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Strategic Alignment of Organizational Culture and Climate for Stimulating Innovation in SMEs

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***Abstract*—There is no escape from the reality that organizations must continuously innovate in order to survive, especially in this era of rapidly changing market conditions. It is high time that the manufacturing organizations wake up and gear up for R&D initiatives to develop cutting edge technologies for sustained competitive advantage. Technology development initiatives have become mandatory for industrial growth, strategic self-reliance and sustained competitiveness of an enterprise and must be placed within the context of market opportunities, customer needs and strategic direction, thereby leading to improving the product and technology portfolio. Literature highlights that organizational culture is the key component to appraise the technology innovation initiatives in the manufacturing sector. The present research is aimed at developing an insight into the prevalent technology development practices adopted in the contemporary Indian small scale manufacturing industry for realizing sustainable growth and development of the industrial sector. The study highlights the performance of Indian manufacturing organizations in organizational culture components of Technology Development Implementation Programs to make significant organizational transformation, from technology dependent regime to proactive adaptation of technology innovation initiatives for affecting organizational performance improvements.**

***Index Terms*—Innovation, Creativity, Indigenous technology development, SMEs, Organizational culture & climate.**

I. Introduction

The economic activities are moving in the direction of globalization. It is creating new structures and new relationships, with the result that business decisions and actions in one part of the world are having significant consequences in other places. Underlying and reinforcing these globalization trends is the rapidly changing technological environment (Muhammad et al., 2010). These formidable changes have forced the organizations around the world to adopt innovative and state of the art strategies to suitably address the all-important issues of organization survival, growth and excellence. Thus the organizations are left with no choice but to upgrade the existing systems, products and technologies for their survival (Martins and Terblanche, 2003; Yang, 2007). In the implementation of innovation, firms have to create an organizational culture and climate that fosters innovation by ensuring employee skills, providing incentives and removing obstacles (Aderemi, 2009). Innovative organizations in today's business environment are those who manage their human resources well along with their technological resources. It includes effective manpower planning, recruitment and selection process, realistic performance plans and development oriented performance appraisal, effective learning system providing ample learning opportunities with the help of training, performance guidance and other mechanism such as mentoring. It also consists of mechanism to inculcate sense of pride in work, high degree of organization commitment etc. (Hassan et al., 2006).

II. Creativity Culture

There are numerous factors which support creativity and innovation within firms. Major factors that contribute to a creativity culture range from individual skills, (including motivation and knowledge) to group features, (such as communication, team building etc.) to organizational characteristics (viz. culture, reward, strategy etc.). Organizational creativity comes from creative behavior. Creative behavior is a composite of individual characteristics, group characteristics and organizational characteristics. Main literature findings are represented in table 2.1, 2.2 and 2.3

III. Hypotheses Development

The literature survey suggests that innovation and creativity is positively related to organizational culture and climate. It follows that:

H1: Organizational culture contributes significantly towards performance output of the firm.

H2: Organizational factors have a significant relationship on individual and Group characteristics.

To measure the performance output of firm, three parameters are identified which include improved technology level, output of research function and Response to market demands. Thus, hypothesis H1 is further divided as follow.

H1-a: Organizational culture has significant impact on improved level of technology in the firm.

H1-b: Organizational culture has significant impact on output of research function.

H1-c: Organizational culture has significant impact on firm's response to market demands.

IV. Methodology Employed For The Study

The study has been carried out in Indian small scale manufacturing organizations and is limited to auto component industry. In the present research work, a reasonable number of manufacturing organizations (46

organizations) have been extensively surveyed through extensively designed questionnaire

V. Status Of Organizational Culture

The response to individual questions (issues) on this component is presented in Table 5.1 and Figure 5.1.

A little more than one tenth (13%) of the units consider education level of their workforce at a very good level. Nearly two third (63%) of the units report the education level of employees to be between fair and good. However, the remaining 24% of units consider poor education level of employees to be a serious concern Auto industry has shown an unreasonably low rating in training issue (PPS= 34.78 only). Majority (83%) of the units do not provide any formal training to employees. Only a very few (4%) organizations provide formal training to employees just after induction into the organization. Industry secures a very good rating (PPS= 75.0) as far as awareness of employees regarding significance of technology development is concerned.

