

**MANAGING DIVERSITY IN PROJECT TEAMS AND ITS  
EFFECTS ON ORGANIZATIONAL EFFECTIVENESS:  
THE CASE OF KENYA REVENUE AUTHORITY**

**By**

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## DECLARATION

This research project report is my original work and has not been presented for academic qualification in this or in any other university.

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L50/72051/2014

This research project report has been submitted for examination with my approval as the university supervisor.

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## **DEDICATION**

I dedicate this report to the Almighty Father, whose guidance in choosing this topic cannot be ignored throughout this research project undertaking.

I also dedicate it to my father Daniel K Wanjohi and mother Grace Wanjohi who have always been there for me.

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## **ABBREVIATIONS AND ACRONYMS**

<b>ITMS</b>	-	Integrated Tax Management System
<b>KRA</b>	-	Kenya Revenue Authority
<b>PIN</b>	-	Personal Identification Number
<b>PM</b>	-	Project manager
<b>PMBO-</b>		Project Management and Business Analysis Office
<b>RARMP-</b>		Revenue Administration Reform and Modernization Program
<b>SPSS</b>	-	Statistical Package for Social Science

## ABSTRACT

Diversity management in teams becoming increasingly important to organizations. This study investigated the concept of diversity management in project teams and the influence on organizational effectiveness. The purpose of the study was to determine whether the management of diversity of teams in the Project Management and Business Analysis Office (PMBO) influenced organizational effectiveness at KRA. Four objectives that guided the research were: to determine the influence of managing cultural diversity in PMBO teams on organizational effectiveness; to establish the influence of managing demographic diversity of PMBO teams on organizational effectiveness; to investigate the influence of managing cognitive diversity of PMBO teams on organizational effectiveness; and to assess the influence of managing technical diversity of PMBO teams on the organizational effectiveness of KRA. The study was carried out at the PMBO Nairobi offices at KRA. It was restricted to Nairobi County due to time limitations and inability to travel to all county offices to collect data from PMBO staff. The target population was 200 project managers and team members. A sample size of 180 was used. Structured questionnaires were designed and pilot tested for validity. The questionnaire was collected after one week and reminders sent to ensure high response rates. Responses were analyzed using quantitative methods. Descriptive statistics and correlation tests using Statistical Package for Social Sciences (SPSS) formed the basis of the quantitative analysis.

Results of quantitative analysis showed that the management of cultural diversity, cognitive diversity, demographic diversity and technical diversity influenced organizational effectiveness. The management of cultural diversity had a strong positive correlation (0.732) with organizational effectiveness. Religion and ethnicity were found to have a greater influence on the teams in the organization. The management of demographic diversity had a weak positive correlation of 0.482 with organizational effectiveness. Age and geographic differences were found to have greatest effect on the project teams at PMBO. There was a weak positive correlation (0.313) between the management of technical diversity and organizational effectiveness. Similarly, there was a weak positive correlation (0.368) between the management of cognitive diversity and organizational effectiveness. Regression results showed that cultural diversity management had greater effect on organizational effectiveness at 53.5% followed by the management of demographic diversity (23.2%), the management of cognitive diversity (13.6%) and the management of technical diversity (9.7%).

The study concludes that cultural diversity has the greatest influence on organizational effectiveness while technical diversity has lower influence on organizational effectiveness. The study recommends that project managers at PMBO could improve cultural diversity by resolving ethnic conflict and encouraging multilingual communication. PMBO could improve demographic diversity by accentuating a culture of respect, providing diversity training and developing norms for demographically teams. Recommendations for improving technical diversity are accommodating alternative perspectives and encouraging cognition among technically-diverse group members while recommendations for improving cognitive diversity are developing cross-functional groups and information integration. The study proposes that the study be carried out on a larger scale to develop a better understanding of the effect of managing diversity in teams on organizational effectiveness.

# CHAPTER ONE

## INTRODUCTION

### **1.1 Background to the Study**

Diversity refers to differences. Team diversity refers to attributes that make individuals different from others. These attributes may be conceptualised as demographic (such as race or gender), informational (such as skill level or talent) or other visible characteristics such as functional purpose and tenure in the company (Eckel & Grossman, 2005; Liang, Liu, Lin & Lin, 2007). Diversity management is concerned with understanding how these attributes affect organisational performance, job motivation, interactions and success of others. It is defined as the acquisition of skills and knowledge to manage differences among individuals in an effective and appropriate manner (Guilherme, Keating & Hoppe, 2010). Diversity management requires managers to develop a creative mindset so that they can see things at different angles without making rigid prejudgments or enforcing unequal relations.

Developing this mindset is important because a common assumption among managers assumption is that diversity among team members could be counterintuitive since dissimilarity may hinder the achievement of a unified objective or purpose. The basis of this assumption is that similar individuals with similar personalities and professional differences would work more effectively compared to dissimilar individuals (Musonye, 2014). However, similarity does not imply better performance or easier achievement of project goals.

Diversity management requires that organisations manage the dynamics of diversity by acknowledging intercultural intersubjective atmosphere and developing attitudes that accept intercultural differences. This management involves dealing with expectations, understanding stereotypes and their construction, creating shared resources, eliminating tensions and negotiating through non-neutral positions. These management actions are achieved through planning and implementing practices and systems that exploit the advantages of diversity and minimize disadvantages when managing people (UC Regents, 2015).

The management of diversity in teams is encouraged as an essential component of project performance. This is because teams are very essential for projects (Jehn & Katerina, 2004). Diversity is acknowledged as an essential goal for developing project

teams because members of a team work best when they are not identical but complementary and compatible. This compatibility encourages team members to work together and contributes to the success of the project (Keller, 2001). The premise for project managers is to develop teams in a flexible and efficient manner that coordinates production using diverse talents, skills and information. The project manager promotes diversity by increasing the mix of skills, personalities, talents and information sets that members bring to the team. This mix produces cross-fertilization that enhances team creativity, integrates expertise and promotes cohesion and performance (Eckel & Grossman, 2005; Tiwana & McLean, 2005).

It must be acknowledged that in managing diversity, organisational practices and organisational systems should anticipate situations where when team members choose discriminate those members that do not possess similar characteristics (Kankanhalli, Tan & Wei, 2007). These members could use this discriminatory behaviour to segregate individuals into social categories and create a feeling of oneness (group identity) among those that share similar characteristics (Eckel & Grossman, 2005). This social categorization and group identity, when used negatively, creates an environment of regular conflict and low social integration among members. It also creates an environment that suppresses the self-interest for community interest, which may downplay the needs of individual members thereby giving rise to conflict (Bhadury, Mighty & Damar, 2000).

Current research findings on the significance of diversity management and its effects on organizational performance and effectiveness are mixed. Gottschalk and Solli-Sather (2007) argue that similarity in personality is important in software development and other knowledge-intensive tasks. This is because researchers have posited that homogeneity (similarity of individual's characteristics and personalities) promotes successful teamwork that leads the project to achieve its goals and mission (Jehn & Katerina, 2004). On the other hand, some studies do not establish any consistent effect of diversity management in teams on performance. For instance, Blauth, McDaniel, Perrin and Berrin (2011) argued that diversity increased tensions in the workplace and lowered team productivity. Some older diversity scholars asserted the benefits of team diversity such as Jehn (1995) and Guzzo and Dickson (1996) whereas others observed that gender diversity affected the perception and the

adoption of technologies such as electronic mail (Gefen & Straub, 1997; Truman & Baroudi, 1994). A study by Jiang et al. (2007) confirmed that different forms of diversity cause different conflict types that in turn influence the perceived performance of the team and the organization. Their study showed that knowledge diversity creates relationship conflict but has a positive impact on team performance whereas valued diversity causes relationship conflict that in turn causes a negative effect on team performance. The paper seeks to establish whether the management of diversity in teams can influence the performance and effectiveness of teams.

Kenya Revenue Authority (KRA) is an agency for tax collection in Kenya. The agency was established in 1995 after an Act of Parliament was passed to improve tax collection for the Government of Kenya. KRA is responsible for collecting a variety of duties and taxes including income tax, value added tax and customs tax. Since inception, the agency's revenue collection has shown significant increase that has enabled the Kenyan government to provide public services such as health and free primary education (Omondi, 2014). Presently, majority of funding in the annual national budget is obtained from revenue from the KRA.

In recent years, KRA has embarked on different programmes aimed at enhancing revenue collection from the citizens. These programs include the adoption of automated online system for Personal Identification Number (PIN) registration and an Integrated Tax Management System (Omondi, 2014). These programs were development projects performed by the Project Management and Business Analysis Office (PMBO) at KRA. PMBO was established under the Revenue Administration Reform and Modernization Program (RARMP).

The mandate of the PMBO is to supervise the creation, development and adoption of projects at the agency (Kenya Revenue Authority, 2006). This mandate was guided by the vision "to successfully implement reform and modernisation programs and ensure KRA transforms to become a modern, flexible and integrated revenue agency.' PMBO therefore performs the role of coordinating Reform and Modernisation projects as well as to supporting process mapping and business mapping at the agency. This coordination ensures time and cost efficiencies, effective documentation, attainment of objectives and provision of internal and external support to projects (Kenya Revenue Authority, 2006).

Projects by the PMBO are performed by project teams and managed by project leaders. The office encourages its teams and leaders to adopt creative and best practice project management approaches in achieving its vision. In addition, PMBO motivates projects teams and managers to enhance their skills and become risk takers in their pursuit of the office's mandate. In addition, project teams and managers are required to produce successful tasks, provide leadership to the Programme Coordination Committee (formed by projects managers), produce regular reports, maintain regular contact with owners of the projects, align the agency's corporate strategy with departmental business plans, and ensure project stakeholders are well informed about the project (Kenya Revenue Authority, 2006).

To achieve these goals, PMBO has had to integrate members with diverse technical, demographic, cultural and cognitive characteristics in four core business units. The business units are program administration and support; programme funding and resources; program monitoring and evaluation; and business analysis (Kenya Revenue Authority, 2006). The program administration and support unit performs documentation, standardization, continuity, strategic alignment and auditing roles. The program funding unit sources internal and external funds for the agency's reform initiatives. The program monitoring and evaluation unit tracks the status of implemented projects, conducts monthly project reviews, prepares progress reports, documents risks and issues, compiles program plans, develops program standards, undertakes monitoring and maintains quality standards. Lastly, the business analysis unit reviews capacity and software testing, coordinates business process improvement (BPI), conducts business process mapping, performs process mapping and documents process reports (Kenya Revenue Authority, 2006).

## **1.2 Statement of the Problem**

Project team members at PMBO are drawn from the business units as well as inter-departmental stakeholders. This diversity is essential to the success of PMBO projects. However, managing this diversity for organizational performance is a challenge for the project managers at PMBO. Studies confirm that one key challenge facing most project managers (PMs) is that they find it difficult to manage the diversity of their project teams (Harrison, Price, Gavin & Florey, 2002). This is because people from different backgrounds and with different beliefs and value

systems put together in a team have a high chance of conflict among themselves (Liang et al., 2007). The conflict could be inter-personal, intra-personal, inter-organizational, organizational and revolutionary. Other subtypes of conflicts are socio-emotional, task-related, relationship and cognitive conflicts. These conflicts arise because heterogeneous (members with different skills, beliefs and backgrounds) teams face greater challenges in defining the purpose and direction for the project team compared to teams whose members share similar characteristics (homogenous) (Oertig & Buergi, 2006). There is a risk that managing diversity in teams cannot reduce conflict that would affect the performance of an organization. For instance, Eckel and Grossman (2005) associate heterogeneity with poor communication, poor cohesion and lower social integration, which have a negative effect on team and organizational performance. These risks of managing diversity were examined in this study. In particular, the researcher sought to describe the nature of team diversity at PMBO in KRA and the influence of managing this diversity on the effectiveness of the agency.

