Research Article

Systemic-Processual Shared Leadership Model with reference to Team Variables in IT Industry in India

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Abstract -The team characteristics under shared leadership are very important variables determining goal accomplishment by teams . There have been numerous studies on shared leadership and team characteristics . How do the team characteristics vary in content and importance and how do they impact functioning of team and are of relevance to goal achievement ? This paper is devoted to such interesting explorations like processual and systematic understanding of shared leadership in general and it's team characteristic in particular. In this regard, attempt is made to galvanise intellectual thought towards dynamic , processual and systematic study of variables related to team like team characteristics and shared leadership. The IT teams mostly handle changing , dynamic newer projects demanding readjustment of team variables . The sample included 300 team members for collection of responses with regard to the team characteristics like multidisciplinary contribution, technical complexity , distributed actions , reciprocal dependency , value to member expertise , decision making opportunity, member feedback , consensual working , synchronised plans . Based on correlational and variance analysis , effort has been made to explore if shared leadership can be looked upon as a system model with input , throughput and output sub-systems . The findings of this research study include not only how conglomeration of the team variables into a system with the input-throughput and output subsystem may happen but also the various components comprising these subsystems . Also these components' findings about the input, throughput , output and feedback sub-systems were verified through discussions with the experts .

Keywords : Shared Leadership, Systemic, Processual, Dynamic, Model, Input, Output, Throughput

I. INTRODUCTION

A team is defined as an association of individual , generating positive synergy (Khanka S.S., 2000) , members having complementary skills and are committed to the common purpose (Katzenbach J. R. & Smith D.K.) Common purpose , interdependent roles and complementary skills are important characteristics of teams. The types of teams may vary on the basis of composition ,nature, purpose etc. The virtual teams ,cross cultural teams , functional teams, self- directed work teams , etc are some of the common types of teams found in the work place. Teams show higher professionalism than groups. Performance evaluation of teams is done both by extent of relevant contribution from individual member efforts and also extent of the overall collective goals achieved by members . This is different from the evaluation of the group performance. Here the individual performance and contributions are considered during the evaluation process. Teams are usually autonomous in working and also self managing style of functioning with proactive orientation.The groupand team members show a difference in skill set possession as former has overlapping and random skills and the has complementary skills .

The contemporary organisations take team development as a strategy for gaining competitive advantage. The efficient team have cybernetic and synergetic functioning . These are two very important advantages due to which the teams are being preferred by the organizations to organise the workforce in team structures.These team structures vary in types and accordingly vary in their characteristicstoo . The teams have become important in present times due to the rise in trend in organisations to work through teams (Agnihotri .A .& Agnihotri. A., 2020)

II. LITERATURE REVIEW

In the present times , organisations are facing challenges of keeping pace with change expectations arising due to new demands and technology .Thus the processes and the products need to be adaptive to new conditions and changes . Shared leadership is a team phenomena and many leadership models include shared leadership because of it'sadaptivity and flexibility in fast changing complexity ridden environment (Agnihotri .A .& Agnihotri. A., 2020). The works of several scholars likeHeifetz's Adaptive leadership (1994) , Wheatley's leadership for complexity (1999), Allen and Cherrey s' systems leadership (2010) , Lipman-Blumen's Connective Leadership (1996), and Spillane, Reiser, and Gomez s' Situated cognition practice (2006)too support the same thoughts. Teams are crucial for Shared leadership as this leadership variant functions using teams . The nature and characteristics of teams under shared leadership has been of keen interest for scholars and researchers of management.

Scholars have shown keen interest in the study of teams , their nature , structure, characteristics, impact on organisational and individual performances etc. Newer studies explore teams in different perspectives and different objectives . But teams and related topics have incessantly attracted scholars world over.This paper tries to bring to light the system model of shared leadership teams . Team and shared leadership may be system

if they maywork on input- throughput-output model by focussing on ten characteristics of shared leadership team i.e. multidisciplinary contribution, technical complexity , distributed actions, reciprocal dependency , member expertise value , decision making opportunity, member feedback , consensual working, synchronised plans , communication requirement.

1 Multidisciplinary contribution : In the context of Indian IT sector using shared leadership ,the work for it completion , requires contributions from experts from different disciplines . Collective involvement is required (Lindgren, M., &Packendorff, J., 2006). It is not possible for one discipline or one person to have all the knowledge to solve the complexity of present day problems. So multidisciplinary teams are becoming fast growing organizational units these days .Solutions to the complex problems are necessary by interaction between different disciplines and not by single discipline trying to solve the complex problems alone (Somehagen, J. & Johansson . 2015). Government too has started working through multidisciplinary teams. For example scientists, geographers , engineers , biologists, meteorologists , doctors, computer programmers etc. , all are engaged into finding the solution to global warming by bringing in their experience. In the clinical setting also this approach is applied . Due to new breakthroughs in science and technology , knowledge is enhancing on day to day basis and this is resulting into medical professionals becoming more specialized. They have the target of providing relief to patients . For example team to provide treatment and care to a cancer patient comprises of the different specialists, surgeon, oncologists, radiologists, physiotherapists, etc. No single clinician can assume responsibility of all aspects of care required by the patient and thus can't control or command others(Kouzes, J. M., & Posner, B. Z., 2017).

