Review

How do teams become effective? A literature review and implication for Ethiopia

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Teams have been recognized as the heart of organizations in previous decades and proved to be so in the current situation. However, in recent years different global forces have pushed organizations to their limit and forced them to restructure work and teams. Thus, this paper reviews articles on team effectiveness from 2000 to 2017 with the help of Google Scholar Search Engine using key words “teamwork” and “teamwork effectiveness” and suggests strategy for teamwork effectiveness. The reviewer found that most studies focused on the input-process-output framework. However, recent studies improved the linear relationship found in input-process-output framework and introduced the advanced input-mediator-output framework. Based on this framework, organizational and team context factors were categorized under the input side. Whereas, processes and emergent states were considered as part of mediators and finally multiple criteria (performance, viability, and satisfaction) were used for explaining outcomes. Therefore, the reviewer concluded that organizations and their teams are dynamic that need more explanation through complex frameworks. The reviewer also suggested common clear goal, indoctrinating teamwork ideology, rewarding hard working teams, using diversity as an opportunity, and inform leaders and team members about team effectiveness frameworks as a strategy for teamwork effectiveness. Additionally, the reviewer recommended for future researchers, to come up with mixed (qualitative and quantitative) studies concerning teams in dynamic organizations. Finally, organizations in Ethiopia are advised to exercise current knowledge of team effectiveness that focuses on systems and team design, training and development, and leadership.

Key words: Inputs, mediators, outputs, team, team effectiveness.

INTRODUCTION

Teams and teamwork are the most influential terms in the life of human beings starting from the time where our ancestors came together to search for their food, to lead their families, and to protect their community (Kozlowski and Ilgen, 2006). Over the last four decades, teams have come to be considered as not only a basis for social organization but also a hub in the functioning of organizations (Gibson et al., 2007).
An organization refers to an entity that is systematically arranged to perform tasks with the help of group of people who have specialization and intention to achieve a common goal (Schermerhorn et al., 2010). During the past 30 years, different forces shaped the nature of work in organizations. According to Bell and Kozlowski (2010), strategic, technological, and economic forces have obliged organizations to focus on team oriented structures. Similarly, given the understanding of the importance of teamwork, substantial research works during the past few decades have been done to understand team work effectiveness. According to Schermerhorn et al. (2002), teams can be defined as groups of people who work actively, jointly and holding accountability to achieve a common purpose.

Despite all the trends during the past decades, there is a debate over which framework to use while assessing team effectiveness. The input-process-output (IPO) framework has been criticized for not including variables that can mediate the complex relation between input and outcome (Rico, et al., 2011). On the contrary, input-mediator-output (IMO) framework is widely used to represent the dynamic work environment. In Ethiopian context, growth and transformation plan (GTP II) government has given much emphasis to reform tools (like 1 to 5, Balanced Score Card System, Kaizen…) to enhance capacity and good governance (Ethiopian Ministry of Finance and Economic Development [MoFED], 2010). However, without understanding the environment in which teams work effectively in organizations it is difficult to implement those reform tools. Thus, this review provides a strategy in which teams operate effectively in Ethiopian organizations through review of various articles.

Research questions

The reviewer developed the following research questions:

(1) What strategies should be developed to make teams effective in Ethiopia?
(2) What is the implication of IMO framework for Ethiopian organizations?

LITERATURE REVIEW

Teams and team effectiveness

Various definitions of teams were forwarded by different scholars and most of the definitions are similar having slight differences. Teams are groups of two or more individuals who interact socially, possess one or more common goals, and are brought together to perform organizationally relevant tasks by exhibiting interdependencies with respect to workflow, goals, and outcomes by having different roles and responsibilities, and are together embedded in an encompassing organizational system with boundaries and linkages to the broader context and task environment (Kozlowski and Ilgen, 2006 cited in Kozlowski and Bell, 2003).

