



*Original Research Article*

# **Impact of project management courses offered by Higher Education Institutions (HEIs) on public and private project management sector in Malawi**

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**Abstract**

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This study aims to investigate the impact of Project Management courses offered by Higher Education Institutions (HEIs) in the Public and Private Sector Project Management in Malawi. Project Management (PM) is offered as a course by Higher Education Institutions to impart knowledge to students which is essential for the success of projects. The study was conducted in five (5) HEIs out of thirteen (13) HEIs available in Malawi, representing 40%. Descriptive statistics were used to analyze the data. The study found out that despite HEIs offering Project Management courses, the Public and Private PM Sector in Malawi does not conform to the four (4) fundamental criteria of PM, which include: project scope; budget; timeframe, and quality requirements. This is so because Project Management in Malawi is not offered at undergraduate making it difficult for students to grasp PM principles. This has resulted in the untimely completion of several projects in Malawi mainly in the construction industry. There is a low success rate of projects in Malawi indicating a very low impact on the Public and Private PM sectors in Malawi. The study, therefore, recommends that HEIs should consider offering the PM course earlier to students. Policymakers must set effective and realistic policies to bring about project success and ensure that the projects bring about meaningful development in Malawi.

**Keywords:** Project Management; Private and Public Sector; Higher Education Institutions; Policy Makers.

## **INTRODUCTION**

### **Context and Background**

This paper studies the impact of project management courses offered by HEIs: Higher Education Institutions in the Public and Private Sector Project Management in Malawi. PM: Project Management has become the central trademark of any business. HEIs in Malawi, for instance, MIM: Malawi Institute of Management Business School, offer PM as a course. Despite HEIs offering this course, Project Management Alumni do not apply the knowledge attained from the course to the PM Sector; hence there is little development that goes on in the Sector itself.

However, the situation on the ground is that projects in both the Public and Private Sectors in Malawi are being poorly managed and implemented and also not sticking to the four (4) fundamental criteria of PM, which are: scope; budget; timeframe and quality requirements. For instance, historically, road construction projects in Malawi are usually not finished within the set timeframe and do not meet quality requirements.

The researcher's interest in this paper is to investigate why the Public and Private PM Sector in Malawi is underdeveloped despite the HEIs in Malawi offering the PM course. By conducting this study, the researcher will gain more insight into the Impact the Project

Management course has on the Public and Private Project Management Sector in Malawi and also uncover why projects in Malawi are mostly unsuccessful despite HEIs offering the PM course.

This study will help Policy Makers to uncover best practices that will lead to project success and at the same time, HEIs will find improved delivery modes of the PM course so that students will practically apply the knowledge gained from the course to the PM industry since students must study the course to ensure the success of projects in Malawi. Therefore, the purpose of this study is to investigate the Impact of Project Management courses offered by Higher Education Institutions in the Public and Private Project Management sectors in Malawi.

### Statement of the Problem

The projects conducted in both the Public and Private Sectors do not conform to the four (4) fundamental criteria of a project, despite HEIs in Malawi offering PM courses. The four (4) fundamental criteria of a project are that: the project must be completed within the specified scope; timeframe; set a budget and meet the prescribed quality requirements. As much as HEIs in Malawi offer PM courses, projects in Malawi, in both the Public and Private Sectors are not being properly implemented, not meeting the standard quality to bring about change in the society and in some instances, projects do not get launched.

In an ideal situation, PM courses are supposed to help Project Managers efficiently manage projects to achieve great project success. When people attend HEIs and learn about PM, the expectation is that these people will apply the gained PM knowledge to the PM Sector once they become Project Managers or become part of a project team. One of the highly successful projects in the world is the American Airlines merger with United States Airlines. According to O'Quiin (2018), "the American Airlines merger with United States Airways created an overlap in technology and programs, they began using portfolio and resource management. Now they have more reliable data to make critical decisions on projects and resources". In Africa, the Clean Water, and Sanitation Services Bring Peace Social Harmony to Rural Somalia Project was carried out within the set time frame by the African Development Bank Group. According to the African Development Bank Group (2018), a project that was to run for three years that commenced in 2017, was aimed at improving access to water and sanitation services in the rural areas of Somalia. By 2020, there was the availability of clean and safe water.

The Mzuzu-Nkhatabay road rehabilitation project in Malawi, which was funded through a loan from the African Development Bank, was constructed within the planned budget. The project was planned to be

implemented over four (4) years from 2021 to 2017. The project involved the rehabilitation of forty-six (46) kilometers (km) of the main road and three (3) km of the township. The planned forty-six (46) km of road rehabilitation was completed within the budget of UA21, 890,000.00. Part of the loan balance was used to construct an additional 1.3 km of dual carriageway in Mzuzu town, (African Development Fund, 2019).

Kasten (2014) states that "there is a stark contrast between the PM tools and techniques taught in schools and those used in industrial settings. There is a significant variation in which the formal PM processes taught in traditional PM curricula are used if any". According to Aibinu (2021), "in Saudi Arabia, the construction industry is one of the largest contributors to the gross domestic product. In the last two decades, many public projects have been constructed throughout Saudi Arabia. However, the Saudi construction sector has been experiencing problems in productivity, slipping schedule, rework and mistakes, which have all increased construction costs".