2. Technical Complexity: In the IT sector working , there is technical complexity involved in the job . Infact for several scholars technical complexity has even become a base for propagating concepts like Complexity Leadership Theory . The characteristics of complex systems bring in lot of challenges. So many concepts like Cynefin Framework ; dissipative processes management, generative leadership , leadership as meta-capability, adaptive leadership , complex responsive processes and complexity leadership theory ,complex adaptive systems (CAS), cycles of change and technological complexity, etc, have mushroomed to explain complexity and challenges due to it in work place .

In fact Sun, X ., Jie ,Y., Wang,Y., Xue, G. & Liu, Y. (2016) explaining their Complexity Leadership Theory mention that complex situation provides for a Leadership style which builds up the organizations as better adoptive systems responding to the complex environment in a better way. It make the systems more open to learning , creativity and production of information. The leadership in the complex environment has to be enabling signifies that the leaders through interaction, interdependency and adaptive tensions are able to foster complex networks.

3.Distributed Actions: The work is distributed among team for project completion and team members are sharing leadership functions. Carson et al. (2007) worked on 59 consulting teams of MBA students and reported that the development of shared leadership required distributed action as the antecedent condition . As they concluded , “Shared leadership refers to a team property whereby leadership is distributed among team members rather than focused on a single designated leader” (p. 1217).

4. Reciprocal dependency :There is reciprocal dependency between each team member for job completion. For shared leadership and teamwork to be effective, it is crucial that group members understand their individual roles and do not underestimate the complexity of a shared leadership arrangement (Hall, 2011). Shared leadership, involves autonomous, yet mutually interdependent task performance. By mutual interdependence is meant reciprocal dependence between two or more members, thereby allowing for overlapping and complementary responsibilities (Gronn, 2002). This complementariness enables interdependent organizational members to make use of the different technical and/or emotional strengths available (Gronn, 2002). O'Toole, Galbraith, and Lawler (2002) have captured the essence of mutual/ reciprocal interdependency as “the more interdependent the work of co-leaders the more input they should solicit from affected others, and the more they need to coordinate between themselves” .

5.Value to Member expertise/creativity : Value is given to each team member for his / her unique knowledge and expertise. Studies offer the evidence directly linking shared leadership to work group creativity and member expertise .Creativity is an important response to increased competition and rapid change in the business environment. Much creativity research identifies important pre-requisites that are more likely to be found in shared than hierarchical leadership. Improved creativity may be one of the most valuable benefits of shared leadership. (Simon ,Guive&Minaee 2014).

6. Decision making opportunities : There are high number of opportunities for each team member to give valuable opinion in decision making (Barth, 2011) supported these views by highlighting that the more participants are engaged in decision making and have access to information affecting the school, the higher their morale and the greater their participation and commitments in implementing school goals.

7.Member Feedback :Feedbacks from the team members play important role in accomplishment of the goal and in building collegial climate (Hattie,J.&Timperley,H.2007).

8. Work Through Consensus:Yukl (2006) recognized that those who subscribe to shared leadership approaches understand that "important decisions about what to do and how to do it are made through the use of an interactive process involving many different people who influence each other" .
9 . Synchronize plans :There is requirement of individual team member's plans to be synchronized with the each other's plan. Gronn (2002) puts that the conjoint agency has been introduced to describe how agents synchronize their actions by considering their own plans and those of their colleagues, and by using their sense of organizational membership .
10. Communication Requirement :There is requirement of team members to communicate with each other to share ideas and actions to be taken towards goal accomplishment. A collegial climate (Rice, 2006) and clear communication are both paramount in all shared leadership decision-making processes (Meyers & Johnson, 2008). Finally, for shared leadership and teamwork to be effective, it is crucial that group members understand their individual roles and do not underestimate the complexity of a shared leadership arrangement (Hall, 2001).

III RESEARCH METHODOLOGY :
This paper focussed on ten team characteristics taken from the standardised questionnaire'Scale for Measuring Shared Leadership' (S.M.S.L) (Agnihotri , A. & Kapoor , S. 2017). The team characteristics werenumbernamely technical complexity ,multidisciplinary contribution , distributed actions, value to member expertise ,reciprocal dependency, high opportunities for decision making ,work through consensus, member feedback , communication requirement , synchronised plans as discussed in the literature review section.The target population was the IT professionals and team members in the IT sector. The responses were analysed through correlational and variance analysis to explore the associational and variational relationships among the variables in IT organisations teams .

