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CROSS FUNCTIONAL TEAMS & INNOVATION MANAGEMENT

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ABSTRACT

Purpose: purpose of study is to check out how innovation is being managed by using cross functional teams in telecom sector of Pakistan and different factors of the success of cross functional teams. Study also checks the importance of accommodating and balancing individual, team, and organizational needs.

Design/methodology/approach: Target population for this Quantitative study is the telecommunication sector of Pakistan. Sampling technique that has been used in this study is convenience sampling and with that 3 telecom companies are selected, namely Zong, Mobilink and

Multinet. Data was gathered from questionnaire and responses of 103 respondents were recorded for analysis. Correlation and Regression was used to analyze the data.

Findings:

- Participative leadership style is in the favor of cross-functional team and it is effecting team performance and capabilities in positive way.
- Team performance, organizational performance and innovativeness are directly proportional to CFT capabilities

level.

- When there are more relationship conflicts and lack of climate of trust among CFT members, the performance and innovativeness will be reduced.
- If there is no freedom to express doubts, the team performance and innovativeness will be low

Research limitations:

- All the telecom sectors are not considered; only three telecom companies are used for data collection so the generalizability of this study is low.
- Secondly the sample size is very small.
- Third thing is that all the study variables and there effects on innovativeness and performance of organization are not discussed in detail.

Keywords: Cross functional teams, innovation, innovation management, telecommunication sector.

Article Classification: Research Paper

Introduction:

It is critical for businesses to generate new ideas, because for companies to sustain, maintain and remain relevant in this ever-changing world of business, organizations have continuously to innovate and generate new methods, ideas. policies, techniques procedures. Innovation is one of the most important things that differentiate between market leaders and their rivals, because it is one of the most important things that help organizations to stay a step ahead of their competitors.

Organizations continuously innovate because innovation leads them to generate new ideas which lead to the discovery of new opportunities. Innovation is not only related to designing a new product to sell but it also applies to the practices and policies of business to improve the efficiency that can decrease the cost and in turn increase productivity (Small Biz Connect). Continuous innovation also results in attracting new employees and retaining existing employees. (Queensland Government, 2014).

Ever since the world got hit by globalization, outsourcing became very much popular because countries and companies with competence in a field got all the contracts to do so and leaving the rivals a step behind in the process.

The concept of a team working on a project is not relatively new, different companies gather competent individuals from different departments of the organization to form a team known as a cross functional team, this team works towards a common goal (Krajewski, Ritzman, & Malhotra, 2012). When people of different talents are placed together, they interact, cross-fertilize and produce new products using new technologies in a far better and cheaper way that could prove otherwise in other structural arrangements (Jassawalla & Sashittal, 2006).

In recent years these cross-functional teams have gained much importance in the organizational settings, but as they say everything has a consequence. Turns out, cross functional teams have a share in that too. Task-disagreement is one of those as when team members disagree on a task it reflects directly on performance of team. But if and when such conflicts do arise and affect team performance they can be managed "collaboration, through compromise, accommodation, control and avoiding" (Liu, Magjuka, & Lee, 2008).

An organization just cannot through people randomly form different departments and expect high results, in ord.er for the team to be effective, training and dedication is also required (Wen Ya, 1998).

Cross-functional teams play vital role in innovation process by enabling knowledge sharing, development of mutual trust and reducing all the barriers that can get in the way of prosperity. We focus on potential complementarities which may arise when cross-functional teams are used in different elements of the innovation process in various organizations over the globe. Optimal combinations of cross-functional teams in the innovation process increases.

Innovation success in the UK by 29.5 per cent compared to 9.5 percent in Germany. The most uniform complementarities between are product design and development and production engineering, with synergy evident between the more technical phases of the innovation process and the development marketing Strategy.

Literature:

In the simplest terms we can say that a cross-functional team is a group that is comprised of people that are from different departments of areas of a company. This group includes people for say from sales, engineering, marketing, finance and other departments of the same company.

In the past couple of years these crossfunctional teams have become very popular among businesses because these teams improve integration as well as coordination among departments, lower the boundaries within the organization and if we talk about new product development than the production cycle time of a product is reduced drastically. (LaFasto & Larson, 2001) For a cross-functional team to be successful, leader's actions are highly important for the development of trust because it influences team climate for trust. To achieve full potential cross-functional teams need interventions like training of leader. (Webber, 2002) Scholars argue that organizations that values continuous learning, encourages dissent as an essential and necessary part of organization life (Locke & Schilit, 1982; Argyris, 1982).

