

The Concept of Group Dynamics: Origins and Applications in Top Management Teams studies

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Group dynamics is a useful concept regarding group functioning which was developed on the ground of social practice and social science. The origins of the concept are dated in late 30's and since that time the concept is successfully applied in various domains, i.e. in management. Especially after the introduction of the "upper echelons theory" by Hambrick & Mason in 1984, the interest in group processes determining Top Management Teams (TMT) effectiveness raised.

The aim of this article is to present the origins of the concept of group dynamics –sources and assumptions and its current applications in Top Management Teams (TMT) studies, both theoretical and empirical. Basing on literature review, examples of theoretical models of TMT group dynamics and empirical studies of TMT group processes are described. Some of the studies are focused on the relation between TMT group dynamics and TMT effectiveness, and further – company performance. The others – on relations between group processes and potential impact of TMT demography on these processes.

Keywords: Group Dynamics, TMT, Cognitive Demography.

INTRODUCTION

Group dynamics is a useful concept regarding group functioning, which was developed on the ground of social practice and social science. The origins of the concept are dated in late 30's and since that time the concept is successfully applied in various domains, i.e. in management. Especially after the introduction of the "upper echelons theory" by Hambrick & Mason in 1984, the interest in group processes determining Top Management Teams (TMT) effectiveness raised.

Initially Top Management Teams (TMT) effectiveness was related to team characteristics. However, given that there was no clear explanation of such a direct relation and the results of various studies are not consistent (ex. Bermig & Frick, 2010; Van der Walt et al.), models based on group dynamics gained more and more significance. Their main assumption is that group effectiveness depends on group processes (such as cohesiveness, conflict, and group norms), partially determined by group demography.

The aim of this article is to present the origins of the concept of group dynamics –sources and assumptions and its current applications in Top Management Teams (TMT) studies, both theoretical and empirical. Basing on literature review, examples of theoretical models of TMT group dynamics and empirical studies of TMT group processes are described.

ORIGINS OF GROUP DYNAMICS

Although the nature of man and his place in society had been analyzed for centuries, it was not that long time ago when the particular interest in group dynamics aroused. Group dynamics, developed in twentieth century, was identified with three not fully congruent ideas. The first understanding of group dynamics referred to a political ideology of groups organization and management based on democratic leadership and members' participation in decision-making. The second context of usage of the term group dynamics focused on a set of techniques designed for trainings of interpersonal skills such as role playing, observation and feedback, or brainstorming. The understanding of group dynamics which seems to be the most adequate for studies of group processes refers to "a field of inquiry dedicated to achieving knowledge about the nature of groups, the laws of their development, and their interrelations with individuals, other groups, and larger institutions" (Cartwright & Zander, 1968 a, p. 4).

Such an approach to group dynamics enables to distinguish its four characteristics. Firstly, the most important feature is emphasis on theoretically significant empirical research, i.e. subjective impressions of how a group functions are not enough and must be replaced with objective data gathered in

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empirical research providing reliability of measurement, standardization of observation, and statistics. In other words, observation, quantification, measurement, and experimentation are inseparable part of group dynamics. Secondly, the term group dynamics accentuates dynamics and interdependence of phenomena. The description of group properties is just a starting point of further investigation of reciprocal relations between them. Further on, group dynamics is not only domain of sociology or psychology. Though these disciplines have keen interest in the issue, cultural anthropologists, political scientists, or economists increasingly collect data on how groups function, what makes group dynamics an interdisciplinary problem. Last, but not least is potential applicability of findings to social practice, which requires improving functioning of groups and their consequences for both, members and society.

The development of group dynamics, which was observable in United States at the end of 1930's, was the result of convergence of certain trends in social sciences. However, it would not be possible without supporting society. At that time, as the result of favorable cultural and economic conditions, the interest was focused on science, technology, rational problem-solving, and progress (Cartwright & Zander, 1968 a, p. 7). The most visible indicator of such a tendency was growth of index of expenditure for research, which was more than doubled throughout decade. Moreover, after World War II group dynamics, as a field deeply engaged in improving human relations, developed rapidly owing to the progress in certain professions of social practices, such as social group work, group psychotherapy, education, and administration.

The most prominent factor of group dynamics development was great progress of social sciences. One of the most significant achievement of social sciences was the application of methods of science to group research. It would not be possible without previous acceptance of basic assumption that "man, his behavior, and his social relations can be properly subjected to scientific investigation" (Cartwright & Zander, 1968 a, p. 11). Although there were skeptics doubting that human behaves according to any laws, that social phenomena can be quantified, and that experimental studies of groups are possible and moral,

social science began to develop in that direction. Moreover some claimed that group processes are internal phenomena of groups resulting in their inaccessibility to scientists; others emphasized complexity of the processes, whereas others – that the issue requires common sense not scientific research (Forsyth, 1990, p. 15).