IV DATA COLLECTION :The target population was the IT professionals and team members in the IT sector. The responses were analysed through correlational and variance analysis to explore the associational and variational relationships among the variables in IT organisations teams .The questionnaire was distributed among 1000 IT teams members through convenient and snowball sampling method . For this 37 IT companies , which include the MNCs working in India and also local Indian IT companies , were tapped. Responses were received from 530 respondents but out of these only responses of 300 team members and managers working in the Indian IT companies were finally included in the study and analysis after data cleaning. .The data was collected using a standardised questionnaire on shared leadership namely Scale for Measuring Shared Leadership (S.M.S.L) (Agnihotri , A. & Kapoor , S. 2017).Both qualitative and quantitative analysis was used in the study. The expert interviews were also undertaken for the validation of the findings of this study .
V DATA ANALYSIS :for data analysis, qualitative and quantitative both methods were used . Methods of central tendency , correlationand Kruscal Wallis were used on SPSS to investigate the association and variations. The mean variations were calculated to give the extent of variations in team characteristics with reference IT companies .The IT companies with large and small scale of production and employee strength were studied and different revelations obtained as below in terms of team characteristics which showed variationsin level and order with regard to terms of complexity and dynamism in the IT organisations (Table 1.1) .

S.NO	Team Characteristics	Mean Values	
		IT Organisations	IT Organisations
1.	Multidisciplinary contribution	78.51	76.49
2.	Technical complexity	83.30	71.70
3	Distributed Actions	80.55	73.50
4.	Reciprocal dependency	85.82	69.18
5.	Value to member expertise	79.59	74.45
6.	Decision making opportunities	88.09	66.91
7.	Member Feedback	81.73	73.27
8.	Work Through Consensus	87.49	67.51
9.	Synchronised plans	88.47	66.53
10.	Communication Requirement	81.04	73.01

Ranks

Table 1.1: Mean ranks of team characteristics in IT organisations

Large IT Organisations : Synchronised plans 88.47,Decision making opportunities ,88.09,Work Through Consensus87.49,Reciprocal dependency 85.82, Technical complexity 83.30 ,Member Feedback 81.73, Communication Requirement 81.04, Distributed Actions 80.55,Value to member expertise 79.59, Multidisciplinary contribution 78.51

Small IT Organisations :Multidisciplinary contribution 76.49, Value to member expertise 74.45, Distributed Actions 73. 50 ; Member Feedback 73.27, Communication Requirement 73.01 ,., Technical complexity 71.70, Reciprocal dependency 69.18, , Work Through Consensus 67.51, Decision making opportunities 66.91, Synchronised plans 66.53

Multidisciplinary contribution was most important team characteristic and was given a very high priority by companies working on small scale. The expert opinion in this regard was that since these companies handled projects and assignment varied in content , the talent acquisitions for teams needed to be diversified too in terms of relevant knowledge and expertise . The teams worked through distributed action by giving importance and value to the expertise to the team participants.Comparatively member feedback and communication requirements vary in smaller and larger IT companies. As the smaller IT organisations stressed a lot on feedback mechanism and have high communication requirement.Rankingorder ofteam characteristics reversed in large IT organizations and in small IT organisation teams (Table 1.1).This shows that although IT teams share the common characteristics , still the they vary in the prioritization of these characteristics while functioning.

Correlational study of the team characteristics :

Correlational analysis is investigating how two variables are interacting and it gives an idea about the change in other variable when one is changing.

The multidisciplinary contribution shows high to medium association with the other shared leadership team characteristics undertaken for study .Ahigh positive correlation was found to be between the multidisciplinary contribution characteristic and the technical complexity characteristic (0.60). In IT teams ,the nature of task requirements of the teams is technical .The present day field of science and technology is marked by frequent sudden and complicated changes.This makes it mandatory for the people working in the IT sector to keep upgrading the skills required to undertake and /or upgrade a project. As the projects vary and areas of work vary the new skills and more advanced software are introduced which put a demand on the IT professionals to work on upgrading their skills .Any project in IT sector is implemented through a team of professionals from a very high degree of skills and technical knowledge since these projects are complex in demand .The correlational analysis has brought this to the light that there is a high positive correlation between the multidisciplinary contribution characteristic and the technical complexity characteristic. This shows that if the technical complexity increases or decreases the multidisciplinary contribution characteristic increases or decreases similarly. The IT professionals have clarified this that it is due to the reason that the fast changing technical requirements compel the professionals to keep upgrading their skills . The teams are formed by taking people from diversified areas of knowledge.

Multidisciplinary contribution - Distributed Actions :(0.54-High): These two characteristics too showed high positive correlation. These teams distribute the work responsibility based on their area of expertise ,among the team members . Thus the distribution is at two levels , firstly at the work level and secondly at the level of leadership. As the multidisciplinary contribution increases the distribution in work shows an obvious increase. Similarly if there is a decrease in the multidisciplinary contribution there is less to distribute among the team participants.

Multidisciplinary contribution - Value to Member expertise :(0.392 Middle) :These two characteristics too showed positive correlation . As the multidisciplinary nature of the team increased, the value given to each team member for his / her unique knowledge and expertise also increased . When one decreased the other also decreased.

