

**DYNAMICS AND DETERMINANTS OF GROUP DECISION MAKING IN  
PUBLIC SECTOR ORGANIZATIONS: THE CASE OF HARAR AND DIRE  
DAWA CITIES**

**MBA THESIS**

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

CSA	Central Statistical Agency
DD	Dire Dawa
DDCA	Dire Dawa City Administration
DM	Decision Making
GD	Group Dynamics
GDM	Group Decision Making
GDMP	Group Decision Making Performance
HPNRS	Harari Peoples National Regional State
OLS	Ordinary Least Squares
PO	Public Organization
SD	Standard Deviation
UNESCO	United Nations Educational, Scientific and Cultural Organization
VIF	Variance Inflation Factor

## **BIOGRAPHICAL SKETCH**

The author was born on September 1, 1991, in Arsi zone, Asassa district, Oromia region. He attended his primary school education at Gonosa Debara until 1998 and completed his secondary and preparatory school education at Shashemene town in 2010.

He joined Haramaya University in 2011 and graduated with BA degree in Public Administration and Development Management, College of Business and Economics. Soon after graduation the University recruited him to serve the department as GAI and after serving the university for 2 successive years; he joined the School of Graduate Studies of Haramaya University to pursue his Master's degree in Business Administration in 2015/16.

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# **DYNAMICS AND DETERMINANTS OF GROUP DECISION MAKING IN PUBLIC ORGANIZATIONS, HARAR AND DIRE DAWA CITIES**

## **ABSTRACT**

*This study aims at analyzing the dynamics and determinants of group decision making in public organizations, in Harar and DDA. Data were collected from committee members or groups who make decisions either as standing or ad-hoc committee from selected public organizations in Harari and Dire Dawa administrations. A sample of 36 committees was randomly selected and from each committee 3 individuals, a total of 108 respondents were selected again randomly to fill questionnaire. Data were analyzed using descriptive statistics and econometric model. Major findings revealed that group domination by some individuals and top managements interference in group decision making were the most commonly observed challenges of the group decision making. Similarly, challenges like resource inadequacy, past methodology and policy adversely affected group decision making. Moreover, results of econometric model show that group decision making performance is significantly affected by trust among group members, communication, educational level (first degree), work experience and membership. Top managements should not interfere in the group decision making, adequate resources should be provided in order to make quality decision. The group members should trust each other to make quality decisions, there must be effective communications between the group members to make better decision and the committee should not be ad-hoc as they do not make quality decisions. Finally, conclusions and recommendations were presented on the group decision making in the selected study area.*

**Key words:** Group dynamics, Group decision making performance, challenges and opportunities of group decision making, *Harar and DDA*.



# **1. INTRODUCTION**

## **1.1. Background of the Study**

Organizations are operating in a dynamic environment characterized by uncertainty that exposed organization to new situations requiring decisions and actions. The problems and situations are complex. As a result, most of decisions became non-programmed and unstructured at different levels that call for collective actions and decisions with the objective of promoting participation in an organization. Organizations have realized the importance of group decision-making processes that contribute to improve organizational performance in sustainable manner (Osmani, 2016). Making collective decisions offer a number of advantages over individually made decisions. Groups, with their greater informational resources and capacity to share information, fosters in proposing better solutions and detecting limitations.

The process of decision making is one of the most complex mechanisms of human thinking, as various factors and courses of action intervene in it, with different results. Members make interaction and may also find a group's decision more satisfying than that of an individual, particularly if the group uses a consensus building decision process. Besides, group discussions through development of interpersonal relations and commitment contributes positively in discharging assigned responsibilities.

Decision making groups not only share and evaluate information; they also encourage each other, express commitment to the group, and help each other (Jehn *et al.*, 1997; as cited in Donalson, 2010). Group decision making (GDM) has the advantages of drawing benefits from the experiences and perspectives of a larger number of individuals. Hence, collectively made decisions pave the way to be more creative and effective decision making. In fact, groups in most cases achieve better results than individuals due to collective efforts.



Decision making (DM) will results in choices that determine how an organization operates and transforms itself over time. Organizations have to continually improve the way decisions are made so that managers and employees exert effort to create learning organization to exploit internal capabilities and respond to a changing environment (Gareth, 2004).

Research shows that top management team's ability to make comprehensive decisions that address diverse factors through constructive engagement requires deliberations, exchanges and debates (Simons, *et al.*, 1999).

It is important to note, however, that not only managers make decisions in organizations, but also employees at every level in an organization participate in decision making as well. The late management consultant put it that most discussions of decision making assume that only senior executives make decisions. Today, many decisions in public organizations are made by groups, teams, or committees. Moreover, there are few organizations who do not use committees, task forces and study teams, or other similar groups to make decisions and many organizations rely on the sharing of information between individuals or group members to find solutions to problems and groups have the potential to generate and evaluate more ideas, and once a decision is made acceptance will be easier (Lunenburg, 2012).

The decisions made by groups is generally considered better and groups stimulate thinking, members of the group have the opportunity to elaborate on each other's ideas and suggest new solutions, there is participation of professionals in several different fields, usually required to address important aspects of problems, a deeper understanding of the problem is reached as different perspectives are shared (Robbins and Coulter, 2009).

In public organizations many decisions of consequence are made after some form of group decision making process is undertaken. The groups or committees in the public organizations in general and public organizations in Harar and DD in particular are faced with decisions in their everyday life and many of decisions are made by the committee selected as either standing or at ad-hoc bases.

The need to make decisions as part of a group may not be that often, but can be considerably more complicated, requiring greater effort and time from all parties involved. Harar and Dire Dawa cities were selected for the reason that they have large number of public organizations as they are the largest cities in eastern Ethiopia and have more number of committees that make decisions on different cases or problems and even they are geographically close to the researcher.

## **1.2. Statement of the Problem**

Many of managerial and economic decisions are made collectively in private as well as public organizations (Levy, 2005). This made collective decision and action an important component of organizational performance. The group decision making processes can be one of the valid tools to solve problems and exploit opportunities. In order to make appropriate and quality decision, groups should exert substantial efforts in making choices that satisfy different stakeholders' expectations and minimizing conflict of interest.

However, environmental complexity due to different factors, groups may not achieve their goals effectively and efficiently and make quality decisions. This demands clear understanding and identification of factors that affect group performance in making decision and taking actions.

Several academicians and practitioners have conducted researches on group decision making performance and their implications on organizational efficiency and effectiveness such as Norbert and Scott (2004), Khasawneh and Abushanab (2013), Beresford and Sloper (2008) and Postmes *et al.* (2001). For instance The study conducted by Leslie (2010) on dynamics and group decision making focused on individuals contribute to group effectiveness. Moreover, some studies were able to identify factors affecting group decision making performance (Edward, 1984; Osmani, 2016). However, studies that investigate statistically the effects of factors on group decision making performance are scant. With insight this study made an attempt to assess dynamics and measures statistically the effect of different factors on group decision making performance.

In Ethiopia, in public as well as private organizations, decisions are mostly made by committees on ad hoc or regular basis. Besides, legally organizations are forced to make decisions some cases due their nature. However, this area is well studied in Ethiopian organizational context of the public sector. There is difficulty in finding theoretical and empirical researches conducted on dynamics and determinants of group decision making performance. Therefore, this study is conducted taking in to account the above scenario. If not exaggerated, this study can serve as an eye-breaking attempt to address group dynamics and determinants of group decision making performance in the study area. With this in mind, the study attempts to address the following research questions:

- What are the dynamics of group decision making in the study areas?
- What are the factors affecting group decision making performance?
- What are the challenges and opportunities of group decision making?

### **1.3. Objectives of the Study**

The overall objective of the study is to assess the dynamic and determinants of group decision making performance in public organizations in Harar and Dire Dawa cities. To address the general objective, the study has attempted to deal with the following specific objectives:

1. To assess group decision making dynamics
2. To identify the determinants of group decision making performance; and
3. To investigate challenges and opportunities of group decision making.

### **1.4. Significance of the study**

This study could help the researcher to develop the knowledge and skill to conduct research and develop better understanding on the subject matter. And importantly, it could be beneficial to different stakeholders through the provision of empirical findings on the subject matter in policy formulation. Particularly, the findings of the study can serve as an input by indicating the challenges and prospects of committees based decisions and actions.

Moreover, this study is believed to be helpful in opening the door for other researchers as a reference to conduct further studies at national and local level, including in the private sector, this area.

### **1.5. Scope of the study**

In order to make the study more manageable and feasible, the researcher focused on the group decision making in the selected public sectors or governmental offices in Harari People National Regional State (HPNRS) and Dire Dawa City Administration (DDCA). Public organization (PO) in Oromia region found in Harari town, private sectors and authorities and agencies were not included in the sample. The sample of the study was delimited to those employees serves at different committees as members. The study has attempted to provide particular emphasis on dynamics, factors affecting group decision making performance and challenges and opportunities of group decision making. Having this, the researcher, collected his data from the sample offices and respondents in the months of December 2016 and January 2017.

### **1.6. Limitations of the study**

It was beyond the scope of the study to examine all the variables and provide a comprehensive analysis on all group work from the individual's perspective and their behavior when making decision by group. The main problems that the researcher faced in conducting this research were: the secondary data like documents and reports were not available, searching the location of the offices on foot, some respondents delayed in returning filled questionnaires on time and lack of experience of the researcher. Therefore, I request dear readers of this research report to take in account while reading and understandings of the findings.

### **1.7. Organizations of the Research**

The study was organized into five chapters, including this introductory chapter. Chapter two begins by laying out the theoretical framework of the research or literature review while the third chapter presents brief description of the methodology used for the study.

The fourth chapter presented the findings of the research, and discusses it in comparison with past studies. The last chapter presents the summary and conclusions, and recommendations of the study.

## 2. LITERATURE REVIEW

This part of the study address relevant conceptual issues, theoretical framework and empirical review related to the topic of the study. It includes definition and concept such as group, group decision making, and dynamic and group decision making performance by focusing on previous research in this area and present review of literature relevant to this study.

### 2.1. Definition of Related Terms

A variety of terms used in this research and below are the terms with their operational definitions as used in this paper.

**Group:** A committee or a collection of individuals that make decision on different issues or problems and make discussion to reach an agreement and in this research the two terms were used interchangeably. According to Donelson (2006), a group is defined as two or more individuals who are connected and working together.

**Decision making:** Act or process of identifying and evaluating options and choosing among them through discussion with the group members. Decision making can be regarded as the mental processes or cognitive process resulting in the selection of a course of action among alternatives.

**Group decision making (GDM):** It is a situation faced when members of the group collectively make a choice from the alternatives before them. The GDM is the collective activity wherein several persons interact simultaneously to find out the solution to a given statement of a problem. In other words, group decision making is a participatory process wherein multiple individuals work together to analyze the problem and find out the optimum solution out of the available set of alternatives.

In group decision-making, the number of participants often ranges from two to seven. It is not necessary that all the group members agree with each other and hence most of the times, the decision is taken on the basis of a majority if no other mode of a majority is prescribed. The majority means the number of votes in favor or against the proposed alternative.

**Dynamic:** It is group reaction, interaction and changes in the group decision making process and the influence of individuals and power on the group decision making.

**Group decision making performance:** It is group's ability to make on time decision, meets the desired outcome and communication of reports of the decisions made. It is also the ability of the groups or committee to make quality decisions from different alternatives in uncertain and dynamic environment.