### **1.3 Purpose of the Study**

The purpose of the study was to determine whether diversity of teams in Project Management and Business Analysis Office influenced organizational effectiveness at Kenya Revenue Authority.

### **1.4 Objectives of the Study**

The study was guided by the following research objectives:

- i. To determine the influence of managing cultural diversity in Project Management and Business Analysis Office teams on the organizational effectiveness of Kenya Revenue Authority
- ii. To establish the influence of managing demographic diversity of Project Management and Business Analysis Office teams on the organizational effectiveness of Kenya Revenue Authority
- iii. To investigate the influence of managing cognitive diversity of Project Management and Business Analysis Office teams on the organizational effectiveness of Kenya Revenue Authority

- iv. To assess the influence of managing technical diversity of Project Management and Business Analysis Office teams on the organizational effectiveness of Kenya Revenue Authority

### **1.5 Research Questions**

The study was guided by the following research questions:

- i. What is the influence of managing cultural diversity in Project Management and Business Analysis Office teams on the organizational effectiveness of Kenya Revenue Authority?
- ii. Does the management of demographic diversity of Project Management and Business Analysis Office teams influence organizational effectiveness of Kenya Revenue Authority?
- iii. Does the management of cognitive diversity of Project Management and Business Analysis Office teams influence the organizational effectiveness of Kenya Revenue Authority?
- iv. Does the management of technical diversity of Project Management and Business Analysis Office teams influence the organizational effectiveness of Kenya Revenue Authority?

### **1.6 Significance of the Study**

It was hoped that the study would help the project managers and the team members of PMBO to recognize the different forms of conflict and to develop mechanisms for managing diversity in the teams to ensure organizational effectiveness. The study would also help diversity scholars and researchers by providing greater insight into the influence of managing technical, demographic, cultural and cognitive diversity on organizational effectiveness. Researchers could also use the study as a basis for further research on diversity management. Lastly, it was hoped that project managers and project coordinators would use the study to exploit diversity in project teams to achieve efficiency, creativity and performance objectives.

### **1.7 Delimitation of the Study**

The study was carried out at the PMBO in KRA. The research was restricted to Nairobi County due to time limitations and inability to travel to all county offices to



collect data from PMBO staff. The study was limited to respondents located in Nairobi County.

### **1.8 Limitations of the Study**

There was a risk that the PMBO staff could have been unwilling to discuss the nature and composition of their project teams due to the sensitivity of the public services offered by the organization. The researcher was tasked with the responsibility of convincing the PMBO project managers that the information obtained from the study would be used for academic purposes and that confidentiality would be maintained throughout the entire project. Another risk was that the staff members were unwilling to provide information about current or past conflicts and ways in which the project teams managed challenges associated with diversity. The staff members could have felt unease in discussing their personal opinions on conflicts, communication challenges and social integration issues arising from their diverse composition. The researcher therefore had to convince the project team members that their opinions and views would provide great insight into diversity management. The researcher had to demonstrate that the findings were not a personal attack against their beliefs and behaviours towards diversity.

### **1.9 Assumptions of the Study**

The study assumed that data was correct, that the respondents would participate willingly and that the responses from the participants were accurate. The study also assumed that there was no setback during the project process and that the majority of PMBO project managers would consent to the study without apprehension.

### **1.10 Definitions of Terms**

**Cognitive diversity:** This describes how people in a group vary in terms of their cognitive traits such as thinking styles, personality and problem-solving styles.

**Cultural diversity;** This refers to the representation of a group of people in a social system based on their race, ethnicity or other socio-economic characteristic.

**Demographic diversity:** This refers to grouping of people based on their demographic characteristic such as age, gender, location and sexual orientation

**Technical diversity:** This refer to the representation of a group of people based on their technical skills, knowledge and capabilities

**Diversity:** This refers a mix of people that posses different group identities

### **1.11 Organization of the Study**

The project is organized into five chapters. Chapter one introduces the topic of diversity management in project teams, background of PMBO at KRA, research problem and the purpose of the study. The chapter also describe the research objectives, research questions, assumptions, limitations and delimitations of the study. Chapter two present an empirical, conceptual and theoretical framework for the study. The empirical framework provides a review of scholarly literature on four forms of diversity as well as theories on diversity management and group performance. Chapter three describes the methodology for the study choice of research design, sampling method, target population, data collection instruments and procedures for data analysis. Chapter four presents the data, results of the analysis, interpretation and discussion of the findings. Chapter five provides a summary of the findings, conclusions and recommendations for practice and research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter focuses on studies on themes of diversity. The empirical framework section discusses various peer-reviewed articles that explained the four forms of diversity addressed in the study. The sub-sections are classified into cultural, demographic, technical and cognitive diversity. The theoretical framework discusses theories relevant to the topic namely, social identity theory, stereotype embodiment theory, diversity theory, and the integration and learning theory. A conceptual framework showing the relationship between the dependent and independent variables will close the chapter.

#### **2.2 Theoretical Framework**

The review identified a few key theories related to the study. These theories were social identity theory, stereotype embodiment theory, diversity theory, and the integration and learning theory.

##### **2.2.1 Social Identity Theory**

Tajfel and Turner developed this theory in the 1970s to describe the psychological basis of discrimination within groups (Stets & Burke, 2000). The premise of this theory is that an individual is not one 'self' but a combination of 'selves' that align with their social circles. These social circles provide different contexts that trigger the individual's feelings, thoughts and actions. In addition to having different 'selves', the theory asserts that individuals have more than one social identity (Stets & Burke, 2000) Social identity refers to a person's self-concept that has been derived from his or her perceived membership to social groups. This means social identity refers to perceptions that an individual has about his membership to social groups. The social identity theory is relevant to the study because it gives background knowledge on the reasons for segregation or discrimination in project teams and groups. It helps explain why members of a team categorize themselves and how people position themselves in social structures to achieve an identity.

### **2.2.2 Stereotype Embodiment Theory**

According to Levy (2009), the premise of the stereotype embodiment theory is that people embody stereotypes when they assimilate with their surrounding culture. This assimilation and resulting embodiment of stereotypes causes individuals to develop self-definitions that affect their health and functioning. The theory is used to explain the internalization of stereotypes throughout one's life span, unconscious operation of stereotypes, salience from self-relevance and multiple pathways of stereotyping. The theory was selected because it was relevant to the study's examination of demographic diversity and the effect of age-based stereotypes on the behaviours of team members at PMBO. Furthermore, this theory was relevant because its core message is that ageing is a process and a social construct where stereotypes based on age can be investigated.

### **2.2.3 Diversity Theory**

There are different interpretations of diversity theory. Jackson and Joshi (2004) used a narrow interpretation to discuss diversity by focusing on ethnic diversity. Their theory showed that ethnic diversity in teams lowered social integration and worsened conflict, which then had a negative effect on group performance. Maurer and Rafuse's (2001) interpreted diversity theory from the context of age diversity. Their theoretical study hypothesized that age diversity caused conflict between conflict among younger and older team members. The hypothesis confirmed that ageist stereotypes presented older workers in negative light as less productive and flexible.

### **2.2.4 Integration and Learning model**

Foldy (2003) used the Integration and Learning model to provide a multi-dimensional approach to diversity. The author used the theory to explain how diversity helps groups to build off different experiences, skills and knowledge of individuals. The author added that project managers and employers could use learning frames to help team members to learn about culture-based beliefs to promote cohesiveness and social integration.

### **2.3 Influence of Cultural Diversity on Organisational Effectiveness**

Themes that arose from studies on cultural diversity were religious diversity and ethnic diversity. Evans (2007) identified religion as an important aspect of cultural diversity that influences productivity and efficiency in organizations. The author's study established that it is difficult for project managers to accommodate the religious differences of team members or to identify ways of applying religion to the project to improve team productivity. For instance, project manager may put pressure on teams to work during religious holidays in order to meet the project deadlines. However, this decision creates religious conflicts between the team member and the project manager as the team member expresses his dissatisfaction with his/her inability to express religious freedom. The challenge for project managers is accommodating the diverse religious needs of the team members without compromising project goals and team productivity.

Similarly, Mazur (2010) argued that religious differences affected the organizational performance based on his comparison of Catholic and Orthodox cultural traits. The author observed that Catholics preferred to operate independently in groups and were rational decision-makers whereas Orthodox followers were more passive, did not mind authoritative leadership and emphasized group unity rather than individuality. The understanding from the study is that different religions follow different cultural traits that can affect the performance and output of a group. Penceliah (2009) proposed various solutions for resolving religious differences among group members. The author proposed that project managers should encourage good practices that accommodate all religions (such as affirming and welcoming different faith traditions), supporting holistic living among project team members, and explaining boundaries for religious expressions (such as prayer hours), promoting a culture of respect for different faith traditions and encouraging religious independence.

On ethnicity, Hjort (2012) observed that ethnic heterogeneity increased tension in teams and the organization. The author asserted that there was a strong association between ethnic differences and team efficiency. This implies that ethnically heterogeneous groups have higher risks of conflict, which then affects team efficiency and the economic performance of the firm. Bertone (2002) conducted a study on ethnicity in organizations in Australia. The study revealed that there was a lot of

ethnic discrimination in Australian firms, which caused cross-cultural differences and segmented workers in a firm. This ethnicity affected the productivity and efficiency of teams in Australian firms. The author observed that it was important to address the needs of ethnic minorities and to resolve ethnic discrimination in order to improve the productivity of teams and promote organizational growth.

#### **2.4 Influence of Demographic Diversity on Organisational Effectiveness**

Several studies have linked age diversity with group productivity. For instance, Blauth, McDaniel, Perrin and Berrin (2011) asserted that age diversity affects team productivity and cohesion. Their study established that low productivity was caused by generation mix in teams. They observed each generation (traditional, baby-boomer, generation X and generation Y) possessed different characteristics and job-related traits such as work ethic, job satisfaction, status and leisure values. For instance, the traditional generation place higher value of work ethic and centrality whereas generations X and Y place greater value on job satisfaction, individuality and leisure. These generational differences would create conflict in groups and teams especially on performance of individual tasks and work ethics. Similarly, age-based stereotypes cause conflict among team members because it limits their contributions to the team and affects their relationships, thereby lowering individual and team productivity.

Weiss and Maurer (2004) concur that age-related stereotypes (ageism) affects the productivity of older team members because they feel singled out or dismissed by younger team members. This dismissive behaviour creates tensions among different age groups and affects the team members' attitude towards group tasks and performance. The Chartered Institute of Personnel Development (2005) recommends that ageism caused by age diversity can be resolved by introducing training programs to challenge the stereotypes of individual workers. In addition, they propose that project managers can address age-based stereotypes by mixing up the age composition of team members and accentuating a culture of respect among all team members regardless of their age.

On geographical diversity, Hinds and Mortensen (2005) observed that geographically-distributed teams had higher incidences of conflict. Their research showed that distributed teams, compared to collocated teams, have severe conflicts that last longer

and resist any measures for resolution. The study reported that spontaneous communication would help address the frequent interpersonal and task-related conflicts among distributed teams. This is because spontaneous communication increased shared identity and shared context, which mitigated the effect of distance on team members.