Multidisciplinary contribution - Member Feedback : 0.306 Middle : The multidisciplinary contribution characteristics and the member feedback also show a positive correlation with each other . The member feedback is very much required to handle and give right direction to the multidisciplinary contributions made by the different experts . The member feedback characteristic decreases with decease in multidisciplinary contribution .

Multidisciplinary contribution - Communication Requirement : 0.413 Middle : These two characteristics too showed positive correlation . As the multidisciplinary nature of the team increased, the communication requirement also increased. Thus experts needed to communicate with each other so that they could understand working and strategy of each others.

Technical Complexity - Multidisciplinary contribution ()0.60 High : As discussed above the shared leadership team characteristics, technical complexity and multidisciplinary contribution show a high correlation .

Technical Complexity - Distributed Actions : 0.514 High :In IT teams , work distribution had association and dependence on technical competency required in the work in the sense that these two moved in the same

direction in terms of association. One's higher presence implied the higher presence of the other and vice-versa.

Technical Complexity - Value to Member expertise : 0.392 MiddleTechnical complexity and value to member expertise show a positive correlation of medium level . The reason shared forit by the senior IT practitioners is that value is given to expertise because it is not possible towork without trusting the other experts' competence.

Technical Complexity - Member Feedback (0.29 Low) : The correlational analysis on SPSS shows that there is a low correlation between technical complexity - member feedback . The reason for this as shared by the corporate practitioners was that in case of higher technical complexity , the feedback of other members' had little relevance as the concerned experts are the only ones who are the only competent people to handle any situations.So feedback was considered relevant but to a less extent. The feedbacks could only help the expert for reconsiderations if any but to a little extent.

Technical Complexity -communication requirements (0.371 Middle) :There is a positive correlation between technical complexity and communication requirement It is because the more technical issues need more clarifications and communications for ease of understanding and coordination.

Summary the correlational analysis with regard to other team characteristics was that distributed action multidisciplinary contribution (0.54)and technical complexity (0.51) highly correlated but with regard to other team characteristics , it was not of significant effect .

Member expertise value andmember feedback showed high correlation (refer Table 1.2) . conventionally ,in IT organizations gave importance to the expertise of the team members ,and thus their feedbacks were frequently sorted and give value too.

Team Characteristics	**Multidisciplinary contribution**	**Technical Complexity**	**Distributed Actions**	**Reciprocal dependency**	**Value to Member expertise**	**Decision making Opportunity**	**Member Feedback**	**Consensual Working**	**Synchronized plans**	**Communication Requirement**
Multidisciplinary contribution	1.000	0.602 High	0.54 High	0.281 Low	0.392 Middle	0.336 Middle	0.306 Middle	0.400 Middle	.0397 Middle	0.413 Middle
Technical Complexity	0.602 High	1	0.514 High	0.255 Low	0.393 Middle	0.384 Middle	0.287 Low	0.340 Middle	0. 371 Middle	0.392 Middle
Distributed Actions	0. 539 High	0. 514 High	1	0.252 Low	0.225 Low	0.352 Middle	0.257 Low	0.376 Middle	0.338 Middle	0.276 Middle
Reciprocal dependency	0.281 Low	0.255 Low	0.252 Low	1.000	0.481 Middle	0.560 High	0.575 High	0. 562 High	0.539 High	0.367 Middle
Member expertise value	0.392 Middle	0.393 Middle	0. 225 Low	0.481 Middle	1	0.468 Middle	0. 597 High	0.489 Middle	0.483 Middle	0. 486 Middle
Decision making Opportunity	0.336 Middle	0.384 Middle	0.352 Middle	0.560 High	0.468 Middle	1.000	0.578 High	0.624 Middle	0.522 High	0.376 Middle
Member Feedback	0.306 Middle	0. 287 Low	0. 257 Low	0.575 High	0.597 High	0.578 High	1	0.689 High	0.590 High	0.405 Middle
Consensual working	0.400 Middle	0.340 Middle	0.376 Middle	0.562 High	0.489 Middle	0.624 High	0.689 High	1. 000	0.661 High	0.544 High
Synchronized plans	0.397 Middle	0.371 Middle	0.338 Middle	0.539 High	0.483 Middle	0.522 High	0.590 High	0.661 High	1.000	0.481 Middle
Communication Requirem	0.413 Middle	0.392 Middle	0. 276 Low	0.367 Middle	0. 486 Middle	0.376 Middle	0.405 Middle	0.544 High	0.481 Middle	1.000

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Table1.2 : Correlation among characteristics

