

A Study based on groups comprising Undergraduate students only, determining the influence of differing group formation and leadership styles (both self-selected and imposed in nature) upon communication satisfaction, decision making styles and team effectiveness

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Keywords: Leadership , Group formation , Teamwork.

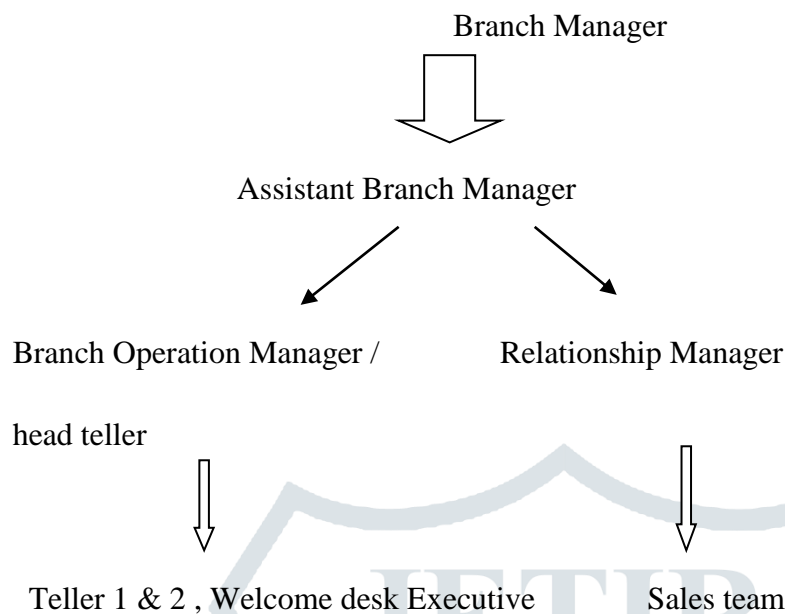
Abstract

Present investigation had been designed to determine influence of imposed and self selected group formation & leadership processes on communication satisfaction , decision making styles , team effectiveness of groups comprising Undergraduate students only . The sample comprised 160 students who had been randomly assigned to four groups differing in terms of nature of leadership and group formation (either self selected or imposed) . The four groups were : Group1(self-selected group formation , imposed leadership), Group2(Imposed group formation , imposed leadership), Group3(Self selected group formation , self selected leadership),Group 4(Imposed group formation , self selected leadership) . The tools used were Perception of Communication Satisfaction Questionnaire by Hecht (1978), General decision making style inventory by Scott and Bruce (1995), Team Effectiveness Scale developed by Dr Upinder Dhar and Dr Santosh Dhar (1983). Descriptive statistics results highlighted that group 3 with imposed nature of group formation & leadership, employed most effective decision making styles and had better communication satisfaction and team effectiveness as members of group . Results indicated the prevalence of significant correlation between the variables of communication satisfaction and team effectiveness , decision making style and team effectiveness reflected via task performance . Multivariate analysis of Variance revealed interaction among three dependent variables (namely communication satisfaction , decision making styles , team effectiveness) upon four defined groups to be significant . This study has utility in human resource industry primarily to obtain desired profiles of appropriate students capable of working dynamically in teams and ensures advantageous distribution of student profiles among groups. This study also asserts need to obtain meta – heuristic techniques of group formation .

Introduction

Banking or retail sector or IT sector jobs require teams duly assigned under a leader, in order to accomplish established goals of the organisation . Therefore , it gets essential to derive effectiveness of specified group formation and leadership determination methods for achieving the higher level goals .