In order to conduct scientific research on group dynamics, certain assumptions should be explicit. Willing to study group dynamics scientists need to discuss the problem of the relation between man and society, which may be solve in two opposite ways. According to the first view, man is imperfect or even evil, and only owing to social organizations he controls his desires and head for socially constructive goals. Oppositely, others claim that man is naturally good and it is society that spoils him. Group dynamists support the first view, however, they do not believe that "everything should be done by and in groups" (Cartwright & Zander, 1968 b, p. 23), as some critics maintain, ex. Whyte, Jr.. They claim that individual man is imperfect while the group is good, but they do not insist on radical position. Some other assumptions regard mostly the nature of groups and according to Cartwright are as follows:

- ◆ groups are inevitable and ubiquitous,
- ◆ groups mobilize powerful forces that produce effects of utmost importance to individuals,
- ◆ groups may produce both good and bad consequences,
- ◆ a correct understanding of group dynamics permits the possibility that desirable consequences from groups can be deliberately enhanced.

It is worth to distinguish three methodological aspects which contributed to the development of group dynamics. Firstly, experiments on individual behavior in groups began to be conducted. At the beginning, the experimental problem was reduced to examination of change in individual's performance when other people are present. Gradually, more matters of social psychology such as rivalry, influence of authorities or majority, were experimentally studied. Secondly, the development of group dynamics was possible due to controlled observation of social interactions, which enabled researchers to obtain quantitative data. Finally, valuable for group dynamics occurred sociometry

based on collecting information on groups by asking question to their members. By the mid-1930's conditions for the development of group dynamics were propitious and studies of social norms, attitudes, group interactions, group atmosphere, leadership, group decisions and many others began to be conducted.

TMT GROUP DYNAMICS

As it was stated before, the 1930's brought to administration and management new approach to organizations emphasizing the importance of social matters for company's success. In the center of attention were people creating organization, their competences, motivations, and social needs. That was a beginning of profound analysis of organizational behavior, i.e. way individuals act in organizational environment. The most frequently asked questions considered motivation, organizational roles, cooperation, interpersonal relations, and managerial leadership. Individual leaders and their organizational behavior became a subject of many studies and it was not until the 1980's that a group of managers as a whole became the point of interest. In 1984 Hambrick and Mason introduced the "upper echelons" paradigm, according to which the researchers' attention should not be directed to individuals, but to Top Management Teams (TMT) who are key decision makers in organizations. The assumption of the "upper echelons" paradigm is that top management team is responsible for development and implementation of strategy, which is crucial for organization performance, i.e. upper-level managers have significant impact on company outcomes, because of their empowerment to make decision for the organization (Smith et al., 1994). Consequently, TMT became analytic unit for study with their unique features.

Nowadays, when ownership is separated from power and influence on company's decisions, the problem of company effectiveness returns in the context of TMT characteristics and functioning. Identifying and shaping factors determining company's performance related to TMT structure and dynamics is becoming one of the most significant challenges for Corporate Governance. Behavioral approach to Corporate Governance is becoming more popular as the conclusions from theoretical concept of group

dynamics are promising for influencing company effectiveness, however, the problem requires more profound empirical investigation.

Study of TMT group dynamics which target is the increase of team effectiveness should be focused mainly on division of group responsibilities, members' acceptance of team goals, and on adequacy of their communication (Cartwright & Zander, 1968 b, p. 28). The dynamics of TMT includes group processes and formal and informal interactions between team members (van der Walt et al., 2006).

The application of the concept of group dynamics to Top Management Teams is possible under certain conditions. First of all, it is necessary to agree on the postulates of group dynamics in case of TMT. Given the "upper echelons" paradigm, basic assumption is that a group is a unit of study. Moreover, TMT membership is important to TMT members and partially constitutes their identity and social position. Further on, TMT as a group may produce beneficial or prejudicial consequences for organization and its members. Last, but not least is the assumption that owing to thorough research and its conclusions, positive changes in TMT functioning are possible.

THEORETICAL MODELS OF TMT GROUP DYNAMICS

According to the concept of group dynamics each team, including TMT, may be described by its static characteristics such as number of members, their demography, group structure (i.e. roles hierarchy), members' knowledge and competences. However, static description is not sufficient as it does not capture richness of interpersonal relations. That is why, the main assumption of the concept of group dynamics is that TMT functioning must be considered. Group dynamics is described by group processes (ex. process of becoming a group member, acquiring and development of group norms), group cohesion, and group effectiveness, understood as TMT ability to perform their roles (strategic and operational role, control role, and service role). TMT effectiveness, directly dependent on group processes and indirectly on TMT structure, affects company performance. Many theoretical models of TMT based on the concept of group dynamics refer to indicated constructs. Some examples are presented in Table 1.