## **2.2. Conceptual Frameworks of Group Dynamics and Group Decision Making**

This chapter deals with the conceptual and theoretical frameworks of group decision making and review of empirical literature relevant for the study. Group decision making is a type of participatory process in which multiple individuals acting collectively, analyze problems or situations, consider and evaluate alternative courses of action, and select from among the alternatives a solution or solutions. The number of people involved in group decision-making varies greatly, but often ranges from two to seven. The individuals in a group may be demographically similar or quite diverse. Decision-making groups may be relatively informal in nature, or formally designated and charged with a specific goal. The process used to arrive at decisions may be unstructured or structured. The nature and composition of groups, their size, demographic makeup, structure, and purpose, all affect their functioning to some degree. [www.referenceforbusiness.com/management](http://www.referenceforbusiness.com/management).

The history of group dynamics (GD) or group processes has a consistent, underlying premise: "the whole is greater than the sum of its parts." A social group is an entity, which has qualities that cannot be understood just by studying the individuals that make up the group. In 1924, Gestalt psychologist, Max Wertheimer identified this fact, stating 'there are entities where the behavior of the whole cannot be derived from its individual elements nor from the way these elements fit together; rather the opposite is true: the properties of any of the parts are determined by the intrinsic structural laws of the whole (Max, 1924).

Lewin, the American psychologist was commonly identified as the founder of the movement to study groups scientifically. He coined the term group dynamics to describe the way groups and individuals act and react to changing circumstances. GD can be defined as a field of enquiry dedicated to the advancing knowledge about the nature of groups, the laws of their development and their interrelations with individuals, other groups and larger institutions. Based on their feelings and emotions, members of a group form a common perception. The interactive psychological relationship in which members of a group form this common perception is actually “Group Dynamics”. The phrase “Group Dynamics” contains two words. Group- a social unit of two or more individuals, who have in common a set of beliefs and values, follow the same norms and works for establish able common aim. The members of the group share a set of common purpose, tasks or goals (Lewin, 2004).

When Kurt Lewin (1951) described the way groups and individuals act and react to changing circumstances, he named these processes group dynamics. But Lewin also used the phrase to describe the scientific discipline devoted to the study of these dynamics. Later, Cartwright and Zander (1968) supplied a formal definition, calling it a “field of inquiry dedicated to advancing knowledge about the nature of groups, the laws of their development, and their interrelations with individuals, other groups, and larger institutions”. Group dynamics is concerned with interaction and forces between group members in a social situation. Concept of GD was first evolved by Kurt Lewin in 1930s who viewed the concept from the perspective of internal nature of group, why they form, how they form, the structure of group, how they function and its effect on other group members (Kondalkar, 2007).

The term “group dynamics” refers to the interactions between people who are talking together in a group setting. GD can be studied in business settings, in volunteer settings, in classroom settings, and in social settings. Any time there are three or more individuals interacting or talking together, there are group dynamics (Nazzaro and Strazzabosco, 2009).



The concept of group decision making is based on the proverb that two heads are better than one. This means when the decisions are taken jointly, the expertise or experience of each member could be capitalized to reach to an optimum solution. Thus, the synergy gets created when the decisions are made in a group as more ideas and opinions pop up during the discussion session. It has the advantages of drawing from the experiences and perspectives of a larger number of individuals. Hence, they have the potential to be more creative and lead to a more effective decision. In fact, groups may sometimes achieve results beyond what they could have done as individuals. If the group is diverse, better decisions may be made because different group members may have different ideas based on their background and experiences (Simons *et al.*, 1999; as cited in Mason *et al.*, 2016).

Decision is a cognitive phenomenon and the outcome of a complex process of deliberation, which includes an assessment of potential consequences and uncertainties. Decision involves thinking, judgment, and deliberate action to assign irrevocable allocation of resources with the purpose of achieving a desired objective. Basic elements of a decision process include information seeking, ascription of meaning (interpretation), applying decision criteria, and subsequent implementation action (Haidar, 2016).

Group dynamics considers how groups form and develop as well as how people act and react in groups. GD is an important area of study because it can have value when looking at the way people work together, live together and play together. When group members interact with each other, they form a social system, with attendant group dynamic processes. Group dynamics are the forces that emerge and take shape as members interact with each other over the life of a group. These dynamic forces are the product of both the here-and-now interactions of group members and what members bring to the group from the larger social environment (Charles *et al.*, 2004).

Group members get into arguments, talk over issues, and make decisions. They upset each other, give one another help and support, and take advantage of each other's weaknesses. They rally together to accomplish difficult tasks, but they sometimes slack off when they think others will not notice. Group members teach one another new things; they communicate with one another

verbally and nonverbally, and they touch each other literally and emotionally. Group's members do things to and with each other (Donalson, 2006).

### **2.3. Group Decision Making**

Group decision is usually understood as aggregating different individual preferences on a given set of alternatives to a single collective preference. It is assumed that the individuals participating in making a group decision face the same common problem and are all interested in finding a solution. A group decision situation involves multiple actors or decision makers, each with different skills, experience and knowledge relating to different aspects or criteria of the problem. In a correct method for synthesizing group decisions, the competence of the different actors to the different professional fields has also to be taken into account. The final decision is derived by aggregating or synthesizing the opinions of the group members according to the rules and priorities defined by the organization. There is a deep-seated belief that groups are more accurate and more just than individuals. This belief is based on the commonsense notion that a group has more problem-solving resources than any individual member because "several heads are better than one." The belief also depends on the assumption that the group process is effective at eliciting and integrating its members' beliefs and preferences (Fulop, 2005).

There are several steps that must be followed in order to arrive at a decision: one must realize that it is going to be necessary to make a decision, determine the goals to be achieved, generate alternatives that lead to attaining the proposed goals, evaluate whether these alternatives meet one's expectations and, lastly, select the best alternative, the one that implies an efficient results. This entire process is affected by personal and environmental variables. In effect, groups may make different decisions depending on whether they feel their leader is looking at them, on the amount of information they have, or if certain motivations play a relevant role in their lives. Basically, the theories that study decisions can be grouped into two perspectives: normative and descriptive. The normative perspective explains the choice of individuals who are behaving rationally in a task that requires decision making and -using statistical models- predicts the subjects' responses from the information provided about each alternative (Maria, 2007).

The descriptive perspective explains how individuals actually choose, that is, the psychological processes and the task and environmental characteristics that underlie judgments and choices. One of the basic differences between these viewpoints is the way they consider the decision maker. The normative viewpoint confers an “unlimited” processing capacity on decision makers that allows them to examine exhaustively all the possible alternatives and choose the best. The descriptive perspective grants a “limited” processing capacity that often leads decision makers to make mistakes when considering complex and dynamic tasks, although they tend to choose options that satisfy them (Maria, 2007).

A decision occurs when a solution to a problem is selected for implementation. Decisions can be made either formally or informally:

**Formal decisions** are relatively complex, non-routine, and generally non-repetitive. Policies, procedures, criteria, and methods for making such decisions may not always exist since the problem faced may lack precedent. Creativity may play a key role in such decisions.

**Informal decisions** are more repetitive and routine in nature. Policies, procedures, criteria, and methods often exist to assist managers in making such decisions. Decision-making is the process of identifying and selecting from among possible solutions to a problem according to the demands of the situation. For example, decision-making in the area of vendor contracting might address how to deliver a service, which bidder gets a contract, how to ensure that a contractor meets its obligations, or whether to pay the contractor in large or small bills. A decision is a conscious choice to behave or to think in a particular way in a given set of circumstances (Ahmed, 2012). Moreover, specialists in decision making have classified decision in organizations in to programmed and nonprogrammed decisions. It indicates that programmed and nonprogrammed decisions apply to distinctly different problems and require different procedures. Gibson (2012) distinguished between the two types of decisions as follows:

**Programmed decision:** If a particular situation occurs often, a routine procedure usually can be worked out for solving it. Thus, decisions are programmed to the extent that problems are repetitive and routine and a definite procedure has been developed for handling them.

**Nonprogrammed decision:** Decisions are nonprogrammed when they are novel and unstructured. No established procedure exists for handling the problem, either because it has not arisen in exactly the same manner before or because it is complex or extremely important. Such problems deserve special treatment.

## **2.4. Basic Concepts of Group, Group Dynamics and Factors Affecting Group Decision Making Performance**

The groups tend to make the decision together by analyzing the different alternatives that fits their objective. Some studies came up with the research that in an Authoritarian approach, the leader spends five minutes to make a decision, thirty minutes to communicate his decision and another 30minutes for the group to accept while a group approach spends 30 minutes to analyze and decide on the best option. Therefore, the group approach is more encouraged as group members tend to appreciate ideas they think of and have more zeal in achieving goals set by their own initiative than when decision are being taken on their behalf (Temitayo and Omotunde, 2012).

According to Donelson (2006) groups vary in size from dyads and triads to very large aggregations. Unlike the members of a category, group members are linked together by such interpersonal processes as communication, influence, and identification. People in groups interact with one another and this interaction includes activities that focus on the task at hand task interaction and activities that concern the interpersonal relations linking group member's relationship interaction. Groups create interdependence among the group members unilateral, reciprocal, etc.

According to Temitayo and Omotunde (2012) decision making is a skill, and skills can be improved. The more experienced you are in making decisions, the more you are familiar with the tools and process that lead to an effective decision making and this will improve your confidence. Improving your decision making skills will benefit you and your organization at large Interaction is patterned by group structure, including roles, norms, and interpersonal relations, group cohesion, or cohesiveness, determines the unity of the group.

But all groups, despite their distinctive characteristics, also possess common properties and dynamics. Groups are systems that create, organize, and sustain interaction among the members. Group members get into arguments, talk over issues, and make decisions. They upset each other, give one another help and support, and take advantage of each other's weaknesses. They rally together to accomplish difficult tasks, but they sometimes slack off when they think others will not notice.

Group members teach one another new things; they communicate with one another verbally and nonverbally, and they touch each other literally and emotionally. Lewin first used the phrase group dynamics to describe the powerful processes that take place in groups, but group dynamics also refers to the scientific study of groups. The social process by which people interact and behave in a group environment is called group dynamics. Group dynamics involves the influence of personality, power, and behavior on the group process (Johns, 1996).

Group decision is the scientific study of groups; also the actions, processes, and changes that occur in social groups and is an attempt to subject the many aspects of groups. Theory of group dynamics assumed that groups are more than the sum of their parts. Field theory is premised on the principle of interactions, which assumes that the behavior of people in groups is determined by the interaction of the person and the environment. It is also the processes that occur between group members. These dynamics are affected by each member's internal thoughts and feelings, their expressed thoughts and feelings, their nonverbal communication, and the relationship between group members. Group dynamics helps you understand how each person's actions make sense in the context of the group (Donelson, 2006).

#### **2.4.1. Norms**

Group Norms are set of beliefs, feelings, and attitude commonly shared by group members. These are also referred to as rules of standards of behavior that apply to group members". These are prescriptions of behavior accepted and determined by the group. All groups have established norms, that is norms tell members what they 'ought' and ought not' to do a thing under certain circumstances (Kondalkar, 2007).

