	0.6811	0.4639	71.48	24	0.0000	0.3495
2	0.5179	0.2683	29.09	14	0.0102	0.6519
3	0.3303	0.1091	7.85	6	0.2490	0.8909

(Source: Primary Data)

From the table, it is understand with results of canonical functions along with chi-square test testing the significance of the canonical correlation between managerial role and organizational effectiveness. The analysis produced three canonical functions as the number of variables in managerial role is three. Out of three functions produced by the analysis, first and second functions are found to be significant at 1 per cent level. Therefore, first two function are considered for valid function for further interpretation.

From canonical R^2, which is also called as either canonical root or eigenvalue, it is understood that the shared variance in the first canonical function is 46.39 per cent and in the second function is 26.83 per cent by both dependent and independent variable set.

4. Canonical Weights and Canonical Loadings for Organizational Effectiveness and Managerial Role

The canonical weights (standardized coefficients as in multiple regression) and canonical loadings (factor loadings as in factor analysis, which is the correlation between individual variables and canonical variate). The average squared loadings and redundancy indices are also calculated for the independent and dependent variates of the first and second function and presented in the table below.

TABLE NO - 8

CANONICAL WEIGHTS AND CANONICAL LOADINGS FOR ORGANISATIONAL EFFECTIVENESS AND MANAGERIAL ROLE

(N =75)

Variables	Canonical Weights		Canonical Loadings	
	First Function	Second Function	First Function	Second Function
ORGANIZATIONAL EFFECTIVENESS (DEPENDENT VARIABLES)				
Setting Goals and Objectives	-0.1594	0.0637	0.1760	-0.1045
Utilization of Resources	0.6413	0.5871	0.8788	0.1652
Work Environment	0.1326	0.0032	0.4597	-0.2287
Coordination and Integration	0.2831	-0.8161	0.6390	-0.6411
Employees Cohesiveness	0.1682	-0.1225	0.5732	-0.0128
Team Orientation	-0.0751	-0.5461	0.3999	-0.5326
Adapting to External Conditions	0.2147	0.3936	0.4396	0.2162
Striving for Accomplishment	0.1163	0.2041	0.5314	-0.0678
Dependent Variate				
Canonical Loadings Squared			2.3871	0.8662
Explained Variance			0.2984	0.1083
Canonical R^2			0.4639	0.2683
Redundancy Index			0.1384	0.0290
MANAGERIAL ROLE (INDEPENDENT VARIABLES)				
Figurehead	-0.0151	-1.4970	0.6297	-0.5636
Leadership	1.0612	0.6895	0.9924	0.0152
Liaison	-0.1311	0.7755	0.3332	0.1880
Independent Variate				
Canonical Loadings Squared			1.4925	0.3532
Explained Variance			0.4975	0.1177
Canonical R			0.4639	0.2683
Redundancy Index			0.2308	0.0316

(Source: Primary Data)

From the standardized canonical weights with each canonical variate for both the dependent and independent variables, it is evident that only one organization effectiveness variable, namely "Utilization of resources" has the highest canonical weights on the dependent variate of the fust function. At the same time, on the dependent variate of the second function, "Coordination and Integration" followed by "utilization of resources", "team orientation and "adapting to external conditions" have the highest canonical weights. With independent variate of the first function, "Leadership role has high standardized coefficient (canonical weight) whereas with independent variate of the second function all three independent variables pertaining to managerial role have high canonical weights.

From the canonical loadings for the dependent and independent variates of the first canonical function, the variables in the dependent set, "Utilization of resources" (0.8788) has the highest loadings followed by "Coordination and integration" (0.6390), "Employees cohesiveness"(0.5732),“Striving for accomplishment” (0.5314),“Work environment”(0.4597) and “Adapting to external conditions” (0.4396). With dependent

variate of the second function, "Coordination and integration" has high loadings (-0.6411) followed by “Team orientation” (-0.5326) but with negative sign.

On the other hand, independent variable, "Leadership role" (0.9924) has the highest loading with independent canonical variate of the first function, while "figurehead role", which has the high canonical loadings with first function, has also high loading with independent canonical variate of the second function also. In sum, from the highest loadings of the dependent and independent variables with respective variates in the first and second canonical function, it is deduced that organizational effectiveness tend to become higher with more leadership role among managers. Further, the organizational effectiveness in respect of "Coordination and integration" and "Team orientation" tends to become higher with more figurehead role of the spinning mills employees in the managerial position.