Eckel and Grossman (2005) asserted that demographic (social) diversity brought together team members from different socio-cultural backgrounds. Their application of the social identity theory revealed that members of a team from heterogeneous demographic backgrounds found it difficult to integrate these diverse backgrounds and work together to achieve the goals of the team. The authors observed that demographic diversity creates apprehension and discomfort among team members as they interact with each other. This discomfort limits their ability to cooperate and trust team members from different demographic backgrounds. Harrison, Price, Gavin and Florey (2002) concur that demographic differences evoke stereotypes, biases and prejudices among individual members. This is because individual members can estimate non-physical features (such as income or marital status) and assign themselves to particular social classifications that ascribe the patterns of thoughts of a particular marital or income group. Both studies reveal that demographic differences in teams can cause negative effects on individual and team functions such as social isolation, low communication, high turnover and reduced cohesion. The implication from both is that demographic differences can create problems for project managers when not addressed on time.

Chatman and Flynn (2001) concurred that demographic heterogeneity affected team cooperation and performance. Their study on the cooperative norms of work teams showed that demographically diverse teams create norms that reduce cooperation among members. However, these effects fade over time as organizational changes enforce cooperation among group members leading to greater contact and commitment to team objectives.

A contrasting opinion from Chowdhury (2005) asserted that demographic diversity does not have a significant impact on organizational effectiveness and performance. This assertion was based on a study of 174 entrepreneurs that represented entrepreneurial teams. The study revealed that variables of demographic diversity

such as functional background did not have a significant influence on the cognitive comprehensiveness and the commitment of team members. The implication from this study is that demographic diversity does not have an impact on team behaviour.

### **2.5 Influence of Technical Diversity on Organisational Effectiveness**

According to Cronin and Weingart (2007), knowledge diversity should be beneficial to teams because it allows them to produce more creative and effective solutions to business problems. However, there has been opposition from scholars such as Bunderson and Sutcliffe (2002) who report that knowledge diversity does not imply that members of a team are willing to share this knowledge. The scholars' findings showed that some members of knowledge-diverse teams did not feel safe to express their viewpoints or share information among other members. This unwillingness could have been due to misunderstandings or lack of self-esteem by members with lower technical competencies.

Another difficulty with technical diversity is that different members would interpret functional requirements based on their technical competencies. For instance, members of a cross-functional product development team for an auto-manufacturer could interpret functional requirements quite differently. A designer would interpret 'toughness' in terms of styling to conceptualize a 'powerful-looking' car while an engineer would interpret the same term (toughness) as durability, power and hauling capacity. These interpretations are caused by technical differences among members. The designer lacks technical training on engineering principles whereas the engineer lacks training on design principles. This creates a representational gap in the cross-functional team. Cronin and Weingart (2007) propose that project managers could reduce this gap by accommodating alternative perspectives during the information collection phase of project development. The project manager would also need to encourage shared cognition among technically-diverse group members.

### **2.6 Influence of Cognitive Diversity on Organizational Effectiveness**

Themes of cognitive diversity identified in the literature were transactional information diversity, problem-solving style and conflict resolution. Eckel and Grossman (2005) observed that information diversity encompasses components such as skills, talents and the mix of information set that individual members bring to the team. Their diversity study revealed that no one member possesses the full



characteristics to help the team achieve desired goals. Consequently, the authors proposed that project managers should identify the unique informational skills and talents of each member and to develop teams where these skills and talents were complemented. This diversity would help team members to fulfil their individual tasks and cooperate to achieve the team's goals. The implication from their study is that informational diversity is beneficial to teams because it promotes creativity, enhances the effectiveness of the team and encourages greater interaction among members since they have to work together to complement their unique skills and talents.

Keller (2001) presented similar sentiments as Eckel and Grossman on the benefits of informational diversity. Keller argued that cross-functional groups allowed project managers to exploit the different functional and informational characteristics of the team members. Cross-functional groups integrate members from different functional areas such as engineering, marketing, manufacturing and management. The benefits of this cross-functional makeup are access to multiple communication and information sources, wider social and informational contacts outside the project team and higher speed to market to achieve organizational competitiveness. Keller cautions project managers that while cross-functional groups present sufficient benefits for organizational effectiveness, they need to acknowledge that these groups increase project costs, can lower cohesiveness and increase task-related stress among team members.

Diversity could also occur in problem-solving and conflict management styles. Cronin and Weingart (2007) argued that it was important that project managers identify any differences between the problem definitions of team members and the problem-solving methods used by the team as a unit. They observed that team members with different skills processed information differently. This difference in information processing affects team coordination and conflict resolution because members are more likely to misunderstand each other or to misuse information. Contradictions among members then affects their ability to solve problems since each member has different opinions on how a problem can be solved. Cronin and Weingart proposed that project managers should address the representational gaps arising from the differences in values and knowledge held by group members. They added that it was

important to develop mechanisms for integrating information since team members possess different skills and levels of intelligence that affect their ability to influence each other's domains during decision-making and problem-solving. This integration would enable an engineer to look at a problem from a design perspective and a designer from engineering perspectives. Levesque, Wilson and Wholey (2001) and Mathieu, Heffner, Goodwin, Solas and Cannon-Bowers (2000) suggested that project managers can achieve this shared integration by creating a shared value system so that members from different functional backgrounds perceive all project-related information as relevant regardless of their individual value-driven preferences.

## **2.7 Conceptual Framework**

The conceptual framework in figure 2.1 outlines the key variables for the research mainly cultural diversity management, demographic diversity management, technical diversity management and cognitive diversity management. Moderating factors were team size, cohesion, interdepartmental networks. Themes of cultural diversity to be investigated were ethnicity, religion and language. The themes of demographic diversity to be investigated were age diversity and geographic diversity whereas themes of technical diversity included technical abilities, skills and technical conflict. Themes of cognitive diversity were knowledge, informational skills, problem-solving styles and commitment to conflict resolution by project managers

## **2.8 Summary and Research Gaps**

The reviewed literature confirmed that the different aspects of diversity influenced organizational and team performance. Articles on cultural diversity focused on the influence of ethnicity, religion and language diversity on teams. However, these articles did not consider other forms of diversity. Articles on demographic diversity focused on the demographic characteristics of individuals in a group such as age, gender and location. The review emphasised age and location as most critical influencers of global team performance. Research articles on cognitive and technical diversity focused on the interpersonal and knowledge skills of team members respectively. All of the articles were relevant to the topic. However, there was limited research that focused on all four diversity dimensions at a go. Some articles addressed one or two dimensions, which was not sufficient for the study. The researcher observed that lack of adequate information on different dimensions of diversity could

be addressed in this study. Consequently, the researcher embarked on a study to assess four dimensions of diversity (cultural, demographic, technical and cognitive) and how the management of these dimensions influenced organizational effectiveness.

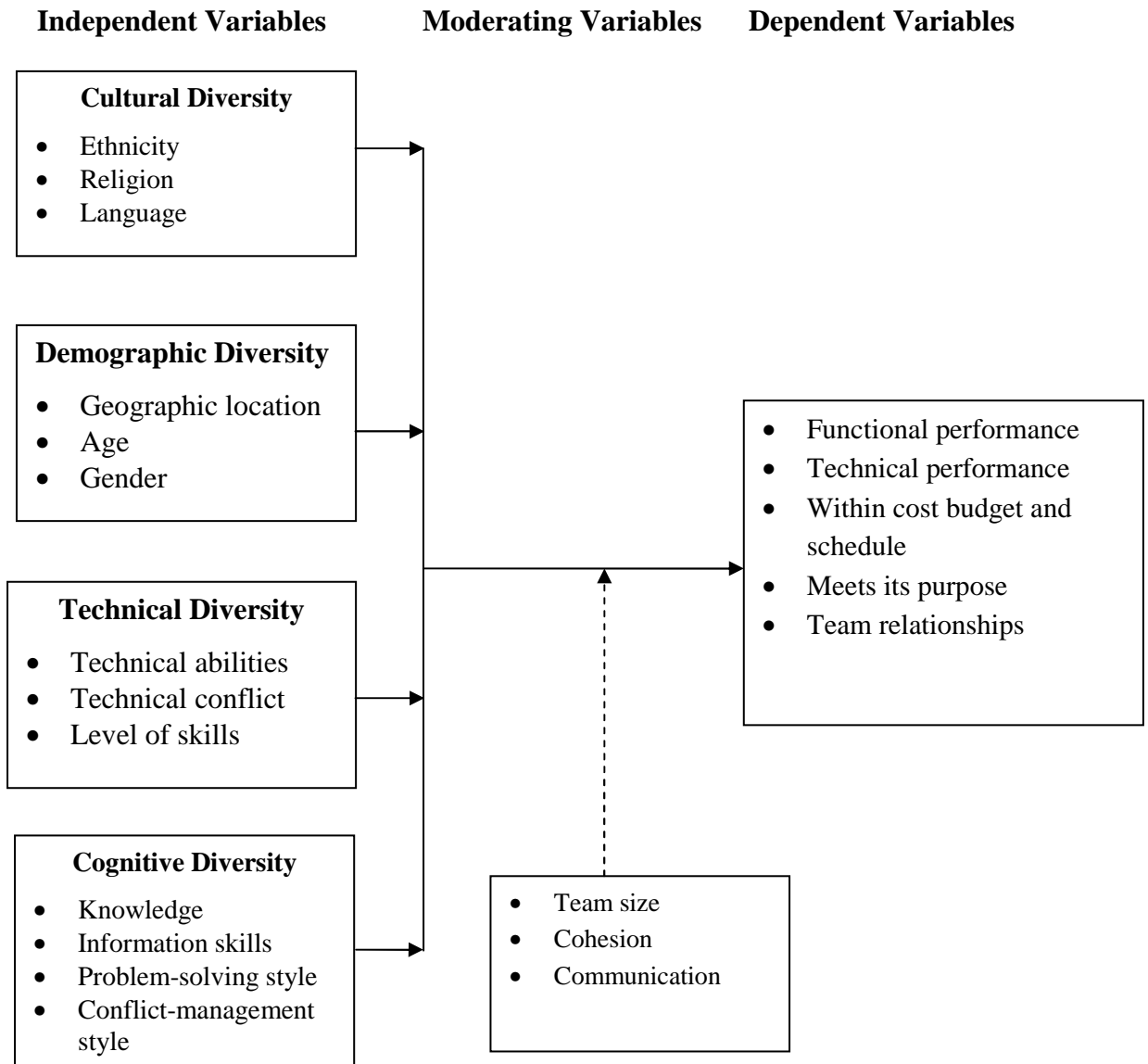


Figure 1. Conceptual Framework

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The chapter is concerned with the methodology for achieving the research objectives. It examines the nature of the design, selection of the target population, determination of the sample size, choice of sampling procedure, design of data collection instruments and choice of data analysis methods.

#### 3.2 Research Methodology

The study used descriptive survey design to explain how managing the diversity of project teams influenced the effectiveness of the organization. Descriptive design was used because it allowed the researcher to develop a study that collected, summarized and presented information (Orodho & Kombo, 2002). This design was most suitable for the project because the collected data was summarized to provide a description of project team diversity and organizational effectiveness. The summary of findings could then be generalized to a wider population and applied by other project managers. Furthermore, descriptive design was preferred because it cannot be manipulated by the researcher as explained by Orodho and Kombo (2002). Rather, the researcher looked into events being practiced at KRA in relation to diversity.