Following organizations’ developed experience and appreciation to teams, methodological and theoretical researches in measuring the team work effectiveness were the leading themes (Goodwin et al., 2009). Team effectiveness, thus, refers to the coordination of team members’ work activities for the sake of accomplishment of common goals or objectives (Irving and Longbotham, 2007).

Team effectiveness framework

Teams are sources for accomplishing important tasks and bringing satisfaction among members in the organization. Being aware of the all-encompassing importance of teams in organizations, it should also be noted that teams are not always in a perfect track and team members are not always satisfied (Schermerhorn et al., 2010).

In order to put teams in the right track, it is important to have some criteria so that they will be effective. Accordingly, effective team is one that performs tasks with high quantity, quality and within the schedule; whose members’ are satisfied and have a common intention to work together on sustainable basis (Schermerhorn et al., 2010).

Despite some differences among researchers (Goodwin et al., 2009; Kozlowski and Bell, 2003; Kozlowski and Ilgen, 2006; Mathieu et al., 2008; Sundstrom et al., 2000) in the usage of models, they can all be considered to have been based on IPO model, which was advanced by McGrath (1964).

The input-process-output (IPO) model

The IPO model is one of the dominant frameworks during the past forty years (Kozlowski and Ilgen, 2006) that explains teamwork effectiveness framework by explaining the composition, structure and processes of teams. Besides, the IPO model dictates that team structure is influenced by organizational and situational factors and this in turn affect input, process, and output (Rico et al., 2011).

The input-mediator-output (IMO) model

The IPO models have been considered as deficient in differentiating various types of “processes” and outcomes (Ilgen et al., 2005). As stated by Rico et al. (2011) “the IPO model has received substantial criticism because of
Table 1. IMO framework definitions and components.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Components</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Input</td>
<td>Teams external and internal set of resources.</td>
<td>Rewards, organizational culture, team composition, knowledge and skills of its members, group structure, and task design.</td>
<td>Rico et al. (2011)</td>
</tr>
<tr>
<td>Mediator</td>
<td>“Mediators consist a set of psychosocial mechanisms that permit team members to combine the available resources for performing the work assigned by the organization, overcoming the difficulties involved in the coordination and motivation of their members”.</td>
<td>processes, emerging states and mixed mediators (like team confidence, empowerment, team climate, cohesion, trust, and collective cognition, team learning, behavioral integration, transactive memory)</td>
<td>Rico et al. (2011) and Mathieu et al. (2008)</td>
</tr>
<tr>
<td>Output/outcome</td>
<td>End results achieved by the team</td>
<td>Objectively assessed performance, member satisfaction, viability (degree to which team members want to stay together) and innovation</td>
<td>Mathieu et al. (2008) cited in Gil et al. (2008)</td>
</tr>
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Source: Reviewer’s Compilation (2016).

its inability to incorporate the temporal and recursive aspects imposed on teams by development and feedback as well as its unitary, simplified and opaque treatment of team processes. Thus, such criticism has led to the development of alternative models that can describe the complex team functioning in modern organizations”.

Social loafing and team problems

Teams are not always effective as they may encounter failures that can hinder their potential to productive performance. People may tend to refrain from working hard in a group whereas the same people exhibit better performance when they work individually. Such poor tendency is referred to as social loafing or the Ringlemann effect. Most of the time, leaders are advised to establish/keep small sized groups and redefine individual employees’ share of duty. By doing so free-riders will be vulnerable and peer pressures to perform are more likely. It is also important to increase accountability by making individual performance expectations clear and specific and making rewards directly contingent on an individual’s performance contributions (Schermerhorn et al., 2010).