In Malawi, as much as HEIs are providing PM courses, projects are not being properly implemented and not sticking to the initial project timeframe. For example, the Area 18 interchange road project that has been constructed in Lilongwe Malawi, was not concluded within the initial set timeframe during the commencement of the project in 2017. According to Kapalamula (2020), "the project was expected to be concluded by November 2019, the deadline was later shifted to February 2020 but both deadlines were missed". According to Sambalikagwa (2020), "the road project was completed and opened to road users in September 2020".

Several causes result in non-conforming to the four (4) fundamental criteria of the project and they include: lack of technical expertise; poor management of projects and lack of adequate and efficient resources. The possible solutions to the problem are as follows: Firstly, involvement of technical expertise related to the type of project being carried out. For example, if the project is a construction project, the Project Manager must know about construction and engineering and at the same time, engineers must be involved throughout the project lifecycle. Secondly; provision of adequate and efficient resources for the project and lastly, abiding by the principles of PM.

The principles of PM are: creating clear and concise project goals; managing and mitigating risks; outlining performance targets; constantly communicating and providing feedback to stakeholders, team members and implementing partners and assigning responsibilities to team members. Lastly, HEIs in Malawi must consider providing a more practical approach to PM rather than a theoretical approach to students to impart hands-on knowledge and experience.

If this problem is not solved, organizations in both the Public and Private Sectors will continue to deliver

projects that are of poor quality and projects that do not stick to the allocated timeframe and budget. At the same time, the PM Sector in Malawi will continue to have poor project deliverables, hence Malawi will not develop and therefore, it will be difficult for Malawi to achieve the three (3) Pillars of the Malawi Vision 2063, which are: Agriculture Productivity and Commercialization; Industrialization and Urbanization.

## Research Objectives

The main objective of this study was to investigate the effect of PM courses offered by HEIs in the Public and Private sectors of PM in Malawi. Specifically, the project aimed at assessing the curriculum of the PM courses offered by HEIs in Malawi analyzing the significance of PM being offered as a course to students in HEIs in Malawi, and evaluating the effect of PM courses offered by HEIs in the public and private PM sectors in Malawi.

## Research Questions

The key questions that the study had to answer were addressing how do HEIs in Malawi outline their curriculum for the PM course; the significance of PM being offered as a course to students by HEIs in Malawi and the effect that PM courses offered by Higher Education Institutions (HEIs) in Malawi have on the Public and Private PM Sector.

## Significance of the Study

As different business initiatives are being introduced in every part of the globe, PM is an essential tool to ensure that delivered projects are successful and that they meet the specific set project objectives, scope, timeframe, budget and quality requirements. How organizations, be it in the Public or Private Sector, manage their projects could make a difference in the thin line between the success and failure of an entire project. This study will outline the four (4) fundamental criteria of a project; hence, this will be beneficial for organizations and the society at large since most organizations do not conform to them. Organizations will know the importance of sticking to the project timeframe, working within the set budget and meeting the prescribed quality requirements of the project. Therefore, organizations, like construction organizations, will be able to deliver quality projects which will improve the well-being of people in society. For instance, the infrastructure in Malawi, be it roads or buildings, will be of good quality.

This study will help HEIs in Malawi to offer the PM course in a way that will ensure that best practices are instilled in students on how to bring about the success of

projects. The PM course is offered to students attaining higher education studies as an aid for setting and tracking goals and imparting leadership skills and knowledge on risk management, project frameworks and project life cycle, with an expectation that such knowledge will help organizations to achieve their business goals on time and within budget, Lonsdale Institute, (2017).

Through this study, HEIs will be able to tailor their PM course curriculum to essentially highlight the four (4) fundamental criteria that have to be followed in PM to ensure the success of the project by sticking to the project timeframe, budget and quality requirements. The lessons generated from this paper will be that Policy Makers will develop their policies in such a way that Project Managers will comply with delivering quality projects always so as to ensure the development of the society and Malawi as a country. Students will gain the knowledge and understanding that PM is not just a course, but rather, an essential tool that can ensure the difference between the success and failure of a project and also the success of their careers as future Project Managers.

## Literature Review

### Introduction

This chapter presents an overview of what was done by other researchers in the field of the Impact PM has on the Public and Private PM sectors. The researcher will define key terms in PM, review the history of PM, the importance of PM, the project lifecycle And PM Models and Theories.

### Key Terms

#### Project

According to PMBOK (2021) a project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists. Maylor (2010) states that "a project is a task that has a beginning and an end. Lester (2021) defines a project manager as "the individual or body with authority, accountability and responsibility for managing a project to achieve specific objectives.

#### Project Management

Lester (2021) defines project management as "the

planning, monitoring, and control of all aspects of a project and the motivation of all those involved in it, to achieve the project objectives within agreed criteria of time, cost and performance". According to PMBOK (2021) "PM is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. PM is accomplished through the appropriate application and integration of the 47 logically grouped PM processes, which are categorized into five process groups, which are: initiating, planning, executing, monitoring and controlling and closing". Maylor (2010) states that "PM is no longer about managing the sequence of steps required to complete the project on time. It is about systematically incorporating the voice of the customer, creating a disciplined way of prioritizing effort and resolving trade-offs, working concurrently on all aspects of the project in multi-functional teams, and much more. It involves much closer links between project teams and downstream activities". PMBOK (2021) states that "program management is the application of knowledge, skills, tools, and techniques to a program to meet the program requirements and to obtain benefits and control not available by managing projects individually". According to PRINCE2 (2010) many projects in an organization, require program management to ensure that all projects share similar processes, which helps to maximize the efficiency of all processes and reduce duplication and share lessons learned".