#### 3.3 Target Population

According to Orodho (2004) in exploratory descriptive survey studies, two categories of respondents are crucial, namely, informed specialists and consumers or users. In this study, the formation specialists were the project managers while the consumers were project team members. The target population was 200 project managers and the team members in the PMBO offices.

**Table 3.1 Distribution of the Target Population**

<b>Category</b>	<b>Population</b>	<b>Percentage</b>
Project managers	32	16%
Team members	168	84%
<b>Total</b>	<b>200</b>	<b>100%</b>

### 3.4 Sample Size and Sampling Procedures

A sample of the target population was used rather than the entire workforce because of logistical and time constraints. A sampling frame was developed to guide the sampling process. A sampling frame refers to the list used to select a sample from the target population (Orodho and Kombo, 2002). This list had to be accurate and complete to ensure that members of the population were adequately represented. The study used a sampling frame of project managers and team members. The sampling frame was categorized into project managers and team members.

**Table 3.2 Distribution of the Sample**

<b>Category</b>	<b>Population</b>	<b>Sample</b>	<b>Percentage</b>
Project managers	32	29	16%
Team members	168	151	84%
<b>Total</b>	<b>200</b>	<b>180</b>	<b>100%</b>

The ideal sample size for the study was 180. This sample size is calculated using the formula

$$n = \frac{\left( \frac{P[1-P]}{\frac{A^2}{Z^2} + \frac{P[1-P]}{N}} \right)}{R}$$

where  $n$  was the sample size being sought,  $N$  was the population (200),  $P$  was the estimated variance in population (0.5),  $A$  was precision required (0.05),  $Z$  was confidence level (1.96 for 95 percent confidence) and  $R$  was the estimated response rate as a decimal (0.78). Simple random sampling was used within each sampling frame. This is because simple random sampling is highly representative, generalizable and easy to implement (Orodho & Kombo, 2002).

### 3.5 Research Instruments

A questionnaire was used for data collection. This is because a questionnaire provides a cheap means of collecting data from a large number of people (Piel, 1995). A questionnaire was used to obtain information from the randomly selected respondents at PMBO.

### **3.6 Validity and Reliability**

#### **3.6.1 Validity**

Validity is the extent to which data collection method(s) accurately measure what it is intended to measure (Saunders et al. 2007). To enhance validity of the questionnaire, the researcher received guidance from the supervisor on validity of the topic under study. In addition, the researcher pre-tested the questionnaire by administering to 6 team members and two project managers. Corrections were then performed on the questionnaire.

#### **3.6.2 Reliability**

Reliability is the degree to which data collection method or methods produce consistent findings or similar observations as other researchers. It also points to the transparency of the data collection process (Saunders et al., 2007). The research used the Cronbach Alpha test to test the reliability of the questionnaire. The findings revealed a score of 0.82, which is above Orodho and Kombo's (2002) minimum score to confirm that the questionnaire was reliable.

#### **3.6.3 Pilot Study**

Before the actual study was conducted, piloting was performed on one project team at PMBO. A pilot test was important because it minimized the likelihood of respondents having problems in answering the questions and or data recording problems, and allowed some assessment of the validity and the reliability of the data collection instrument (Saunders et al., 2007). The draft questionnaire was administered to the project managers and members confirm its reliability, validity and usability.

### **3.7 Data Collection Procedures**

A research permit was obtained from University of Nairobi. The researcher also sought the approval of PMBO or KRA senior management. The researcher explained the purpose of the study, ethical obligations of the study participants and the confidentiality of collected data. Once approval was received, the questionnaires were presented to PMBO office at Nairobi and administered to the sample. Respondents were expected to fill in the questionnaire forms and return after one week. A reminder

was emailed to project managers to alert team members to respond quickly and return the questionnaires to the researcher.

### **3.8 Data Analysis Techniques**

The collected data was subjected to quantitative analysis. Quantitative analysis was used because it enabled the researcher to present findings in numerical form. Descriptive statistics and correlation tests formed the basis of quantitative analysis. These tests were performed using the Statistical Package for Social Sciences (SPSS) software. The results were then presented in the form of frequencies, distribution tables and percentages.

### **3.9 Ethical Considerations**

The researcher assured the respondents of their confidentiality by not requesting for or publishing any personal information such as their employee identification. The participants remained anonymous to ensure confidentiality. Secondly, the participants were allowed to exercise their free will and were not forced to participate in the study. Lastly, the researcher obtained permission from relevant stakeholders the university and the PMBO at KRA

### **3.10 Operational Definition of Variables**

The operational definition of variables is shown in Table 3.3 below. It shows the indicators, measurement, scale, data collection and analysis tool for each variable defined from the research objective.

**Table 3.3 Operationalization of Variables**

<b>Objective</b>	<b>Variable</b>	<b>Indicator</b>	<b>Measurement</b>	<b>Scale</b>	<b>Data collection</b>	<b>Analysis Tool</b>
Determine the influence of cultural diversity management on the organizational effectiveness of PMBO	Cultural diversity	<ul style="list-style-type: none"> <li>• Composition of team members</li> <li>• Existence of ethnic conflict</li> <li>• Level of religious accommodation</li> <li>• Use of more than one language in formal communication</li> </ul>	<ul style="list-style-type: none"> <li>• Ethnicity</li> <li>• Language</li> <li>• Religion</li> </ul>	Ordinal	Questionnaire	Means, Pearson Correlation
Determine the influence of demographic diversity management on organizational effectiveness of PMBO	Demographic diversity	<ul style="list-style-type: none"> <li>• Demographic composition</li> <li>• Location-based conflict</li> <li>• Authority-related conflict</li> </ul>	<ul style="list-style-type: none"> <li>• Age</li> <li>• Location/geographic distribution</li> </ul>	Ordinal	Questionnaire	Percentages, Correlation
Determine the influence of technical diversity management on the organizational effectiveness of PMBO	Technical diversity	<ul style="list-style-type: none"> <li>• Technical skills</li> <li>• Technical-related conflict</li> <li>• Technical differences</li> <li>• Level of teamwork</li> </ul>	<ul style="list-style-type: none"> <li>• Technical competency</li> <li>• Technical differences</li> <li>• Technical skills</li> </ul>	Ordinal	Questionnaire	Percentages, Correlation
Determine the influence of cognitive diversity management on organizational effectiveness of PMBO	Cognitive density	<ul style="list-style-type: none"> <li>• Differences in transactional knowledge</li> <li>• Differences in problem-solving styles</li> <li>• Differences in conflict-management styles</li> </ul>	<ul style="list-style-type: none"> <li>• Transactional knowledge</li> <li>• Thought process style</li> <li>• Problem-solving style</li> <li>• Conflict-management style</li> </ul>	Ordinal	Questionnaire	Percentage Correlation



## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

#### 4.1 Introduction

This chapter presents the results of the research project. The data was analyzed using quantitative methods such as inferential and descriptive statistics such as means, correlation, regression and the coefficient of variation. The first section presents the questionnaire return rate. Subsequent sections describe the results of diversity factors. Section two describes the results of cultural diversity, section three presents' results of demographic diversity and section four presents results of technical diversity. Section five presents results on cognitive diversity and correlation.

#### 4.2 Questionnaire Return Rate

The response rate shows the percentage of respondents from the sample that participated in the study. The sample size for this study was 180 project managers and team members of PMBO at KRA. The response rate is shown in Table 4.1.

**Table 4.1 Distribution of the Response Rate**

Category	Sample	Count	Participated	Not participate
Project manager	29	18	62.1 %	37.9 %
Team members	151	106	70.2 %	29.8 %
<b>Total Sample</b>	<b>180</b>	<b>124</b>	<b>68.8 %</b>	<b>31.2 %</b>

The results in Table 4.1 show that 124 members of PMBO sample participated in the study while 55 did not participate. Those that participated included 18 project manager (representing 62.1%) and team members representing 70.2 percent of the participants. Overall, 69% of participants responded and 31% did not responded to the questionnaire survey. Based on the results, a 69% response rate was deemed adequate to proceed with the study. This is because studies have confirmed that a response rate of 50% and above is appropriate and adequate for the study (Mugenda & Mugenda, 2006).

#### 4.3 Demographic Information

The researcher collected demographic information to indentify the characteristics of the respondents such as gender, age and tenure of work. This section presents those findings.

Respondents were asked to select their gender, age group, work tenure and level of education. The distribution of their responses is shown in Table 4.2.

**Table 4.2 Distribution of Respondents' Gender, Education, Work Tenure based on Age**

Age	Gender			Education level			Tenure		Total
	M	F	None	Primary	Secondary	Tertiary	<=5years	>5years	
20-30 years	17	11	4	4	10	10	13	15	28
31-40 years	29	20	0	2	9	38	21	28	49
41-50 years	16	15	0	0	4	27	9	22	31
> 50 years	9	7	0	0	0	16	6	10	16
<i>Subtotal</i>	71	53	4	6	23	91	49	75	124

The findings in the Table 4.2 show that there were 71 males and 53 females. Males were higher in population than females in each age group. There were 17 males compared to 11 females aged between 20 years and 30 years. There were 29 males aged between 31 and 40 years compared to 20 females in the same age group. There were 16 males and 15 females aged between 41 years and 50 years. Lastly, there were 9 males and 7 females that were above 50 years of age. The distribution of gender implies that there are more males than females in the sample. Another implication is that majority of the respondents are within the 31-40 age group while the minority of the respondents are above 50 years old.

On education level, Table 4.2 shows that there were 4 respondents without any education, 6 respondents with primary level education, 23 respondents with secondary-level education and 91 respondents with tertiary level education. Respondents without education were in the 20-30 year age group. Majority of the respondents with secondary and tertiary education were in the 20-30 year group and 31-40 year age groups respectively. The findings imply that younger respondents had lower education level while older respondents had higher education level.

Looking at work tenure, 49 respondents had worked for five years or less whereas 75 respondents had worked for more than 5 years. In the 20-30-year age group, 13 respondents worked for 5 years or less compared to 15 respondents who had worked for more than 5 years. In the 31-40 year age group, 21 respondents worked for 5 years or less compared while 28 respondents who had worked for more than 5 years. In the 41-50 year age group, 9 respondents worked for 5 years or less compared while 22

respondents who had worked for more than 5 years. At above 50 years, ten respondents worked for more than 5 years and 6 respondents had worked for less than 5 years. It is evident from the findings in Table 4.2 that in each age group, majority of the respondents had worked for more than 5 years at the organization.

#### 4.4 Influence of Managing Cultural Diversity on Organizational Effectiveness

The first objective was to determine the influence of managing cultural diversity on organizational effectiveness. Aspects of cultural diversity such as ethnicity, language, religious conflict and cultural diversity training were assessed and analyzed. The section discusses these findings.

##### 4.4.1 Ethnic Heterogeneity and Conflict in Project Teams

Participants were asked whether they believed that project teams were ethnically heterogeneous and whether team members separated themselves into their ethnic backgrounds. Participants were also asked to respond whether ethnic heterogeneity of groups created conflict and whether poor cross-cultural relations existed among members from different ethnic backgrounds. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.3 shows the results.

**Table 4.3 Distribution of Responses on Ethnic Heterogeneity in Project Teams**

Statement	S A	A	N	D	S D	Mea n	Std Dev
There is ethnic heterogeneity in project teams	67	48	0	9	0	5.0	3.0
Team members separate into ethnic backgrounds	48	32	5	21	18	4.8	1.6
Ethnic composition creates conflict	37	51	9	16	11	4.8	1.8
Poor cross-cultural relations among team members from different ethnic backgrounds	34	40	5	15	30	4.8	1.4

The results in Table 4.3 show that 67 participants (representing 54%) strongly agreed that team members were drawn from diverse ethnic groups. Forty-eight participants generally agreed on the ethnic diversification of team members. These views represented 39% of the participants respectively. There were no neutral responses or

strong disagreements. However, 9 participants (7%) disagreed with the assertion that project team members were drawn from diverse ethnic groups. Majority of the responses (93% of the participants) were in agreement that ethnic diversity of project team members. The findings align with Bertone (2002) who observed that ethnic diversity was common in teams in Australian firms.