It is concluded that organizational effectiveness tends to become higher with more leadership role among managers. Organizational effectiveness in respect of "Coordination and integration" and "Team orientation" tends to become higher with more figurehead role of managerial employees in Spinning Mills in the Union Territory of Puducherry.

5. Organizational Structure And Organizational effectiveness

Organizational structure, which is the established pattern of relationships among the components of parts of a company, is alignment of the organization purpose with necessary resources. Organization structure has a direct effect on the success of an organization's operational strategy and good organization structure influences its execution behaviours. Structure of an organization not only shapes the competence of the organization, but also the process that shape its overall performance, which depends more on its effective functioning. So, it is tried here to find out the influence of organization structure on organizational effectiveness of spinning mills in the Puducherry Union Territory using multiple regression and canonical correlation techniques.

TABLE NO - 9
ORGANIZATIONAL EFFECTIVENESS IN SETTING GOALS AND OBJECTIVES WITH ORGANIZATIONAL STRUCTURE

(N=75)

Dimensions of Organizational Structure	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.4517*** (4.42)	2.5989*** (7.65)	2.4977*** (7.45)
Top Level Intervention	0.0551 (0.35)		
Discretionary power of Middle Level Management	0.4917*** (2.88)	0.5102*** (3.32)	0.3642*** (3.07)
Discretionary power of Lower Lever Management	-0.2436 -(146)	-0.2306 -(1.47)	
Leniency towards operating class employees	-0.0109 (0.09)		
Decision making by supervisors and middle level managers	0.0085 (0.06)		
Formal implementation of Rules and Regulations	0.0228 (0.16)		
R^2 Adjusted R^2 F Value	0.1424 0.0667 1.88*	0.1404 0.1165 5.88***	0.1145 0.1027 9.44***

Source: Primary Data Figures in parenthesis are 1-Values.
Significant at 10% level. ***Significant at 1% level.

It is evident from the table that the base model for organizational effectiveness in setting goals and objectives with organizational structure is marginally fitted at 10 per cent level. However, the first subset model with just two explanatory organizational structure variables, which is run after dropping least significant variables, is fitted with high level of significance and explained variance in the dependent by the explanatory variables in this model is 11.65 per cent after adjusting for degrees of freedom (Adjusted R^2 =0.1165, F = 5.88. p<0.01). The second subset model is also run after dropping the variable, "Discretionary power of Lower Lever Management", which is insignificant in the first subset model, to ascertain whether there is any increase in the overall explanatory power. But the fit of second subset model in the absence of above variables is less than that of first subset model. Therefore, final inference is made based on the first subset model.

In the first subset mode, the estimated coefficient of "Discretionary power of Middle Level Management is positive and significant whereas that of "Discretionary power of Lower Level Management" is negative but insignificant Overall from the above picture, it is found that effectiveness of spinning mills at U.T. of Puducherry in setting goals and objectives tend to increase with significant increase in "Discretionary power of Middle Level Management even if the "Discretionary power of Lower Level Management is negligibly less.

It is concluded that Organisational effectiveness in setting goals and objectives tend to increase with significant increase in "Discretionary power of Middle Level Management".

TABLE NO - 10
ORGANIZATIONAL EFFECTIVENESS IN WORK ENVIRONMENT WITH ORGANIZATIONAL STRUCTURE

(N=75)

Dimensions of Organizational Structure	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.6351*** (6.45)	2.4352*** (9.65)	2.4771*** (10.05)
Top Level Intervention	-0.0983 - (0.86)		
Discretionary power of Middle Level Management	0.2347* (1.86)	0.2138* (1.87)	0.2744*** (3.15)
Discretionary power of Lower Lever Management	0.1177 (0.96)	0.0957 (0.82)	
Leniency towards operating class employees	0.0225 (0.24)		
Decision making by supervisors and middle level managers	0.0354 (0.36)		
Formal implementation of Rules and Regulations	-0.0570 -(0.56)		
R^2 Adjusted R^2 F Value	0.1420 0.0663 1.88*	0.1277 0.1035 5.27***	0.11950.1075 9.91***

Source: Primary Data Figures in parenthesis are t-Values.
Significant at 10% level, **Significant at 1% level.