The results reveal that employees efforts are adequately recognized (PPS=73.89) in case profits are made because of innovative endeavors. Majority of the units provide either a fixed monetary reward, or an increment in salary or a share in profits made on account of product and process innovations. In a few organizations, the reward structure is intrinsic motivation based. About 2% of the units provide promotion in designation for contributions in area of technology development. In another few (6%), recognition is in the form of an appreciation letter.

Majority of the units conduct a through analysis in situations of project failures to find root causes and plan a future action to reduce such occurrences. A few organizations (2%) take strict action against members of the project team when a failure occurs. Another 2% of the units discourage their employees to undertake projects for innovation if failure occurs.

Industrial units lack in availability (PPS=52.72) of technical and scientific staff (R&D personnel). Majority of the units do not have R&D personnel in required numbers. Only one tenth (11%) of the units have scientific manpower in sufficient strength to undertake development projects. The level of encouragement to employees by senior management for undertaking R&D work has obtained a moderate score (PPS= 57.60 only). There is only little pressure on employees to put efforts for technology development. Manufacturing units are not performing well in availability of multi-skilled workforce (PPS= 59.24). It is only about one fifth of the units that have such workforce in desired numbers.The analysis of Organizational Culture issues reveal that formal training of employees and availability of R&D staff in adequate strength are critical factors needing attention.

VI. Association Between Input And Output Performance Parameters

The impact of organizational culture in achieving performance improvements in the industry have been evaluated by finding pearson's correlation coefficient values (r values) between organizational culture issues and the performance output parameters. The correlation values obtained have been further validated using t-Test. Results of correlation and t-test are shown in table 5.2.

Pearson's correlations and t-test results depict that the adaptation of *Organizational Culture* initiatives significantly contribute towards the realization of various performance parameters. *The results show that organizational culture issues are significantly correlated (r= 0.41, p= 0.0049) with the improved level of technology. Thus H1-a is accepted.*

Organizational culture affects the extent to which creative solutions are encouraged, supported and implemented. The proportion of educated and technical employees is a significant predictor of technological improvements.

From the results it has been found that organizational culture significantly influences (r= 0.42; p= 0.0033) the output of research function. Thus H1-b is accepted.

A positive attitude of top management correlates with continual attention being paid to innovative opportunities and provides employees with support for their innovative behavior. This in turn strongly affects the decision to innovate and the ways in which innovation is carried out in small firms. Well trained and educated workforce is able to work with specific innovation strategies and utilize the research function effectively to improve and develop new processes and products. Effective reward schemes for innovative efforts and a supportive environment which promotes risk taking and accepts mistakes as part of taking the initiative lead to improvement in research output.

Organizational culture has shown a significant correlation (r= 0.32; p= 0.0309) with response to market needs. Thus H1-c is accepted.

An effective organizational culture providing multi-skilling to employees, opportunities to enhance education levels, providing extensive formal training and suitably recognizing employee contributions helps the organizations to continuously increase their production mix and cater to changing needs of the marketplace.

VII. Organizational Climate For Creativity -A Case Study

The general objective of building this case study is to prove that organizational characteristics have a significant relationship with individual and group characteristics.

A. Methodology

The study has used the analysis of variance (ANOVA) technique in an attempt to prove that both individual and group characteristics are significantly related to organizational climate. The case study has been built at "ESGI Ltd., Patiala". To examine the organizational climate, the Keys build by Amabile (Amabile, 1996) have been used. These keys are specially designed to judge the organizational climate. The Keys have been filled by 41 employees at the said industry.