Table 1. Example theoretical models of TMT group dynamics

Author(s) (year)	Key constructs	Achievements
Forbes & Milliken (1999)	TMT demography, effort norms, cognitive conflict, cohesiveness, TMT performance	TMT demography is a starting point and determines the presence of knowledge and skills as well as distinguished group processes, which are effort norms, cognitive conflict, use of knowledge and skills, and cohesiveness
Van der Walt et al. (2001)	TMT effectiveness, composition, individual characteristics, interaction between TMT members	model of TMT effectiveness related to the internal dynamics of TMT
Carpenter et al. (2004)	External and organizational environment, TMT demographics, mediators of TMT demographic effects, organizational outcomes	enriching Hambrick & Mason's (1984) upper echelons perspective of organizations by adding elements such as team processes
Atkinson & Atkinson (2006)	TMT group processes, quality of TMT decision-making process	diverse and independent opinions determine the quality of TMT decisions
Murphy & McIntyre (2007)	TMT characteristics, TMT functionality, TMT performance	TMT effectiveness depends on team's demography, TMT functionality, and moderating variables

Source: own work.

One of the most popular theoretical models was described by Forbes and Milliken (1999) and consists of static and dynamic elements. TMT demography is a starting point and determines the presence of

knowledge and skills as well as distinguished group processes, which are effort norms, cognitive conflict, use of knowledge and skills, and cohesiveness.

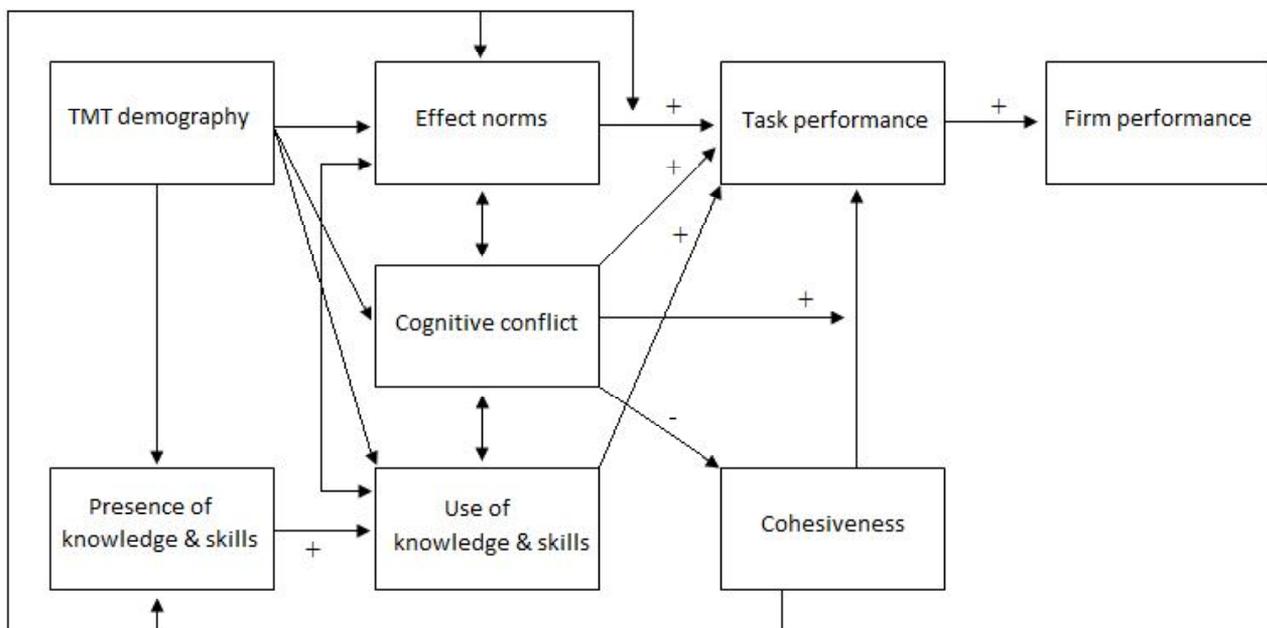


Figure 1. A model of TMT dynamics by Forbes and Milliken

Source: Forbes, D. P. & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*, 24(3), p. 498.

Another important aspect of the model is that these processes do not occur separately, but they influence each other. Further on, task performance defined as TMT ability to provide control and service is affected by group processes. Finally, effective control and

service determine organization performance (Figure 1). The model enables profound examination of indirect relation between group demography and its outcomes group based on group processes analyzes.

EMPIRICAL RESEARCH OF TMT GROUP DYNAMICS

A behavioral framework for understanding TMT requires not only theoretical models, but above all observation and description of actual TMT behavior (Ees et al., 2009). The results of example empirical

research are presented in Table 2. Some of the studies directly refer to the concept of group dynamics, whereas others are focused on particular group processes, without explicit reference to this theoretical concept. However, in both cases the results enhance the development of knowledge on TMT group dynamics.