People who do not respect the descriptive norms are seen as unusual, but those who violate injunctive norms are evaluated negatively and are open to sanctions by the other members of the group (Forsyth, 2010). The nominal group technique is a format for structured group interaction used to identify elements of a problem, elements of a solution, or priorities. The nominal group technique keeps the group focused on the task and helps the group members be more open to each other's ideas. It generates high quality ideas and brings out various dimensions of the problem. Group progress is carefully paced because each session is limited to one issue or question (Beth and Coughlan, 1992).

#### **2.4.2. Cohesion**

Cohesiveness defines the degree of closeness that the members feel with the group. It identifies the strength of the member's desires to remain in the group and degree of commitment to the group. Cohen and Bailey (1997) suggest that cohesion is a critical factor influencing the effectiveness of groups/teams. They also concluded that a primary factor leading to team cohesion is the degree of trust among team members.

According to Lewin (2004) cohesion affects directly the way decisions are made. If cohesion is high the decisions are taken unanimously, but if the cohesion is low the final decision is that of the majority. For the author the cohesion within a group depends on some factors such as the willingness of group members to be honest and sincere to express their ideas and feelings, the satisfaction they take from being member of a group, level of affection between members and group's ability to deal with complex problems and emergencies.

It is considered to be one of the most important group variables and is generally linked to group decision making performance (Harun and Mahmood, 2012). Together the group leader and members generate and evaluate alternatives and attempt to reach agreement on a solution to the problem. Consensus has been reached when the group can agree on a decision and each member can say: I believe you understand my point of view; I believe I understand your point of view; I will support this decision when we leave this meeting because it was reached fairly and openly; and I believe this decision is in the overall best interest of the organization and its members (Hartnett, 2011; as cited in Lunenburg, 2011)).

The cohesion of a group can also be accounted for by incentives that are sometimes provided for group membership. Many people join groups because of the people they expect to meet and get to know. Opportunities for making new contacts and associating with high-status members are also incentives. In some groups, the tasks to be performed are enjoyable. Other groups might enable a member to accomplish tasks that require the help of others. Prestige may also be an incentive. For example, being nominated to a delegate council or other task group may enhance a member's prestige and status in an organization (Ronald and Robert, 2005).

One of the primary factors in group performance involves group cohesion. The ultimate role of groups is to come together as a unit and perform with professionalism and dedication. A group that can work as a unit, share tasks and recognize the contributions of its members will meet with more success than a group mired in conflict, role ambiguity, and lack of motivation. Group cohesion makes it attractive for members to belong, attracts high performers, and provides opportunities for individual recognition within a group setting. Cohesion may result from internal successes, high social-emotional support, or external threats (Johns, 1996).

### **2.4.3. Trust**

A belief in the integrity, character, or ability of others, is essential if people are to achieve anything together in the long run. One of the most important factors in employee retention and motivation is trust in management. Primary responsibility for creating a climate of trust falls on the manager. Team members usually look to the manager, who enjoys hierarchical advantage and greater access to key information, to set the tone for interpersonal dealings (Kreitner, 2009).

On a group level, there must be a high level of trust among members. Members must believe in integrity, character, and abilities. As we are all well aware, trust takes a long time to build and can be jeopardized by a single careless action. The climate of trust within a team seems to be highly dependent on members' perceptions of management's trust of the group as a whole and therefore the level of management trust can serve to enhance or detract from members' trust.

Organizations that value employee honesty, openness, and collaborative processes with high employee involvement are more likely to stimulate trusting cultures than those who do not (Gibson *et al.*, 2012).

#### **2.4.4. Group Size**

The size is perhaps the most important element of the group structure, because it directly affects the ability of the group to reach the consensus. It is easier to arrive at consensus for small groups of 5-7 members, while it is difficult to arrive at consensus for large groups of more than 12 members (Kume, 2010; as cited in Osmani, 2016).

Large groups in practice often operate as an aggregate of two or more subgroups. In some cases, the size of the functional group which is represented by the number of members participating actively is less than the nominal group size. The size of the group depends on various factors, such as the nature of the situation for which we have to decide (Noorderhaven, 1995).

Cohesiveness of a group depends upon the close interaction of the group members with each other. In a large group it not possible for the individual to communicate with each other hence there is likelihood of large group being less cohesive than the small group. In work environment small group is more effective. If a group is large, there is also a possibility of formation of small sub groups within a large group. This will lead to delusions of group norms and power politics within the sub group, which is not desirable (Osmani, 2016).

Another interesting factor about group cohesion is the sex, whether the group composes of all male members of female members. Studies showed that if all members were of the same sex then small group had better cohesion than large ones (Robbins, 2000). The group size affects the objectives, achievement and its results, and relates to the objectives and decisions typology. When the group size increases, the interaction between members decreases and relationships become less affective. In addition, large groups tend more toward political than analytical solutions (Kreitner and Kinicki, 2007).



#### **2.4.5. The communication**

The communication is an essential element for group decision-making. Without communication it would not be possible for the interaction among members. Also, the communication conditions the cohesion and the effectiveness of the group. Within a group the member who communicates and receives more messages, controls the group communication. Communication is the process of exchanging information between two or more people. Within a group there are communication networks that represent the patterns of transmission and exchange of information, which define who communicate more frequently, to what extent and with whom (Forsyth, 2010). Moreover, the group members should communicate in a way that others can understand and accept (Daft, 2010).

We must take into consideration also the difficulties and challenges that may affect the effectiveness of the group. Among them we can highlight the time or the degree of external pressure for immediate results. As a consequence; often group members identify few alternatives and do not undertake deep analysis for understanding the results. On the other hand, the effectiveness can also be influenced by the composition and the group structure, both formally and informally (Noorderhaven, 1995).

#### **2.4.6. Leadership**

The leadership is another important variable of group dynamics. This variable becomes important especially for large groups because of coordination problems.

According to Noorderhaven (1995) leadership involves a process in which the intentional influence is extended on others to guide structure; facilitate the activities and relationships within a group or organization. It is also important that the leader of the group encourages and facilitates interaction and communication between members and apply incentive methods based on individual performance. In addition, members may feel despised when they receive reduced information about the activities and achieved results. So, we have to inform members and show them how their efforts contributed to the achievement of objectives.

Kreitner and Kinicki (2007) suggested about effectiveness of the groups assign an important role to the clarity of the mission, objectives and task. It is necessary that all members of the group know the problem or the situation, because many times are taken poor decisions because of the failure in the problem identification phase. This phase affects undoubtedly the effectiveness of all the other phases of the decision-making process. The number of coworkers involved within a problem-solving or decision making process reflects the manager's leadership style. Empowerment means delegating to subordinates decision-making authority, freedom, knowledge, autonomy and skills (Benowitz, 2001).

According to Bates (2014) the position of leadership to a committee is critical. A committee by definition is a group of individuals and in order for this group to function in a cohesive and effective manner there must be an effective leader or facilitator. The leader guides the committee and resolves conflicts, their role and purpose is much more defined than group individuals. Although most people would agree that the right person in a leadership role can add the spark that drives a successful collective effort, defining the specific behaviors of an effective team leader has been elusive (Lafasto and Larson, 2001).

One of the keys to developing high performing teams is to remember that successful teams do not simply happen. They take much effort and time. They take proper guidance and support from the team leader. They require an organizational culture which enables and fosters team work. To attain a high level of team performance, we must be knowledgeable about what factors influence team dynamics and effectiveness. In an attempt to understand how teams work, a number of authors have proposed models of team performance. Each of these models presents several variables that the author(s) posit influence the effectiveness of teams. Some of the models highlight group structure and interpersonal dynamics, while others tend to focus on the talent and motivation of individual team members (Meuse, 2009). Leadership is almost exclusively seen as a task-role; however, leaders who fail to address relationship issues will have limited success when undertaking tasks that depend on the contribution of multiple members. Engaging support, identifying and forming interpersonal relationships, fostering cooperation, managing conflict, assigning roles are all relational issues that are closely tied to task management (Gorse, 2006).

### **2.4.7. Goal**

According to the goal, roles, processes and interpersonal relationship model by Robins *et al*, 2001 as cited in Meuse (2007) a team always should begin with a team level goal. After the goal is defined, the roles and responsibilities will become clearer. As individuals work together they will see that goals and responsibilities often are not sufficiently clear. Consequently, team members will need to redefine them. That redefinition enables them to adjust and readjust team processes, such as decision making, conflict resolution, and work flow. When doing all that, they will be developing the interpersonal relationships needed to relate to other team members and the team leader.

## **2.5. Group Development over Time: The Five-Stage Model**

All groups change over time as group members come and go group tasks and goals change; and group members gain experience as they interact with one another. Understanding how groups change is important because, groups and their members face different challenges at different stages of development. These stages are forming, storming, norming, performing and adjourning. In order for groups to be effective and perform at high levels, it is important for these challenges to be effectively managed (Jones and George, 2012).

The nature of a group's behavior and its interaction patterns change as it goes through different phase of development (Tuckman, 1965). The members of groups come together, establish norms, the team roles are defined and members establish their position. Some members, chairs and leaders exert considerable influence affecting the group norms. The behavior of individuals, the way the group develops and nature of the group affects performance.

## **2.6. Decision Making Procedure**

In decision making, it is likely there is a forward and backward movement in following the procedure due to the recursive nature of decision making. The following are the most common steps in decision making:

**Create a constructive environment:** In creating a construction environment, an objective needs to be established. The people involved play an important role in the decision and a good stakeholder analysis is to be done ensuring that the right people are asked the right question. Not involving the people concerned in a decision is regarded to be an act of aggression.

**Define the problem:** This process must, as a minimum, identify root causes, limiting assumptions, system and organizational boundaries and interfaces, and any stakeholder issues. The goal is to express the issue in a clear, one-sentence problem statement that describes both the initial conditions and the desired conditions. Of course, the one sentence limit is often exceeded in the practice in case of complex decision problems. The problem statement must however be a concise and unambiguous written material agreed by all decision makers and stakeholders. Even if it can be sometimes a long iterative process to come to such an agreement, it is a crucial and necessary point before proceeding to the next step (Fulop, 2005).

**Generating potential solutions:** This step is critical to decision making. The better your alternatives are, the more likely you are to make a good decision. Generating alternatives allows for a deep look into the problem and the more you assume there could be a better solution, the more likely to make the best decision possible (Fulop, 2005).

All alternatives should be considered as well as no decision. In as much as no decision could be disastrous in most cases, it is possible to be a better option than available alternatives. The most popular tool used to generate alternatives is brain storming (Temitayo and Omotunde, 2012).

**Evaluating alternatives:** In decision making, there is always a degree of uncertainty on every alternative. It is essential to analyze the feasibility, risk and implication of each of the alternative.

**Choose the best alternative:** After the alternatives are evaluated, then the best option that fits for the objective is chosen. This might involve you deciding as group. The strategy use in decision depends on the nature of the decision maker.

**Check the decision:** This is another step that is important but most time it is ignored. It is necessary you check your decision and ensure that all conditions have been considered and the

best decision has been made. It is obvious the catastrophic consequences that over-confidence, groupthink, and other decision-making errors have wrought on the world economy

**Communicate your decision and move to action:** The decision should be well communicated to the people to carry out the project and the people affected by it. In the process of communication, avoid being economical with the truth, ensure that the projected benefit, risk and likely drawbacks are well explained (Temitayo and Omotunde, 2012).

## **2.7. Tools and Techniques for Making Better Decisions**

There are different tools and techniques that groups use to make better decision and discussion in the decision making processes and below are the common techniques that may help the groups.