B. Procedure

The keys in the questionnaire divided into three broad categories viz. organizational characteristics, individual

characteristics and group characteristics. All keys under Organizational characteristics , individual characteristics and group characteristics have been grouped in Table 2.1, Table 2.2 and Table 2.3. Each of the characteristic viz. organizational characteristics, individual characteristics and group characteristics are then further subdivided into different factors. Organizational characteristics have been subdivided into five factors viz. culture, rewards, resources, freedom & risk taking and structure.

Individual characteristics have been subdivided into four factors viz. leadership, motivation, training program, time. Group characteristics have been subdivided into three factors viz. communication, team building and problem solving approach After tabulating the data in tables a correlation matrix was obtained to judge the relationship between organization characteristic and individual/group characteristic. The factors pertaining to individual and group characteristics have been combined together in the correlation table. The results are shown in Table 6.4.

VIII. Results & Discussion

The results show that leadership factor has a very significant relation with organizational structure and strategy employed in the organization though the relation with reward, resources and culture of the organization is not very significant.

Motivation of the employees is an important factor in a creative organization. The results show that culture of an organization plays an important role in motivating employees. When the organization provides adequate resources to the employees, their motivation levels are high. Structure and strategy also play a very significant role in motivating employees to work creatively.

Continuous improvement of knowledge of employees is another very important factor which supports building up a creative climate in the organization. Culture in which the employees operate has a very significant relation in improving their knowledge base. Reward strategy of the organization also helps the employee in fully exploiting their knowledge base. The results show that the employees can capitalize their knowledge when they are given adequate resources. Also timely training to the employees to broaden their skills helps in broadening

their knowledge base. Effective communication is important in developing a creativity culture in the organization. The results suggest that a supportive structure plays an important role in improving communication in the organization. Availability of adequate resources viz. internet facilities etc also has a very significant effect in improving communication process in the organization. The results also reveal that even the reward schemes encourage communication in the organization. Employees need time to work creatively. The results reveal that a supportive structure is also important in providing time to work creatively. It has been seen that team building is very important to support a creative climate in the organization. The results show that the strategy adopted and the culture employed in the organization has very significant relation with team building whereas reward schemes have a negative effect on team building.

The results suggest that suitable reward schemes, adequate resources and supportive structure have a very significant relation with problem solving. After obtaining the correlation matrix and discussing its results, ANOVA (Analysis of Variance) test was performed on the data to check again whether the organizational characteristics are significantly related to individual and group characteristics or not. The findings of the results are presented in Table 4.5. As from the results the calculated value of F is less than the table value (Fcrit), therefore hypothesis is accepted. The result supports the hypothesis H1 which states that "organization factors have a significant relation with individual and group Performance"

IX. Conclusions

The present study has been conducted with an objective to analyze various aspects of the working of small scale industry with regard to organizational culture. A case situation has been represented to show the relationship between various factors needed to build a culture in the organization conducive to for creativity and innovation.

A. Results Of Survey

1) Education level in majority (63 percent) of the units is between fair to good. However, one fourth (24 percent) of units have considered poor education level of employees to be a serious concern.
2) Most of the units (83 percent) do not provide any formal training to employees. Only a few (4 percent) organizations provide formal training to employees.
3) Majority of the organizations (92 percent) either give a fixed monetary reward, an increment in salary or a share in the profits made on account of innovation. Thus reward schemes have been largely based on extrinsic motivation tools only.
4) In majority of the units the role of top management has been supportive in situations of project failures.
5) Industrial units lack in availability of technical and scientific staff (R&D personnel). Majority of the units do not have R&D personnel in required numbers
6) The level of encouragement to employees by senior management is moderate (PPS= 57.60) for undertaking R&D work.
7) Auto sector is not performing well in availability of multi-skilled workforce. It is only about one fifth of the units that have such workforce in desired numbers.
8) Motivation of employees is strongly correlated to structure, strategy and adequate resources available in the organization.
9) The knowledge base of the employees can be fully exploited provided, a suitable reward system exists, and timely training is provided to employees.
10) Communication system in the organization can be improved by having a suitable structure, reward schemes and adequate resources viz. internet facilities etc.
11) A supportive structure is very important in providing time to employees to work creatively.
12) Team building greatly enhances innovation. It is

strongly correlated to structure and culture prevailing in the organization.