### **Programme**

PMBOK (2021) defines a program as "a group of related projects, subprograms, and program activities managed in a coordinated way to obtain benefits not available from managing them individually. Programs may include elements of related work outside the scope of the discrete projects in the program". PRINCE2 (2010) defines a program as "a temporary flexible organization structure created to coordinate, direct and oversee the implementation of a set of related projects and activities to deliver outcomes and benefits relating to an organization's strategic objectives. A program may have a life that spans several years".

### **Portfolio**

According to PMBOK (2021), a portfolio refers to projects, programs, sub-portfolios, and operations managed as a group to achieve strategic objectives". According to Shroff (2011) a portfolio refers to "a group of projects and programs, that can be related or not, but managed together to achieve set objectives.

### **Portfolio Management**

Lester (2021) defines portfolio management as "the coordinated management of a group of related projects to ensure the best use of resources in delivering the projects to the specified time, cost and quality or performance criteria". A project portfolio should consider the company's strategic planning and adopt an efficient method of project selection. Because private and public organizations have specific concerns and restrictions, methods of project selection need to be developed to address these different perspectives (Nassif et al., 2021).

### **Project Manager**

Anantatmula (2015) states that "the project manager is the one who motivates people and creates an effective working environment for the project team to meet greater challenges in today's global economy". A Project Manager is a person responsible for managing all project activities, (Fisher, 2011).

### **Decision Gate**

The decision gate is also called the stage-gate or phase gate. According to Pica (2015) during this projected time frame, decision points are formally established to authorize the initiation of the project development effort. The recognized decision gates are also efficient mechanisms for ensuring the continuity of authorizations for further project funding when needed. In some companies, when a best practice is identified and validated, it is immediately placed into the stage-gate process, (Kerzner, 2008)

### **History of PM**

According to Maylor (2010), major influences on modern PM can be identified as coming from work carried out in the 1950s. During the 1950s, formal tools and techniques were developed to help manage large, complex projects that were uncertain or risky for scheduling maintenance shutdowns at the company's production facilities. In the same period, the defense contractor RAND Corp. created its tool (Program Evaluation and Review Technique or PERT) for planning missile development.

These tools focused almost exclusively on the project planning phase. The second generation of PM became evident in the 1990s, with an expanded array of tools and techniques beyond those of the generation first-generation processes. This was accompanied by the

development of standards for PM in the United States and Europe.

Leading the development of these standards were the professional associations: PM Institute (PMI) in the United States and the Internal PM Association (IPMA), which was founded in the 1960s as a networking group. PM started to emerge as a recognized profession and requirements to enter the profession began.

The third-generation processes recognized the requirement for a strategic approach to design the project process rather than the highly reactive approach that was prevalent. The variety of practices evident under PM increased significantly, with the best organizations and managers continuing to develop new approaches and many more starting their PM journeys. Alongside practice, what has been written and taught about PM has evolved considerably over the recent past. At one time, a PM course was a relatively novel addition to an engineering program of study. Today, it is an emerging discipline and is taught extensively in management, engineering and science schools. Further, there is a growing band of academics researching, writing, teaching and consulting in the area, and more relevant papers appearing in a wide range of academic and practitioner journals.

According to Mounir (2020), the growth and development of technology have changed how projects are managed. Presently, Project Managers typically focus on the successful implementation of projects within the planned time frame and without overstressing the initial budget.

### **Significance of Project Management**

Projects are fundamental to the way an organization operates. Maylor (2010) outlines that the “engineering group, Siemens, for instance, estimated that 50 per cent of its revenue was from projects. Through projects, organizations can attain profits that in turn can help to run the operations of the organization”. According to Barghoth et al. (2020) projects are an important route to generating business value and benefits for organizations. The whole essence of PM is to deliver work that increases the value of an organization. This can be achieved by delivering quality results to customers. Project success is attained through the proper project and portfolio management, and therefore, Project Managers must clearly define the value of the project team and to the organization.

According to Silvius (2014) “project managers are therefore important to change agents in organizations that have a strong influence on the sustainability of organizations since they play an important role in the realization of sustainable business processes and practices”. PM can be used to help companies remain competitive during periods of growth and to assist in determining capacity constraints, (Kerzner, 2018).

### **Project Lifecycle**

The project life cycle outlines the stages that are carried out during the project. The project lifecycle is commonly described in terms of conceptualization, planning, execution, and termination. Every stage of the project involves planning and reviewing, and the planning point is called the decision gate. Fisher (2014) states that “corporations seek to accelerate project development cycles to gain faster go-to-market execution. With new Project Portfolio Management (PPM) and governance methods (e.g., resource management, demand management, internal and external sourcing algorithms, workload balancing), improved rigor and efficiency are attainable”. Figure 1 is a representation of the project lifecycles.