It is understood from the above table that the regression results for organizational effectiveness in work, environment with organizational structure reveals That the base model with all six organizational structure variables is marginally fitted (R = 0.1420, Adjusted R^2 = 0.0663 , F = 1.88, p < 0.10). The first subset model with two of six organizational structure variables and second subset model with just only one variable is fitted significantly at 1 per cent level with explained variance of 10.35 per cent and 10.75 per cent after adjusting for degrees of freedom. The second subset model with just only variable, "Discretionary power of Middle Level Management" explain the same amount of variance as explained by the first subset model with two organizational structure variables So, based on the second subset model, with significant and positive coefficient of "Discretionary power of Middle Level Management (>0= 0.2744, t = 3.15, p < 0.01), it is deduced that work environment becomes more effective with more discretionary power of middle level management.

It is concluded that work environment becomes more effective with more discretionary power of middle level management in spinning mills in the Puducherry Union Territory.

TABLE NO - 11
ORGANIZATIONALEFFECTIVENESS IN COORDINATION AND INTEGRATION WITH ORGANIZATIONAL STRUCTURE

(N = 75)

Dimensions of Organizational Structure	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.0415*** (4.37)	2.0991*** (5.73)	2.0046*** (6.42)
Top Level Intervention	0.0565 (0.43)		
Discretionary power of Middle Level Management	0.0208 (0.14)		
Discretionary power of Lower Lever Management	-0.0090 -(0.06)		
Leniency towards operating class employees	-0.0523 -(0.49)	-0.0472 -(0.50)	
Decision making by supervisors and middle level managers	-0.0414 -(0.37)		
Formal implementation of Rules and Regulations	0.5155*** (4.40)	0.5215*** (5.08)	0.5072*** (5.17)
R^2	0.2737	0.2702	0.2676
Adjusted R^2	0.2096	0.2499	0.2576
F Value	4.27***	13.33***	26.68***

Source: Primary Data Figures in parenthesis are 1-Values. ***Significant at 1% level.

The table reveals that fact that the results, the fit of the base and first subset as well as second subset regression models is significant at 1 per cent level. While base model could explain 20.96 per cent of the variance (Adjusted $R^2 = 0.2096$, $F = 4.27$, $p < 0.01$), the first (Adjusted $R^2 = 0.2499$ $F = 13.33$, $p < 0.01$) and second (Adjusted $R^2 = 0.2576$, $F = 26.68$, $p < 0.01$) subset model explain 24.99 per cent and 25.76 per cent of the variance in the dependent. However, among three regression models, second subset model is the model of best fit as the adjusted R^2 value is higher compared to those in base and first subset models. So, the second subset model is the final model for making conclusion.

As per second subset model, the estimated coefficient of the predictor, "Formal implementation of Rules and Regulations" is positive and significant at 1 per cent level ($\beta = 0.5072$,$t = 15.17$, $p < 0.01$). This predictor variable alone could explain more than 25 per cent of the variance in coordination and integration of the spinning mills.

It is concluded that coordination and integration in the spinning mills at U.T. of Puducherry is likely to be more effective when formal implementation of rules and regulations has been at high extent.

TABLE NO - 12

ORGANIZATIONAL EFFECTIVENESS IN TEAM ORIENTATION WITH ORGANIZATIONAL STRUCTURE

(N = 75)

Dimensions of Organizational Structure	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.3445*** (5.52)	2.4478*** (7.22)	2.8562*** (13.19)
Top Level Intervention	0.1519 (1.28)	0.1717 (1.56)	
Discretionary power of Middle Level Management	0.1107 (0.85)		
Discretionary power of Lower Lever Management	0.1128 (0.88)	0.1831* (1.86)	0.2304** (2.44)
Leniency towards operating class employees	-0.0744 -(0.77)		
Decision making by supervisors and middle level managers	0.1152 (1.14)		
Formal implementation of Rules and Regulations	-0.0280 -(0.26)		
R^2	0.1377	0.1055	0.0755
Adjusted R^2	0.0617	0.0807	0.0628
F Value	1.81^{ns}	4.25**	5.96**

Source: Primary Data Figures in parenthesis are t-Values. Significant at 10% level; *Significant at 5% level;

**Significant at 1% level.

NS- Not significant

It can be understood from table that the fit of the base model with all six organizational structure variables is insignificant. However, first and second subset models in the absence of least significant independent variables are fitted significantly with 8.07 per cent (Adjusted R = 0.0807, F = 4.25, $p < 0.05$) and 6.28 per cent (Adjusted $R^2 = 0.0628$, F = 5.96 $p < 0.05$) explained variance in the dependent after adjusting for degrees of freedom. From the comparison of two subset regressions, it is apparent that the first subset model with highest adjusted R value is the highly fitted model and considered for further inference.