13) The results suggest that suitable reward schemes, adequate resources and a supportive structure have a significant relation with problem solving.
14) The organizational characteristics are significantly related to individual and group characteristics as was sated by Amabile (1996).
15) in firms. Thus H1-a is confirmed.
16) The output of research function has depicted significant association with organizational culture (I1) Thus H1-b is confirmed.
17) The firm's ability to respond to the market needs mainly depends upon organizational culture. Thus H1-c is confirmed.

X. C Results Of The Case Study

The results obtained from the correlation table and ANOVA analyses are discussed below.

Leadership factor has a very strong correlation with organizational structure as well as strategy adopted in the organization.

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TABLE 1 MAJOR FINDINGS OF LITERATURE ON ORGANIZATION CULTURE ISSUES

Factors	Key Issues	Supportive Literature
Manpower Development	• Innovative organizations believe that the bottom line difference between success and failure is finding, developing and nurturing the right people. • Skilled workforce contributes to performance and sustainable growth. • Encourage employees to work in various departments.	*Kim and Choi, 1997; Sugasawa and Visalakshi, 2001; Singh et al., 2009;*
Learning Environment	• High-performing organizations spend more time on education and training not just on technical, task-related skills, but also on communication and team skills. • Highly skilled and educated workforce is key to increased competitiveness and sustainable growth	*Lange et al., 2000; Leede et al., 2002; Indarti.and langenberg,2004.*
Training to Employees	• Innovative organizations continually educate and train their employees in various skills, matching with organization's needs. • Maintaining competitiveness relies not only on job-specific training or on-the-job training, but also on a greater degree of formal training.	*Lange et al., 2000; Oyelaran, 2010*
Traits for Innovation	• Availability of scientific and technical manpower in adequate strength is critical to the success of technology development implementation programs. • When the human resources are competitive, they can push the boundaries of technical competence into the area of the unknown or the new.	Mc Fadzean, 1998; Pihkala *et al.,* 2002; Oluwajoba *et al.,* 2007
Intrinsic-Extrinsic Motivation	• Employee reward systems include such practices as providing freedom for creativity, financial rewards, promotions, and other recognition. • Innovative organizations rely heavily on personalized intrinsic rewards whereas less innovative organizations tend to place almost exclusive emphasis on extrinsic awards	*Gupta and Singhal, 1993; Martin and Terblanche, 2003; Morris, 2005; Kiran and Jain, 2010*
Risk-Taking and Strategic Direction	• Freedom to experiment, to do things and fail, to challenge the status quo, discussion of dumb ideas, and no punishment for mistakes are cultural traits for innovative organizations.. • An organizational culture in which personnel are encouraged to generate new ideas, without being harmed, and where the focus is on what is supported instead of what is not viable, encourage creativity	*Amabile et al., 1996; Filipczak, 1997; Mishra and Srinivasan, 2008*