Let us have an overview of the hierarchy of work structure prevalent in banks:



The branch manager shall assign a monthly target to Assistant branch manager . The Assistant Branch Manager shall provide directions to Branch operation manager and Relationship Manager accordingly . The Branch operation Manager & Relationship Manager will accordingly form teams and assign due targets to their subordinates ; each subordinate employee duly serving under the leadership of respective managers . Now , how will the team formation take place ? Whether placing employees with personal acquaintances in same team under an elected/imposed leader help ? Or placing employees with no personal acquaintance in same team under an elected/imposed leader help ? Such group formation plus leadership determination methods shall pose an impact upon nature of communication satisfaction , decision making styles and team effectiveness of groups . The particular investigation will help analyze this .

Group formation is concerned mainly with the manner in which the groups form, the structures and processes of the group and the functions of the group in different situations. George R. Terry states that - "Leadership is the activity of influencing people to strive willingly for group objectives". In realistic sense , leadership implies the existence of the leader, his followers as well as their mutual interaction. Redding (1978) defined communication satisfaction as the "overall degree of satisfaction an employee perceived in his total communication environment". Decision making is the process of choosing actions directed towards the solution. Styles of decision making can be defined as "the selection from among alternatives of a course of action: it is at the core of planning". (Drucker , 1978). Team effectiveness is determined by members who have the skills necessary to accomplish their goals, wherein members freely exchange views in open communication, using active listening and responding.

While comparing self selected with randomly selected groups , it was found that team experiences were way better for self selected groups than for randomly selected groups (Bacon et.al , 1999; Connerley and Mael ,

2001; Chapman et.al , 2006). Such better teamwork experiences result from effective communication practices among members. Studies have revealed that process of team formation heavily relies on stated preferences of students upon previously undertaken projects (Delson , 2001; Wesner et. al, 2001).

Methodology

Objectives :

- Determine the influence of self selected and imposed group formation as well as leadership processes on communication satisfaction among groups of Undergraduate students only .
- Determine the influence of self selected and imposed group formation as well as leadership processes on decision making styles among groups of Undergraduate students only .
- Determine the influence of self selected and imposed group formation as well as leadership processes on team effectiveness among groups of Undergraduate students only .

Hypothesis :

- I) There is no significant mean difference in communication satisfaction among groups of undergraduate students only reflected via task performance .
- II) There is no significant mean difference in decision making styles among groups of undergraduate students only reflected via task performance .
- III) There is no significant difference in team effectiveness among groups of undergraduate students only reflected via task performance .
- IV) There is no significant correlation between communication satisfaction and decision making styles effectiveness among groups of undergraduate students only, reflected via task performance .
- V) There is no significant correlation between team effectiveness and decision making styles effectiveness among groups of undergraduate students only , reflected via task performance .
- VI) There is no significant correlation between team effectiveness and decision making styles effectiveness among groups of undergraduate students only, reflected via task performance .
- VII) There is significant mean difference in communication satisfaction , decision making styles & team effectiveness among all groups.

Research Design :*2 * 2 factorial design with two factors (Major IV's) and two levels to each factor / major IV*

		Factor A (Group formation)	
		SELF SELECTED (A1)	IMPOSED (A2)
Factor B (Leadership)	IMPOSED (B1)	A1B1 <ul style="list-style-type: none"> • Self selected group formation, imposed leadership Response variables : Communication satisfaction, Decision making style, Team effectiveness	A2B1 <ul style="list-style-type: none"> • Imposed group formation, imposed leadership Response variables : Communication satisfaction, Decision making style, Team effectiveness
	SELF SELECTED (B2)	A1B2 <ul style="list-style-type: none"> • Self selected group formation, self selected leadership Response variables : Communication satisfaction , Decision making style, Team effectiveness	A2B2 <ul style="list-style-type: none"> • Imposed group formation, self selected leadership Response variables : Communication satisfaction, Decision making style, Team effectiveness

Sample :

The inclusion criteria includes -

Age range – Young adults in the age range 18-24 years pursuing Undergraduate course

Sex – Both males and females were selected for this work

Place and locality – Young adults residing in urban areas of Kolkata city were chosen

Occupation -Young Adults by occupation students were selected for the work

Socio-economic status – Young adults belonging to rich, upper middle class or middle class were selected for the work .