Minority dissent also impacts team innovativeness and organizations that want to take advantage from minority dissent have to encourage dissent and also high participative decision making and by this minority dissent can result in innovativeness. (De Dreu & West, 2001) Cross-functional teams provide a platform to share explicit and tactic knowledge. In other words cross-functional teams act as a catalyst in developing an organization into a knowledge sharing organization. (Mohamed, Stankosky, & Murray, 2004) Innovation is not automatically caused by cross-functional teams, cross-functionality management is taken in consideration to get good outcomes and for that relationship conflicts should be separated from task conflicts and social categorization which result in subgroup formation should be avoided because these things may result in preventing members from expressing their individuality and may cause communication barriers. (Gebert, Boerner, & Kearney, 2006) In his study on identifying innovation blockers (Cooper, 1999); the author outlines several factors that can become innovation problems i.e. the blockers and to avoid them as making the same mistakes again.

In Highly functional heterogeneous teams, participative leadership was positively associated with the process of team reflection because the leader helps the team translate heterogeneity whereas with low functional heterogeneous teams, directive leadership style helped translating heterogeneity (Somech, 2006) (Patrashkova-Volzdoska, McComb, Green, IEEE, & Compton, 2003)

In their study found that with performance, email and face to face communication was associated curvilinear. But telephone communication was not and further analysis showed that e-mail was the only medium which usage increased with increase in distance. In another study by researchers about cross-functional teams and new product innovativeness (Sethi, Smith, & Park, 2001) selected six functional areas and found that product innovativeness was not impacted by functional diversity. (Lovelace, Shapiro, & Weingart, 2001) In their study found that the cross-functional teams does not necessarily result in outcomes that they were designed for i.e. effectiveness and innovation. In order for a cross-functional team to be innovative and cost and time effective the disagreements between the members of the team as well as the leader and the team should be managed properly. (Bakri, 2012)

The use of a multi-functional project approach for solving problems of organized complexity is very different, however, from traditional single discipline problem-solving techniques. Since cross-functional project structures are becoming increasingly popular in the management of modern organizations (Hessel, Mooney, & Zeleny, 1988; Drucker, 1988) (Hessel M., 1988) In order to understand teamwork processes within a cross-functional team, it is first necessary that we be able to identify the core team. This is particularly important for multi-functional project teams, which are often comprised of a central core group responsible for the primary processes within the team, and support players, who perform auxiliary functions for the team but are not directly involved in the primary decision-making processes of the group. (Uhl-Bien, Discovering the Keys to, 1992) The member selection problem is an important aspect of the formation of cross-functional teams (CFTs). Selecting suitable members from a set of candidates will facilitate the successful task accomplishment. (Jiang, 2010)

Cross functional teams have emerged as popular structural solutions for managing new product task environments because they not only promise the highest level of interfunctional integration and cross-fertilization of ideas as yet, they are also relatively easy to institute. (R, 1999) Project teams are rapidly becoming the primary mechanisms for innovation and change in modern organizations. As such, they are designed to capitalize on leadership and integrated crossfunctional teamwork and to negate subordination and individual gamesmanship. Unfortunately, research on cross-functional project teams is scarce and largely theoretical. (Uhl-Bien, Self-Management and Team-Making in Cross-Functional Work Teams, 1992) Cross-functional new product teams are thought to facilitate the product development and marketing process because they solve an information processing problem. (KAY LOVELACE, 2001) Crossfunctional teams play a potentially important part in the innovation process enabling knowledge sharing, the development of trust and overcoming spatial and organizational barriers. Using a super modularity approach, we focus on potential complementarities which may arise when cross-functional teams are used in different elements of the innovation process. (James H Love1)

Firms have implemented cross-functional teams for the majority of the new product development projects undertaken; they are still finding it hard to ensure that these teams are successful in completing the new product development task. (McDonough, May 2000) There is consensus that the effective implementation of cross-functional teams is critical to new product success. However, such teams face particular challenges because of well-documented barriers between functions. (Sarah Holland, September 2000) Three dimensions of cross-functional cooperative (cooperative task orientation, cooperative communication, and

cooperative interpersonal relationships) were proved to directly drive effective knowledge sharing behaviors (Shahla Ghobadi, 1997). Organizations are increasingly using crossfunctional teams to address broad-scale organizational problems, and the potential of such teams is undeniable. Bringing a crossfunctional perspective to organizational problems helps build understanding, problem-

solving capabilities, coordination, communication and, ultimately, improved quality and productivity. (Rebecca A. Proehl) One change is establishing cross-functional or multidisciplinary teams to carry out integrative decision making in the place of departmental hierarchical decision making within the functional areas and disciplines. (Bull, 1992 May).