METHODOLOGY

The reviewer has selected teamwork effectiveness as a review area as it is a critical concept in Ethiopian reform tools implementation process. Besides, the reviewer discussed the issue with experts working in the area and mapped the entire review activity. Following this, the reviewer set few criteria to collect research papers conducted in the topic of interest. The criteria are journal articles published with ISSN or DOI, articles published between 2000 and 2017, and articles published in indexed journals. With regard to the search engine, Google Scholar Search Engine was used using search words “team work” and “team work effectiveness”. In addition to the aforementioned process, the reviewer screened titles and abstracts of 49 journal articles and came up with 37 relevant articles using aforementioned criteria. Besides this, the reviewer brought different findings in team effectiveness and tried to narrate the team effectiveness framework findings focusing on IMO model (Table 1). Finally, the reviewer forwarded teamwork effectiveness strategies for Ethiopian organizations, recommended for future research and showed the implication of IMO model for Ethiopian private and public organizations (Figure 1).

REVIEW OF FINDINGS

Considering the IMO model for team effectiveness as an advanced and multi-dimensional one, the reviewer has collected various research articles and came up with the review of findings within the IMO framework. Accordingly, the findings are presented with inputs, mediators, and outcome headings.

Inputs

Training and training policies are part of the input side that have impact on team effectiveness. Supporting this, a recent meta-analysis confirmed that teamwork training has a positive effect on teamwork behavior and team performance (McEwan et al., 2017). Besides, training can improve teams’ objective performance and supervisors rating for the team (Salas et al., 2007). Additionally, organizational design has been found to have influence on work teams in an environment where there is system
of high involvement and coordination between teams (Rico et al., 2011). Cummings and Haas (2012) also stated that high involvement in the team leads to higher team performance.

On the other hand, teams’ productivity was affected by high-involvement systems (Spreitzer et al., 1999). Group processes and participation in decision-making processes were found to be facilitated by climate of openness (Mathieu et al., 2007). The positive relationship between members’ perception of organizational support and team potency is mediated by group processes with the former having positive impact on the later (Kennedy et al., 2009).

The relationship between cultural context and organizations as a whole is developing but few studies explain how quality of culture and service quality provided by teams in organizations are affected by national cultural differences (Gibson, 2003).

Teams design (autonomy and coordination) and performance were found to be associated in previous studies and it was reported that presence of higher autonomy and coordination in the team were related to better performances. However, the effect in the association changes in magnitude based on the type of task performed (Stewart, 2006).

Team processes nowadays can be expressed from dynamic communication pattern perspective (Gorman et al., 2010) as having effect on organizational outcomes like helping behavior, trust, communication, and conflict. In the meantime, task interdependence was found to have positive modulating effect on the relationship between team processes and organizational outcomes (Bachrach et al., 2005; Rico et al., 2009; Stewart and Barrick, 2000). Besides, De Dreu (2007) reported that improved learning, quantity of information shared and team effectiveness have positive relationship with goal interdependence. With regard to conflict, De Dreu and Weingart (2003) in their meta-analysis reported that team performance was negatively related to relationship and task conflict. Additionally, Scott and Wildman (2015) in their review assumed that dysfunctional conflict in virtual teams can be considered as an emergent state as it brings chaos. On the contrary, constructive/functional conflict is part of the process that supports virtual team effectiveness. According to Zoogah et al. (2015) there is a strong positive association between communication and team performance given that there is top management involvement.

Virtuality in organizations emphasizes on the absence of traditional organizational structure and this has led to the development of research results that explain virtuality in comparative terms. Supporting this, Martins et al. (2004) stated that many researchers brought results focusing on comparative explanations like traditional team versus virtual teams and they managed to show how virtual structures/teams modify the relationship among team participants. Though virtuality increases level of empowerment among team participants (Kirkman et al., 2004), it is criticized for lack of physical communication and social interaction. In highly developed countries, new technologies and strategies can be used to reduce the restraining effect of virtuality. However, in countries like Ethiopia, the idea of virtuality by itself is not promising given the current ICT infrastructures.