### **2.7.1. Nominal group technique**

According to Benowitz (2001) this method involves the use of a highly structured meeting, complete with an agenda, and restricts discussion or interpersonal communication during the decision-making process. This technique is useful because it ensures that every group member has equal input in the decision-making process. First, each member of the group engages in a period of independently and silently writing down ideas. Second, the group goes in order around the room to gather all the ideas that were generated.

### **2.7.2. Brainstorming**

According to Richard (2006) one of the best-known techniques for rapidly generating creative alternatives is brainstorming. Brainstorming uses a face-to-face interactive group to suggest a wide range of alternatives for decision making.

In recent years, some decision-making groups have utilized electronic brainstorming, which allows group members to propose alternatives by means of e-mail or another electronic means, such as an online posting board or discussion room. (<http://www.referenceforbusiness.com>)

### 2.7.3. Delphi Technique

It is a group process using written responses to a series of questionnaires instead of physically bringing individuals together to make a decision. The first questionnaire asks individuals to respond to a broad question, such as stating the problem, outlining objectives, or proposing solutions. Each subsequent questionnaire is built from the information gathered in the previous one. The process ends when the group reaches a consensus (Campion, 1993).

## 2.8. Benefits and Challenges of Group Decision Making

Group decision making results in a number of benefits over individual decision making, including increased decision quality, creativity, acceptance, understanding, judgment and accuracy. Some advantages of group decision making include the following: greater sum total of knowledge, greater number of approaches to the problem, greater number of alternatives, increased acceptance of a decision, and better comprehension of a problem and decision.

**A greater sum of knowledge:** According to Kreitner (2009) a group can bring much more information and experience to bear on a decision pressure to conform may combine to stifle the creativity or problem than can an individual acting alone. Additionally, it has also the advantages of greater number of alternatives, greater number of approaches to the problem, increased acceptance of a decision.

**Decision quality:** A greater sum of knowledge and information is accessible in a group than in any of its members. Members can often fill in each other's information gaps. Groups are more vigilant, can generate more ideas, and can evaluate ideas better than individuals (Lunenburg, 2012).

**Decision creativity:** Groups provide a greater number of approaches to a problem because individuals are more likely to be close minded in their thinking. Because group members do not have identical approaches, each can contribute by getting people to become more open minded in their thinking. Group participation increases performance. More participation leads to more creative thinking, which often results in more feasible solutions to problems (Lunenburg, 2012).

**Decision acceptance:** Participation in decision making increases acceptance of the decision or the solution to the problem. This idea is exemplified in the movement toward organizational learning.

**Decision understanding:** Group participation increases understanding of the decision. When group members have been involved in the decision-making process, further information about the decision does not have to be provided to them. Moreover, members comprehend the decision better because they were involved in the developmental stages of the decision process.

**Decision judgment:** Groups are more effective at establishing objectives, identifying alternatives, and evaluating alternatives because of the increased knowledge and viewpoints available to them (Lunenburg, 2012).

Similarly, other writers such as Schermerhorn *et al.* (2011) as cited in Lunenburg (2011) discussed about the main benefits or opportunities of group decision making and these include more knowledge and expertise is available to solve the problem; a greater number of alternatives are examined; the final decision is better understood and accepted by all group members; and there is more commitment among all group members to make the final decision work. In fact, a considerable amount of research has indicated that consensus decisions with five or more participants are superior to individual.

But there are also challenges to group decision making including: social pressure toward conformity, individual domination, conflicting secondary goals, undesirable compromises, ambiguous responsibility, and time (Gunnarsson, 2010 and Schoenfeld, 2011; as cited in Lunenburg, 2010).

The other obstacles of group decision making which adversely affect the effectiveness of group decision making and these obstacles are identified by Marold *et al.* (2012) as possible obstacles to effective decision-making: a steep hierarchy gradient, a poor discussion culture, a strong need for consensus, and insufficient structure and guidance of group decision-making processes. Furthermore, groupthink, which happens when in group pressures lead to deterioration in mental efficiency, poor testing of reality, and lax moral judgment. It tends to occur in highly cohesive

groups in which the group members' desire for consensus becomes more important than evaluating problems and solutions realistically. An example would be the top executive cabinet (the president and vice presidents) of a firm, who has worked together for many years. They know each other well and think as a cohesive unit rather than as a collection of individuals. Janis identified eight symptoms of groupthink (Janis, 1982).

Moreover, group members apply direct pressure on any member who expresses strong arguments against any of the group's stereotypes, illusions, or commitments, making clear that this type of dissent is contrary to what is expected of all loyal members. Group members censor themselves from any deviations from the apparent group consensus, reflecting each member's inclination to minimize the importance of his or her doubts and counterarguments. Group members may also develop stereotyped views of opposition leaders as too evil to warrant genuine attempts to negotiate or as too weak and stupid to counter whatever risky attempts are made to defeat their purposes (Lunenburg, 2012).

## **2.9. Empirical Reviews**

Little studies have been conducted and tried to investigate how dynamic groups affect decision making. For example, Leslie (2010) has studied dynamics and GDM individual's contribution to decision making. His study encompasses communication, decision-making processes, leadership, and group factors but he did not include all variables in decision making process and even the dynamism of the group in decision making.

The other studies revealed that GDMP is dependent on a variety of factors and qualities within the group. Several models have been developed to understand the relationships between these qualities and a team's output. When a group is initially formed, the group dynamics, values and cultural traits of the group have not been established yet Tuckman (1965). However, his study did not identify key variables of group decision making performance.

The study by Lunenburg (2010) dealt about decision making in school organizations is achieved through committees, teams, task forces, and other types of groups. He discussed the importance of developing a culture for group decision making and consider some of the advantages,



disadvantages, and effective practices in group decision making. But he did not see how the decision is made by the group and factors affecting the decision making in the public organization.

Another study by Beresford and Sloper (2008) has tried to identify the factors affecting group decision making like, emotion, cognitive capacity and personality and confirmed that participants with unconscious and negative emotion will not perform better than conscious participants in the decision making. But they fail to identify the key factors determining group decision making performance.

The literature which shows that group performance is affected by two types of attributes: readily detectable attributes that cannot be easily recognized in person (e.g., age, gender, etc.) and underlying attributes that can't be easily identified (e.g., personality characteristics, knowledge level, etc.) in group support system (Khasawneh and Abushanab, 2013). This study focused on only few variables those affect group performance and this study investigate other important variables affecting group decision making performance. The focus of this study was to assess and identify factors affecting group decision making performance in public organizations of the selected areas.

Another literature on GDM is a review and analysis on the social aspects of group decision making by Middaugh (2004) and his study mainly focused on the disadvantages associated with decision making in groups such as groupthink and group polarization, ethics, strategy, and other facets. He also addressed areas that have negative impact on the outcome or quality of the decision made by the groups in the organization like physical state, mental state and other common issues related to the groups. According to this author if organizational managers choose to use groups for decision-making purposes, then it is important for the group to circumvent groupthink. In situations where groupthink is prevalent, members suppress their own thoughts and opinions for the sake of harmony. His findings also indicate that the organization should select correct groups or committees in order to ensure quality of decision.

Norbert and Scott (2004) have studied group performance and decision making and mainly focused on group motivation, process losses, and process gains, group information processing and shared cognitions. But they failed to measure the performance of the groups based on the output or process gains and process loss. Their study did not indicate the main variables affecting the performance of group decision making.

According to these authors, it may sometimes be hard to agree on just what a group's true potential is; it is far less difficult and probably ultimately more productive to document work conditions or interventions that improve group performance and thus, help groups approach or possibly exceed any plausible potential productivity baseline. So, for example, giving group members task-relevant information that simplifies or reframes their task can enhance group performance. Similarly the authors said that groups are routinely called upon to perform under highly stressful conditions. A tempting, intuitive guess is that increasing stress e.g., time pressure, poor work environments, complex tasks, etc. would generally degrade group performance.

Another study conducted by Postmes *et al.* (2001) on quality of decision making and group norms suggested that critical norms improved the quality of decisions, whereas consensus norms did not. This effect appeared to be mediated by the perceived value of shared and unshared information: Consensus norm groups valued shared information more highly than critical groups did, and valence was a good predictor of decision outcome. Similarly their results suggest that the content of group norms is an important factor influencing the quality of group decision making processes and that the content of group norms may be related to the group's proneness for groupthink. The authors mainly focused on the effects of group norms and information on the quality of group decision making. But they missed other important variables that might affect the quality of decision made by the groups.

In the last but not the least, study conducted by Rathirane (2011) on factors affecting decision making in the governmental sectors in Jaffna district using regression model suggest that there are several important factors that influence decision making. Significant factors include past experiences, a variety of cognitive biases, an escalation of commitment and sunk outcomes,

individual differences, including age and socioeconomic status, and a belief in personal relevance. These all things impact the decision making process and the decisions made. This study also did not include other critical factors affecting decision quality. Taking in to account the aforementioned literatures, the goal of this study is to examine whether age of the group, educational level, members work experience, membership type, communication, trust, leadership, goal and cohesion have significant impact on quality decision making in the selected study area.

### **3. METHODOLOGY**

#### **3.1. Introduction**

This part describes study area, the methodologies that were used in this study: the choice of particular research designs, data type and source of data, data gathering technique and instruments, sampling and sampling techniques and data analysis techniques along with an appropriate justification associated with each approach.

#### **3.2. Description of the Study Areas**

The study was conducted in eastern Ethiopia in Harari People's National Regional State and Dire Dawa city Administration.

##### **3.2.1. Dire Dawa**

Dire Dawa is one of two chartered cities in Ethiopia and became a chartered city in 2004 after the federal parliament approved the city charter in proclamation 416/2004. It lies in the eastern part of the nation, on the Dechatu River, at the foot of a ring of cliffs that has been described as "somewhat like a cluster of tea-leaves in the bottom of a slop-basin. At a latitude and longitude of 9°36' N 41°52' E Coordinates: 9°36' N 41°52' E. The administration is bordered by the Shinile zone of the Somali National Regional State on the northwest, and northeast, and by the eastern Hararghe Region of the Oromia National Regional State on the south, southeast, and east. It is 565 kilometers away from Addis Ababa and 40 kilometers from Haramaya University

The Dire Dawa administrative council consists of the city of Dire Dawa and the surrounding rural areas. The city has large number of public and private organizations and has no administrative zones but one woreda - Gurgura woreda. There are 4 Keftagnas, 24 urban kebeles and 28 rural peasants associations. Dire Dawa is located in the eastern part of the country enclosed by the State of Somalia and the State of Oromia.

Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), Dire Dawa has a population of 341,834, of whom 171,461 are men and 170,461 women; 233,224 or 68.23% of the population are urban inhabitants. The region includes the Oromo (45%), the greatest percentage of the city Somali (25%), Amhara (23%), Gurage (3%), and Harari (1%). The religion with the most believers in Dire Dawa is Muslim with 70.8%, 25.71% are Ethiopian Orthodox, 2.81% Protestant, and 0.43% Catholic. It's a warm and dry climate with a relatively low level of precipitation. The mean annual temperature of Dire Dawa is about 25.9 °C (78.6 °F). The region has two rain seasons; that is, a small rain season from March to April, and a more pronounced rain season that extends from August to September.