Background of Problem:

Increased of functional use cross teams can increase success of new product development (McDonough, May 2000). These teams foster a spirit of cooperation that can make it easier to customer achieve satisfaction corporate goals at the same time. The main focus of this paper is to discuss role of cross functional teams in Pakistan especially in Telecommunication sector.

Problem Statement:

How innovation is being managed by using cross functional teams in telecom sector of Pakistan and what are different factors of the success of cross functional teams?

Scope of Study:

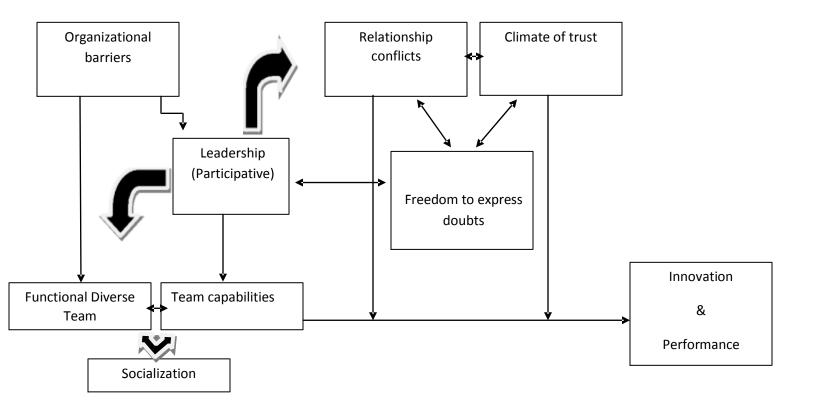
This study will help organizations understand:

- Cross-functional team's value and benefit.
- Organizing, building, maintaining, and evaluating cross-functional teams.
- The importance of accommodating and balancing individual, team, and organizational needs.
- Why cross-functional teams can fail. (Institute of Management Accountants, 1994)

Framework and Hypothesis:

Cross-functional teams behaves as IV over the performance and innovation (DV) of team and organization in presence of other situational variables which are behaving as mediating or moderating variables including: relationship conflicts, leadership style, coordination, functional diversity, level of communication, organizational barriers, team capabilities, climate of socialization. contentious trust. communication and freedom to express doubts.

Model of Cross-Functional teams effect on organizational performance and innovation



Hypothesis:

H1: Organizational barriers inducing impact negatively upon participative leadership and functionally diverse (CFT) team.

H2: There is positive effect of socialization on cross functional diverse teams and its team capabilities.

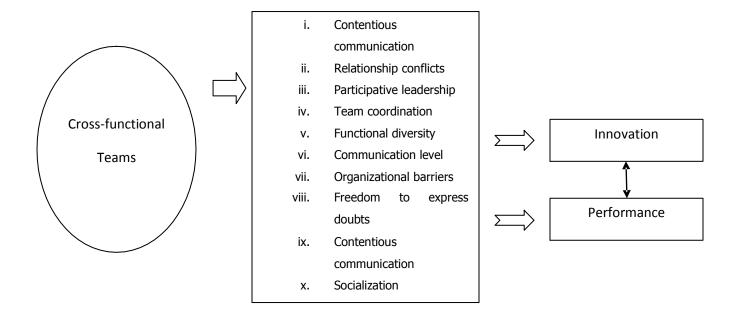
H3: There is positive effect of participative leadership on cross functional team and its capabilities.

H4: More the capabilities of CFT, there will be more level innovativeness and performance at both team level and organizational level.

H5: Participative leader maintains climate of trust and reduces relationship conflicts among its functionally diverse (CFT) teams.

H6: There is negative relationship between climate of trust and freedom to express doubts. **H7:** there is negative relationship among relationship conflicts and freedom to express doubts. **H8:** Relationship conflicts reduce organizational performance and innovativeness.

H9: Climate of trust among CFT member induces innovativeness and high performance.