Leaders may have relation-oriented and/or task oriented behavior and a meta-analysis by Burke et al. (2006) showed that teams’ performance as measured by perceived team effectiveness is positively associated with relation-oriented behavior and task oriented behaviors. Additionally, Stewart (2006) explained how team performance can be increased using transformational and empowering leadership. Similarly, recent study by Wang et al. (2014) proved the presence of positive association between team performance and shared leadership.

Team size decision (small or big) highly depends on the work environment. Supporting this, Kozlowski and Bell (2003) stated that when there is a need for mutual support among the team members and the team...
environment is variant, smaller teams are recommended. In another study by Wheelan (2009), the effective team size was explained implying the productivity of small teams over the bigger teams. Accordingly, teams having 3 to 6 members were considered to be more productive than teams having 7 to 10 and 11 or more members.

The time team members spend together will help them know each other and to work friendly. With this regard, Lewis et al. (2007) stated that if team members spend long time together they are more likely to have knowledge about each other’s abilities and they will coordinate their actions in a better way. Diversity is considered as a better way to exchange ideas, improve commitment, and bring satisfaction in some studies and other studies considered it as just a distraction for team effectiveness (Jackson and Joshi, 2004). Finally, Bjornali et al. (2016) forwarded that diversity is related with top management team effectiveness and diversity along with cohesion directly and positively affect top management team effectiveness given that board service involvement mediates the relationship between diversity and top management team effectiveness.

Mediators

Recent studies have shown up to replace the IPO framework with IMO with the understanding that today’s teams in organizations are dynamic. In the same token, authors like Cooke et al. (2013) and Kozlowski et al. (2013) suggested research attention to the team dynamics and research design, respectively. Accordingly, findings of mediators (processes and emergent states) are explained.

Coordination activity within the team affects team performance and the effect is positively significant when team members are stressed (Rothrock et al., 2009). Relationship conflict on the other hand, is considered to have negative effect on performance (De Dreu and Weingart, 2003).

A relatively recent meta-analysis showed how potency and team efficacy are positively related to performance with team interdependence having positive and augmentative modulating effect (Gully et al., 2002). Team identity mediates the relationship between diversity and social loafing given that members work in distant places (Shapiro et al., 2002). Other results also showed how team identity help members’ to develop sense of belongingness and to reduce social loafing behaviors compared to that of teams with low team identity (Eckel and Grossman, 2004).

Organizational climate has relation with accident rate of the group and it predicts safety motivation. Supporting this, Zohar (2000) stated that safety climate is significantly related to group accident rate. On the other hand, Neal and Griffin (2006) indicated that safety climate can predict safety motivation of individuals in the group.

Additionally, Colquitt et al. (2002) described the relationship between team performance and justice climate as direct and significant. Absenteeism, on the contrary was reported to have inverse relationship with justice climate.

With regard to the relationship between the components of team cohesion and team performance all of the cohesion components were significantly related to team performance at the team level of analysis, with task commitment and group pride exhibiting the strongest relations (Beal et al., 2003).

Outcomes

Various studies revealed the multiple criteria that explain outcomes in different organizations. These outcomes show how much of the planned activities were accomplished and some of the studies carrying these multiple criteria are as follows. Langfred (2000) in his study of social services and military teams reported supervisors’ ratings of the accuracy and quality of the work performed as measure of performance. Mathieu and Schulze (2006), on the other hand, employed a composite measure of archival indices like parts expenditure and machine breakdown times that was sensitive to differences across teams. Additionally, Kirkman et al. (2004) took satisfaction with team service as a measure of performance. Mathieu and Schulze (2006) used measures of external customer satisfaction.

Thus, whether a combination of the aforementioned criteria or all of them is used, organizations' should properly define set of criteria to be used and they should appreciate team efforts using those criteria.

Implications of IMO framework and strategy for teamwork effectiveness in Ethiopia

The existence of plenty studies that have been done over the past decade was quite interesting as they show the "what" and "how" of team effectiveness by using IPO and its improved version IMO frameworks. The studies expressed the nature of the team effectiveness components that fuel team and organizational performance.