Marital status – All male and female adults were unmarried .

Tools :

- **Perception of communication satisfaction (PCS) questionnaire** , developed by Hecht (1978) consists of 19 items about one's feelings regarding the conversation with their superiors . Each item was tagged in a 7-point Likert scale . Each question was to be responded by any of the given categories, namely : Strongly disagree , Moderately disagree, Slightly disagree, Undecided /neutral, Slightly agree , moderately agree , Strongly agree .
- **General decision making style inventory** , developed by Scott and Bruce(1995) includes decision making styles classified as core decision process and decision-regulatory process .The latter includes cluster dependent and avoidant types as regulatory decision process styles, whereas rational, intuitive, and spontaneous decision-making styles describe the way individuals make choices per se. The questionnaire comprises 24 items pertaining to various decision making styles tagged on a five point scale comprising categories viz. Strongly Disagree , Somewhat disagree , Neither Agree nor disagree , Somewhat Agree , Strongly Agree . Cronbach alpha had values ranging from 0.72 to 0.84 . Convergence validity was found to be more than 0.50 (Fischer , 2015).
- **Team effectiveness scale** was developed by Dr. Upinder Dhar and Dr. Santosh Dhar in 1983 , to measure the level Team Effectiveness of employees in various organizations . The questionnaire consists of twenty items which are related to job aspect . The rating of Team effectiveness is of a five point Likert type ranging from “ Always “ , “Often “ , “Sometimes”, “Seldom” and “Never”. Split half reliability was found to be 0.91.

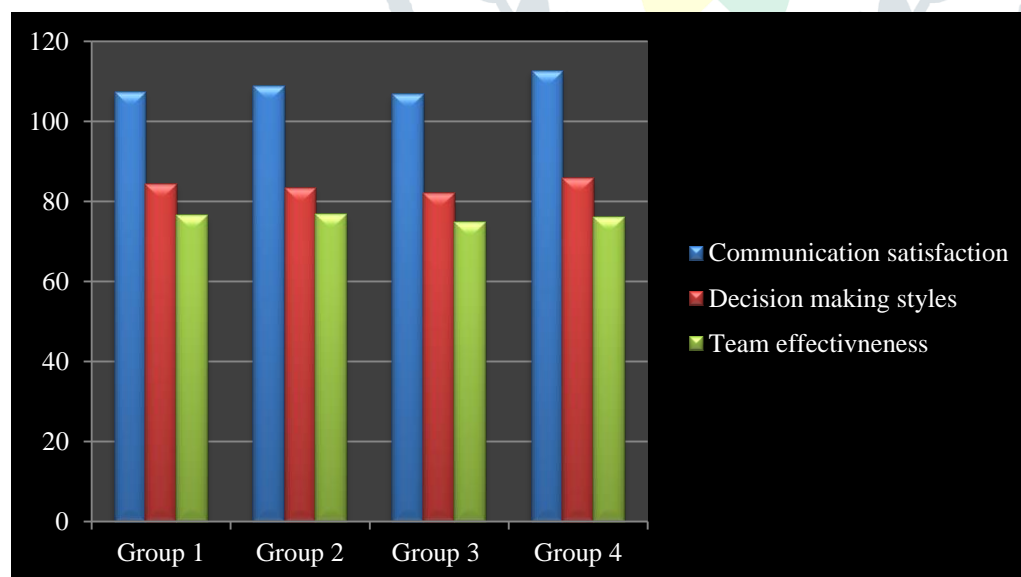
Statistical Analysis :

Descriptive statistics measure includes Mean. Inferential Statistics measures include Pearson's correlation coefficient (r), One way Analysis of Variance, Multiple Analysis of Variance.