### **Project Conception and Initiation**

This is the start of the project, and the goal of this phase is to define the project at a broad level. This phase usually begins with a Business Case. According to PRINCE2 (2010), the business case presents the optimum mix of information used to judge whether the project is (and remains) desirable, viable and achievable and therefore worthwhile investing in. In PRINCE2, the Business Case provides the vital test of the viability of the project and should be actively maintained throughout the life of the project to ensure business objectives are still being met. The conception part of this stage involves stakeholder identification; portfolio review; time and resource estimation; context analysis, which looks at problem tree analysis, needs analysis, risk identification and power mapping analysis; and theory of change review, which describes the reason for the change and how the change will be achieved.

Under project initiation, companies decide if the project is needed and how beneficial it will be for them. Kazemi et al. (2021) states that “one of the most important phases of a project is the front-end phase, which is when the project exists only conceptually before it is planned or implemented. It includes the entire set of activities from decision making on the initial concept to the final decision for financing the project”. After the conception and initiation are done, the entire stage is reviewed through a process called the decision gate, to determine if the organization should go on with the project.

### **Project Definition and Planning**

According to the Association for PM (2019), “project planning is the application of management processes that bring together the planning of benefits, success criteria, scope, quality, time, resources, cost, risk and communications to create the PM plan”. This stage



**Figure 1.** Project Lifecycle  
Adopted from Eby (2021)

involves: creating a scope statement; defining key milestones; risk identification and analysis; scheduling the timeframe for activities; cost estimation and planning and contingency planning. After project planning is done, the decision gate point is reached.

### Project Launch or Implementation

The Implementation Phase of the project puts the project into action. The Implementation phase consists of four sub-phases: execution, which involves putting the project into action; monitoring & control, which look into monitoring the progress of the project; and move to production of the deliverables. Implementation is done to change where things are not working. This is the stage in which the project is prone to the risk of delays and going above the set budget.

### Project Performance and Control

Under this stage, the organization evaluates the quality of the deliverables, checks if the project is in line with the objectives of the project and assesses the performance of the project. This stage also involves checking whether the set targets are being met; determining if the project is staying within budget and identifying any possible

deviations from the scope and how to manage the changes.

### Project Close

As the project is going to an end, planning, implementation and evaluation are still conducted. The organization starts to scale down on some activities. Resources might be required for project sensitization and training. At this stage, a Transition Manager is hired to look into scaling down activities and sensitizing the community on the benefits and change the project will bring into the business and community.

### HEIs Curriculum for the PM Courses

After attending HEIs, the students become managers in different industries, and PM is one of those industries. PM has been developing continuously since the 1950s. The way HEIs structure their PM curriculum or syllabi can affect the level of knowledge imparted to students and how the students can practically apply the PM knowledge in the PM Sector. For instance, if the curriculum covers a narrow view, then students are likely to not get the bigger picture of what PM is about. Kirkpatrick and Kirkpatrick (2006) proposed a model for evaluating management

training programs. The model comprised four dimensions to be measured:

- a) Satisfaction/Reaction—Thoughts, insights and feelings from the participants regarding the training.
- b) Learning—Changes in knowledge or skills. Changes in attitudes. This evaluation is handled during the training (demonstrations, presentations, tests, etc.)
- c) Behavior—Knowledge, skills and attitudes (acquired in the classroom) applied on the job. Changes in behaviour. This evaluation is applied 3–6 months post-training, while the trainee is performing the job.
- d) Results—Results or performance changes (improvement) because of attendance and participation in a training program (can be monetary, performance-based, etc.)
- e) Adding to the Kirkpatrick model, Phillips (1996) included a return on investment (ROI) evaluation level, to compare the results measured in the fourth level of the Kirkpatrick model versus the overall costs of training.

The Model for Training Program Evaluation by Kirkpatrick (2006) as indicated in Figure 2, depicts the four dimensions for evaluating management training programs.

### Significance of PM Courses

Uhlir (2021) states that in the face of ever-greater business challenges, numerous methodologies and techniques have been developed through the years for use in PM. Furthermore, numerous associations and institutions have been founded throughout the world, various educational programs have been started, professional conferences are held and articles are published, all with the goal of a more successful PM. Successful PM includes integration and coordination between tasks, people, organizations and resources to attain the expected result. Uhlir (2021) further states that for project managers to successfully and effectively perform all of their functions, they must be experienced, knowledgeable and skilled – in other words, they must possess competence, and personal competence is proven through certification. It is said that the personality and competence of the project leader somehow influence the success of the project and that for the selection of an appropriate project leader, it is important to look at the type of project that needs to be led. There is a connection between the characteristics of the project leader and the success of the project, (Nahod, 2021).

However, the researcher outlines that through the knowledge imparted on students through the PM course, students get a wider view of what the PM industry is about as well as the problems associated with the industry and hence, they can be able to come up with solutions tailored to tackle the problems in the PM Sector. This in turn will ensure that the project deliverable is of

high standards to enhance development in society. One of the Enablers of the three (3) Pillars of Malawi Vision 2063 is the development of Economic Infrastructure. To ensure that this Enabler is achieved, there is a need for HEIs to work hand in hand with the Government of Malawi, by ensuring that the PM course offered to students is practical enough so that the students can later apply the gained knowledge to the Public and Private PM Sector in Malawi in such a way that will bring about a big improvement in the way the PM Industry operates and therefore, such kind of improvement will enhance the projects that will be undertaken by the Government of Malawi in a bid to achieve the development or attainment of Economic Infrastructure by the year 2063.