The team characteristic of member feedback showed high correlation with reciprocal dependency, value to member expertise, decision making opportunity , consensual working and synchronised plans . It was very interesting to note that the member feedback simultaneously correlatedwith so many team characteristics .When there was reciprocal dependency i.e. the members depended on each other for completing the work and the work couldn't be completed unless they contributed their due to the work , there was need for taking feedback so that whole work may go in the expected direction smoothly and without waste of time and resources. Secondly member feedback characteristic of team associated highly with value to member expertise characteristic because it was through feedback from the members the team aligned with each others ' expert efforts to move in the required common work direction .Thirdly it associated highly with decision making opportunity characteristic .Findings revealed that in the instances of high member feedback highly associated with the instances member decision opportunity characteristic. Thus members provided for feedback and got high opportunities to make decisions. Fourthly member feedback characteristic of team associated highly with consensual working . Consensual working required a lot of discussions and expression of opinions of the team members on work execution in the form of feedback. . Fifthly member feedback and synchronised plans characteristics of team associated highly with each other. The individual plans of the experts in team had to be well coordinated and aligned with all other experts' plans for resulting into coherence in overall plan . Member feedback was thus a controlling mechanism of the whole system of team functioning under shared leadership.

Study of the associational analysis showed that consensual working , reciprocal dependency, , member feedback communication requirement , decision making opportunity and synchronised plans highly correlated with each other. The high association among these variables was validated by the experts in their interviews. All these variables worked through enforcing each other and also collaborating with each other .

Variation Analysis

The teams of different IT organisations showed different approach towards the different team characteristics , like consensual working , decision making opportunities, reciprocal dependency and work synchronisation.In case of other team characteristics they showed similar approach i.e. for member expertise value , multidisciplinary contribution, distributed actions, , technical complexity, member feedback and communication requirement , the IT organisations showed nearly similar .These team characteristics complimented and supplemented each other and thus resulting in strengthening and reinforcing each other .In summary the investigation of the variations using Kruscal Wallis test on SPSS revealed that there was difference in team characteristics in big and small IT organisations in terms of four items i.e. reciprocal dependency, decision making opportunities , consensual working , synchronized plans . The reasons for these were explored through expert interviews that revealed many facts about the variations in the characteristics.Reciprocal Dependency was more in bigger IT organisation because they handled more specialized and technical projects andalso there was high positive correlation between reciprocal dependency and experience. Also the difference in consensual working was to share risk and accountability of failures.The analysis after indepth interview from academic experts and practitioners is summarised as under :

1. .Multidisciplinary Contribution :The p-value for the multidisciplinary contributions on Kruscal Wallis test was p value =.765 so the null hypothesis was accepted . There was no significant differece in this characteristic across large and small IT organisations in the constitution of the shared leadership teams to work on projects . This characteristic got equal importance in both type of organisations .Both , large and small , types of the organisations gave an equal importance to this team characteristics ein forming teams for projects . In IT organisations the functional units are the multidisciplinary teams for various projects undertaken by these organisations. These projects involve expert of complex areas of knowledge .This made it mandatory that the teamswere formed by pooling in experts of knowledge areas required by the IT projects. Newer discoveries, inventions , upgradations and breakthroughs in science and technologies were resulting into more specialized knowledge in IT sector working .This requires the IT professionals to keep updating and imbibing the newer knowledge and approaches. Thus team characteristic is invariably present in the teams engaged in IT projects .Collective involvement is required (Lindgren, M., &Packendorff, J., 2006). Solutions to the complex problems are necessary by interaction between different disciplines and not by single discipline trying to solve the complex problems alone(Somehagen, J. & Johansson . 2015). But still the comparative analysis of this characteristics has shown that the larger IT organisations undertake bigger and more complex projects thus they are more diversified skill wise and more complex knowledge wise. Thus level of multidisciplinary contribution varies due to higher level of technical complexity . The teams in larger organisations are at higher level of multidisciplinary contributions as compared to the smaller IT companies.

2. The team technical complexity characteristic on Kruscal Wallis test gave p value =.086 . Thus the null hypothesis related to this team characteristic was accepted As discussed under multidisciplinary nature of IT

teams , there is technical complexity involved in the job. Newer findings and challenges in IT areas has made this sector work through complex systems involving experts . Concepts like complex responsive processes and complexity leadership theory ,complex adaptive systems (CAS), cycles of change and technological complexity, etc . have mushroomed to explain complexity and challenges due to it in work place .In fact technical complexity in work is a challenge for IT companies and scholars like Sun, X ., Jie ,Y., Wang,Y., Xue, G. & Liu, Y. (2016) explaining their Complexity Leadership Theory mention that complex situation provides for a leading styles which builds up the organizations as better adoptive systems responding to the complex environment in a better way. It make the systems more open to learning , creativity and production of information. The leadership in the complex environment has to be enabling signifies that the leaders through interaction, interdependency and adaptive tensions are able to foster complex networks.

3. The team characteristic distributed work on Kruscal Wallis test gave p value = .299 . The IT teams distribute the work responsibility among the team participants based on their area of expertise. Thus the null hypothesis related to this team characteristic was accepted . Thus the distribution is at two levels , firstly at the work level and secondly at the level of leadership. In project completion the team members are sharing not only work but also leadership functions. Carson et al. (2007) worked on 59 consulting teams of MBA students and reported that the development of shared leadership required distributed action as the antecedent condition . As they concluded , "Shared leadership refers to a team property whereby leadership is distributed among team members rather than focused on a single designated leader" (p. 1217).