Thus, the selected sample articles imply that organizations in Ethiopia have to adapt team-oriented policies to catalyze team processes. It is also important to review design of organizations and the justice climate so that they motivate organizations to establish high involvement system, autonomy and team cohesion by having manageable team size. Additionally, climate of openness has to be created in organizations to enable group decision making and team spirit.

On the other hand, organizations need to provide adequate facilities for organizational members so that
members’ will develop positive perception of organizational support. Besides, cultural differences need to be recognized and accommodated in organizations to bring service quality provided by its teams. Additionally, helping behaviors, trust, communication, and flexibility among team members needs to be developed for the betterment of organizational outcomes given that the task at hand and goal are interdependent.

Even though virtuality brings empowerment on the members’ side, it is difficult to attain the social values that arise as a result of face-to-face communication. Virtuality is also possible when the technology infrastructures are highly developed. Thus, in Ethiopian organizations context, virtuality is not as such a priority but it can be used by few high tech companies.

As far as leadership is concerned, transformational leadership and empowering leadership along with relations-oriented behaviors and task oriented behaviors need to be developed in organizations to bring teamwork effectiveness. Organizations also need to establish small teams (consisting of as few as 3 and as much as 10 members) and team members need to spend longer working time.

Finally yet importantly, performance evaluation rated by supervisors (including peer and self-evaluation), evaluation of the team service satisfaction level and external customer satisfaction could be used as measures of organizational outcome. However, to make teamwork effective, the responsibility of implementing the aforementioned directions lies jointly on the shoulder of leaders, team members, and stakeholders of the organizations.

In brief the reviewer provided the following strategies to make teamwork effective in Ethiopia:

(1) Teams in organizations should be directed toward common clear goal to make sure that they are working for the common goal rather than their personal goal. To facilitate this strong leadership and good communication is necessary. Hence, leaders and managers in Ethiopia should influence teams in their organizations and motivate them to achieve common organizational goal.

(2) Teamwork ideology should properly be indoctrinated to employees in isolation from politics. This is because most people perceive teamwork as a new government political tool to bring them to the political circle. Thus, leaders should prepare on-the-job training on the importance and scientific side of teamwork and teamwork effectiveness.

(3) Hard working teams should be rewarded and free riders should be educated so that social loafing will be discouraged and hardworking teams will consider themselves as worthy to the organization. Besides, the team will develop commitment as a result of the recognition.

(4) Leaders and managers should use diversity as an opportunity as it brings diversified skills to the team. However, organizations should give due care for communication barriers among diverse team members.

(5) Organizations’ should also inform leaders and team members about team effectiveness frameworks like input, process, mediators, and outcome as they give a look into team effectiveness from its complex perspective.

CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH

In Ethiopia the teamwork environment can be explained, among other ways, from the government reform process perspective. During the past 5 to 10 years, the Ethiopian government enforced the implementation of reform tools that are highly dependent on teamwork. However, the current practice is lagging from what has been planned. Thus, this review summarizes the work of different authors with regard to teamwork effectiveness and provides strategies to bring teamwork effectiveness along with the implication of IMO framework for teamwork effectiveness.

As far as future research recommendation is concerned, researchers need to face the complexity of current team arrangements by conducting dynamic researches that rely on mixed approach (both qualitative and quantitative approaches).

Finally, yet importantly, there is ample research ground carrying a wealth of actionable knowledge on how teams function and become effective. Thus, both public and private organizations in Ethiopia need to put the actionable knowledge into practice so that they can enhance team effectiveness and speed up the implementation of reform tools. Organizations in Ethiopia are recommended to focus on current team effectiveness theories and practices. Additionally, leaders need to have influencing capacity over the team so that the team will be effective. Thus, this review proposes the development of team based policies and the assignment of effective leaders to help implement those policies in Ethiopian context.

CONFLICTS OF INTERESTS

The authors have not declared any conflict of interests.

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