TABLE 2.1 MAIN LITERATURE FINDINGS OF ORGANIZATIONAL CHARACTERISTICS

Factors	Key Issues	Supportive Literature
Supportive Structure	• A flat structure, autonomy and work teams will promote innovation. • Degree to which employees have authority to participate in decision making in solving problems is positively related to the level of creativity and innovation in an organization • Organizational structures that provide a mechanism for developing and sharing new ideas facilitate creativity.	*Martin et. al., 2003; Shattow, 1996; Morris, 2005; Amabile et al., 1996*
Adequate Resources	• The resources include laboratories for experimentation, modern production systems, funds for carrying out projects etc. • To build organization culture that stimulates creativity and innovation, availability of adequate infrastructure is important	*Arad et. al., 1998; Martin et. al., 2003; Ambile, 1998; Sheel, 2002*
Recruitment and Selection	• Recruitment, selection, appointment and maintaining employees are an important part of promoting a culture of creativity and innovation in an organization. • The values and beliefs of management are reflected in the type of people that are appointed.	*Martin et. al., 2003; Cook, 1998; Brand, 1998; Mc Fadzean, 1998*
Reward Strategy	• Employee reward systems include such practices as providing freedom for creativity, financial rewards, promotions, and other recognition. • Innovative organizations rely heavily on personalized intrinsic rewards whereas less innovative organizations tend to place almost exclusive emphasis on extrinsic awards.	*Koning, 1998;; Martin and Terblanche, 2003; Morris, 2005; Kiran and Jain, 2010*
Freedom in work	• The organizations that provide freedom to employees in their work and decision making promote innovation and influence a creativity culture in the organization. • Freedom to experiment, to do things and fail, to challenge the status quo, discussion of dumb ideas, and no punishment for mistakes are cultural traits for innovative organizations..	*Amabile et al., 1996; Filipczak, 1997; Mishra and Srinivasan, 2008*
Clear Goals	• In order to build an innovative culture in the organization, there must be clarity of goals that have to be achieved. • employees should understand the vision and mission and the gap between the current situation and the vision and mission to be able to act creatively and innovatively	*VanGundy, 1988; Martin et. al, 2003; Mc Fadzean , 1998*
Risk Taking	• Taking risks and experimenting are behaviors that are associated with creativity and innovation. • A culture in which too many management controls are applied will inhibit risk taking and consequently creativity.	*Mc Fadzean , 1998; Singhal, 1989; Todd, 2004*
Design of the workplace	• The design of workplace can enhance the physical environment to enhance innovation. • Design of the workplace should be such that there should be adequate space for discussion between the individuals and groups.	*Singhal, 1989; Todd, 2004; Morris, 2005*

TABLE 2.2 MAIN LITERATURE FINDINGS OF INDIVIDUAL CHARACTERISTICS

Factors	Key Issues	Supportive Literature
Handling of Mistakes	• The culture of the organization should be such that there must be tolerance for failures. • Employees can only be encouraged to think creatively if they are not afraid of criticism or punishment.	*Anderson et. al., 1992; Ahmed, 1998; Morris, 2005*
Effective leadership	• It is the task of organizational leaders to provide the culture and climate that nurtures and acknowledges innovation at every level. • Supervisors provide encouragement of creativity by valuing individual's contributions and showing confidence in the work group.	*Redmond et al., 1993; Amabile et al., 1996; Cook, 1998; Martin et. al, 2003*
Motivation of the Staff	• Motivated staff is essential in order to create a culture that supports creativity. It is said, "No Motivation No Creativity". • Firms that develop work environment which motivates employees to engage in a behavior consistent with this goal will only succeed.	*Houschild et. al., 2001; Strempel, 2003*
Time	• One of the most important resources which leaders may allocate to foster creativity is time. • An organizational culture that promotes creativity and innovation should allow employees time to think creatively and to experiment.	*Shalley, 1995; Amabile, 1998; Amar, 2004; Morris, 2005*
Effective Processing of Ideas	• The organizations must build a culture in which effective processing of ideas is done. • The organization should build a culture where ideas come from every corner of the organization.	*Ambile, et. al, 1996; Cook, 1998; Strempel, 2003*
Training to Emplyees	• Innovative organizations continually educate and train their employees in various skills, matching with organization's needs. • Organizations perform better when they are making investment in training their employees and broadening their skills.	*Locke and Kirkpatrick, 1995; Lange et al., 2000; Oyelaran, 2010*

TABLE 2.3 MAIN LITERATURE FINDINGS OF GROUP CHARACTERISTICS

Factors	Key Issues	Supportive Literature
Open Communication	• An organizational culture that supports open and transparent communication, based on trust will have positive influence in promoting innovation and creativity in the organization. • An open-door communication policy, including open communication between individuals, teams and departments to gain new perspectives, is therefore necessary to create a culture supportive of creativity and innovation	*Amabile, 1988; Scott William, 2001; Martin et. al., 2003; Morris, 2005; Hassan et. al, 2006;*
Creative Problem Solving Teams	• Problem solving teams will be more effective if the participants have the same goals and are supported by a trained facilitator. • Well-established work teams which allow for diversity and individual talents that complement one another should promote creativity and innovation	*Kling and Anderson, 1995; McFadzean, 1996; Briggs et. al,, 1996; Arad et al., 1997*
Cross-Functional Teams	• Cross functional teams comprise of members of different departments and disciplines brought together under one manager to make development decisions and enlist support for them throughout the organization.	*Taylor, 1995; Wilemeon, 1998*