In the selected first subset regression model, in which only two explanatory variables out of six in the base model are included, the estimated coefficient of “Discretionary power of Lower Level Management”(> 0 = 0 ,1831, t = 1.86, $p < 0.10$) is significant while that of "Top level intervention" is insignificant with positive sign for both.

Hence, it is concluded that the degree of team orientation tend to increase with increase in discretionary power of lower level management in the presence of negligible top level intervention in spinning mills at Puducherry.

TABLE NO - 13

ORGANIZATIONAL EFFECTIVENESS IN ADAPTING TO EXTERNAL CONDITIONS WITH ORGANIZATIONAL STRUCTURE

(N = 75)

Dimensions of Organizational Structure	Regression Model		
	Basic	Subset 1	Subset 2
Intercept	2.8578*** (5.49)	2.8474*** (5.60)	3.0226*** (6.31)
Top Level Intervention	-0.3746*** -(2.57)	-0.3751*** -(2.72)	-0.3471*** -(2.56)
Discretionary power of Middle Level Management	0.0928 (0.58)		
Discretionary power of Lower Lever Management	0.0960 (0.61)	0.1410 (1.05)	0.1683 (1.28)
Leniency towards operating class employees	-0.0513 -(0.43)		
Decision making by supervisors and middle level managers	0.1206 (0.97)	0.1204 (1.03)	
Formal implementation of Rules and Regulations	0.2819** (2.16)	0.2872** (2.30)	0.2921** (2.34)
R^2	0.1870	0.1814	0.1689
Adjusted R^2	0.1152	0.1346	0.1338
F Value	2.61**	3.88***	4.81***

Source: Primary Data Figures in parenthesis are t-Values. Significant at 5% level; ***Significant at 1% level.

From the above table it can be understood that, all three models are statistically significant, but the variance that is adjusted for degrees of freedom explained by first subset and second subset models is higher compared to that of base model. From the comparison of subset models, it is understood that both models could explain almost same amount of variance (after adjusted for df) in the dependent. But three explanatory variables in the second subset model could explain same amount of variance as could be explained by four explanatory variables in the first subset model. Therefore, second subset model is considered as appropriate for final conclusion.

In the second subset model, the coefficient of "Top level intervention" is significant and negative (β = -0.3471, t = 2.56, $p < 0.01$) and "Formal implementation of rules and regulations" is significant and positive (β = 0.2921, t = 2.34, $p<0.05$) while that of "discretionary power of low level management" is insignificant. Hence, based on the results of second subset model regression, it is found that an effectiveness of spinning mills in adapting to external conditions is positively related to "Formal implementation of rules and regulations" and negatively to "top level intervention" in the presence of "discretionary power of lower level management" even at negligible level.

It is concluded that effectiveness of spinning mills in adapting to external conditions is positively related to "Formal implementation of rules and regulations" and negatively to "top level intervention in day to day business"

TABLE NO – 14

CHI-SQUARE TESTS WITH SIGNIFICANCE OF OVERALL MODEL FIT FOR CANONICAL CORRELATION BETWEEN ORGANIZATIONAL STRUCTURE AND ORGANIZATIONAL EFFECTIVENESS

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	Df	p-Value	Wilks Lambda
1	0.6256	0.3914	82.81	48	0.0014	0.2879
2	0.5563	0.3094	49.79	35	0.0503	0.4730
3	0.3803	0.1447	25.17	24	0.3969	0.6849
4	0.3355	0.1126	14.77	15	0.4678	0.8008
5	0.3008	0.0905	6.83	8	0.5549	0.9024
6	0.0886	0.0078	0.52	3	0.9136	0.9922

Source: Primary Data

It can be observed from the table that the number of canonical function produced by the analysis is six which is equal to the number of variables in the independent set organizational structure. Out of six canonical function only first two functions are found to be significant at required hypothetical level. Therefore, these two functions are considered to be valid for further inferences. From the canonical correlations and squared canonical correlations (eigenvalues), it is understood that the shared variance by dependent and independent canonical variates in the first and second canonical function is 39.14 per cent and 30.94 per cent respectively.