4. The team characteristic on reciprocal dependency on Kruscal Wallis test gave p value =.014. Thus the null hypothesis related to this team characteristic was rejected . It shows that there is difference in this team characteristic in the large and small IT organizations. The reciprocal dependency was seen to show a difference in large and small IT organisations

5. The team characteristic value to member expertise on Kruscal Wallis test gave p value = .446 Thus the null hypothesis related to this team characteristic was accepted . It shows the that there is no difference in this team characteristic in the large and small IT organizations .The value given to the unique knowledge and expertise varies in large and small IT companies . In large IT organisations there is more importance to this team characteristic because the team members hold higher expertise knowledge and they need it for higher order projects of IT . The small IT companies also similar stress was found on the value for expertise . The reason was that although they were small in terms of manpower and capital invested , still they were handling complex projects from abroad at a lower cost to their satisfied clients . Also in smaller IT companies sometimes for newer project handling , instead of hiring expert , consultancy is seen to be preferred or outsourcing be done. Several studies have given the evidence directly linking shared leadership to work group creativity and member expertise (Simon ,Guive, &Minaee 2014). Thus value given to member expertise may increase shared leadership too.

6. Decision making Opportunity .002 The team characteristic Decision making Opportunity on Kruscal Wallis test gave p value = .002 Thus the null hypothesis related to this team characteristic was rejected .

7 Member Feedback .221 The team Member Feedback .221 characteristic on Kruscal Wallis test gave p value =.221 . Thus the null hypothesis related to this team characteristic was accepted Feedbacks from the team members play important role in accomplishment of the goal . Feedbacks from the team members play important role in accomplishment of the goal and collegial climate.

8. Consensual working . .004 The team characteristic value to member expertise . . . .004 Thus the null hypothesis related to this team characteristic was rejected . .here is requirement of team members to communicate with each other to share ideas and actions to be taken towards goal accomplishment. A collegial climate (Rice, 2006) and clear communication are both paramount in all shared leadership decision-making processes (Meyers & Johnson, 2008). Finally, for shared leadership and teamwork to be effective, it is crucial that group members understand their individual roles and do not underestimate the complexity of a shared leadership arrangement (Hall, 2001).

9.Synchronised plans .002 The team characteristic value to member expertise .002 Thus the null hypothesis related to this team characteristic was rejected . The synchronised plans showed difference in different IT organisations. Experts opinion too supported this as synchronised plans are end results in many organistions and showed variations.

10.Communication Requirement .236 The team technical complexity characteristic on Kruscal Wallis test gave p value =.086 . Thus the null hypothesis related to this team characteristic was accepted .The communication requirement in all team working was essential and mandatory with nosignificant difference.

SYSTEMIC VIEW OF SHARED LEADERSHIP:

Interesting pattern immerged among the team characteristics under shared leadership observed in large IT organizations on the data analysed on SPSS using correlation and variation techniques .These were verified through in-depth interviews of experts from academia and industry. The analysis is summarised below under findings and conclusions.

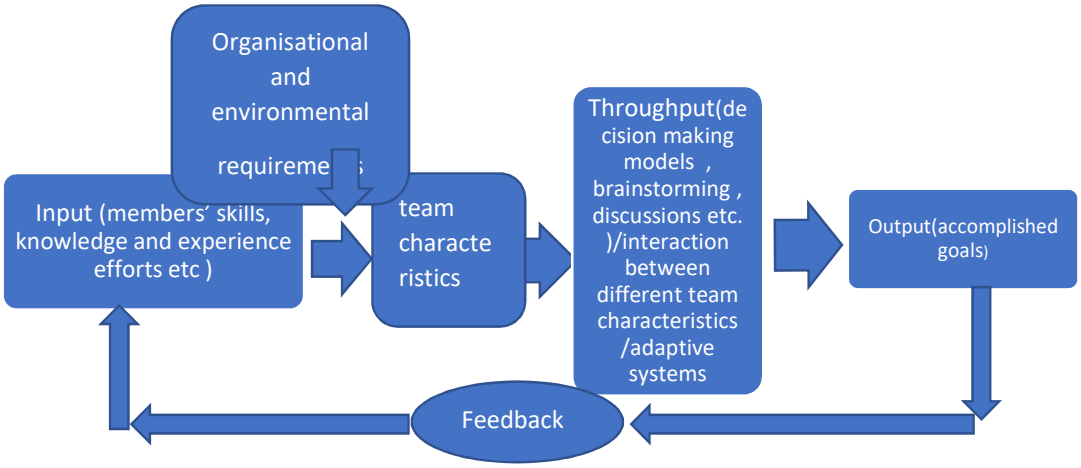
VI CONCLUSIONS

This study tries to put forward not only the associational and variational relation between the characteristics of shared leadership but also the systemicview of shared leadershipteam characteristics .It highlights the fact that for happening or managing of shared leadership, we can't prescribe a list of steps . It will not happen through fixed events but rather through complex , dynamic and continuous processes . The processual approach to shared leadership puts forward the shared leadership system working through sub systems like the inputs throughput and the output and feedback . Under this processual view the team characteristics should be seen as dynamic and in a state of continuous interaction and adjustment

Findings show that although IT teams share the common characteristics , still the they vary in the prioritization of these characteristics while functioning

The processual approach states that shared leadership is continuous and without a finite end point. As such, the processual theory does not prescribe a list of steps to manage change (Pettigrew, 1985).

