

Production Environment Motivation Levels between Superior and Subordinate; Exploring the Relationship in Small and Medium Enterprises in Pune

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Abstract

The subject of Production Environment and Motivation is a complex one. Production is affected because of motivational levels between superior and subordinate. On one hand the environment is marked by various mechanical systems and contrivances, on the other hand there are various elements which affect the Hygiene Factors around an employee. Motivation involves the inner self and the outside factors in a subtle way. For employees working in a typical production system; the external work environment changes from one type of operation to another. The motivational level of superior influences the motivational level of subordinate. The researchers put effort to find out whether different work environments in a production system influence the working relationship in the subordinate-superior dyad. The concept of 'Relative Motivation' was used to explore the relationship by the researcher in the research work. The subject was chosen in context of Small and Medium Enterprises (SME) in Pune which is considered the hotbed for SME activities in different kinds of production systems.

Keywords: Motivational Levels, Production Environment, Relative Motivation

1. Motivation and Work Environment

Motivation of an individual is the complex outcome of all of his intrinsic as well as extrinsic affiliations in a dynamic mode. It means that the combination of the above two kinds of factors keeps on varying in terms of proportion, sequence and intensity. As a result the motivational levels, the final outcome also commensurate in different quanta and direction.

Motivation is an internal state of mind which has potential to transform into action. The nature of action is either cerebral or physical or a combination of both. Motivation is a variable outcome of various factors as depicted above. Its form, level or quantum and direction are changeable according to variation in the quasi-external and external factors. Given anytime the motivational levels between any two individuals will be always different. Various types of paired individuals like husband and wife, teacher and pupil, superior and subordinate, trainer and

trainee, coach and player, leader and follower etc. form important part of society.

1.1 Production Environment

In the process of production of goods, human effort plays decisive role in terms of quality, quantity and cost. An assemblage of mechanical contrivances in different forms and formats only provide the in-animate component of the whole production system. The external factors in the above context include various job affiliations, bond with superior in the dyad and influence empirical observation, informal learning, and ideation. These factors constitute the major portion of the Production Environment which cast telling effect on motivation. Hitchcock et al. (2017) rightly connect up the effect of work space on employee motivation particularly in a global context.

1.2 Motivational Levels in Dyads

The dynamical aspect of the motivational level is connected with various situational circumstances in the day to day

life in the production process of an SME organization. The superior-subordinate relation is an important component of the structure which is the production process. The motivational dynamics between the two plays important role in the formation of the productivity level of the SME organization. There is constant interplay of the urges to act on the organizational tasks which are incumbent upon the superior-subordinate pair.

Delić (2011) aptly describes the importance of the motivational aspect of superiors in the organizational context. It is not enough to talk about the motivational levels of the employees in general. When we think of urges to perform in organization, it is not limited to people down below but also the people above them. The research paper advocates for appropriate people at appropriate levels in the organization. Some levels in the organization require people of high morale and high levels of internal urge to perform; whereas there are positions where the situation is different. The roles at certain places demand high level of preparedness to work whereas at other places a different level of preparedness will not affect the organizational performance significantly.

The urge to perform directly depends on the level of motivation. The research paper explores the relationship between these motivational levels between superior-subordinate. It attempts to address whether there is an interplay of mutual levels of urges; and also what is the type of interplay whether it is related or not.

The exploration is important in the search of components which may play a positive role in eliciting out better motivational atmosphere in the production process.

2. Literature Review

Various research outputs are available in and around the topic of motivation, workspace motivation, production and motivation. In production environment, planning plays important role and the budgetary provisions act as motivation for work. In their article, Ronen and Livingstone (1975) discuss the budget-based relation between the higher and the lower in organizational hierarchy. The budget becomes the cornerstone of motivation between the two. The planning of events in the environment of motivation is influenced by the future provisions. Any change in the motivation level is subsequent to future scope of eventualities as reflected in budget. The superior has to provide a spectacle to the lower one which can show the shape and size of the upcoming act and actions.

The role of individual personality reflecting the perception of the inner self on the motivational levels is no

secret. Burdsal (1976) differentiated between personality and motivation in terms of independence of the two. The questionnaire based survey provided different direction of linkages between the two aspects of an individual. Though personality attributes and motivation draw a commonality; their prevalence and development happen without much bearing to each other. The internal assessment of the two aspects of an individual particularly in an organizational context depicts a different picture indicating a meagre relationship as the dimensions are different.

In a dyad, communication and the resultant information cast immense influence in the build-up of the motivation for work in production system. Arazy and Gellatly (2012) studied organizational motivation behind use pattern of an information tool. The study explored the factors behind adopting this kind of organizational practice and provided insight to appropriately select the methodology to deploy such practices.

Ehiobuche (2012) presents a very important dimension of linkage between motivation and leadership which works behind behaviour and performance in organization. Various theories of motivation are taken into account in order to delineate the connection between motivation and leadership. The article provides ample insight to the practical impact of motivation in on the organization owing to leadership issues.