Through studying PM, there is a higher chance that the students will become good Project Managers, hence the rate of project success increases. Competence skills and levels of project managers are enhanced when they learn the PM courses. The competencies of a Project Manager include: technical; leadership or interpersonal; self-management and international development specific competencies.

### Effect of PM Courses

Landoni (2015) states that projects are considered one of the pillars for assisting developing countries. But most projects are reported to have high failure rates and their performance is often considered not satisfactory. Only recently have researchers started to consider PM practices as a possible remedy for the poor performance of projects. PM tools are related to project success in both the short and long term.

Nagarajan (2018) states: that a high level of PM training, competence and well-experienced project managers is essential for project success rate. Fifty per cent of work carried out in organizations are project-related work. Thus, projects are considered as the propeller for the execution of organization growth. Two factors are militating against the training and development of project managers. The first factor is the substantial acquisition of relevant knowledge. PM is a collection of enormous numbers of PM specific knowledge areas. Also, the project manager in addition to the knowledge areas must have the right knowledge of management issues that can arise in a project. Secondly, as a result of the theory and practice-based nature of the PM discipline, it is not adequate for the project manager to dwell only on abstract knowledge of PM methodologies.

The project manager must also have the capacity to put the acquired knowledge into use in complex environments. The rate at which the project fail is on the increase. About forty per cent of projects related to construction work fail. PM training offers lots of benefits and companies that are well structured have taken





**Figure 2.** Kirkpatrick and Phillips Models for Training Program Evaluation.  
Kirkpatrick DL and Kirkpatrick JD (2006)

advantage of this.

The researcher concludes that, despite PM being taught as a course, it has not improved the Public and Private PM Sector in Malawi since most projects in Malawi are of poor-quality standard. For example, the Area 18 interchange road project that has been constructed in Lilongwe Malawi, and was opened to road users in September 2020, has already started getting damaged as some of the road pavements have developed cracks in just 2 years after the newly constructed road was opened for public use.

The environments of all industrial sectors are constantly changing, thus, inclusive of the PM Sector. At the core of the constantly changing environment, is technological advancement. It is however important that the PM course be tailored to adapt to the ever-changing environment to ensure that it brings about the desirable enhancement of the PM Sector in both the Public and Private Sectors in Malawi.

The VSM: Viable Systems Model can be used by HEIs to ensure that the PM course is adaptable to the constantly changing environment. The VSM provides a framework for designing flexible, adaptable organizations that balance external and internal perspectives and long and short-term thinking. The VSM needs to have five key systems in place if it is to operate effectively in its environment. These are: Implementation, Co-ordination, Control, Intelligence and Policy, (Espejo, 2011).

## METHODOLOGY

### Introduction

This research paper expounds on the impact of PM courses offered by HEIs in the Public and Private PM Sector in Malawi. The chapter primarily focuses on addressing how the research problem was investigated. Using the Research Onion by Saunders, this chapter will

provide an overview of the research philosophy, approach, methodological choice, strategies, time horizon and techniques and procedures to be used in data collection.

According to Saunders et al. (2019), how data is collected belongs in the centre of the research onion. The research onion illustrates the stages that must be covered when developing a research strategy. Each layer describes a more detailed stage of the research process, (UKESSAYS, 2021). The research aims to investigate the effect of PM courses offered by HEIs in the Public and Private PM sectors in Malawi?

### Ethical Consideration

Since some of the interview questions are sensitive, it was expected that some participants may be reluctant to participate in the study. Hence, participants were informed that they could withdraw from the research at any time and could choose to answer questions they were only comfortable with.

### Research Design

The study adopted a pragmatism philosophy that combined both interpretivism and positivism. The interpretivism philosophy is used in qualitative studies and the positivism philosophy is used in quantitative studies. The interpretivism philosophy was used so as to create a richer understanding of the research problem and also to collect data that is meaningful from the research participants. At the same time, the positivism philosophy was used to objectively collect and interpret quantitative data.

The study used the abduction approach, which is a combination of the deductive and inductive approaches. The deductive approach deals with theory verification



while the inductive approach deals with theory building, hence the abduction approach was used to both build theories and verify existing theories. At the same time, the researcher chose this approach because both qualitative and quantitative data were collected, hence qualitative data collection deals with the inductive research approach and quantitative data collection deals with the deductive approach.

The research methodology used in this study was mixed research, which is a combination of qualitative and quantitative research methodology, hence the researcher used this approach to take advantage of collecting both quantitative and qualitative data to get results that were representative of the entire population. Silverman (2016) defines qualitative research as “the type of research that finds out about people’s experiences. It helps us understand what is important to people”. Sheard (2018) states that qualitative research deals with data that can be converted into numbers. Qualitative research has been used to have a deeper understanding of society’s opinions and gather in-depth insights into the research problem. Quantitative research will also be used to enable the researcher to generalize the results to a wider population. A survey will be used as a data collection method so as for the researcher to be able to gather both qualitative and quantitative data from participants. Interviews and questionnaires are the data collection tools that will be used to ensure the efficient collection of the data. The research strategy that has been used is a survey so to assess the opinions of the respondents.