6. Canonical Weights and Canonical Loadings for Organizational Effectiveness and Organizational Structure

The canonical weights (standardized coefficients) and canonical loadings (structure matrix) along with average squared loadings and redundancy indices presented below.

TABLE NO - 15

CANONICAL WEIGHTS AND CANONICAL LOADINGS FOR ORGANIZATIONAL EFFECTIVENESS AND ORGANIZATIONALSTRUCTURE

Variables	Canonical Weights		Canonical Loadings	
	First Function	Second Function	First Function	Second Function
ORGANIZATIONAL EFFECTIVENESS (DEPENDENT VARIABLES)				
Setting Goals and Objectives	0.2937	-0.3144	0.2179	-0.5626
Utilization of resources	0.2460	-0.3157	0.0410	-0.6545
Work Environment	0.2833	-03598	0.2022	-0.5832
Coordination and Integration	-0.7157	-0.3611	-0.5642	-0.6268
Employees Cohesiveness	0.2257	-0.2737	0.0178	-0.6010
Team Orientation	0.3146	0.0705	0.2335	-0.4549
Adapting to external conditions	-0.4637	-0.2113	-0.3607	-0.4966
Striving for Accomplishment	-0.5172	0.3228	-0.4255	-0.1766
Dependent Variate				
Canonical Loadings Squared			0.7743	2.3239
Explained Variance			0.0968	0.2905
Canonical R			0.3914	0.3094
Redundancy Index			0.0379	0.0899
ORGANIZATIONALSTRUCTURE(INDEPENDENT VARIABLES)				
Top Level Intervention	0.2393	0.1309	0.3028	-0.2598

Discretionary power of MLM	0.6472	-0.8190	0.3111	-0.9414
Discretionary power of MLM	-0.0664	0.0298	0.0272	-0.6416
Leniency towards operating class employees	0.0229	-0.0176	0.0803	-0.3715
Decision making by supervisors and middle level managers	0.1401	-0.0885	0.2529	-0.4081
Implementation of Rules and Regulations	-1.0123	-0.3490	-0.6823	-0.6861
Independent Variate				
Canonical Loadings Squared			0.7252	2.1408
Explained Variance			0.1209	0.3568
Canonical R			0.3914	0.3094
Redundancy Index			0.0473	0.1104

It is observed from the table shows that the percentages of explained variance, 9.68 per cent and 29.05 per cent for the dependent variables, and 12.09 per cent and 35.68 per cent for the independent variables, express the relationship between actual observed variables with the underlying, constructed canonical variates in the first and secund functions respectively. That is, the dependent canonical variates has extracted 38.73 per cent of the variances from their own set and the independent canonical variates has the essence of 47.77 per cent of the variances from their own set in both significant functions.

All dependent variables except "striving for accomplishment are correlated with second canonical function. Among correlated dependent variables, utilization of resources (-0.6545) followed by coordination & integration (-0.6268) and employee cohesiveness (-0.6010) are the variables with high correlation. With second function, the independent variable, Discretionary power of MLM is highly loaded (-0.9414). Next to the above, discretionary power of LLM (-0.6416) and Implementation of rules and regulation (-0.6861) also have remarkable loadings with second function. Further the signs of the loadings are negative for all dependent and independent variables with second function.

From the entire above results, it is found that implementation of rules and regulations have high direct influence whereas discretionary power of MLM and Top level intervention have substantial indirect effect on coordination and integration in spinning mills at Puducherry.

It is further concluded that all aspects of organizational structure except "top level intervention" have positive influence on Organizational effectiveness dimensions "Setting Goals and Objectives, Utilization of resources, Work Environment, Coordination and Integration, Employees Cohesiveness, Team Orientation and Adapting to external conditions" in spinning mills in the Union Territory of Puducherry.

X. CONCLUSION

The foregoing analysis concluded that the organizational effectiveness in Utilization of resources, Work Environment, Co-ordination and Integration, Employees Cohesiveness, Team Orientation, Adapting to external conditions and Striving for Accomplishment of Goals and Objectives depend upon the role played by the managers. Organisational effectiveness tends to increase with significant increase in discretionary power of Middle Level Management, Leniency towards operating class employees, and formal implementation of rules and regulations.

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