### **3.2.2. Harar**

Harar located in south Eastern Ethiopia about 526 kilometers from Addis Ababa and 17 kilometers from Haramaya University, has recently registered by UNESCO as world heritage site. It is one of the most popular historical towns in the Eastern part of Ethiopia. The State has 5 woreda found in the rural areas around the town. Currently, the state has a total of 37 public sectors including authorities and agencies and different private sectors are also available in the town. The total number of kebeles of the city is 19, while the rural part of the State has 17 farmers associations.

The State of Harari people is located in the Eastern part of Ethiopia, surrounded by the State of Oromia. The State's size is estimated at 340 square kilometers. Harari lies 51 kilometers to the south east of Dire Dawa. It is located in the eastern wall of the Great Rift Valley looking over the vast Danakil desert to the north, the cattle rich savannahs to the south and fertile lands of the Harar Mountains to the east. Based on the 2007 census conducted by the Central Statistical Agency of Ethiopia (CSA), Harari has a total population of 183,415, of whom 92,316 were men and 91,099 women. This region is the only one in Ethiopia where the majority of its population lives in urban area: 99,368 or 54.18% of the population are urban inhabitants.

Ethnic groups in the region include the Oromo (56.41%), Amhara (22.77%), Harari (8.65%), Gurage (4.34%), Somali (3.87%), Tigray (1.53%), and Argobba (1.26%). Languages spoke include Oromiffa (56.84%), Amharic (27.53%), Harari (7.33%), Somali (3.70%), and Gurage (2.91%). The religion with the most believers in the region is Muslim with 68.99%, 27.1% are Ethiopian Orthodox, 3.4% Protestant, 0.3% Catholic, and 0.2% followers of other religion



Figure 1: Location of the study area

(Source: Google 2016)

### 3.3. Research Design

Designing a study helps the researcher to plan and implement the study in a way that would help the researcher to obtain intended results, thus increasing the chances of obtaining information that could be associated with the real situation. It also helps the researcher to answer questions validly, objectively and arrangement of conditions for collection and analysis of data (Kumar, 2011). It was conducted in the selected public organizations of Harar and DD cities.

The research is survey design that used questionnaire to generate relevant data on dynamics in the group decision making, GDMP and challenges and opportunities of group decision making in the selected public organizations.

### **3.4. Sources of the Data and Methods of Data Collection**

To conduct the study, the researcher collected data mainly from primary sources. The primary data were collected through questionnaire by the researcher from the respondents who are serving as committee members in the sampled public organizations. Besides, secondary data sources were employed to collect different literatures to make relevant reviews. The researcher used close ended Likert-five-scaled questionnaire in order to gather data primarily from the employees included in the sample. Primary and relevant information were collected from the groups or committees, who make decisions in the selected public or governmental offices in Harar and DDCA. Cross sectional data were used to get relevant information about dynamics, group decision making performance and their challenges and opportunities from the groups or committees.

### **3.5. Sampling Procedure and Sample Size**

For this study, in order to select a representative sample a multi-stage random sampling technique were implemented to select individuals or committee members from the group. In the first stage, the researcher selected Harari Peoples National Regional State and Dire Dawa city Administration purposively based on their geographical benefits of closeness that makes feasible to collect data. In the second stage, from the selected cities, the researcher randomly selected 12 public offices namely Educational, Health, Agriculture, Civil Service, Justice, Children and Women Affairs, Construction and Industry, Investment, Administrative Council, Urban Development, Social Security and Purchase, Procurement and Material disposal office among the 20 and 11 public offices in Harar Region and Dire Dawa City Administration respectively.

In the third stage, from the selected 12 offices/bureaus three (3) committees were selected that constitutes a total of 36 committees/groups using stratified random sampling. Finally, three respondents were randomly selected from each committee that makes the total sample taken 108 employees working as committee members in the selected offices/ bureaus. The sampled respondents were assumed to provide information that represents the performance of the committee being serving as members.

### **3.6. Methods of Data Analysis**

The collected data from the sample groups were edited, coded, classified, and tabulated. Descriptive and econometric tools were used to analyze the data.

#### **3.6.1. Descriptive statistics**

Descriptive statistics such as mean and standard deviation were employed to assess dynamics and determinants of group decision making using table to achieve the first and third objectives of the study. To investigate dynamics, challenges and opportunities of group decision making the percentages of individual's variation on GDM and the member's level of agreement and disagreement were explained using Likert scale.

#### **3.6.2. Econometric analysis**

To achieve the second objective of the study and answer the question on the determinants of group decision making performance, econometric analysis was applied. The Ordinary Least Squares (OLS) model has been used for the reason that least square regression provides the best method for measuring the effects of different factors on group decision making performance which is measured on a continuous scale.

The multiple linear regression analysis or ordinary least squares estimation (OLS) is used to capture the cause and effect relationship between the dependent variable, group decision making performance and independent variables that are expected to affect the quality of the decisions made. Hence, the OLS estimator or the functional relationship between the dependent and independent variables is given by:



$$Y_i = S_0 + S_1 X_{1i} + S_2 X_{2i} + \dots + S_q X_{qi} + v_i \quad (1)$$

Where:

$Y$  = the dependent variable (group decision making performance);

$X_i$  = the independent variables,  $i=1, 2 \dots n$  (age, educational level, membership type, number of members assuming position, trust, and communication)

$S_0$  = Constant term;

$S_i$  = Coefficient for a given independent variable  $i$ , and

$v_i$  =  $i^{\text{th}}$  random error term (disturbance term).

The term  $v_i$  is the residual or random error for group  $i$  and represents the deviation of the observed value of the response for this group from that expected by the model. These error terms are assumed to have a normal distribution with mean zero and variance  $\sigma^2$ .

$v_i = Y_i - \hat{Y}$  is normally distributed with mean zero and variance  $\sigma^2$

### **Coefficient of Determination ( $R^2$ )**

The value of  $R^2$  gives the proportion of the variability of the dependent variable accounted for by independent variables.

$$R^2 = \frac{RSS}{TSS} = 1 - \frac{ESS}{TSS} \quad (2)$$

Where,

$SSR$  = Regression Sum of Squares,  $TSS$  = Total Sum Squares and  $SSE$  = Error Sum Squares.

Group regression coefficients can be assessed by using t-statistics, the ratio:

$$t = \frac{\hat{S}_i}{SE(\hat{S}_i)} \quad (3)$$

The higher  $R^2$  shows better model fits of the data. Having arrived at a final multiple regression models for a data set, it is important to carry on and check the assumptions made in the modeling

process. Only when the model appears adequate in light of the data should the fitted regression equation be interpreted.

**Test of multicollinearity:** The presence of multicollinearity among the variables seriously affects the parameter estimates of any regression model. The Variance Inflation Factor (VIF) technique employed to detect the problem of multicollinearity for the continuous variables (Gujarati, 2004).

VIF can be defined as:

$$VIF(X_j) = \frac{1}{1 - R_j^2} \quad (4)$$

Where  $R_j^2$  is the squared multiple correlation coefficient between  $X_j$  and other explanatory variables. A larger value of VIF indicates the presence of multicollinearity among variables. As a rule of thumb if a VIF of a variable exceeds 10, the variable is said to be highly collinear with explanatory variables.

### 3.7. Definition of Variables and Hypothesis

#### 3.7.1. Dependent variable

The dependent variable for the OLS model is the group decision making performance. It refers to the ability to make quality decision and is expressed or measured in terms of: on time decision, timely communication of reports, members' satisfaction on the decisions made and the ability to achieve desired outcome.

#### 3.7.2. Independent or explanatory variables

**Age:** It is the average age of members of the committee which is measured in years and indicates that as members of the group are getting older they may see things seriously and will affect group decision quality positively.

**Number of members of the committee:** It is a discrete variable which refers to group size. The larger the group size, the better is the quality of the decisions to be made and hence affects the decision quality positively.

**Educational level:** It is a categorical variable that represents three levels of schooling of the members of the group. This variable reflects the ability to retrieve and interpret information and formal knowledge gained through training and having basic knowledge of decision making is very important to make quality decision. It affects group decision making performance positively. It was categorized in to diploma, first degree and masters and assigned values from 1 to 3 respectively.

**Average work experience:** It refers to the average experience of members of the committee in public sectors. It is a continuous variable measured in number of years and how long the members have served the sector. The more experienced the committee members are the more quality decision they make.

**Years of membership:** It is a discrete variable and indicates on average how long they stayed in the group and being a member of the committee. It affects the decision quality positively.

**Number of members in the position:** It is a discrete variable and refers to the number of individuals assuming position in the organization. It is expected that because of their power the members on the position may ignore the opinions of other members those who have no position in the office and this may adversely affect the group decision making performance.

**Trust:** It is integrity, having positive perception about others and the ability to keep secret of the group members. If members do not trust each other it will adversely affect quality of the decision and it is expected to have positive impact on the group decision making performance.

**Communication:** This is explained by whether the groups have formal communication channel and members communicate facts or give faithful judgment on the problems which requires their decision. It affects the group decision making performance positively.

**Leadership:** It refers to the leader's intentional influence extended on the group to guide structure; facilitate the activities and relationships within a group. It is expected that the leader of the group encourages and facilitates interaction and communication between members. It affects the decision quality positively.

## 4. RESULTS AND DISCUSSION

This chapter presents the major findings of the study and discusses it in comparison with past studies. Its purpose was to describe and assess group dynamics, challenges and opportunities of group decision making and determinants of group decision making performance based on the information gained from the members of the groups. Accordingly, descriptive statistics were used for analyzing group dynamics and challenges and opportunities of GDM and multiple linear regression was used to identify the determinants of GDMP.

### 4.1. Descriptive Analysis of Group Members

Table 1 presents descriptive information concerning the sex distribution of group members. The groups or committees on average have 5 male members and 2 female committee members with standard deviation of 2.794 for male and 1.195 for female. Moreover, the groups have minimum of 1 male and 0 female and a maximum of 13 and 6 male and female members in the groups respectively. This indicates that the group has more number of male members and less female or less participation of female on decision making.

Table 1: Sex distribution of the members in the group

Items	Mean	SD	Min	Max
Number of male	5	2.806	1	13
Number of female	2	1.172	-	6

Source: Own survey 2017

Table 2 reports the information concerning educational level of the groups. The result shows that about 30 (83%) were first degree holders and the remaining 4 (11%) and 2 (6%) were diploma and second degree holders respectively. This implies that the majority of the groups or committees hold first degree.

Table 2: Distribution of educational level of the members

Variables	Items	Total (N=36)	
		N	%
Educational level	Diploma	4	11
	Degree	30	83
	Masters	2	6

Source: own computation of survey 2017

Table 3 reports that the majority 33 (92%) of the sample committees are standing and the remaining 3 (8%) committees are ad-hoc. This indicates that majority of the committees in the sampled offices are characterized by standing committee that serves for longer period.

Table 3: Types of committee

Variables	Items	Total (N=36)	
		N	%
Types of committee	Standing	33	92
	Ad-hoc	3	8

Source: Own survey 2017

As it can be seen from Table 4, the average age of the respondents was 40 years with a standard deviation of 7.36 which means that there is a high variation between average ages of the committee members. Similarly, the committees have an average of 6 members with a standard deviation of 2.85 and the group size ranges from 3 to 15 members. Accordingly, members of the group have 11.3 average work experiences with a standard deviation of 5.55 and 3 average years of membership with a standard deviation of 1.64.