Figure 1 : Systemic view of shared leadership team :



- Shared leadership can be looked upon as a system with input , throughput and output model. Input includes member's skills, knowledgeand experience efforts etc . The extraneous variables like the organisational environment and requirements impact on inputs and result into various team characteristics . The different decision making models, brainstorming , discussions, etc, may act as throughput . Ultimately the end results in terms of synchronised plans and goal accomplishments are the outputs . The laggings or any information may be may modify the inputs through the feedback mechanism (refer Fig.1 & Fig 2)

Figure 2 : Systemic view of shared leadership team :

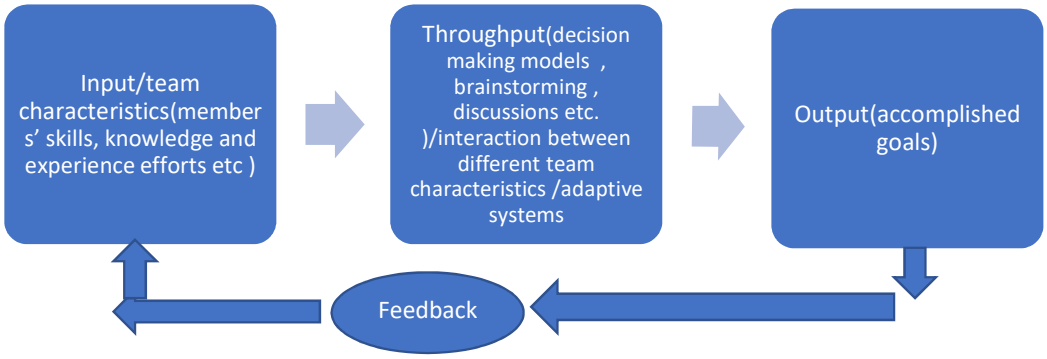


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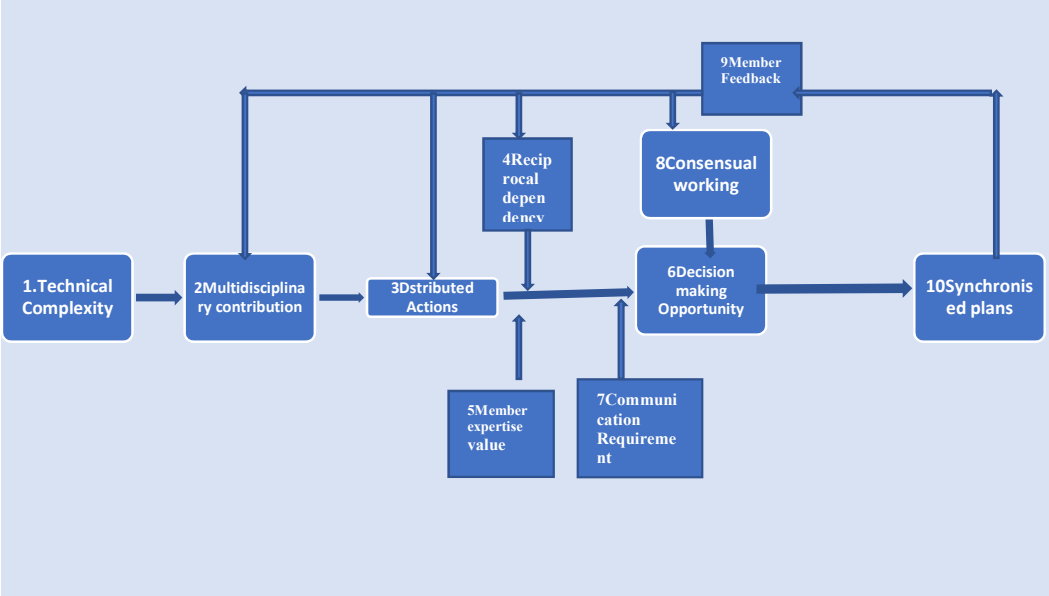
Figure 3 : Processual and systemic Model of shared leadership team characteristics :