TABLE 5.1 EVALUATION OF ORGANIZATIONAL CULTURE ISSUES

S No	Topics in the Component	No. of Responses (N)	No. of Units Scoring				Total Point Score (TPS)^	Percent Point Score (PPS)
			1 (W_1)	2 (W_2)	3 (W_3)	4 (W_4)		
1	Awareness regarding importance of in-house R&D	46	3	7	20	16	138	**75.00**
2	Level of labor education	46	11	6	23	6	116	**63.04**
3	Training provided to employees	46	38	0	6	2	64	**34.78**
4	Reward schemes to recognize contributions	45	3	0	42	1	133	**73.89**
5	Reaction of top management to project failure	46	1	1	27	17	152	**82.60**
6	Availability of scientific and technical manpower	46	12	22	7	5	97	**52.72**
7	Undertaking R&D work for technology development	46	13	10	19	4	106	**57.60**
8	Availability of multi-skilled workforce	46	15	9	12	10	109	**59.24**

^ TOTAL POINT SCORE (TPS) = $1\times W_1+2\times W_2+3\times W_3+4\times W_4$

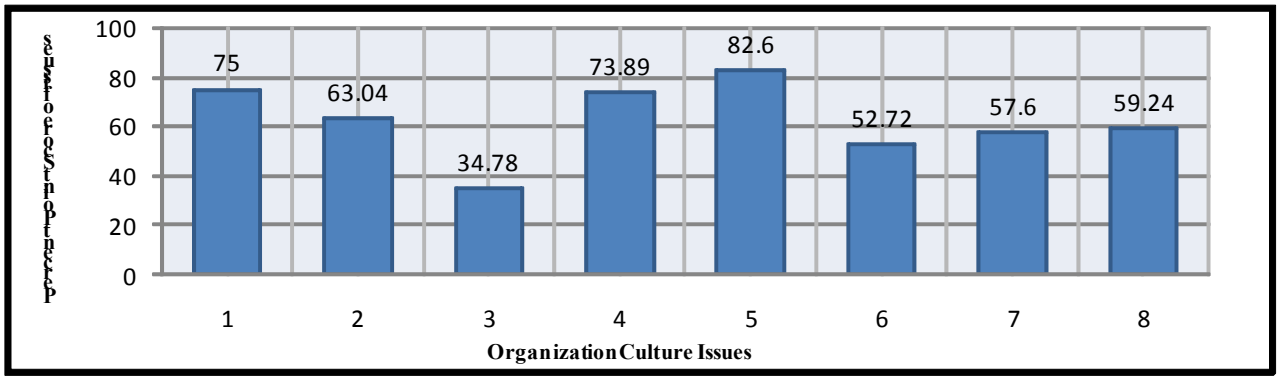

Figure 5.1 Evaluations of Organizational Culture Issues

TABLE 5.2 CORRELATION AND T-TEST ANALYSIS

PERFORMANCE OUTPUT PARAMETERS / INPUT FACTORS		Improved Level of Technology	Output of Research Function	Response to Market Demands
Organizational Culture Issues	r	0.41**	0.42**	0.32*
	t	2.96	3.10	2.23
	p	0.0049	0.0033	0.0309
** Correlation significant at 0.05 level (2-tailed)*			*** Correlation significant at 0.01 level (2-tailed)*	