Lastly, the group has 2 individual members having position in the office on average with a SD of 2.83. Those having positions include head of departments or process owners and they participate in decision making process with other group members. The age distribution and work experience of the committee members indicate that the group composition looks like represent different group of employees in the selected offices.

Table 4: Demographic characteristics of members of the group

Variables	Mean	SD	Min	Max
Average age of members of the group	40	7.360	26	57
Number of members of the committee	6	2.853	3	15
Average work experience	11.3	5.548	1	29
Average years of membership	3	1.647	1	12
Number of members assuming position	2	2.830	-	14

Source: Own computation of survey 2017

## 4.2. Dynamics of Group Decision Making

The study results presented in Table 5 show that the majority 46 (42.6%) agreed that members of the committees make good interaction in making decisions and discharging responsibilities. Interaction with others strengthens the decision-making process, particularly when the decision requires execution by others. Accordingly, the member's response on change of decision from time to time is high. Around 45 (41.7%) of the respondents indicate decisions are changed from time to time. This implies that there are some changes of decisions made before a final decision is being implemented and it is always wise to consider how much change will be required to implement it. With regard to domination, 56 (51.9%) respondents believed that there is no significant domination by individuals in the committee. It means that group dynamics influence the behavior of both individual group members and the group as a whole.

The respondents were asked about the management's interference in the group decision making process. Accordingly, 49 (45.4%) of the respondents were agreed and strongly agreed on the top management's interference in the group decision making. This implies that the top management interference in group decision making was significant that needs proper attention.

With regard to member's diversity in perspectives, 70 (64.8%) of the respondents agreed and strongly agreed that group members have diverse perspective and point of views. This implies that diverse groups offer immense potential for increased quality of group performance and innovations in decision making. Members with diverse perspectives are supposed to provide the group with a comprehensive view of possible issues on the agenda, including both opportunities and threats; and alternative interpretations of the information gathered and creative courses of action and solutions that integrate the diverse perspectives. Additionally, group dynamics stresses the role of cohesiveness, the result of the feeling of mutual regard and the commitment to the group and its activities.

As can be seen from Table 5, the group domination by some individuals and top management interference in the selected public organizations is commonly observed. The results on group interaction change of decision from time to time and members with diverse perspectives and point view shows the committees are dynamic in characteristics according to the respondents. Therefore, these results lead us to conclude that the groups have a sense of dynamism in decision making and the prevalence of domination and top management interference on decision making.

Table 5: Dynamics of group decision making

Variables	Category (N=108)				
	Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)
Members make interaction on decision making	2(1.9)	-	19(17.6)	46(42.6)	41(38.0)
Change of decision from time to time	9(8.3)	21(19.4)	33(30.6)	30(27.8)	15(13.9)
Group is dominated by some individuals	30(27.8)	26(24.1)	22(20.4)	19(17.6)	11(10.2)
Top management interference is commonly observed	13(12.0)	20(18.5)	26(24.1)	37(34.3)	12(11.1)
Members have diverse perspectives	4(3.7)	9(8.3)	25(23.1)	48(44.4)	22(20.4)

Source: Own computation of survey 2017

### 4.3. Failures and Complaints on Group Decision Making

Results on Table 6 indicates that 62 (55.6%) response on failures of the decisions made is Yes and the remaining percent 48 (44.4%) is No. This implies that the decisions made by the groups or committees in the selected offices are failed by the top management because of many reasons as indicated in Table 7. From the total failures, 32 (52%) and 29 (48%) were from Harar and Dire Dawa respectively. This indicates that the larger failures were observed in Harar. Accordingly, 71 (65.7%) response on the complaints received per year on the decisions made is Yes and the remaining 37 (34.3%) is No answer. This shows that the groups have received complaints from the individuals who are affected by the decisions in the organizations and this could be because of many reasons that lead to complaints as described here under. From the total complaints received on the decisions made 36 (51%) and 35 (49%) were from Harar and Dire Dawa respectively.

Table 6: Response of failures and complaints on the decisions made

Question	Answer	District		Total (N=108)	
		Harar N (%)	DD N (%)	N	%
Did your decisions failed in the last 12 months?	Yes	32 (52)	29 (48)	61	55.6
	No	23 (48)	25 (52)	48	44.4
Did you receive any complaints from stakeholders for the last 12 months?	Yes	36 (51)	35 (49)	71	65.7
	No	18 (48)	19 (51)	37	34.3

Source: Own computation of survey 2017

Table 7 reports about the number of decisions failed and complaints received on the decisions made and the majority which accounts about 25 (23.1%) strongly disagreed and disagreed on the decisions failed one times and about 24 (22.2%) agreed and strongly agreed on the decisions failed one times. This tells us that the decisions were failed at least one times per year by the top management when the decisions lack the quality and against the rules and regulations of the sector. Similarly, about 36 (33.4%) respondents strongly disagreed and disagreed on the decisions failed two times and three times. It indicates that decisions made by the groups may



fail two or three times in a rare case. Moreover, the majority which constitutes 40 (37.0%) of the respondents strongly disagreed and disagreed on the decisions failed four times and above. This tells us that mostly decisions were not failed four times and above.

Accordingly, Table 7 shows the results of the number of complaints received per year on the decisions made and about 44 (40.7%) respondents strongly disagreed and disagreed on the complaints received one times and the majority which constitutes 33 (30.6%) strongly agreed and agreed on the complaints received two times and about 28 (25.9%) of the respondents strongly disagreed and disagreed on the complaints received two times. This implies that most of the time the groups received complaints two times per year. Moreover, about 43 (39.8%) of the respondents strongly disagreed and disagreed on the complaints received four times and above.

Table 7: Number of failures and complaints on the decisions made

Items	SD & D N (%)	Neutral N (%)	SA & A N (%)
Decision failed one times	25 (23.1)	12 (11.1)	24 (22.2)
Decision failed two times	36 (33.4)	14 (13.0)	11 (10.2)
Decision failed three times	36 (33.4)	15 (13.9)	10 (9.3)
Decision failed four times and above	40 (37.0)	15 (13.9)	6 (15.6)
Complaints received one times	44 (40.7)	13 (12.0)	14 (13.0)
Complaints received two times	28 (25.9)	10 (9.3)	33 (30.6)
Complaints received three times	53 (49.0)	13 (12.0)	5 (4.6)
Complaints received four and above	43 (39.8)	13 (12.0)	15 (13.9)

Source: Own computation 2017.

Table 8 summarizes the reasons for failures and complaints on the decisions made and the majority 30 (27.7%) strongly disagreed and disagreed on the first question that decisions are made out of rules and policies of the sector. This implies that the groups are making the decisions within the boundaries of rules and regulations.

Similarly, the majority of the member's response on the members sharing of new information is strongly disagreed and disagreed which accounts about 26 (24.1%). This indicates that the group members do not share new information to the other group members for discussion to make better decisions and provide appropriate solutions for the problems or cases in order to minimize complaints that will be raised by the individuals who are affected by the decisions. This result is also in line with Postmes, *et al.* (2001) who argues that some information is shared among all group members and some is unshared given to individual group members only. If all the information about the case is unshared, hidden profiles may exist that are designed to lead to a correct solution only if unshared information is discussed within the group. The response indicate that the groups make decisions within the rules and policies of the organization and they bring and share new information that may not known by other members to the discussion. About 25 (23.1%) agreed that the committee members were failed to check facts which implies that the members are not committed to find the reality of the issue or problems raised before final decision is made.

As shown in Table 8 the majority of the respondents, 24 (22.2%) and 23 (21.3%) agreed and strongly agreed on the delay of the communication or report of the decisions made and lack of enough time to make better decisions respectively. This shows that groups are not submitting the final decision to the concerned body for immediate execution.

The response shows that committees or group members in the public sectors believed that they do not have sufficient time to discuss the problems or issues in detail in order to make appropriate. Groups often require more time to reach a final decision than do individuals. It takes time to assemble a group.

Table 8 also presents the response regarding reasons of the complaints received on the decisions made. About 37 (34.2%) of the respondents were strongly agreed and agreed on lack of commitment and accountability among committee members. One possible explanation is that people feel less committed and accountable for the outcome of a group decision than when they act individually. This implies that the moderate number of members believed members commitment and accountability is low in discharging their duties. On the other hand, the

response on discrimination as a source of complaints looks insignificant. This could be taken as good experience of the committee member's behavior in discharging their duties and responsibilities.

The response on issue related with unfaithful judgments among committee members looks relevant that need attention. This implies that due to lack of confidence or intentional reasons, 30 (27.8%) believed that sometimes unfaithful judgments are source of complaints. The case of the third reason or issue about 39 (36.2%) agreed and strongly agreed on incomplete or insufficient information is a source of complaints. The above results indicate that when little information is available for the decision-making process, the group tends to rely more on opinion and less on facts and data. If other people who will be affected by the decision do not share the same opinion, the decision may not be accepted or implemented as intended. These two reasons for the complaints on the decisions made indicate that the group members are not giving fair judgments on the problems and this leads to inappropriate decision that gave birth to complaints among the decision recipients.

Table 8: Reasons of failures and complaints on the decisions made

<b>Causes of failures</b>	Likert scale		
	SD&D N (%)	Neutral N (%)	A&SA N (%)
Decisions made are out of rules and policies of the sector/office	30(27.7)	9(8.3)	22(20.3)
Members are unlikely to share new information to the discussion	26(24.1)	18(16.7)	17(15.8)
Members failed to check facts	12(11.1)	24(22.2)	25(23.1)
Members delayed the communication and report of the decision	18(16.6)	19(17.6)	24(22.2)
Members did not get enough time	17(15.7)	21(19.4)	23(21.3)
<b>Causes of complaints</b>			
Members lack commitment and accountability	15(13.9)	19(17.6)	37(34.2)
Unfavorable discrimination on decision	16(24.1)	25(23.1)	20(18.6)
Members did not make faithful judgment	23(21.3)	18(16.7)	30(27.8)
Incomplete or insufficient information	18(16.7)	14(13.0)	39(36.2)
In adequately considering all alternatives and little analysis	18(16.7)	27(25.0)	26(24.1)

Source: Own survey result, 2017

#### 4.4. Challenges of Group Decision Making

Table 9 indicates that 42 (38.7%) agreed that there is a resource inadequacy in the office. This implies that the groups did not get adequate resource that enables them to make good decision. Failure to identify and utilize the resources of capable group members is a clear source of poor group performance (Mullen and Copper, 1994).

About 36 (33.3%) disagreed about absence of written rules and regulations and 37 (34.3%) disagreed that there is no lack of formal procedures and guidelines. About 39 (36.1%) agreed that there are a problems of past methodology and policy affecting decision making. Accordingly, 35 (32.4%) respondents or committee members agreed that there is a poor working environment.

This shows that there is no appropriate place which is convenient to make better decisions for the groups and about 38 (35.2%) respondents response is neutral. The majority of members which are 34 (31.5%) agreed that there is a relationship oriented conflict in their office. From this study results, resource inadequacy, past methodology, poor working environment and conflict are the major challenges among others which adversely affect the decision making process.