Findings reveal that the ten characteristics (Synchronised plans 88.47, Decision making opportunities 88.09, Work Through Consensus 87.49, Reciprocal dependency 85.82, Technical complexity 83.30 , Member Feedback 81.73, Communication Requirement 81.04, Distributed Actions 80.55, Value to member expertise 79.59, Multidisciplinary contribution 78.51) which were undertaken for study actually played different role in shared leadership working and got grouped under input , throughput and output . Based on indepth interviews of the scholars and practitioners of leadership and measure of central tendencies and also by variance analysis on SPSS, systematic processual model was evolved(Refer Fig.3 & Fig 2) .It has brought out that there is requirement of individual team member's plans to be synchronized with the each other's plan. The large IT companies' teams give most priority to the synchronization of individual works . Achievement of this synchronization of plans which may further help in the achievement of the end goals of the organisation is actually the goal of team . Thus in the system model of shared leadership working synchronised plans have been interpreted as the output at the team level . For this the team members are given high decision making opportunities to handle their complex technical work. The decision making opportunity is the second most important characteristic for teams' functioning which is impacted by consensual working and communication requirement characteristics of the team. All these three work as a throughput subsystem at the team level as the they have the transformation power of the inputs into outputs.The expert nature of the individual efforts makes it mandatory for each other to support the other experts' decisions and on this they have a consensus. The next important characteristic of the team is that team members equally depend on each other . The team to be functional requires the support of all participant who are experts of their field .The teams in IT organisations handle technically complex work .For this they need multidisciplinary expert contribution.This is achieved by distribution of the work among the experts for taking actions (Distributed actions.) The extent of this distribution depends on the value or importance given to the expertise of the team members. The results of distributed actions get modified by the reciprocal dependency of the experts on each other for execution of the work. The model components till here are actually input sub system. The results of this input subsystem are utilized at every decision making opportunity (modified by communication requirement and consensual working conditions in the team) and result into synchronized plans which are used for ultimate goals of the team.Member feedback is placed as an important characteristic of the team here which is crucial for ensuring systemic team model's cybernetic property.

The findings of the variance analysis supports the systemic processual team characteristic model of shared leadership . Variance analysis reveals for multidisciplinary contribution, technical complexity & distributed actions Null was accepted as p value was above .05 ; For member expertise value Null is accepted as p value is above .05; member feedback .221 Null is accepted as p value is above .05, , communication requirement .236 Null is accepted as p value is above .05. These team variables equal in importance and impact in team working through shared leadership . But this was not the case with the remaining team characteristics under study reciprocal dependency (p value =.014) Null is rejected as p value is below .05 , decision making opportunity (.002) Null is rejected as p value is below .05; consensual working . .004 Null is rejected as p value

is below .05, synchronised plans .002 Null is rejected as p value is below .05. Thus the team variables/ characteristics reciprocal dependency, synchronized plans , consensual working and decision making opportunity (p- value less than .05) varied in importance and impact .The figure above illustrates that as these variables varied , they infact caused variations in other team variables/ characteristics as demonstrated in figure above.

The expertopinioncategorised the variables from 1 to 5 as input subsystem Also the expert opinion categorised decision making communication requirement and consensual working into throughput subsystem as the team used these variables to convert the inputs to the outputs in the form of synchronised plans towards the goal achievements .Based on the success or gap in the goal achievement through synchronised plans the member feedback modified team variables at different levels of the system.

The team characteristics of shared leadership may be understood as a process as these characteristics are dynamic and complex in relation and interaction. Logically in this study ,the team characteristics interacted as a process resulting into synchronised plans as shown in the model above .In this study the team characteristics adjusted and arranged in the following way. Treating these team characteristics as sub-systems, 1 to 5 team characteristics combined and interacted as input sub system , whereas 6 to 9 team characteristics combined into throughput sub system . The 10^{th}characteristic formed the only component of the output subsystem . The shared leadership team characteristics can be thus interpreted as the system with input , throughput and output sub system. This model depicts the systemic and processual view . This model is also processual since it is dynamic and changing as the team characteristics may arrange and adjust in a different way under different contingencies.The findings of the study reveal that in IT sector the technical complexity of work necessitates multidisciplinary contribution from experts to handle diverse technical areas of the projects.Through distributed actions these experts collaborate(high correlation between these variables) . The results of distributed actions variable is impacted by the reciprocal dependency , communication requirements and also member expertise values.Along with consensual working they modify the decision making opportunity. These decision making opportunities are there to result into synchronized plans and programmes of the team members which may lead to goal accomplishment of the team on the whole.

VII LIMITATION:

Logically in this study , the team characteristics interacted as a process resulting into synchronised plans as shown in the model above but under other circumstances they may adjust and interact in different ways.In this research study the team characteristics of shared leadership under study got arranged in input, throughput and output sub - system . More studies in other sectors with more team characteristics may be researched to confirmthe systemic processual model of team characteristics of shared leadership. Thus theProcessual and Systemic Model of shared leadership team characteristics evolved in this paper may be validated through more research .

The research paper is based on taking up few team characteristics , thus limiting it's scope in application to shared leadership context in IT organizations . Future research may broaden or include the other team characteristics related to leadership in general and shared leadership in particular.

Higher statistical techniques may be applied on this team characteristics study for higher investigation and results .

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