Methodology:

Population and sample:

Target population for this study is the telecommunication sector of Pakistan. Sampling technique that has been used in this study is convenience sampling and with that 3 telecom companies are selected, namely Zong, Mobilink and Multinet.

Data was gathered from questionnaire and responses of 103 respondents were recorded for analysis. Statistical tests are applied in order to find out the relationship among various variables to calculate the impact of cross-functional teams on performance and innovation in telecom sector of Pakistan.

Results:

Results of regression

Coefficients^a

Model		Unstandardize	ed Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
	(Constant)	1.517	.153		9.948	.000
	Freedom to express doubts	.024	.055	.035	.443	.659
	Participative Leadership	.201	.062	.269	3.242	.002
1	Climate for Trust	.354	.082	.456	4.304	.000
 	Team Capabilities	.164	.065	.222	2.507	.014
	Relationship Conflicts	082	.062	097	-1.329	.187
	Level of Socialization	.060	.071	.090	.849	.398
	Organizational Barriers	045	.079	052	564	.574

a. Dependent Variable: Cross-functional teams Improve Innovation

Results of Correlation

Correlations

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		Team-	Participati	Climat	Team	Relations	Level of	Organizatio	Freedo
		perfor	ve	e for	Capabiliti	hip	Socializati	nal Barriers	m to
		mance	Leadershi	Trust	es	Conflicts	on		expres
		Innova	р						s
		tion							doubts
Cross- functional teams	Pearson Correlatio n	1	.806 ^{**}	.859 ^{**}	.822 ^{**}	.422**	.796 ^{**}	.569**	.743 ^{**}
Improve Innovation	Sig. (2- tailed)		.000	.000	.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Participative	Pearson Correlatio	.806**	1	.782 ^{**}	.785 ^{**}	.512 ^{**}	.717**	.641 ^{**}	.727**
Leadership	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Climate for	Pearson Correlatio	.859 ^{**}	.782 ^{**}	1	.806**	.559 ^{**}	.870 ^{**}	.696 ^{**}	.768 ^{**}
Trust	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Team	Pearson Correlatio	.822 ^{**}	.785 ^{**}	.806 ^{**}	1	.477**	.792 ^{**}	.568 ^{**}	.751 ^{**}
Capabilities	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	103	103	103	103	103	103	103	103
Relationship	Pearson Correlatio	.422 ^{**}	.512 ^{**}	.559 ^{**}	.477**	1	.499**	.776**	.462**
Conflicts	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000
	N	103	103	103	103	103	103	103	103

Level of Socializatio	Pearson Correlatio	.796**	.717**	.870 ^{**}	.792 ^{**}	.499 ^{**}	1	.706 ^{**}	.758 ^{**}
n	Sig. (2- tailed)	.000	.000	.000	.000	.000		.000	.000
	N	103	103	103	103	103	103	103	103
	Pearson								
	Correlatio	.569**	.641**	.696**	.568**	.776**	.706**	1	.515**
Organizatio	n								
nal Barriers	Sig. (2- tailed)	.000	.000	.000	.000	.000	.000		.000
	N	103	103	103	103	103	103	103	103
Freedom to	Pearson Correlatio n	.743 ^{**}	.727 ^{**}	.768 ^{**}	.751 ^{**}	.462**	.758 ^{**}	.515 ^{**}	1
express doubts	Sig. (2- tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	103	103	103	103	103	103	103	103

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.904 ^a	.817	.804	.32537

a. Predictors: (Constant), Organizational Barriers, Freedom to express doubts,
Relationship Conflicts, Team Capabilities, Participative Leadership, Climate
for Trust, Level of Socialization

From statistical results it is concluded that value of r-square is .817 which is in the favor of supporting model 1.

- Organizational barriers are inducing its impact negatively over participative leadership and functionally diverse team (CFT).
- There is positive effect of socialization on cross-functional team and its capabilities.
- Participative leadership style is in the favor of cross-functional team and it is effecting team performance and capabilities in positive way.
- Team performance, organizational performance and innovativeness are directly proportional to CFT capabilities level.
- Participative leadership style sustains climate of trust which results in reducing interrelationship conflicts among CFT members.
- When there is poor climate of trust among team members, the inter-relationship conflicts will increase which reduces freedom to express doubts.
- When there are more relationship conflicts and lack of climate of trust among CFT members, the performance and innovativeness will be reduced.
- If there is no freedom to express doubts, the team performance and innovativeness will be low

Limitations:

The first limitation is about selected target population for this study which is not appropriate. All the telecom sectors are not considered; only three telecom companies are used for data collection so the generalizability of this study is low. Secondly the sample size is very small.