Table 9: Challenges of group decision making

Variables	Likert scale				
	Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Resource inadequacy affected decision making	4(3.7)	25(23.1)	21(19.4)	42(38.7)	16(14.8)
Absence of written rules and regulations	13(12.0)	36(33.3)	22(20.4)	29(26.9)	8(7.4)
Lack of formal procedures and guidelines	8(7.4)	37(34.3)	32(29.6)	26(24.1)	5(4.6)
Past methodology and policy adversely affected decision	7(6.5)	18(16.7)	35(32.4)	39(36.1)	9(8.3)
Poor working environment	13(12.0)	22(20.4)	20(18.5)	35(32.4)	18(16.7)
Unclear purpose	17(15.7)	30(27.8)	38(35.2)	18(16.7)	5(4.6)
Wrong people and place	22(20.4)	31(28.7)	31(28.7)	15(13.9)	9(8.3)
Relationship oriented conflict	15(13.9)	21(19.4)	30(27.8)	34(31.5)	8(7.4)

Source: Own survey 2017

#### 4.5. Opportunities of Group decision Making

Results on Table 10 explain about opportunities to make better group decisions. Majority of the members that constitutes 52 (48.1%) agreed for learning opportunities and participation as a source of better decision making. This implies that when several people are making the decision, there is a greater pool of information from which to draw and members learn more from each other. If one person doesn't have the pertinent knowledge and experience, someone else might (Rowe *et al.*, 1984).

About 57 (52.8%) agreed that working in a group boosts members confidence in making and executing decisions and 52 (48.1%) agreed that there is an acceptability and ease of implementation of the decisions made. This can serve as a source of motivation for committee members. Fred (2010) argued that Shared decision making breeds ego involvement. That is, people tend to accept and support decisions that they make rather than those made by others. The more people, who accept a decision and are committed to it, the more likely the decision are to be executed. Moreover, 55 (50.9%) of the respondents believed that working as members of a committee was considered as an opportunity to develop creativity. The nature of the group involves shared responsibility, which may influence members to decide quickly without fear because of the safety they feel in collective blame. Members become more apt to be committed to seeing that the course of action is successfully implemented. A group of people can brainstorm or otherwise bring greater intellectual stimulation and creativity to the decision-making process than is usually possible with one person acting alone. The groups making the decision establishes the frame, seeks and creates alternatives, assembles pertinent information, states preferences, and uses proper reasoning to select the most desirable alternative (Fred, 2010).

Furthermore, 55 (50.9%) of the respondents agreed that the group members are benefited from distribution of responsibilities among group members. This implies that when all members of the group assume responsibility, they develop an appreciation associated with all aspects of their work and shared responsibility can also ease the activities and all works performed better. These results are also supported by some past researcher like Fred (2011) that more knowledge and expertise is available to solve the problem; a greater number of alternatives are examined; the final decision is better understood and accepted by all group members may be able to lead to a greater collective understanding of the eventual course of action chosen, since it is possible that many affected by the decision implementation actually had input into the decision. This may promote a sense of ownership of the decision, which is likely to contribute to a greater acceptance of the course of action selected and greater commitment on the part of the affected individuals to make the course of action successful.

It should not be assumed that members who are not actively participating are uninvolved in the group and some group members welcome a chance for active involvement but speak only when they have an important contribution that might otherwise be overlooked. Often, however, a reduced chance to participate leads to dissatisfaction and a lack of commitment to decisions made by the group (Ronald and Robert, 2005).

Table 10: Opportunities of group decision making

Variables	Likert scale( 1-5)				
	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Learning opportunities for members	4(3.7)	4(3.7)	30(27.8)	52(48.1)	18(16.7)
Feeling of participation and involvement	3(2.8)	3(2.8)	30(27.8)	52(48.1)	20(18.5)
Confidence to implement decision	3(2.8)	7(6.5)	23(21.3)	57(52.8)	18(16.7)
Creative courses of action and solutions that integrate the diverse perspectives	2(1.9)	3(2.8)	37(34.3)	55(50.9)	11(10.2)
Acceptability and ease of implementation	2(1.9)	13(12.0)	31(28.7)	52(48.1)	10(9.3)
Distribution of responsibilities among group	3(2.8)	7(6.5)	20(18.5)	55(50.9)	23(21.3)

Source: Own computation of data 2017

#### 4.6. Group Decision Making Performance (GDMP)

In this study, GDMP index was developed based on five GDMP indicators, namely on time decision, timely communication of reports, members' satisfaction on the decisions made and the ability to achieve desired outcome are measured on a five Likert scale (ranging from strongly disagree to strongly agree) in order to convert the qualitatively measured dependent variables and non-continuous independent variables as shown in Table 11. The Likert scale measures the average intensity of beliefs and attitudes and represents the average degree of belief members hold in the group. Respondents' response were assessed using a set of 4 statements offering them the opportunity to either agree or disagree with the statement on a 5-point Likert scale (as listed in Appendix). The mean scores of all the items for the members in the group were calculated.

The level of index for all groups were calculated by adding together the level of response of all individuals or members in the group and dividing by the number of Likert scale which is 5 and then dividing the mean score by the number of items and finally the level of index of each groups were determined by dividing mean score of each individuals by the number of members in the group. The responses by the members about their GDMP suggest that the overall calculated index of the groups is (59%) in terms of the four indicators used to assess group's decision making performance in the study area. Moreover, the calculated index for trust, group cohesion, communication, leadership and goals is 66%, 63%, 67%, 64% and 62% respectively.

#### **4.7. Determinants of Group Decision Making Performance**

As shown in Table 12, out of the 9 variables used in the multiple regression, 5 were found to significantly influence the group decision making performance. Accordingly, educational level (first degree) (+), work experience (-), membership type (-), trust (+) and communication (+). Before running the OLS model, the existence of multicollinearity was tested using Variance Inflation Factor (VIF). When the value of VIF exceeds 10 then this is an indication of severe multicollinearity among the variables. The VIF values for the explanatory variables included in the model were found to be much less than 10 (Table 12), indicating the absence of multicollinearity problems among the explanatory variables. The  $R^2$  value also called the coefficient of determination, which is the proportion of variability in the dependent variable that can be explained by the independent variables is 0.6965. That means the independent variables explain 70% of the variability of the dependent variable and the remaining 30% was affected by other variable which the researcher was unable to observe. The value of the Adjusted  $R^2$  which is 0.5915 gives the percentage of variation explained by only those independent variables that affect the dependent variable.

**Educational level:** The result shows that the quality of group decision making increases as the level of members' education increases and is significantly affecting the quality of decision positively and since p-value is at less than significance level (5%). That means compared to groups whose average education level is diploma, the group decision making performance index increases by 0.06 for groups whose educational level is first degree. The justification for this



result might be related to the fact that educated peoples usually see cases from different perspectives in making timely decisions and to the satisfaction of the customers.

**Average work experience:** It affects decision quality negatively and significantly at less than 1% significance level. This means that, as group member's experience increased by one year, there is a decrease in decision quality by 0.007. Members become less innovative and adapt the environment when they have served many years. This result is also in line with Janis (1982) that sometimes groups of highly qualified and experienced people make very poor decisions.

**Type of committee:** It was negatively and significantly associated with the decision quality at less than 1% significance level. The result shows that, compared to standing committee the group decision making performance index decreases by 0.104 when the committee is ad-hoc. This implies that ad-hoc committees were not concerned much about the quality of the decision compared to standing committee as they know that their membership is not lasting long and they might make decision without detail investigation of the problems. This result is also in line with Christopher (2011) that ad-hoc groups are typically temporary in nature; they may only exist for a short time before disbanding. Groupings may change with high degrees of frequency, according to the particular needs of the system. As a result, ad-hoc committees often lack the well established patterns of communication, motivation and co-ordination which reduce decision quality compared to standing committee.

**Trust:** This variable positively affected the decision quality and significantly associated at less than 10% significance level. As it is shown in Table 11 if there is trust between group members the group decision quality increases by 0.226. When members became honest and keep secret of the group the decision quality improves. It also increases confidence among group members and facilitates interaction which promotes and fosters the quality of the decision. This result is in line with that of Gibson *et al.* (2012) who argue that as the climate of trust increase in the group members the group's performance will be enhanced. Members also believe in integrity and honesty that fosters cooperation and openness in the group decision making.

**Communication:** Similarly, this variable positively and significantly associated with decision quality at less than 1% significant level. This implies that if there is a communication between group members the decision quality increases by 0.652. This idea is also supported by Osmani (2016) that as the group members share their opinion and get opportunity to express their feelings freely and openly the decisions made become more quality and hence is an essential element for group decision making. Communication standards, and thus performance, are raised if the group has fairly high tolerance for inter member conflicts and explicit communication feedback to ensure that information is understood (Maznevski, 1994). Members of decision-making groups can improve their performance by satisfying or facilitating communication channels to deal with problems and make quality decision.

Table 11: Determinants of group decision making performance

Variables	Coeff	Std. Err	t-test	P-value	VIF
Age	0.001	0.002	0.32	0.749	1.49
Edu level					
2=First degree	0.062**	0.027	2.27	0.032	1.39
3=Masters	0.044	0.058	0.77	0.451	1.23
Work exp	-0.007***	0.002	-3.96	0.001	1.56
NM on position	0.002	0.003	0.68	0.503	1.31
Mship type	-0.104***	0.037	-2.77	0.010	1.44
Trust	0.226*	0.117	1.92	0.065	1.45
Communication	0.652***	0.159	4.11	0.000	2.01
Leadership	0.109	0.117	0.93	0.360	1.43
Constant	0.034	0.144	0.24	0.816	
Number of obs=36		R-squared = 0.6965			
Prob>F=0.0001		Adj. R- squared = 0.5915			

\*\*\*, \*\* and \* are statistically significant at  $\alpha = 1\%$ ,  $5\%$  and  $10\%$  probability level respectively

## 5. SUMMARY, CONCLUSION AND RECOMMENDATION

### 5.1. Summary and Conclusion

Today, many decisions in public organizations or offices are made by groups or committees. The goal of this paper was to identify dynamics of group decision making, to investigate the determinants of group performance and challenges and opportunities of group decision making in Harar and DD selected public sectors. The study utilized 36 groups in an aim to explore the determinants of overall group performance keeping in mind that this groups were selected randomly and 3 samples were selected from each group. The groups were made of members from different departments including process owners and expertise in the sectors which ranges from 3 to 15 members in one group.

As the data obtained from the group members revealed that the groups were also dynamic as they make interaction and reaction when making decisions and some changes also happened like change of decision from time to time, top management interference and domination of some individuals. As the results show that the decisions made also failed at least on time per year because of different reasons like members failed to check facts and detail investigation of the problems, decisions made were some times out of rules and policies of the sectors, members were busy and lack enough time to discuss problems in detail and others. Accordingly, the groups received at least one complaints from the stake holders or the individuals affected by the decisions made and this were happened as the members lack accountability and commitment, unfair judgment and insufficient and incomplete information about the problems were among the other. The report analysis results show that opportunities of group decision making include were more knowledge and expertise is available to solve the problem; a greater number of alternatives are examined, acceptability and ease of implementation of the decisions made.

There are some common challenges of group decision making like the resource inadequacy, past methodology, poor working environment and conflict became the major challenges among others which may really affect the decision making process and lead to quality output. Out of the 8 variables used in the multiple regression, 5 determinants were found to significantly influence

the decision quality. Accordingly, educational level (first degree) (+), work experience (+), ad-hoc committee (-), trust (+) and communication (+). These determinants were affecting the decision quality of the selected public sectors in Harar and Dire Dawa.