Participants also agreed on ethnic grouping as shown in the Table. Forty-eight participants (representing 39% of responses) said that they strongly agreed that team members grouped themselves by ethnic backgrounds. Thirty-two participants (26%) said that they agreed that team members grouped themselves according to the ethnic backgrounds while five participants (representing 4%) were neutral. Twenty-one participants (17%) said that they disagreed while 18 participants (15% of the participants) strongly disagreed that team members grouped themselves by ethnic backgrounds. Responses from 65% of the participants that represent the majority agreed with the grouping of members by ethnicity. The findings imply that ethnic grouping is common in teams. This implication aligns with a study by Bertone (2002) who observed that team members of Australian firms segregated themselves into ethnic backgrounds.

On conflict created by ethnic grouping, 37 participants strongly agreed that ethnic composition created team conflict or tension while 51 participants said that they generally agreed with the assertion. These views represented 30% and 41 percent of the participants. Nine participants, representing 7% of the sample, gave neutral responses respectively. Sixteen participants disagreed and 11 participants strongly disagreed on the tension caused by the ethnic composition of project teams. These opposing views were held by 13% and 9% of the participants respectively. It is evident from the results that majority of the participants showed consensus on the conflict created by ethnic composition of teams. The majority of responses confirm a study by Hjort (2012) that stated that ethnic heterogeneity increases tension in teams and in the organization. The study established that there was a strong association between ethnic differences and team efficiency.

In response to the existence of poor cross-cultural relations, 34 participants strongly agreed and 40 participants agreed that poor cross-cultural relations existed among team members from different ethnic groups. These views represented 27% and 32%

of the participants respectively. Five participants that represented 4% of the total participants had a neutral response while 15 participants disagreed and 30 participants strongly disagreed that poor-cross cultural relations existed among team members from different ethnic groups. The disagreements were expressed by 12% and 24% of the participants. Sixty percent of the participants overall showed agreement to the poor cross-cultural relations in teams to imply that ethnicity contributed to these poor relations. Meer and Tolsma (2014) agree on the existence of poor cross-cultural relations among ethnically diverse teams. Their article confirmed that ethnic diversity affects social cohesion. This is because ethnic diversity can create feelings of anomies, social disorganization and group threat, which in turn affect social cohesion. To reduce the negative influence of low social cohesion, Richard, Kirby and Chadwick (2013) proposed the use of participative strategy making (PSM) for diversity advantage. Their study proposes that managers should use PSM to improve the positive relationship between ethnic/racial diversity and firm performance.

#### 4.4.2 Language Heterogeneity and Conflict in Project Teams

Participants were asked whether they believed that team members were segregated by language. In addition, they were asked whether project managers imposed one language and encouraged language diversity in formal communication. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.4 shows the results of the responses.

**Table 4.4 Distribution of Responses on Language Segregation in Project Teams**

<b>Statement</b>	<b>S A</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>S D</b>	<b>Mean</b>	<b>Std Dev</b>
Team members segregated by language	10	16	8	39	51	4.8	1.9
Project managers impose all team members to speak one language	84	35	0	2	3	4.8	3.6
Project managers encourage language diversity in formal communication?	12	30	9	41	32	4.8	1.7

Table 4.4 shows that 10 participants strongly agreed and 16 participants agreed that team members were segregated by language. This represented 8% and 13% of the participants. Eight participants were neutral representing 6% of total participants. On the other hand, 39 participants said that they disagreed and 51 said that they strongly

disagreed that team members were segregated by language. They represented 31% and 41% of the participants respectively. In total, sixty-two percent of the participants that represent the majority did not agree with the existence of language segregation in teams. This lack of language segregation could indicate that there is a positive dissimilarity attitude between project team members. Studies show that language diversity has a positive association with attributes of positive dissimilarity attitudes such as visibility and openness to linguistic differences (Lauring & Selmer, 2012).

On the imposition of language, 84 participants said that they strongly agreed that the project managers imposed one language among team members while 35 participants generally agreed on the same. Their views represented 68% and 28% of the sample. No neutral responses were collected. Two participants disagreed and three participants strongly disagreed with the imposition of one language among all team members. These opposing responses were given by 2% of the respondents respectively. The majority of the respondents (representing 96% of the sample) confirmed that project managers imposed one language among all team members. Welch and Welch (2008) observed that language was very important in knowledge transfer. Although they did not emphasize one language in organizations, they observed that project managers emphasize the extensiveness and pervasiveness of language to facilitate knowledge transfer.

Table 4.4 also shows that 12 participants strongly agreed that project managers encouraged language diversity while 30 participants said that they generally agreed with the assertion. These views represented 10% and 24% of the participants. Nine participants (representing 7% of the sample) gave neutral responses. Forty-one participants disagreed and 32 participants strongly disagreed that project managers encouraged language diversity. These opposing views were held by 33% and 26% of the participants respectively. It is evident from the results that majority of the participants believed that project managers did not encourage language diversity in teams. This could be due to the challenge of communicating using different native languages. A study by Barczak, McDonough and Athanassiou (2006) found that a challenge for teams is communicating in a shared language such as English. The study revealed that native languages are not shared in teams because team performance would be affected. The authors proposed that project managers should encourage a

shared language to enable effective communication. This could explain why project managers at PMBO do not encourage language diversity.

#### 4.4.3 Religious Diversity in Project Teams

Participants were asked whether the organization, through the project managers, accommodated different religions in project teams. In addition, they were asked whether there were religious conflicts between team members and project managers. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). The responses to these questions are shown in Table 4.5.

**Table 4.5 Distribution of Responses on Religious Diversity in Project Teams**

Statement	S A	A	N	D	S D	Mean	Std Dev
Project managers accommodate different religions in project teams	20	23	6	30	45	4.8	1.4
Religious conflicts exist between team members and project managers	25	23	8	36	32	4.8	1.7

On religions accommodation, 20 participants strongly agreed that project managers accommodated different religions while 23 participants said that they generally agreed with the assertion. These views represented 16% and 19% of the participants. Six participants, representing 5% of the sample, gave neutral responses respectively. Thirty participants disagreed and 45 participants strongly disagreed that religious diversity was not accommodated by project managers. These opposing views were held by 24% and 36% of the participants respectively. It is evident from 60% of the participants that religious diversity is not accommodated by project managers. This lack of accommodation could be a problem given the fact Evans (2007) argues that religion is an important aspect of cultural diversity that influences productivity and organizational efficiency (Evans, 2007). However, the author acknowledges that project managers find it difficult to accommodate religious differences such as giving time off on religious holidays in spite of tight project deadlines. This difficulty can explain why project managers at PMBO do not accommodate religious diversity.

On the existence of religious conflicts, 25 participants said that they strongly agreed that there were religious conflicts between project managers and team members while 23 participants said that they generally agreed on the same. These views represented

20% and 19% of the participants. Eight participants, representing 6% of the sample, gave neutral responses. Thirty-six participants disagreed while 32 participants strongly disagreed on the tension caused by the ethnic composition of project teams. These opposing views were held by 29% and 26% of the participants respectively. It is evident from the results that majority of the participants disagreed that there were religious conflicts between project managers or team members. Lack of religious conflict could be an advantage for the organization because a comparison study by Mazur (2010) revealed that religious differences have an effect on organizational performance. To resolve these differences, Penceliah (2009) proposed good practices such as affirming faiths, supporting holistic living, supporting boundaries for religious expressions and encouraging a culture of respect for all religions.

#### 4.4.4 Embracing Cultural Diversity in Project Teams

Participants were asked whether project managers trained teams to embrace cultural diversity. They were further asked whether they agreed or disagreed that project teams were proactive in embracing cultural diversity. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.6 shows the results.

**Table 4.6 Distribution of Responses on Embracing Cultural Diversity in Teams**

Statement	S A	A	N	D	S D	Mean	Std Dev
Teams trained to embrace cultural diversity	21	19	10	40	34	5.0	1.2
Teams are proactive in embracing cultural diversity	16	15	8	31	54	4.8	1.8

From Table 4.6, 21 participants strongly agreed that team members were trained to embrace cultural diversity in the organization. Nineteen participants generally agreed cultural diversity training for team members. These views represented 17% and 15% of the participants. Ten participants, representing 8% of the sample, gave neutral responses. Forty participants (32%) disagreed and 34 participants (27%) strongly disagreed that team members were trained to embrace cultural diversity by the agency. The majority of the participants therefore disagreed that cultural diversity training was provided to team members.



Table 4.6 also shows that 16 participants (13%) said that they strongly agreed that the agency took a proactive role in encouraging cultural diversity while 15 participants (12%) generally agreed on the same. Eight participants (6%) gave neutral responses. Thirty-one participants (24%) said that they disagreed while 54 participants (44%) said that they strongly disagreed on the proactive role of the agency in cultural diversity respectively. It is evident from the results that majority of the participants did not agree that the agency was proactive in encouraging cultural diversity. Lack of training or proactive encouragement of cultural diversity could be an issue for PMBO project managers because studies have argued that a company needs to embrace cultural diversity in order to compete in today's global environment. Barczak, McDonough and Athanassiou (2006) observed that global project team leaders need to address challenges with having team members that speak different languages and have different cultural backgrounds.

#### **4.4.5 Correlation between Management of Cultural diversity and Organizational Effectiveness**

A correlation test was performed to help the researcher ascertain the relationship between cultural diversity variable and organizational effectiveness. Table 4.7 shows the results

**Table 4.7 Correlation of Cultural Diversity and Organizational Effectiveness**

	Value
Pearson's correlation (R)	.732
Frequency	124
R square (R <sup>2</sup> )	.535

The results in Table 4.7 reveal a strong positive correlation of 0.732 between cultural diversity management and organizational effectiveness. A strong positive correlation from the results implies that a positive change in the management of cultural diversity would result in a positive change in organizational effectiveness. This shows that there is a relationship between cultural diversity management and organizational effectiveness. A regression test was conducted to determine the extent of the relationship between cultural diversity and organizational effectiveness. From the regression results, the coefficient of determination (R<sup>2</sup>) was 0.535. This implies that

the management of cultural diversity in project teams influences 53.5% of organizational effectiveness at the agency.

#### **4.5 Influence of Demographic Diversity Management on Organizational Effectiveness**

The second objective was to determine the influence of demographic diversity management on organizational effectiveness. Aspects of demographic diversity such as age, location and training were assessed. The section discusses these findings.

##### **4.5.1 Location Diversity on Project Teams**

Participants were asked whether they thought that location diversity affected team productivity. They were also asked whether they believed that project managers had mechanisms for embracing geographical distance among team members. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.8 shows the results.

**Table 4.8 Location Diversity Management on Teams**

<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
Location diversity affects team productivity	60	57	0	7	0
Project managers have mechanisms for accommodating geographic distance among teams	91	30	3	0	0

From the first question, 60 participants strongly agreed that location diversity affected productivity of the team. These views were presented by 48% of the participants. Fifty-seven participants said that they generally agreed on the same while 7 participants said that they disagreed that location diversity affected team productivity. Nevertheless, majority of the participants (94%) revealed that location diversity affected the productivity of the team. These findings align with Kankanhalli, Tan and Wei’s (2011) article that asserted that geographical distance in teams affects productivity. The article argued that geographical distance increases communication delays, reduces face-to-face contact and exacerbates time zone differences, which affect relationships and understanding among members of a global virtual team.