Third thing is that all the study variables and there effects on innovativeness and performance of organization are not discussed in detail.

Bibliography

- 1) (n.d.). Retrieved 5 18, 2014, from http://www.inc.com/encyclopedia/cross-functional-teams.html
- 2) Argyris, C. (1982). Reasoning, learning, and action: Individual and organizational (Vol. 1st edition). San Francisco: Jossey-Bass.
- 3) Bakri, C. R. (2012). Examining The Technical and Non Technical Member's. Social and Behavioral Sciences.
- 4) Bull, Q. Q. (1992 May). Cross-functional, integrative team decision making: essential for effective QI in health care. US National Library of Health and Science, 157-63.
- 5) Cooper, D. R. (1999). From Experience: The Invisible Success Factors in ProductInnovation. Journal of Product Innovation, 16 (2), 115-133.
- 6) De Dreu, C. K., & West, M. A.

- (2001). Minority Dissent and Team Innovation: The Importance of Participation in Decision Making. Journal of Applied Psychology, 86 (6), 1191-1201.
- 7) Gebert, D., Boerner, S., & Kearney, E. (2006). Cross-functionality and innovation in new product development teams: A dilemmatic structure and its consequences for the management of diversity. European Journal of work and Organizational Psychology, 15 (4), 431-458.
- 8) Hessel, & Mooney. (1988).
- 9) Hessel, M. (1988).
- 10) James H Love1, S. R. Complementarities Between. Organizing Innovation (DRUIDSummer).
- 11) Jiang, B. F.-Z. (2010). A method for member selection of crossfunctional teams using the individual. European Journal of Operational Research.
- 12)Kay Lovelace, D. L. (2001).Communications **AConflict** Perspective: Maximizing Cross-Functional New **Product** Teams' And Innovativeness Constraint Adherence. Academy of Management Journal A Conflict Communications Perspective, Vol. 44, No. 4., 779-793.
- 13)Locke, E. A., & Schilit, W. K. (1982). A Study of Upward Influence in Organizations. Administrative Science Quarterly, 27 (2), 304-316.

- Weingart, L. R. (2001). Maximizing Cross-Functional New Product Teams' Innovativeness And Constraint Adherence: A Conflict Communications Perspective. Academy of Management Journal, 44 (4), 779-793.
- 15) McDonough, E. F. (May 2000). Investigation of factors contributing to the success of cross-functional teams. Journal of Product Innovation Management, Volume 17 (Issue 3), Pages 221–235.
- 16) Mohamed, M., Stankosky, M., & Murray, A. (2004). Applying knowledge management principles to enhance cross-functional team performance. Journal of Knowledge management, 8 (3), 127-142.
- 17) Patrashkova-Volzdoska, R. R., McComb, S. A., Green, S. G., IEEE, M., & Compton, W. D. (2003, August). Examining a Curvilinear Relationship Between Communication Frequency and Team Performance in Cross-Functional Project Teams. IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT.
- 18) R, A. (1999). Building collaborative cross functionl new product teams. Academy of Management Executives .
- 19) Rebecca A. Proehl, (. P. Enhancing the effectiveness of cross-functional teams. 3 (3).
- 20) Sarah Holland, K. G. (September 2000). Critical success factors for cross-functional teamwork in new product development. International Journal of Management Reviews, 2 (21 MAY 2003), pages 231–259.

- 21) Sethi, R., Smith, D. C., & Park, C. W. (2001). Cross-functional product development teams, creativity, and the innovativeness of new product customers. Journal of Marketing research.
- 22) Shahla Ghobadi, (. o. (1997). 16 (2).
- 23) Somech, A. (2006). The Effects of Leadership Style and Team Process on Performance and Innovation in Functionally Heterogeneous Teams. Journal of Management, 32 (1), 132-157.
- 24) Uhl-Bien, M. (1992). Discovering the Keys to. Self-Management and Team-Making in

Cross-.

- 25) Uhl-Bien, M. (1992). Self-Management and Team-Making in Cross-Functional Work Teams. Discovering the Keys to Becoming an Integrated Team.
- 26) Webber, S. S. (2002). Leadership and trust facilitating cross functional teams. Journal of management development, 21, 201.