TABLE 6.1 SCORE OF KEYS IN ORGANIZATIONAL FACTORS

Key Q[a]	1	4	5	8	10	12	14	16	17	18	22	23	25	27	29	31	33	34	37	38	39	41	42	45	48	49	55	56	60	61	62	64	65	70	76
Culture				0.62	0.25	0.5				1		0.68		0.87																		0.43		
Reward								0.87			0.68						0.75	0.75								0.68			0.5					
Resources													0.62			0.82								0.87				0.75			0.62				
Freedom and risk taking	1																		0.75	0.62		0.68	0.68		0.62		0.75			0.56			1	0
Structure		0.35	0.5			0.56			0.6						0.68						0.75										0.81			

Q[A] TEXT OF QUESTION IS ATTACHED IN APPENDIX I

TABLE 6.2 SCORE OF KEYS IN INDIVIDUAL FACTORS

Key Q[a]	2	3	7	9	11	13	21	30	35	36	43	44	46	47	51	52	53	54	59	63	68	69	73	74	75	77
Leadership							0.68			0.47				0.62			0.81	0.75	0.75			0.43				0.68
Motivation	0.62		0.68								0.75	0.81	0.56			0.62					0.68			0.75	0.56	
Training Program				0.75		0.81																	0.68			
Time		0.43			0.62			0.37	0.62						0.68					0.56						

Q[a] text of question is attached in appendix I

TABLE 6.3 SCORE OF KEYS IN GROUP FACTORS

Key Q[a]	6	15	19	20	24	26	28	32	40	50	57	58	66	67	71	72
Communication				0.53	0.68			0.43				0.5	0.75			
Team Building	0.62	0.68					0.81		0.87		0.75			0.93		
Problem Solving Approach			0.81			0.5				0.62					0.81	0.68

Q[A] TEXT OF QUESTION IS ATTACHED IN APPENDIX I

TABLE 6.4 CORRELATION MATRIX

Individual and Group Factors	Organizational Factors				
	Culture	Reward	Resources	Strategy	Structure
Leadership	-0.135	0.034	0.052	0.262	0.357
Motivation	0.349	0.04	0.194	0.204	0.191
Knowledge	0.115	0.29	0.309	-0.14	0.211
Time	-0.236	0.239	0.151	0.114	0.52
Communication	0.034	0.49	0.42	0.121	0.309
Team Building	0.174	-0.06	-0.126	0.380	0.109
Problem Solving Approach	-0.009	0.32	0.34	0.52	0.342

TABLE 6.5 RESULTS OF THE ANOVA TEST

A) Summary

Groups	Count (N)	Sum (ΣX)	Average (X)	Variance (σ)
Column 1	7	0.292	0.041714	0.038047
Column 2	7	0.975	0.139286	0.052746
Column 3	7	1.34	0.191429	0.034997
Column 4	7	1.461	0.208714	0.044561
Column 5	7	2.039	0.291286	0.018208

B) ANOVA Table

Source of Variation	Sum of Squares (SS)	Degree of Freedom (df)	Mean Squares (MS)	F_{calc}	F_{crit}
Between Groups	0.237777	4	0.059444	1.576288	2.689632
Within Groups	1.131347	30	0.037712		
Total	1.369125	34			

APPENDIX-I

KEYS		
(1) I have the freedom to decide how I am going to carry out my projects.	Y	N
(2) I feel that I am working on important projects.	Y	N
(3) I have too much to do in too little time.	Y	N
(4) This organization is strictly controlled by upper management.	Y	N
(5) My area of this organization is innovative.	Y	N
(6) My co-workers and I make a good team.	Y	N
(7) The tasks in my work are challenging.	Y	N
(8) In this organization, there is a lively and active ow of ideas.	Y	N
(9) My supervisor clearly sets overall goals for me.	Y	N
(10) There is much emphasis in this organization on doing things the way we have always done them.	Y	N
(11) I have sufficient time to do my project(s).	Y	N
(12) I feel considerable pressure to meet someone else's specifications in how I do my work.	Y	N
(13) Overall, this organization is effective.	Y	N
(14) Overall, the people in this organization have a shared "vision" of where we are going and what we are trying to do.	Y	N
(15) There is a feeling of trust among the people I work with most closely.	Y	N
(16) People in this organization are very concerned about protecting their territory.	Y	N
(17) There are too many distractions from project work in this organization.	Y	N
(18) New ideas are encouraged in this organization.	Y	N
(19) Within my work group, we challenge one another's ideas in a constructive way.	Y	N
(20) There is destructive competition within this organization.	Y	N
(21) My supervisor has poor interpersonal skills.	Y	N
(22) Performance evaluation in this organization is fair.	Y	N
(23) I do not have the freedom to decide what project(s) I am going to do.	Y	N
(24) People in my work group are open to new ideas.	Y	N