The time horizon for this study is a cross-sectional time horizon since the study was conducted within a short timeframe. The study used non-probability sampling since the study involves generating theory. Qualtrics (2021) defines non-probability sampling as “a branch of sample selection that uses non-random ways to select a group of people to participate in research”. The form of non-probability sampling that was used is convenience sampling. Convenience sampling is a method of collecting samples by taking samples that are conveniently located around a location or Internet service, (Edgar, 2017).

The data analysis method that was used was descriptive statistics so that the researcher could analyze the data into meaningful information and that the results of the study included frequencies and percentages. The study population included thirteen (13) HEIs, fourteen (14) companies in the PM Sector and two thousand (2000) PM Alumni available in Malawi. The sample size of this study was thirteen (13) respondents, which included HEIs providing the PM courses, and PM Alumni.

### **Reliability and Validity of Data Tools**

To test the reliability and validity of the study tools and

the method, the study conducted a Cronbach alpha test and it was noted that the results were at 0.78 which was far above the recommended level of 0.7. That gave the researchers to proceed to conduct other analyses of the data.

### **Limitations**

In every research study, the researcher encounters some problems that limit the data collection process. The limitations that the researcher may encounter during this study include non-availability of information from previous studies on the research area, hence there is a need for further development in the area of study resistance from some HEIs to give out information and lastly, limited availability of resources to conduct the research study.

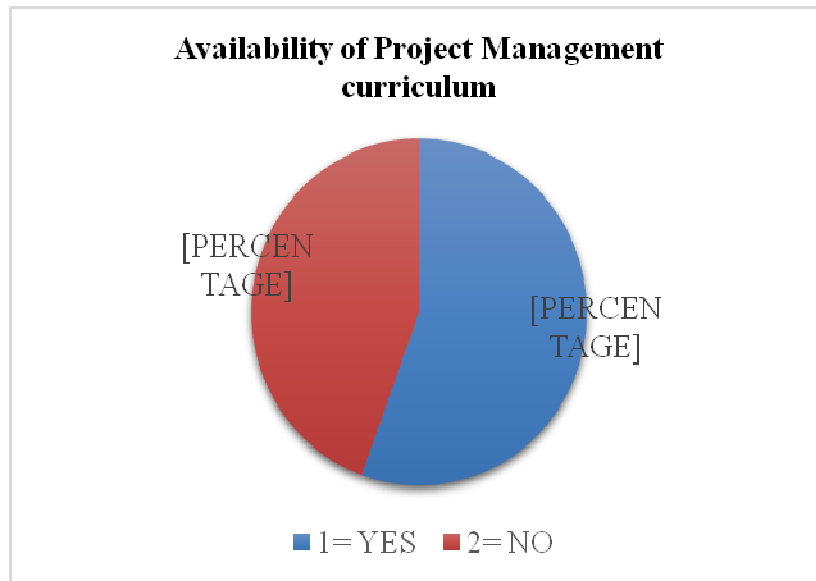
### **Data Analysis Methods**

Quantitative data was analyzed by using Microsoft Excel to quantify the percentages attached to the responses of respondents to particular questions in the questionnaire. Qualitative data were analyzed by using thematic data analysis. According to Crosley, (2021) qualitative thematic analysis is the study of patterns of meaning. In other words, it’s about analyzing the themes within one’s data set to identify their meaning. The researcher chose this analysis method for a proper understanding of the common themes in the responses of the respondents. In line with this study, the questions interviewees were asked focused on the following areas: identifying if HEIs have a PM curriculum; understanding the modes used in delivering the PM course to students in line with the curriculum; identifying the year of study the PM course was taught to students and the ideal year of introducing the PM course to students; identifying the areas the PM curriculum focused on; identifying the significance of the PM course; identifying the contribution of the PM course to the development of projects in the public and private PM sector in Malawi and identifying changes that can be made in the PM Public and Private Sector to ensure that projects in Malawi are delivered within the four (4) fundamental criteria of PM.

## **RESULTS AND DISCUSSIONS**

### **Introduction**

In this chapter, the researcher will discuss the research findings and interpret them to show how the collected data was analyzed. This study aimed to investigate the effect of PM courses offered by HEIs in the Public and Private PM Sector in Malawi.



**Figure 3.** Availability of Project Management Curriculum.

Data were analyzed based on the three (3) objectives of this study. The first objective was to assess the curriculum of the PM courses offered by HEIs. Results show that 56% of the respondents stated that HEIs have PM Curriculums. The second objective was to analyze the significance of PM being offered as a course to students in HEIs in Malawi. The respondents stated that PM is an essential study area that students should be taught in HEIs. The third objective was to evaluate the effect of PM courses offered by HEIs in the Public and Private PM sectors in Malawi. 56% of the respondents stated that the Public and Private PM Sector in Malawi does not conform to the four (4) fundamental criteria of PM despite HEIs providing the PM Course.

### **Availability of PM Curriculum**

In order to know if the PM curriculum was available in HEIs, the interviewees were asked a question on whether the HEIs had a PM curriculum. Out of the findings from respondents, 56% of the respondents stated that HEIs have a PM curriculum and 44% do not have a PM curriculum, as shown in Figure 3.