On mechanisms for accommodating geographical diversity, 91 participants (93%) strongly agreed that project managers had mechanisms for accommodating geographic

distance among teams. Thirty participants (representing 24%) said that they generally agreed on the same. Three participants (2%) gave neutral responses. No participants disagreed with the questionnaire statement. It is evident from the results that 98% of the participants agreed that project managers had mechanisms for accommodating geographic distance among teams. This implies that location diversity is recognized by project managers. This recognition is important because geographical distance affects team cohesion when not managed, which hinders benefits to organizations such as faster market response, travel costs and access to global expertise (Kankanhalli, Tan & Wei, 2011).

#### 4.5.2 Age Diversity on Project Team Performance

Participants were asked whether they thought that age gaps existed between team members. They were asked whether team members were discriminated because of age and whether older members were viewed less productive than younger team members. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.9 shows the results.

**Table 4.9 Distribution of Responses on Age Diversity in Project Teams**

Statement	SA	A	N	D	SD
Age gaps exist between team members	98	26	0	0	0
Team members discriminated because of age	91	18	2	3	10
Older members believed to be less productive than younger team members	66	40	5	9	4

Ninety-eight participants strongly agreed that there were age gaps between project managers and team members. These views represented 79% of the participants. Twenty-six participants, representing 21% of the total participants, also agreed on the age gaps between team members. It is evident from the results that all of the participants agreed that age gaps existed between team members. The results reflect the findings by Blauth, McDaniel, Perrin and Berrin (2011) who observed that age diversity is common in global organizations. They reported that project managers should consider generational differences because they affect team productivity and cohesion.

On age discrimination, 91 participants strongly agreed team members discriminated by age while 18 participants said that they generally agreed on the same. These views

represented 73% and 15% of the participants respectively. Two participants, representing gave neutral responses. Three participants (2%) said that they disagreed and 10 participants (8%) said that they strongly disagreed on discrimination of team members by age respectively. The implication from majority of the participants is that there is age-based discrimination in teams. The findings confirm Blauth, McDaniel, Perrin and Berrin's (2011) study that discrimination by age occurs in organizations that recruit employees with generational differences. Project managers at PMBO would need to consider proposals by the Chartered Institute of Personal Development (2005) to reduce age-based discrimination (ageism) such as introducing training programs, mixing the age composition of team members and accentuating a culture of respect among members regardless of their age.

Ageism of older workers was confirmed by 66 participants who strongly agreed that older members of the team were less productive than younger team members. Forty participants generally agreed on the lower productivity of older team members. Five participants gave neutral responses. Nine participants disagreed and 4 participants strongly disagreed that older workers were less productive than their younger team members. The majority of the participants agreed that they believed that older team members were less productive than the younger members of the team. The findings align with Weiss and Maurer (2004) who observed that older team members are often singled out by younger team members for being less productive. This dismissive behavior creates tension among members and affects their attitude towards group tasks and performance.

#### **4.5.3 The Role of Project Managers in Demographic Diversity**

Participants were asked if project managers were proactive in reducing conflict among geographically distributed teams. Secondly, they were asked whether project managers use demographic diversity to achieve functional performance. Further, the participants were asked whether training helped teams to embrace demographic diversity. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.10 shows the results.

**Table 4.10 Responses on the Role of Project Managers in Demographic Diversity**

Statement	S A	A	N	D	S D	Mean	Std Dev
Project managers proactive in reducing conflict among distributed teams	18	27	8	35	36	5.0	1.4
Demographic diversity used to achieve functional performance	33	45	10	24	12	4.8	1.5
Training helps teams to embrace demographic diversity	8	17	6	58	35	4.8	2.1

From Table 4.10, eighteen participants strongly agreed that project managers took a proactive role in reducing conflict among geographically distributed teams. Twenty-seven participants (22%) generally agreed on the same. One participant gave a neutral response. On the other hand, 35 participants (28%) said that they disagreed while 36 participants (29%) said that they strongly disagreed on the proactive role of project managers in reducing conflict among geographically distributed teams. These opposing views were held by 28% and 29% of the participants respectively. It is evident from the results that 57% the participants that represent the majority agreed that project managers took a proactive role in reducing conflict among distributed teams. The implication is that conflict resolution is a priority for project managers that lead distributed teams. This prioritization is important according to Hinds and Mortensen (2005). The authors argued that it is important to reduce conflict because geographically-distributed teams have higher incidences and severe conflict compared to collocated project teams.

Table 4.10 also shows that 33 participants strongly agreed that project managers used demographic diversity to achieve functional performance while 45 participants said that they generally agreed on the same. These views were given by 27% and 36% of the participants. Ten participants, representing 8% of the sample, gave neutral responses. Twenty-four participants (19%) said that they disagreed while 12 participants (10%) said that they strongly disagreed on the role of demographic diversity in promoting functional performance. It is evident from the results that majority of the participants agreed that project managers used demographic diversity to improve functional performance. Chatman and Flynn (2001) supported the findings by asserting that demographic heterogeneity influences team performance. Their

study concluded that project managers can enhance functional performance of such teams by creating norms that enhance cooperation among team members. Eckel and Grossman (2005) agreed that demographic diversity can be used to enhance performance. They argue that project managers can use the social identity theory to learn how to bring team members from heterogeneous demographic backgrounds to achieve the goals of the team.

On training, 8 participants strongly agreed that they were trained to embrace demographic diversity in the agency. These views were given by 6% of the participants. Seventeen participants said that they agreed that they were trained to embrace demographic diversity while 6 participants gave neutral responses. Fifty-eight participants said that they disagreed while 35 participants said that they strongly disagreed that they were trained to embrace demographic diversity. It is evident from the results that majority of the participants did not agree that they were trained to embrace demographic diversity. The results suggest lack of training for team members on demographic diversity. In contrast, Harrison, Price, Gavin and Florey (2002) reiterated the importance of training to reduce the demographic differences between team members. They observed that demographic differences evoked stereotypes and biases among members, which had negative effects such as low social cohesion, poor communication and social isolation of team members. Training is therefore important in helping project managers and teams to reduce demographic differences.

#### **4.5.4 Correlation between Managing Demographic Diversity and Organizational Effectiveness**

A correlation test was performed to help the researcher ascertain the relationship between the management of demographic diversity and organizational effectiveness. The results of the analysis are shown in Table 4.11.

**Table 4.11 Correlation of Cultural Diversity Management and Organizational Effectiveness**

	Value
Pearson's correlation (R)	.482
Frequency	124
R square (R <sup>2</sup> )	.232

The results reveal a weak positive correlation of 0.482 between the management of demographic diversity and organizational effectiveness. A weak positive correlation from the results implies that a positive change in the management of demographic diversity would result in a slightly positive effect on organizational effectiveness. This shows that there is a relationship between demographic diversity management and organizational effectiveness. A regression test was conducted to determine the extent of the relationship between demographic diversity management and organizational effectiveness. From the regression results, the coefficient of determination ( $R^2$ ) was .232. This implies that the management of demographic diversity in project teams influences 23.2% of organizational effectiveness.

#### **4.6 Influence of Managing Technical Diversity on Organizational Effectiveness**

The third objective was to determine the influence of technical diversity management on organizational effectiveness. Aspects of technical diversity such as technical skills, technical-related conflict, level of team work and technical differences among team members were assessed. The section presents and discusses these findings.

##### **4.6.1 Differences in Technical Skills among Project Team Members**

Participants were asked if project teams were composed of members with different technical abilities. They were also asked if project managers emphasized a culture of respect for technical differences. Responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.12 shows the results.

**Table 4.12 Differences in Technical Skills among Team Members**

<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
Project teams composed of members with different technical abilities	77	45	2	0	0
Project managers emphasize a culture of respect for technical differences among members	29	39	5	27	24

Table 4.12 shows that 77 participants strongly agreed that project teams were composed of members with different technical abilities. These views were given by 62% of all participants. Forty-five participants generally agreed on the technical composition of project team members while two participants were neutral. These

views were given by 36% and 2% of the participants to the study. Overall, majority of the participants agreed that the members of project teams had different technical abilities and expertise. This diversity is believed to contribute to organizational effectiveness based on Cronin and Weingart (2007). The author asserted that knowledge diversity is beneficial to teams since it helps team members to produce more creative and effective business solutions.

Table 4.12 also shows that 29 participants said that they strongly agreed that project managers emphasized a culture that respected technical differences of team members while 39 participants generally agreed on the same. Five participants gave neutral responses. Twenty-seven participants disagreed and 24 participants strongly disagreed on the culture of respect for technical abilities. It is evident from the results that majority of the participants agree project managers emphasize a culture that respects technical abilities of project team members. This culture is important because it forces team members to share their knowledge. Creating a culture of respect would encourage team members to feel safe to express their viewpoints and share information, thereby reduce misunderstandings or technical conflicts among members (Bunderson & Sutcliffe, 2002).

#### 4.6.2 Technical-related Conflicts in Project Teams

Participants were asked whether technical conflicts occurred among teams. They were further asked whether project teams tried to resolve technical conflicts. The responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.13 shows the results.

**Table 4.13 Distribution of Responses on Technical-related Conflicts in Project Teams**

<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
Occurrence of technical conflict among teams	80	23	0	10	11
Project teams resolve technical conflicts	31	45	5	28	15

From Table 4.13, eighty participants strongly agreed that technical conflict occurs among team members. Twenty-three participants said that they generally agreed on the same. These responses were given 65% and 19% of the total participants respectively. Ten participants said that they disagreed and 11 participants said that they strongly disagreed that technical conflict occurred among team members influenced. The participants represented 8% and 9% of the responses respectively.



Majority of the participants (83%) confirmed that technical conflict occurred among team members. The occurrence of conflict is common among teams with members that have different technical skills. This conflict is caused by inability to interpret functional requirements, unwillingness to share knowledge or lack of technical training among key team members (Bunderson & Sutcliffe, 2002).

Table 4.13 also shows that 29 participants (23%) said that they strongly agreed that project teams took action to resolve technical conflict among team members. Thirty-nine participants generally agreed that project teams took action to resolve technical conflict. These views represented 31% of the participants. Five participants representing 4% of the sample gave neutral responses. Twenty-seven participants disagreed and 24 participants strongly disagreed that project teams tried to resolve technical conflict among members. These opposing views were held by 22% and 19% of the participants respectively. Most of the participants agreed that project teams tried to resolve technical conflict among members. Cronin and Weingart (2007) confirm the importance of resolving technical differences in order to help project team members to produce creative business solutions.

#### 4.6.3 Managing Technical Diversity for Team Performance

Participants were asked whether they believed that management of technical diversity influenced technical performance. They were further asked whether technical diversity culture was promoted in the project teams. The responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.14 shows the results.