Results

➤ Descriptive statistics -

	Group 1 – Self selected group formation, Imposed Group formation		Group 2 – Imposed Group formation, Imposed Leadership		Group 3 – Self Selected Leadership, Self Selected Group Formation		Group 4- Imposed Group formation, Self Selected Leadership	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Communication Satisfaction	107.25	15.96	108.75	12.02	106.875	15.44	112.6	8.38
Decision Making Styles	84.4	8.01	83.45	8.81	82.1	8.29	85.725	7.09
Team Effectiveness	76.55	16.73	76.725	12.86	74.725	11.43	75.95	9.22



GRAPHICAL REPRESENTATION OF MEAN VALUES OF COMMUNICATION SATISFACTION, DECISION MAKING STYLES AND TEAM EFFECTIVENESS OF THE FOUR DEFINED GROUPS

➤ **Inferential statistics**

- I) There is no significant mean difference in communication satisfaction among groups of undergraduate students only reflected via task performance .

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	821.269	3	273.756	1.546	.205
Within Groups	27620.975	156	177.058		
Total	28442.244	159			

The F-Ratio is found to be **1.546** ; The significant 2 –tailed value exceeds 0.05 level. Therefore, out of 100 cases , probability that null hypothesis will get accepted in present in more than five cases . In other words , there is **no significant mean difference in communication satisfaction** among groups of undergraduate students only , reflected via task performance .

- II) There is no significant mean difference in decision making styles among groups of undergraduate students only reflected via task performance .

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	821.269	3	273.756	1.546	.s205
Within Groups	27620.975	156	177.058		
Total	28442.244	159			

The F-Ratio is found to be **1.435** . The significant 2-tailed value exceeds 0.05 . Therefore , out of 100 cases , probability that the null hypothesis may get accepted is present in more than five cases . In other words , there is **no significant difference in decision making styles** among groups of Undergraduate students only , reflected via task performance .

- III) There is no significant mean difference in team effectiveness among groups of undergraduate students only reflected via task performance .

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	821.269	3	273.756	1.546	.205
Within Groups	27620.975	156	177.058		
Total	28442.244	159			

The F- Ratio is found to be **0.198** . The significant 2-tailed value exceeds 0.05 . Therefore, probability that the null hypothesis may get accepted is present in more than five cases . In other words , there is **no significant difference in team effectiveness** among groups of Undergraduate students only, reflected via task performance.

- IV) There is no significant correlation between communication satisfaction and decision making styles among groups of undergraduate students only reflected via task performance .

COMSAT & DECMK	PEARSON CORRELATION	SIG (2-TAILED)	N
	.106	.108	80

**correlation isn't significant at 0.05 level

The sig 2-tailed value is 0.108. The null hypothesis stands accepted here . Hence , there is **no significant correlation between communication satisfaction and decision making styles** among undergraduate students only, reflected via task performance.

- V) There is no significant correlation between communication satisfaction and team effectiveness among groups of undergraduate students only reflected via task performance .

COMSAT & TEAEFF	PEARSON CORRELATION	SIG (2-TAILED)	N
	.338	.000	80

** correlation is significant at 0.01 level

The sig 2-tailed value is 0.000. The alternative hypothesis stands accepted here . Hence, **there is a significant correlation between communication satisfaction and team effectiveness** among undergraduate students only , reflected via task performance.

- VI) There is no significant correlation between decision making styles and team effectiveness among groups of undergraduate students only reflected via task performance .

DECMAK & TEAEFF	PEARSON CORRELATION	SIG (2-TAILED)	N
	.182	.021	80

**correlation is significant at 0.05 level

The sig 2 – tailed value is 0.021 . The null hypothesis gets accepted at the 0.01 level though , but rejected at 0.05 level . Hence , **a significant correlation between decision making styles and team effectiveness does exist** among undergraduate students only , which gets reflected via task performance.

- VII) There is significant mean difference in communication satisfaction , decision making styles & team effectiveness among all groups.