### **Modes of Delivery of PM Courses**

In order to understand the modes of delivery of PM courses, the interviewees were asked a question on the mode that the PM course was delivered to students and the options to the question were: group work and discussions; practical assignments; lectures and fieldwork. Results show that 67% felt that the delivery

modes of the PM course were done through group work, practical assignments, lectures and fieldwork. 22% stated that the delivery modes of the PM course were conducted through lectures and 11% were of the view that delivery mode is conducted through fieldwork. Refer to Figure 4 for more details.

### **Introduction of the PM Course to Students**

In order to understand the year HEIs introduce the PM course to students, the interviewees were asked a question on the year of study the PM course was introduced to students and the options to the question were: first year; second year; third year and fourth year. The study noted that 78% were of the view that the course was introduced to students when they were in their third year of study, 11% stated that the course is introduced to students when they are in their second year of study and 11% stated that the course is introduced to students when they are in their first year of study. This is shown in Figure 5.

### **Conformation to the Fundamental Criteria of PM**

To understand if the Public and Private PM sectors conform to the four (4) fundamental criteria of PM, the interviewees were asked a question on whether the Public and Private PM sectors conform to the four (4) fundamental criteria of PM. The study noted that 56% stated that the Public and Private PM Sectors do not conform to the four (4) fundamental PM criteria, and 44% stated that the Public and Private PM Sectors conform to

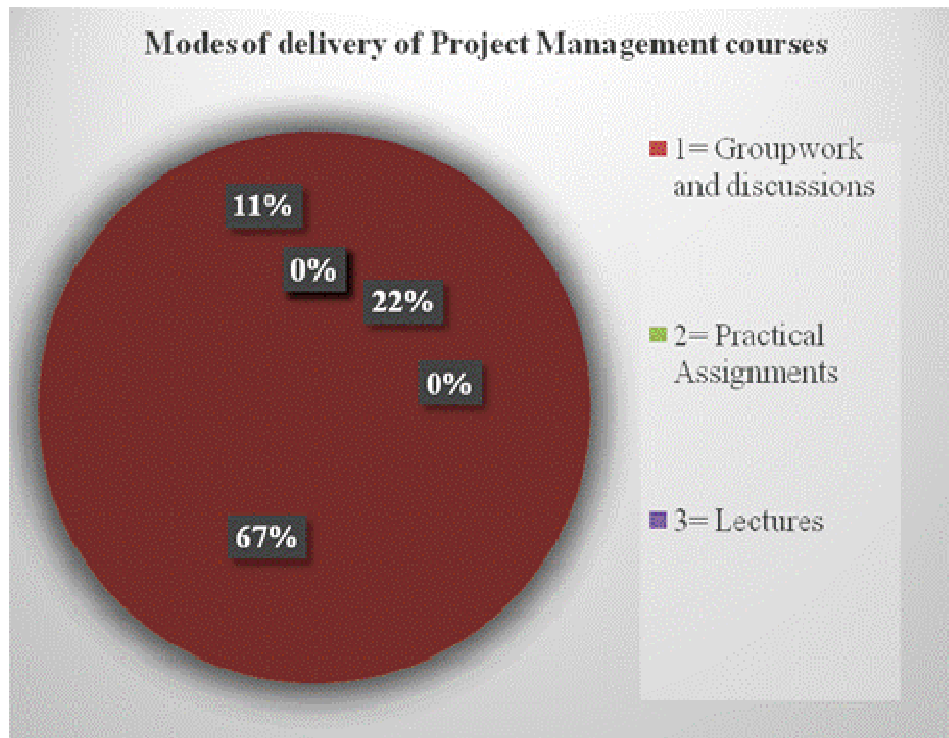


Figure 4. Modes of delivery of PM Courses.

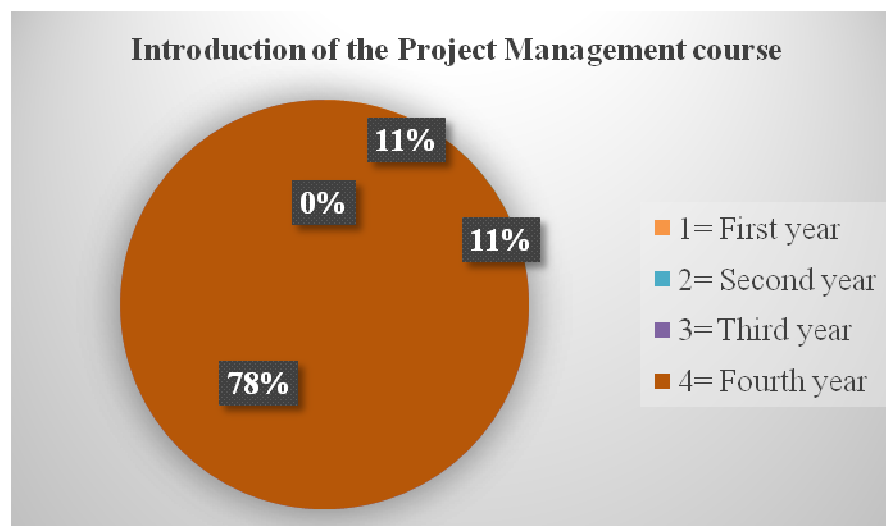


Figure 5. Introduction to the PM course

the four (4) fundamental PM criteria. This is shown in Figure 6.