**Table 4.14 Management of Technical Diversity for Team Performance**

<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
The management of technical diversity influences technical performance	55	39	0	12	18
Technical diversity culture promoted in project teams	51	47	5	10	11

From the Table, 55 participants strongly agreed that they believed that technical diversity influenced technical performance of the organization while 39 participants generally agreed on the same. There were no neutral responses. Twelve participants disagreed and 18 participants strongly disagreed that the management of technical

diversity promoted technical performance. It is evident from the results that majority of the participants agreed that the management of technical diversity influenced technical performance. The results suggest that technical diversity can influence organizational effectiveness. On the promotion of technical diversity culture among project teams by the agency, 51 participants strongly agreed that the project managers promoted a culture of technical diversity while 47 participants generally agreed on the same. Five participants gave neutral responses. Ten participants disagreed and 11 participants strongly disagreed on the project managers' promotion of technical diversity among project teams. It is evident from the results that majority of the participants agree that the agency promoted a culture of technical diversity through project managers. It is important to promote a culture of technical diversity because it creates an environment where team members feel safe to share their knowledge and information with other members (Bunderson & Sutcliffe, 2002). This culture would enhance the members' self esteem and reduce misunderstandings caused by technical differences. A strategy for reducing technical conflict could be to accommodate different perspectives in the project initiation phase and to ensure so that there are no representational gaps in cross-functional teams (Cronin & Weingart, 2007).

#### **4.6.4 Correlation between Technical Diversity Management and Organizational Effectiveness**

A correlation test was performed to help the researcher ascertain the relationship between technical diversity management and organizational effectiveness. Table 4.15 shows the results.

**Table 4.15 Correlation of Technical Diversity and Organizational Effectiveness**

	Value
Pearson's correlation (R)	.313
Frequency	124
R square (R <sup>2</sup> )	.097

The results reveal a weak positive correlation of R=.313 between the management of technical diversity and organizational effectiveness. A weak positive correlation from the results implies that an improvement in the management of technical diversity would have little influence on organizational effectiveness. The positive correlation confirms the relationship between technical diversity management and organizational

effectiveness. A regression test to determine the extent of the relationship between technical diversity management and organizational effectiveness revealed a coefficient of determination ( $R^2$ ) of .097. The results imply that the management of technical diversity in project teams affects 9.7% of organizational effectiveness.

#### **4.7 Influence of Managing Cognitive Diversity on Organizational Effectiveness**

The fourth objective was to determine the influence of cognitive diversity management on organizational effectiveness. Aspects of cognitive diversity such as informational skill differences among members, differences in problem-solving style and conflict-resolution styles were assessed. The section presents and discusses these findings.

##### **4.7.1 Managing Technical Diversity for Team Performance**

Participants were asked whether project managers select members with different informational skills and whether they believed that informational diversity created conflict among team members. Furthermore, participants were asked whether they thought that project managers used informational diversity to promote creativity in teams. The responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.16 shows the results.

**Table 4.16 Distribution of Responses on Technical Diversity in Project Teams**

<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>
Project managers select members with different informational skills	92	32	0	0	0
Informational diversity creates conflict among team members	66	45	7	4	2
Project managers use informational diversity to promote creativity	70	44	3	5	2

The results in Table 4.16 show that 92 participants strongly agreed that project managers selected team members with different informational skills and talents. These views were given by 74% of the participants. In addition, 32 participants that comprised 26% of the total participants agreed that project managers selected members with diverse informational skills or transactional knowledge. It is evident

from the results that all of the participants agreed on the intentional selection of team members with diverse informational skills by project managers. This implies that informational skills need to be considered when selecting project team members (Eckel & Grossman, 2005).

Informational diversity could cause conflict in teams. Sixty-six participants strongly agreed that informational diversity created conflict among team members. Forty-five participants agreed on the same. These views represented 53% and 36% of the participants. Seven participants, representing 6% of the sample, gave neutral responses. Four participants disagreed and 2 participants strongly disagreed that information diversity created conflict among team members. These opposing views were held by 3% and 2% of the participants respectively. Majority of the participants (90%) believe that informational diversity creates conflict among team members. This conflict is caused by differences in informational talents among members and their inability to harness or complement these talents (Eckel & Grossman, 2005).

Project managers could use information diversity to promote creativity. Seventy participants strongly agreed that project managers used informational diversity to promote creativity while 44 participants said that they generally agreed on the same. Three participants, representing 2% of the sample, gave neutral responses. Five participants disagreed and 2 participants strongly disagreed on the use of informational diversity to promote creativity in teams. These opposing views were held by 4% and 2% of the participants respectively. It is evident from the results that majority of the participants (92%) agree that informational diversity is used by project managers to promote creativity. Keller (2001) concurs on the use of informational diversity to promote creativity, which then enhances the effectiveness of teams and improves social cohesion among members.

#### **4.7.2 Conflict in Technically-diverse Teams**

Participants were asked whether team members had different problem-solving styles. They were asked whether the different problem-solving styles created conflict and whether they believed that cognitive diversity in project teams influenced team performance. The responses ranged from strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). Table 4.17 shows the responses.

**Table 4.17 Distribution of Responses on Problem-Solving Styles in Project Teams**

Statement	SA	A	N	D	SD
Team members have different problem-solving styles	94	30	0	0	0
The different problem-solving styles create conflict in teams	48	35	6	14	21
Cognitive diversity in project teams influences team performance	82	42	0	0	0

Table 4.9 also shows that 94 participants strongly agreed that team members had different problem-solving styles. Their responses were from 76% of the participants. Thirty participants that represent 24% said that they generally agreed that team members had different problem-solving styles. All of the participants were in agreement with the diverse problem-solving styles of the team members. It is evident from the majority of the findings is that team members have diverse problem-solving styles. These problem-solving differences need to be identified and understood in cross-functional teams (Keller, 2001).

On whether the different problem-solving styles by team members created conflict, 48 participants strongly agreed that the diverse problem-solving styles of team members created conflict. Thirty-five participants said that they generally agreed on the same. These responses were presented by 39% and 28% of the participants. Six participants, representing 5% of the sample, gave neutral responses. Fourteen participants disagreed and 21 participants strongly disagreed on the proactive role of the agency in cultural diversity. These opposing views were held by 11% and 17% of the participants respectively. It is evident from the results that majority of the participant concurred that the diverse problem-solving styles of team members created conflict. To reduce this conflict, project managers would need to identify the different problem-solving methods, address stereotypes and develop mechanisms for integrating information from different team members (Cronin & Weingart, 2007). To improve the influence of cognitive diversity on team and organizational performance, project managers would need to create a shared value system that accommodates people from different functional backgrounds (Levesque, Wilson & Wholey, 2001).

### 4.7.3 Correlation between Managing Cognitive Diversity and Organizational Effectiveness

A correlation test was performed to help the researcher ascertain the relationship between cognitive diversity management and organizational effectiveness. Table 4.18 shows the results

**Table 4.18 Correlation of Cognitive Diversity and Organizational Effectiveness**

	Value
Pearson's correlation (R)	.368
Frequency	124
R square (R <sup>2</sup> )	.136

Table 4.18 shows a weak positive correlation of 0.368 between cognitive diversity management and organizational effectiveness. A weak correlation from the results implies that an improvement in cognitive diversity would have little improvement on organizational effectiveness. The correlation results show there is a relationship between cognitive diversity and organizational effectiveness. A regression test to determine the extent of the relationship between cognitive diversity management and organizational effectiveness showed a coefficient of determination (R<sup>2</sup>) was .136. This implies that the management of cognitive diversity of project teams affects 13.6% of organizational effectiveness at the agency.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a summary of findings from the previous chapter in the first section. The second section presents conclusions for each objective. The third section presents recommendations for research and organizational practice.

#### **5.2 Summary of Findings**

The findings showed that managing the diversity of teams influences organizational effectiveness of KRA.

##### **5.2.1 Influence of Managing Cultural Diversity on Organizational Effectiveness**

The first objective was to establish the influence of cultural diversity management on organizational effectiveness at PMBO. Themes of cultural diversity that were investigated in the study included language, religion and ethnic diversity. Overall, the results of the study revealed that the management of cultural diversity influenced organizational effectiveness.

It was observed that management of language, religion and ethnicity influenced team members. Firstly, 93% of the participants consented to ethnic diversity while 65% confirmed that team members grouped themselves by ethnicity. Seventy-one percent of the participants agreed that ethnic composition of team members created conflict with 60% saying that poor cross-cultural relations contributed to ethnic conflict among team members. The results from 62% of participants confirmed that teams were segregated by language while 96% of the participants observed that project managers imposed one language for their teams. Language diversity was not encouraged based on 59% of the questionnaire responses.

The findings showed that religious conflicts were not a common occurrence and that project managers did not accommodate religious diversity. The occurrence of religious conflicts was refuted by 60% of the participants although project managers did not accommodate religious diversity. The study did not seek to elaborate on the reasons for lack of religious accommodation. However, insight from literature confirmed the difficulty in accommodating religious differences of team members. Therefore, it would be important for project managers to prevent or avoid any

occurrence of religious conflict because it affects organizational performance (Mazur, 2010). Strategies such as affirming different religions, supporting holistic living, providing boundaries for religious expressions, promoting culture of respect for religions and encouraging religious independence would reduce any incidences of religious conflict and promote religious accommodation. The results also showed that cultural diversity training was not provided to team members and neither was cultural diversity encouraged according to 59% and 69% of the participants respectively. There is a need to address this lack of training to resolve ethnic or religious discrimination, and ensure that minority groups are not excluded from team activities.

Correlation findings showed a strong positive correlation ( $R=.732$ ) between cultural diversity management and organizational effectiveness showed that management of cultural diversity (religion, ethnicity and language) affected the effectiveness of the PMBO office. Further regression tests confirmed that the management of cultural diversity influenced 53.5% of organizational effectiveness at PMBO. Given the strong positive correlation, project managers need to review their management of cultural diversity (religion, ethnicity and language) since it affects elements of organizational effectiveness such as team performance and efficiency. asserted the importance of resolving ethnic discrimination and addressing the needs of ethnic minorities to ensure organizational performance.

### **5.2.2 Influence of Managing Demographic Diversity on Organizational Performance**

The second objective was to establish the influence of managing demographic diversity on organizational effectiveness at PMBO. Themes of demographic diversity that were investigated in the study included age and distance, in the case of distributed teams. The overall findings from the study revealed that the management of demographic diversity did not have a significant influence on organizational effectiveness.

Results of the study showed that project managers emphasized a culture of respect based on 98% of the participants. On team performance, responses from 94% of the participants showed that demographic diversity influenced team productivity. This could be because demographic diversity causes apprehension and discomfort among



team members as they interact with each other, which limits their ability to cooperate and trust team members from different demographic backgrounds. One research article in literature review confirmed that demographic differences evoke stereotypes, biases and prejudices among individual members. The article aligned with the findings that demographic diversity influences team productivity.

It was observed that management of age diversity influenced the performance of project teams. All participants confirmed that there was an age gap between members. However, 88% of the participants believed age gap contributed to age-based discrimination given that 85% of the participants believed that older team members were less productive than their younger counterparts. From the findings, project managers emphasized a culture of respect and used demographic diversity to influence team productivity, there was a significant gap in their way of addressing age-based discrimination. This is because older team members were discriminated against compared to younger team members. Two articles confirmed that the problem with age-based discrimination is that it affects team cohesion and productivity since older team members feel singled out by their younger counterpart. Given that younger participants in the study confirmed that older workers were deemed less productive, there is a need to address this perception before it creates tension among team members and affects team performance.

Fifty-four percent of the participants confirmed that project managers were proactive in reducing conflict in demographic teams and used demographic diversity to improve functional performance. However, results from 75% of the participants revealed that team members did not receive training to help them embrace demographic diversity. However, literature revealed that training programs are important because they challenge the stereotypes of individual workers. Training would equip project managers with the skills to mix up the age composition of team members and accentuate a culture of respect among all team members regardless of their age.