Oncioiu et al. (2018) talk about another aspect of motivation signifying influence on organizational performance, the article portrays the strategy angle of motivation so as to result into greater performance in the organization in Romania.

Kanfer and Chen (2016) trace the evolution of motivational concept and organization behaviour over last fifty years. The article presents the finding in the most significant research works in the field and provides direction for further exploration.

Benkhoff (1996) presents a multivariate analysis involving different motivational theories. It emerged that every dimension of motivation is important as each one of them positively contributes towards enhanced performance. The author tests five frameworks of motivation emanating both from intrinsic as well as extrinsic sources and depicted how the drive for more results is achieved in a subordinate- superior relationship.

The literature review indicates that the motivational levels in a dyad in an organization are not squarely touched upon in research. Further the study of the said levels was found to be all the more scarce when it comes to dealing with different work spaces in a production system.

3. Work Areas and Motivation

The motivational levels in the dyad in production environment show bear a relationship.

The reason for this event emanates from effects due to various shop floor actions. These actions are exhibited by one member of the dyad on the other during the production process. Actions during material handling, tool designing, jigs and fixtures preparation, job loading, work in progress movement, packaging and labelling etc. are such actions which are open in vision and provide ample exhibition of the level of work motivation. Taking initiatives, communicating with team members, applying innovative steps etc. create a salutary effect on each other's motivation at the dyad level.

Similarly, such actions of one in the dyad which exhibit imperfection in planning and organizing during shop floor activities cast an unwholesome impact on the motivational level of the other. Lack of initiative, laid back attitude, ineffective communication, carelessness, mishandling/accidents, repeated failures etc. show deficit of motivation which has cascading effect on others.

4. Concept of Relative Motivation

It is defined as ratio of individual motivational level divided by the motivation level of the superior.

Relative motivation = Individual Motivational Level / Motivational Level of the superior.

The ratio speaks of the dynamic nature of motivational levels in a dyad. If measured on a Likert Scale from 1 to 5 for the motivational levels; the maximum value of the Relative Motivation ranges from 0.2 to 5.0. Value more than 1 speaks of a healthy situation between the dyad whereas value less than 1 speaks of an unhealthy situation.

4.1 Factors which Affect Relative Motivation in a Dyad

4.1.1 Motivation of Subordinate

It is affected by following factors related with superior:

- Superior's leadership qualities
- Conflict resolution abilities
- Crisis management abilities
- Response to challenges

4.2 Motivation of Superior

In turn it is also affected by following factors related with the subordinate:

- Personal Initiatives
- Commitment to learning
- Ability to perform under challenge
- Ability to perform in a team

5. Research Questions

Does work environment create any effect on relative motivation? Whether different work conditions provide different levels of cross motivation in a dyad, whether the factors of relative motivation are influenced without any attribute of the work environment.

The researchers resorted to Bivariate Analysis taking into account two variables: Motivational Levels of Superior and Subordinate. The research exercises involved finding out correlation to explore the nature of relationship between the two variables in the first step. In the second step the Relative Motivation of employees in dyad was explored for bearing any relationship with different workspaces in a production system viz. Shop floor Workspace and Office Workspace.

6. Research Methodology

The methodology involved study of two variables: the motivational levels of superior (X) and motivational Level of the subordinate (Y) in 25 Small and Medium Enterprises (SMEs) in Pune. The SME units were selected on the basis on Non-Probability sampling considering following factors;

- The minimum qualifications of manager and the subordinate are Graduate.
- The dyad has fair level of work experience of minimum 5 years of working together in the same enterprise.
- The production management system is scientifically managed in areas of technology, inventory, human resources and production planning.

The levels are found out in the ordinal scale using questionnaire method involving 25 pairs of superior-subordinate. In order to measure the motivational levels; the questionnaire was designed to explore Personal Readiness, Attitude at work, Work Satisfaction and Enthusiasm.

7. Hypothesis

Is it likely that difficult work conditions create different levels of relative motivation? The researchers proposed following hypotheses:

H_0 : Motivational levels of subordinates and superiors bear significant relationship

H^1 : Relative motivations of subordinates do not depend on workspaces

8. Data Collection and Analysis

The data collected out of 25 dyads in small and medium enterprises selected on Judgement basis in a questionnaire (Annexure) based survey resulted into following levels on the Likert Scale:

1. Do not agree
2. Somewhat agree
3. Agree
4. Highly Agree
5. Fully Agree

Two Sample t-Test was used to test the hypothesized difference in the Relative Motivational levels to be equal to 0 in the two different workspaces (Table 3).