(25) The facilities I need for my work are readily available to me	Y	N
(26) My supervisor serves as a good work model.	Y	N
(27) In this organization, top management expects that people will do creative work.	Y	N
(28) In my work group, people are willing to help one another.	Y	N
(29) Procedures and structures are too formal in this organization.	Y	N
(30) There are unrealistic expectations for what people can achieve in this organization.	Y	N
(31) Generally, I can get the resources I need for my work.	Y	N
(32) My supervisor's expectations for my project(s) are unclear.	Y	N
(33) People are quite concerned about negative criticism of their work in this organization.	Y	N
(34) People are recognized for creative work in this organization.	Y	N
(35) The tasks in my work bring out the best in me.	Y	N
(36) My supervisor plans poorly.	Y	N
(37) The organization has an urgent need for successful completion of the work I am now doing.	Y	N
(38) People in this organization feel pressure to produce anything acceptable,even if quality is lacking.	Y	N
(39) There is an open atmosphere in this organization.	Y	N
(40) There is a good blend of skills in my work group.	Y	N
(41) Ideas are judged fairly in this organization.	Y	N
(42) Top management does not want to take risks in this organization.	Y	N
(43) In my daily work environment, I feel a sense of control over my own work and my own ideas.	Y	N
(44) Failure is acceptable in this organization, if the effort on the project was good.	Y	N
(45) The budget for my project(s) is generally adequate.	Y	N
(46) My area of this organization is creative.	Y	N
(47) My area of this organization is productive.	Y	N
(48) People are encouraged to solve problems creatively in this organization.	Y	N
(49) People are rewarded for creative work in this organization.	Y	N
(50) My supervisor supports my work group within the organization.	Y	N
(51) Overall, my current wok environment is conducive to my own creativity.	Y	N
(52) I feel challenged by the work I am currently doing.	Y	N
(53) My area of this organization is effective.	Y	N
(54) A great deal of creativity is called for in my daily work.	Y	N
(55) People in this organization can express unusual ideas without fear of being called stupid.	Y	N
(56) I can get all the data I need to carry out my project(s) successfully.	Y	N
(57) The people in my work group are committed to our work.	Y	N
(58) My supervisor does not communicate well with our work group.	Y	N
(59) I get constructive feedback about my work.	Y	N
(60) This organization has a good mechanism for encouraging and developing creative ideas.	Y	N
(61) People are encouraged to take risks in this organization.	Y	N
(62) I have trouble getting the materials I need to do my work.	Y	N
(63) I feel that top management is enthusiastic about my project(s).	Y	N
(64) Overall, this organization is productive.	Y	N
(65) People are too critical of new ideas in this organization.	Y	N
(66) There is free and open communication within my work group.	Y	N
(67) My supervisor shows confidence in our work group.	Y	N
(68) Overall, my current work environment is conducive to the creativity of my work group.	Y	N
(69) I feel a sense of time pressure in my work.	Y	N
(70) Overall, this organization is efficient.	Y	N
(71) My supervisor values individual contributions to projects.	Y	N
(72) My supervisor is open to new idea.	Y	N
(73) My area of this organization is efficient.	Y	N
(74) The information I need for my work is easily obtainable.	Y	N
(75) I believe that I am currently very creative in my work.	Y	N
(76) Other areas of the organization hinder my project(s).	Y	N
(77) Destructive criticism is a problem in this organization.	Y	N