On the relationship between demographic diversity and organizational performance, the findings revealed a positive correlation of  $R=.482$ . Regression tests showed that the management of demographic diversity influenced 23.2% of PMBO's effectiveness. These findings concurred with one article on the influence of demographic heterogeneity on team cooperation and performance. Another study

concluded with the findings on the weak correlation between demographic diversity and organizational effectiveness. A second article by Chowdhury (2005) also confirmed that demographic diversity did not have a significant influence on organizational effectiveness and performance.

### **5.2.3 Influence of Managing Technical Diversity on Organizational Effectiveness**

The third objective was to establish the influence of technical diversity management on organizational effectiveness at PMBO. Themes of technical diversity that were investigated in the study were culture of technical diversity, technical capabilities and technical differences. The study revealed that project managers embraced the technical or knowledge diversity of team members.

Ninety-eight percent of the participants responded that project team members had different technical capabilities while 83% of the participants confirmed that project managers emphasized a culture that respected technical diversity. Developing a culture that respects technical diversity is critical based on literature such as Cronin and Weingart (2007). The benefit of knowledge diversity on effectiveness and creativity could have influenced the decision of PMBO project managers to emphasize a culture respecting technical diversity. Seventy-nine percent of the participants in the study confirmed the actions of project managers by agreeing that technical diversity was promoted in the organizational culture.

However, emphasizing a culture of technical diversity does not guarantee lack of conflict. Despite the emphasis on technical diversity, 83% of the participants in the study responded that technical conflict occurred among teams. Reasons for technical conflict based on literature include unwillingness to share knowledge, misunderstandings or lack of self-esteem for members with lower technical competencies. Nevertheless, 61% of the participants said that project teams tried to resolve the conflicts among members.

The findings also revealed 76% percent of the participants said that the management of technical diversity affected technical performance. The influence of technical performance could be due to the different interpretations of team members that possess different technical competencies caused by lack of cross-technical training

and collaboration by team members. Despite these findings, 79% of the responses show that technical diversity was promoted in the organizational culture.

A weak positive correlation of 0.313 confirmed the relationship between the management of technical diversity and organizational effectiveness. Regression tests further confirmed that the management of technical diversity influenced 9.7% of organizational effectiveness. Given the literature review and the study findings, project managers at PMBO could reduce the conflict and performance issues in teams with knowledge-diverse members by accommodating alternative perspectives during the information collection phase of project development and encouraging shared cognition among technically-diverse group members.

#### **5.2.4 Influence of Managing Cognitive Diversity on Organizational Effectiveness**

The fourth objective was to determine the influence of cognitive diversity management on organizational effectiveness at PMBO. Themes of technical diversity that were investigated in the study were problem-solving style and conflict management. The study revealed that project managers embraced the technical or knowledge diversity of team members.

The results showed that project managers supported information diversity during the selection of team members. This could be because informational diversity could be used to promote creativity according to 92% of the participants. However, both literature and the findings of this study confirmed that cognitive diversity can create conflict among teams. From the study, 90% of the participants confirmed that informational diversity contributed to conflict among team members. This is because information diversity reduces team cohesiveness, increases project costs and increases task-related stress leading to ineffective organizational performance.

On conflict management and problem solving, all participants confirmed that team members had different problem-solving styles. Articles reviewed on the topic observed the need to address conflict in such teams through problem-solving and conflict management. The findings of this study held that all participants confirmed that team members had different problem-solving styles. Furthermore, 67% of the participants believed that this diversity of problem-solving created conflict among team members.

All of the participants concurred that cognitive diversity influenced the performance of project teams. The reviewed literature confirmed the influence of cognitive diversity on teams and suggested that project managers should address the representational gaps by developing mechanisms for integrating information. This is because team members possess different skills and levels of intelligence that affect their ability to influence each other's domains during decision-making and problem-solving.

A weak positive correlation ( $R=.368$ ) confirmed that the relationship between the management of cognitive diversity and organizational effectiveness. Regression tests showed that the management of cognitive diversity affected 13.6% of organizational performance at PMBO. All of the participants concurred that cognitive diversity had an influence on team performance. Their responses aligned with correlation results and findings by Levesque, Wilson and Wholey (2001) on the link between cognitive diversity and organizational performance.

## **5.4 Conclusions**

### **5.4.1 Influence of Managing Cultural Diversity on Organizational Effectiveness**

The study revealed that the management of cultural diversity influenced organizational effectiveness. It was observed from the participants' responses that team members have developed social identity with their ethnic groups, hence associating with their ethnic associates. Literature concurred with the findings and added that ethnic grouping could be contributing to poor cross-cultural relations and ethnic conflict among team members. The strong positive correlation ( $R=.732$ ) confirmed the significance of the relationship between cultural diversity management and organizational effectiveness of the PMBO office. This diversity theme should therefore be a priority for project managers and team members.

### **5.4.2 Influence of Managing Demographic Diversity on Organizational Effectiveness**

The study achieved the second objective, which was to establish the influence of managing demographic diversity on organizational effectiveness at PMBO. It was

observed that demographic differences such as age gaps and age-based stereotypes have negative effects on individuals and teams. The findings demonstrated the need to manage these demographic differences. A positive correlation of 0.482 confirmed the relationship between the management of demographic diversity and organizational effectiveness. Overall, the findings and the literature concurred that the management of demographic diversity has a less significant influence on organizational effectiveness.

#### **5.4.3 Influence of Managing Technical Diversity on Organizational Effectiveness**

The study achieved the third objective, which was to identify the influence of managing technical diversity on organizational effectiveness at PMBO. It was observed that technical differences have a negative influence on teams. The study found that the composition of teams, culture that promotes technical diversity and conflict resolution could affect the effective performance of teams members that possess diverse skills, talents and information. Correlation tests confirmed that the relationship between the management of technical diversity and organizational effectiveness. Overall, the findings aligned with the studies on the weak influence of technical diversity.

#### **5.4.4 Influence of Managing Cognitive Diversity on Organizational Effectiveness**

The study achieved the fourth objective, which was to establish the influence of managing cognitive diversity on organizational effectiveness at PMBO. It was observed that the findings aligned with literature on the influence of cognitive diversity on teams and organizations. The weak positive correlation of 0.368 between the management of cognitive diversity and organizational effectiveness confirmed the relationship between the management of cognitive diversity and organizational performance.

## **5.5 Recommendations**

### **5.5.1 Recommendations for Practice**

**Cultural Diversity:** Project managers at PMBO should resolve ethnic conflict between team members by providing cultural diversity training and promoting cultural diversity (language, ethnic and religious) in their management practice and organizational procedures. Project managers should encourage language diversity and incorporate more languages into their formal communication.

**Demographic Diversity:** Project managers at PMBO need to address age-based stereotypes and perceptions of older workers and accentuate a culture of respect to reduce generational differences among team members. Diversity training for team members could help challenge their age-based stereotypes. In addition, project managers could develop norms for demographically teams that promote cooperation among members to reduce conflict.

**Technical Diversity:** Project managers at PMBO could accommodate alternative perspectives during the information collection phase of project development and encourage shared cognition among technically-diverse group members to reduce technical conflicts and improve technical performance of teams.

**Cognitive Diversity:** The project managers at PMBO should develop cross-functional groups that integrate members from different functional areas. They should also address the representational gaps by developing mechanisms for integrating information.

### **5.5.2 Recommendations for Research**

The study proposes that the study be carried out on a larger scale to develop a better understanding of the influence of managing diversity in teams on organizational effectiveness. This is because this study was delimited to PMBO at Kenya Revenue Authority slums. The findings cannot, therefore, be generalised in larger multinational firms. Further research is encouraged on the ways improve the management of diversity in project teams so that differences between team members are used to improve organizational effectiveness rather than lower productivity or performance.

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## APPENDICES

### APPENDIX A: INTRODUCTION LETTER TO RESPONDENT

Michael Wanjohi  
University of Nairobi  
P O Box  
NAIROBI

To whom it may concern

RE: RESEARCH PROJECT ON THE MANAGEMENT OF DIVERSITY IN  
PROJECT TEAMS AND THE EFFECTS ON ORGANIZATIONAL  
PERFORMANCE AT KRA

I am a student at the University of Nairobi pursuing a Master of Arts in Project Planning and Management. I am carrying out a research study on the management of diversity in project teams and the effects on organizational effectiveness at Kenya Revenue Kenya. Employees of KRA have been identified to participate in this study.

I hereby request your cooperation to carry out this study. The information gathered will be used for the purpose of the study and will be treated with utmost confidentiality.

Thanking you in advance.

Yours faithfully,

Michael Wanjohi

## **APPENDIX B: QUESTIONNAIRE**

Questionnaire No.: .....

Date: .....

This questionnaire consists of two parts. Please complete each part as honestly as possible. The information will be treated in strict confidence.

### **PART A: BACKGROUND INFORMATION**

*Tick appropriately (√)*

1. Gender:

(a) Male ( )

(b) Female ( )

2. Age

(a) 20 – 30 years ( )

(b) 31 – 40 years ( )

(c) 41 – 50 years ( )

(d) Above 50 years ( )

3. Tenure in the organization: 1-5 years ( )      Over 5 years ( )

4. Highest Level of Education

a) None ( )

b) Primary ( )

c) Secondary ( )

d) Tertiary ( )

**PART B: DIVERSITY FACTORS**

**I. CULTURAL DIVERSITY**

	S A	A	N	D	S D
1. Are project team members drawn from diverse ethnic groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Team members group themselves according to ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does ethnic composition in teams create tension or conflict?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you believe that there are poor cross-cultural relations among team members from different ethnic backgrounds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Team members segregated by language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Project managers impose all team members to speak one language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you believe that project managers encourage language diversity in formal communication?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you agree that project managers accommodate different religions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. There are religious conflicts between team members and project managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are team members trained to embrace cultural diversity in the organization?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Does KRA take a proactive role in encouraging cultural diversity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## II. DEMOGRAPHIC DIVERSITY

Please tick appropriately (✓)

	SA	A	N	D	SD
12. Do you agree that location diversity among team members affects team productivity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Do project managers have mechanisms for accommodating geographic diversity among teams?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Do you agree that there are age gaps between team members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Do teams discriminate members because of their age?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Do you believe that older team members are less productive than younger team members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Do project managers take a proactive role in reducing conflict among distributed teams?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Do you think that demographic diversity in project teams affects functional performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Do you believe that project managers use demographic diversity to achieve organizational effectiveness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Are team members trained to embrace demographic diversity in the agency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## III. TECHNICAL DIVERSITY

Please tick appropriately (✓)

	SA	A	N	D	S D
21. Do you believe that project teams composed of members with different technical abilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. Do project managers emphasize a culture that respects the technical abilities and differences of members?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
23. Do you agree that the occurrence of technical conflict among team members affected functional performance?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
24. Do you believe that project teams try to resolve technical conflict among members?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
25. Do you believe that technical diversity promotes technical performance?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
26. Do you agree that KRA promotes a culture of technical diversity in project teams?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

#### IV. COGNITIVE DIVERSITY

Please tick appropriately (✓)

	SA	A	N	D	SD
27. Do you believe that project managers select members with different informational skills and talents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Does informational diversity create conflict among team members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Do you believe that project managers use informational diversity to promote creativity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Do you agree that team members have different styles of solving problems/conflict?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Do you believe that these different problem-solving styles create conflict among team members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Do you think that cognitive diversity in project teams affects the effectiveness of the agency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>