Effect	Value	F	Sig.	
Intercept	Pillai's trace	.994	8665.757 ^b	.000
	Wilk's Lambda	.006	8665.757 ^b	.000
	Hotelling's trace	168.813	8665.757 ^b	.000
	Roy's largest root	168.813	8665.757 ^b	.000

The multivariate analysis indicates that when the dependent variables , namely , communication satisfaction , decision making , team effectiveness are working separately on each of the four groups , the F – Ratios aren't found to be significant even in a single case . However **the interaction among three dependent variables namely , communication satisfaction , decision making , team effectiveness (indicated by intercept) working upon four defined groups is found to be significant** at 0.01 level .

Discussion

- Significant correlation exists between communication satisfaction and team effectiveness among groups of Undergraduate students reflected via task performance . This corroborates the findings by **Ashish Mohanty and Sasmita Mohanty (2018)** on banks, hotels and retail sector which ascertain the relative importance of communication and group dynamics upon teamwork effectiveness . Results indicated prevalence of greater communication satisfaction in banks as compared to hotel and retail chains . Banks were rated high on the specified information dimension of communication which primarily included media quality , organisational integration and organisational perspective . Thus banks have better teamwork experiences on the whole as compared to hotel and retail chains .
- Also , significant correlation has been found to exist between decision making styles and team effectiveness of groups of Undergraduate students reflected via task performance . This result has been confirmed by studies on team performance and decision making processes in self organized virtual teams conducted by **Kangning Wei et. al (2015)** . The study has have revealed decision making processes to be crucial for attaining team effectiveness . Technological support of virtual teams contribute to span temporal discontinuities causing decision making processes more difficult to be attained , Further , the diversity in decision making paths relate innately to differences in task types and group performances.
- A unique finding that may be applied to existing body of research and knowledge is derived from the significant intercept . That is to say , the individual groups have significant differences upon measures of dependent variable (namely communication satisfaction , decision making style , team effectiveness) while working in interaction with one another, rather than individually . None of the previous researches have confirmed this finding .

Conclusion

To sum up , the following significant findings have been obtained from the study :

- ✓ There is a significant correlation between communication satisfaction and team effectiveness of groups of Undergraduate students reflected via task performance .
- ✓ There is a significant correlation between decision making styles and team effectiveness of groups of Undergraduate students reflected via task performance .

- ✓ When the three dependent variables namely , communication satisfaction , decision making styles , team effectiveness are interacting upon different groups , significant mean differences among groups are obtained .

Limitations

- The sample is restricted to only 160 students with 40 students comprising each group . The **size of the sample is relatively small** to assess the constructs (like communication satisfaction , decision making style , team effectiveness) through varying group formation and leadership methods .
- A more **detailed , elaborate , time consuming task** would have initiated greater scope of interaction among members doing the task . Thus the results would have been more generalized . A half-an-hour task of determining budget allocation to core fields of university administration leaves less scope and time for the members to know each other or interact . Administering tasks like demonstration of a group dissertation or project involving 2-3 months time would have elicited ideal results .
- Only the students of Calcutta university had constituted the sample . **Enhancing the profile heterogeneity of groups** of students constituting the sample could have suggested richer findings .

Applicative potentials

Importance of preparing students with teamwork skills or the importance of preparing students to lead a team towards a particular direction has been referred to by the employers . The nature of communication satisfaction , decision making styles , team effectiveness thus explored in this study reveals which group formation method in specific, may enhance the nature of communication satisfaction , decision making style or team effectiveness of individual members within a group . This particular study has widespread application in Human Resource (HR) industry . The placement of students in reputed MNC's , various IT or non IT hubs or PSU's even , seem to depend a lot upon their problem solving merit and teamwork ability . Thus , HR managers can obtain profiles of appropriate students who can dynamically work in teams and execute desired tasks . The present study also asserts the need to implement effective meta - heuristic technique for group formation . This technique has been widely employed to obtain quick solutions conducting to groups with advantageous distribution of student profiles .

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