Table 1. Relative motivation levels (Ratios of dyads' motivational levels)

Sl. No.	Dyads in Shop Floor Workspace	Dyads in Office Workspace
1.	0.67	0.67
2.	2.00	0.50
3.	1.00	0.40
4.	5.00	0.50
5.	0.67	0.67
6.	0.75	1.00
7.	1.00	0.75
8.	1.25	1.00
9.	1.00	0.75
10.	0.40	0.50
11.	3.00	0.75
12.	1.33	0.67
13.	0.50	0.60
14.	0.33	0.80
15.	0.75	0.75
16.	0.50	0.50
17.	1.25	0.40
18.	1.00	0.75
19.	0.40	0.67
20.	3.00	1.00
21.	1.33	0.67
22.	0.50	0.50
23.	0.50	0.67
24.	0.75	0.25
25.	1.00	0.75

Table 2. Correlation coefficient for motivational levels

	All workspace	Office workspace	Shop floor Workspace
Subordinate	1	1	1
Superior	0.22912	0.190476	0.523601

Table 3. t-Test result for relative motivation

t-Test: Two-Sample Assuming Unequal Variances		
	Shop floor	Office
Mean	1.195	0.658
Variance	1.124	0.035
Observations	25.000	25.000
Hypothesized Mean Difference	0.000	
df	26.000	
t Stat	2.496	
P(T<=t) one-tail	0.010	
t Critical one-tail	1.706	
P(T<=t) two-tail	0.019	
t Critical two-tail	2.056	

9. Interpretation

There is positive correlation between motivational level of subordinate and superior in a dyad; in all of the workspaces ($r=0.229$) and in the office workspace ($r=0.19$), though the relationship nature is weak. In the shop floor workspace there is strong correlation ($r=0.523$) between the motivational levels in the dyad.

In the small sample t test; since $t_{obs} > t_{crit}$ we reject the null hypothesis and conclude with 95% confidence that the ratios of Relative Motivations significantly differ in the two different workspaces viz. Shop floor and Office.

10. Conclusion

It is found that the motivational levels of subordinate and superior are correlated in positive way in a dyad. Further; it is found that the relative motivational levels of subordinate and superior are dependent on workspaces.

The research finding indicated that motivation of employees with respect to motivation of their superior bear different relationship owing to change in workspaces. Researchers took up two different types of workspaces which are marked by different environments in SMEs in Pune.

It is indicated that shop floor workspace provides conditions of higher motivation of an employee as inducted because of superior's motivation. On the other hand office oriented workspace exhibit lower level of employee motivation as inducted because of the superior's motivation.

The above connotations are corroborated by Paired Samples T test showing higher mean value of the relative motivation of an employee in shop floor workspace as compared to that found with employees in office workspace and further, P value showing less than 0.05 rules out the possibility of similarity of the mean values.

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Annexure

Questionnaire

Name of Enterprise

Name of Respondent

Position in the Organization

Instruction: please read each question and tick marks your response out of given options marked 1,2,3,4 and 5.

1. **I would like to take up new tasks on my own**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
2. **It is better to take up new tasks oneself rather than wait for instruction**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
3. **Taking up new job oneself is always risky**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
4. **Work according to instruction is full of risk**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
5. **Following instruction is insult to oneself**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
6. **I am more capable to work rather than instructed**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
7. **I am more capable than my colleagues**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
8. **I can work better without my team members**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
9. **Team members support less disturb more**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
10. **Rules and regulations are for less capable**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
11. **There is no need of rules and regulations as I am competent to work**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
12. **Rules and regulations create disturbance**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree

- 13. My job is the most important one which must be given top priority by all.**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 14. I am most competent to perform my role among all in the organization.**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 15. No one else can perform better than me**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 16. There is no need to take help from others for doing my job**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 17. No one knows about my job better than me.**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 18. If I take help from others; it will only spoil quality of my work**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 19. My department is not good for working; other departments are better.**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 20. My superior supports me enough**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 21. People in my department are only bothered about their own jobs**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 22. My organization is well reputed**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 23. It is my pride to work in my organization**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 24. Other companies are far better than my company**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 25. My superior gives me due respect**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 26. My colleagues appreciate my work**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 27. My position is valuable to the organization**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 28. My company always gives due recognition to my work**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 29. My organization has a system to reward good work**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 30. Recognition in non-monetary form is also important**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 31. My salary is not enough**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 32. My company believes in paying less and get work more**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 33. Other companies pay their employees much better**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 34. My job provides opportunities for self development**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 35. My superior provides time for development of skill**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 36. I can develop my skill through working diligently**
1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree
- 37. Higher responsibilities are always full of tension**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree
- 38. Bigger posts do not provide enough time to develop**
1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree

39. It is extremely difficult to enjoy in life if I accept higher posts

1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree

40. There is system in organization to develop my career

1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree

41. My superior is not concerned about my career

1. Fully Agree 2. Highly agree 3. Agree 4. Somewhat do not Agree 5. Do not agree

42. My career will develop if I work diligently

1. Do not agree 2. Somewhat agree 3. Agree 4. Highly Agree 5. Fully Agree