Table 2. Empirical studies on TMT group dynamics

Author(s) (year)	Data	Key constructs	Outcomes
Smith et al. (1994)	Interview	Demography model, process model, intervening model	- TMT characteristics indirectly affect performance through group processes that are directly related to performance
Amason (1996)	questionnaire	conflict, TMT decision making	- conflict can enhance TMT decisions quality
Peterson (1998)	Organizational Group Dynamics Q-sort	TMT performance, groupthink, vigilance	- successful teams exhibit elements of group think whereas unsuccessful groups showed signs of vigilance
Amason & Mooney (1999)	questionnaire	cognitive and affective conflict, TMT performance	- cognitive and affective conflicts are correlated - performance is differently related to cognitive and affective conflict in strategic decision making
Knight et al. (1999)	CEO interview	group processes, strategic consensus	- group processes explain strategic consensus better than demographic measures
Ensley & Pearce (2001)	interviews	cognitive and affective conflict, sense of belonging, strategic cognition	- shared strategic cognition is the outcome of group processes
Papadakis & Barwise (2002)	CEO interview	CEO demographics, TMT characteristics, TMT decision making process	- CEO personality, CEO demographics and TMT characteristics impact strategic decision process
Wan & Ong (2005)	Annual reports, questionnaire	cognitive, affective, and process conflict, effort norms	- TMT process is an important determinant of TMT performance
Carmeli & Schaubroeck (2006)	questionnaire	TMT behavioral integration, decision quality	- higher behavioral integration leads to better quality strategic decisions
Amason, Liu, & Fu (2010)	questionnaire	value congruence, task and relationship conflict, heterogeneity, decision-making effectiveness	- relationship and task conflict increases with TMT heterogeneity - when relationship conflict was low, task conflict enhanced decision effectiveness
Minichilli et al. (2011)	questionnaire, reports	board effectiveness, board processes, cultural context	- observed relation between self-reported performance of TMT tasks and company performance
Marchewka (2015)	questionnaire, interviews, reports	group processes, TMT group dynamics, TMT performance	- strong correlation between group dynamics and companies performance

Source: own work.

On the basis of literature review two trends in empirical studies of TMT group dynamics can be distinguished. The first trend is focused on the analysis of the impact of TMT group dynamics on TMT effectiveness, and further on company performance. Such an approach requires comparison between static

(based on demography of TMT) and dynamic (based on group processes) perspective on TMT. The results of various studies show that TMT dynamics has direct impact on company performance, whereas some aspects of TMT demography determine TMT group processes, but not company performance (Smith et al.,

1994; Wan & Ong, 2005; Minichilli et al., 2011; Marchewka, 2015). The second trend regards studies focused on relations between group processes and potential impact of TMT demography on these processes (Amason & Mooney, 1999; Knight et al., 1999; Ensley & Pearce, 2001; Amason, Liu, & Fu, 2010).

The majority of studies are based on data gathered in surveys. Although observation provides more detailed and objective data, it is complicated to conduct such a study among TMT members as they are usually difficult people to gain access to (Pey & Pettigrew, 2005). What is more, they do not want to reveal too much information about TMT functioning. That is why, the most popular method of collecting information about TMT group dynamics are questionnaires, where TMT members are asked to answer questions regarding their perception of team processes. The main weakness of this method is the fact, that data is entirely based on TMT members' subjective perceptions and relations.

CONCLUSIONS AND DIRECTION OF FUTURE STUDIES

The concept of group dynamics helps to understand functioning of groups. Developed in the late 30's, it emphasizes indirectness of the relation between group characteristics and group effectiveness, as well as the importance of group processes, such as effort norms, cognitive conflict or group cohesiveness. The concept is successfully applied in various domains, i.e. in management.

After the introduction of the "upper echelons theory" by Hambrick & Mason in 1984, the interest in Top Management Teams (TMT) effectiveness raised, enhancing significance of models of group dynamics of TMT. Many authors presented their theoretical frameworks of TMT group processes. One of the most popular models was described by Forbes and Milliken (1999). According to their model, TMT demography is a starting point and determines the presence of knowledge and skills as well as group processes, such as effect norms, cognitive conflict, use of knowledge and skills, and cohesiveness.

Raising interest in TMT functioning resulted in many empirical studies, explicitly and implicitly linked to the concept of group dynamics. Some of the studies

are focused on the relation between TMT group dynamics and TMT effectiveness, and further – company performance. The others – on relations between group processes and potential impact of TMT demography on these processes. As the majority of empirical investigations are entirely based on surveys and TMT members' subjective perceptions and relations, in further studies new methods of diagnosing TMT group processes should be developed.

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