## **5.2. Recommendations**

With reference to the results of the study the following recommendations have been made to help the groups or committees make quality decisions in the selected governmental organization.

Members should attempt to generate as many alternatives as possible and ideas that build on suggestions of other group members. A high level of open interaction promotes cohesiveness and the members should use group discussions and program activities to encourage interaction among members. The leader should facilitate and guide the development of group dynamics that lead to members' satisfaction with their participation and that enable the group to achieve its goals and ask for certain members to interact more frequently with other members

The sectors should offer rewards, resources and prestige that member would not obtain by themselves. Groups should view difference of opinion among members as natural and helpful. The groups should focus on the quality of the decision to reduce failures and complaints on the decisions made. The concerned body or top management should evaluate the group's performance after the decision is made and the members then should adopt any improvements that they will need for the next time they make decision. Group members should check and understand the rules and policies of the sector before final decision.

Top managements should not always entertain in the group's decision making and pressure them. They should have knowledge about what they are doing and think about all implications of the decisions made. Groups should control powerful members who can dominate group's discussion and final decision. Members should think more, clearly, creatively and the same thing at the same time. The worker should help group members to cooperate rather than compete with each other to avoid relationship conflict.

Group members should trust each other and keep the secret of the groups as trust enhance cooperation and decision quality. The selected committee members should not be ad-hoc as they do not focus deeply on the problems and affect decision quality. The members who stayed long should be replaced by younger as they are getting older and make poor decision. There must be effective communication between the group members in order to understand each other and reach the intended goal and make better decisions.

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## **7. APPENDIX**

## Appendix 1: Questionnaire on Dynamics and Determinants of Group Decision Making

Haramaya University  
College of Business and Economics  
Department of Management

### Questionnaire on Dynamics and Determinants of Group Decision Making

Dear respondents,

This questionnaire is designed to collect relevant information on dynamics and determinants of group decision making in your office or sector. The questionnaire is purely for research purpose and the results of this questionnaire are absolutely confidential. Therefore, you are kindly requested to answer all questions honestly as much as you can. It will take a few minutes to complete. ***Thank you very much for your support and cooperation!!***

#### 1. Background Information

- 1.1. Sex composition: Number of male  Number of female
- 1.2. Age\_\_\_\_\_
- 1.3. Number of members of the committee\_\_\_\_\_
- 1.4. Educational level of members of the committee\_\_\_\_\_
- 1.5. Average work experience of the members\_\_\_\_\_
- 1.6. Average years of membership of the committee\_\_\_\_\_
- 1.7. Number of members of the committee assuming positions in the sector/office\_\_\_\_\_
- 1.8. Membership type : ☐ Standing ☐ ad-hoc

Please indicate whether you agree or disagree with each statement, according to the five-point scale below

**Survey Scale: 1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree**

<b>Questions</b>					
<b>Issues related with dynamics of group decision making</b>					
Members make interaction on decision making	1	2	3	4	5
Change of decision from time to time	1	2	3	4	5
Members have diverse perspectives and point of view	1	2	3	4	5
Group is dominated by some individuals	1	2	3	4	5
Top management interference is commonly observed	1	2	3	4	5
<b>Performance Indicators</b>					
The decisions are made on time	1	2	3	4	5
Timely communication of reports of the decision made	1	2	3	4	5
Members are satisfied with the decision made	1	2	3	4	5
The decision made meets the desired outcome	1	2	3	4	5
Did the decisions made failed by the top management for the last 12 months? 1) Yes. 2) No. If yes, failure of the decisions made per year					
a) One times	1	2	3	4	5
b) Two times	1	2	3	4	5
c) Three times	1	2	3	4	5
d) Four and above	1	2	3	4	5
If yes, reasons of failures of the decision made					
Decisions made are out of rules and policies of the sector/office	1	2	3	4	5
Members are unlikely to share or bring up new information known only to themselves to the discussion	1	2	3	4	5
Members failed to check facts and take initiative to confirm assumptions	1	2	3	4	5

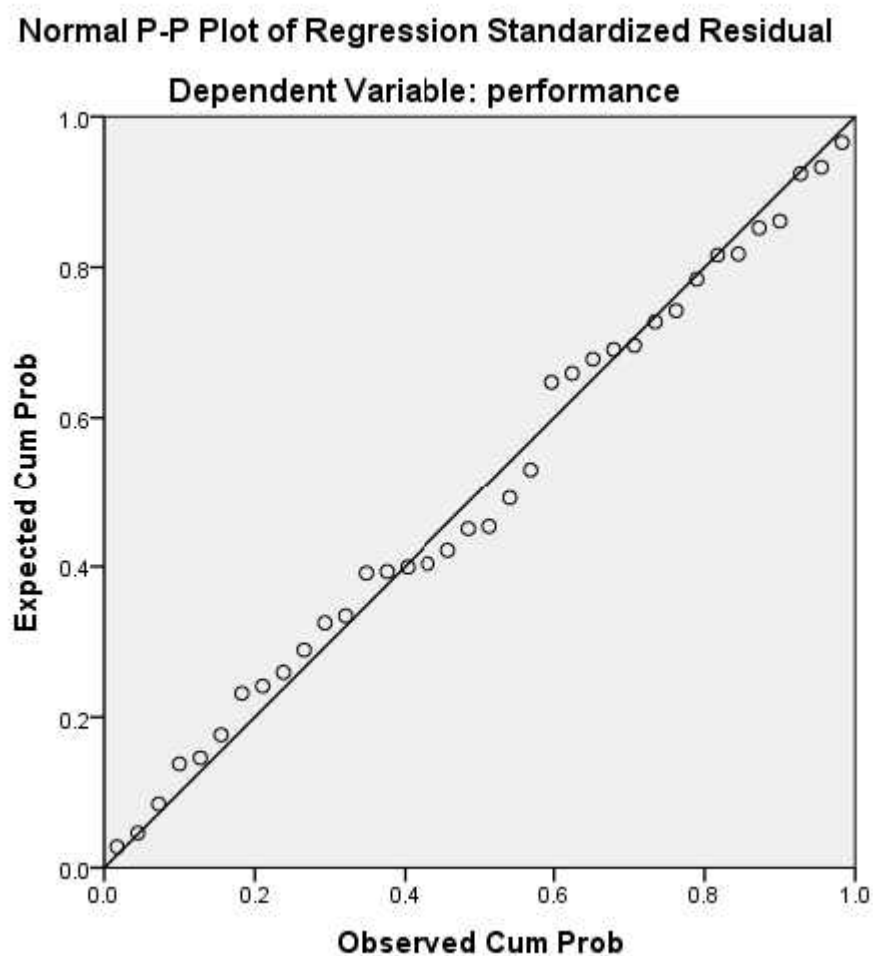
Members delayed the communication and report of the decision	1	2	3	4	5
Members did not get enough time and were busy with routine activities	1	2	3	4	5
Did you receive any complaints from the employees or stakeholders for the last 12 months? <b>1) Yes. 2) No.</b> If yes, how many complaints did you receive					
a) One	1	2	3	4	5
b) Two	1	2	3	4	5
c) Three	1	2	3	4	5
d) Four and above	1	2	3	4	5
If <b>yes</b> , reasons of complaints					
Members lack commitment and accountability	1	2	3	4	5
Unfavorable discrimination and biased decision	1	2	3	4	5
Members did not make faithful judgment	1	2	3	4	5
Incomplete or insufficient information of the problem	1	2	3	4	5
In adequately considering all alternatives and little analysis of the problems	1	2	3	4	5
<b>Determinant factors of group performance</b>					
<b>Trust</b>					
Positive perception about other group members	1	2	3	4	5
Members have integrity to maintain secret of the group	1	2	3	4	5
Trustfulness among group members	1	2	3	4	5
Individuals are mostly honest and sincere	1	2	3	4	5
Increased trust between group members lead to better success	1	2	3	4	5
<b>Group Cohesion</b>					
Members like each other	1	2	3	4	5
Members feel closeness and stay with the group members	1	2	3	4	5
Group has positive and strong cooperation	1	2	3	4	5
Members are committed to the decision made after all viewpoints have been thoroughly and rationally considered.	1	2	3	4	5

The group reach a mutually satisfying consensus and agreement	1	2	3	4	5
<b>Group size</b>					
Number of group member is sufficient	1	2	3	4	5
The group size is easy for the leader to facilitate in decision making	1	2	3	4	5
Appropriate group size decreases coordination problem	1	2	3	4	5
Small group size enhanced close interaction of group members	1	2	3	4	5
Large group size affects cohesion of the members	1	2	3	4	5
<b>Communication</b>					
Improved and effective communication lead to better understanding and results	1	2	3	4	5
Members communicate facts and real information	1	2	3	4	5
Members give faithful judgment or opinion on the selected alternatives	1	2	3	4	5
The group has a proper and formal communication channel	1	2	3	4	5
The group members get adequate opportunities to express their opinions and communicate with each others	1	2	3	4	5
<b>Leadership</b>					
The leader is accepted by the members	1	2	3	4	5
The leader enables and fosters group decision making	1	2	3	4	5
The leader facilitates the activities and relationships within the group	1	2	3	4	5
The leader apply incentive plans for additional duties and committee works	1	2	3	4	5
The leader adequately define roles, functions and problems	1	2	3	4	5
<b>Goals</b>					
Members set achievable and clear goals	1	2	3	4	5
Developed goals accurately reflect the priorities and need of diverse groups	1	2	3	4	5
Complete all the activities and get intended outcome	1	2	3	4	5
Realistic and measurable goals are made	1	2	3	4	5
Goals are examined and evaluated by all members to make better decision	1	2	3	4	5
<b>Issues related with challenges of group decision making</b>					
Resource inadequacy affected decision making	1	2	3	4	5

Absence of written rules and regulations	1	2	3	4	5
Lack of formal procedures and guidelines	1	2	3	4	5
Past methodology and policy adversely affected decision making	1	2	3	4	5
Poor working environment	1	2	3	4	5
Unclear purpose	1	2	3	4	5
Wrong people and place	1	2	3	4	5
Relationship oriented conflict	1	2	3	4	5
<b>Opportunities of group decision making</b>					
Learning opportunities for members	1	2	3	4	5
Feeling of participation and involvement	1	2	3	4	5
Confidence and willingness to implement decision	1	2	3	4	5
Creative courses of action and solutions that integrate the diverse perspectives	1	2	3	4	5
Acceptability and ease of implementation of the decision	1	2	3	4	5
Distribution of responsibilities among group members	1	2	3	4	5



## Appendix 2: Normal P-P Plot of Regression Standardized Residual



Appendix table 1: Number of the organizations and committees selected

S.N	Name of the sector	District	Total number of	Number of	Sample	Total
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			committee/group in the sector	committee selected	selected from each group	
1	Education	DD	7	3	3	9
2	Civil service	Harar	6	3	3	9
3	Health	DD	5	3	3	9
4	Children and Women Affairs	DD	4	3	3	9
5	Urban Development	Harar	4	3	3	9
6	Agriculture	Harar	6	3	3	9
7	Administrative Council	DD	5	3	3	9
8	Social Security	Harar	5	3	3	9
9	Investment	DD	6	3	3	9
10	Justice	DD	4	3	3	9
11	Construction and Industry	Harar	5	3	3	9
12	Procurement, Property and Material disposal	Harar	3	3	3	9
Total						108