#### Areas PM Curriculum Focuses on

To have a clear picture of the areas HEIs focus the PM curriculum on, the interviewees were asked to outline the areas in which their PM curriculum focused on. Out of

the curriculum or syllabi collected and reviewed from three (3) HEIs, namely the University of Hebron, Malawi Assemblies of God University and ESAMI. The syllabi for the University of Hebron and ESAMI have similar themes on areas that the PM course focuses on. These areas include Project Finance and Cost Management; Project Quality Management; Risk Management and Project Procurement Management.

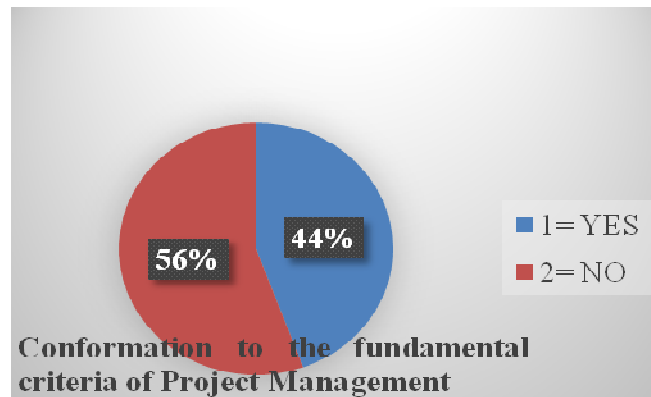


Figure 6. Conformation of the Fundamental Criteria of PM.

### Benefits of Offering the PM Course to Students

To identify the benefits of offering the PM course to students, the interviewees were asked to outline the benefits of the PM course. From the study participants, the following were similar themes that appeared in their responses. Thirty-three per cent (33%) of the respondents stated that the benefit of offering the PM course to students was that the students gain knowledge and skills in running projects, 22% of the respondents stated that the students acquire knowledge on effective budgeting and cost management for the project and while other 22% of the respondents indicated that the students learn good leadership skills and set realistic goals.

### Ideal Year for Introducing the PM Course to Students

The interviewees were asked a question on what the ideal year for introducing the PM course to students was. Based on the findings as highlighted in figure 5, 78% of the respondents stated that the PM course was introduced to students when they were in their third year of study. When the respondents were asked whether this was the ideal year of study to introduce PM to students so that they understand its importance and concept, 67% of the respondents stated that it was not an ideal year for the PM course to be introduced late to students in their course of study, while 22% of the respondents stated that it was the ideal year since the first and second year of study is for students to grasp the knowledge of management concepts.

### PM contribution to Development in Malawi

The interviewees were asked to outline the contribution of the PM course to the development of Malawi. From the responses of the respondents, the common theme was that PM has brought about development in the Public and

Private PM sectors in Malawi. Over 22% of the respondents stated that quality projects are delivered, and the other 22% of the respondents indicated that PM has helped them in imparting knowledge from donors that helped them to be able to convince donors to fund the various projects and yet the other 22% as well felt that the PM course has helped managers in effective cost management.

### Reasons for Project failure

The interviewees were asked to outline the reasons for project failure in Malawi. Fifty-six per cent (56%) of the respondents stated that high corruption in Malawi is hindering project success while forty-four (44%) of the respondents stated that the lack of involvement of qualified personnel in projects in the Public and Private Sector has resulted in a low project success rate in Malawi.

### Suggested Required Changes

The interviewees were asked to outline their suggestions on the changes that can be made in the Public and Private PM Sector to ensure that projects in Malawi are delivered within the four (4) fundamental criteria of PM. Over 33% of the interviewed respondents stated that to ensure that the four (4) fundamental criteria of PM are followed, qualified Project Managers and project teams should be hired, while 22% of the respondents stated that stakeholder interests should be balanced.

## DISCUSSION

### Assessing the Curriculum of the PM Courses Offered by HEIs

From the literature review, how the PM curriculum is

structured can affect the level of knowledge imparted to students and how the students can practically apply the PM knowledge in the PM Sector. These results are in line with a previous study by Costa (2014), who argued that the HEI develop a distinct logic from the others, for attention and focus are on the dissemination of knowledge. PM is considered a determining factor in the success of collaborative innovation and technological development projects carried out by universities and private companies, (Molina A, 2018).

The primary quantitative data results of this study indicate that 56% of the HEIs realize the need for PM and hence have a PM curriculum, 67% of the institutions use group work, practical assignments and lectures as modes of delivering the PM course so that students gain practical knowledge and hands-on experience on how to apply the PM knowledge and HEIs also acknowledge the importance of the Project Finance and Cost Management; Project Quality Management; Risk Management and Project Procurement Management in project success, hence these areas are taught to students so that they can easily develop the PM Sector.

### **Analysing the Significance of PM being Offered as a Course to Students in HEIs in Malawi**

HEIs have recognized the benefits of offering PM to students so that the students gain knowledge and skills of running projects, acquire knowledge on effective budgeting and cost management for the project and learn good leadership skills and set realistic goals for the success of projects in Malawi. These results are in line with the study by Uhlir (2021), who states numerous associations and institutions have been founded throughout the world, various educational programs have been started, professional conferences are held and articles are published, all with the goal of a more successful PM.

### **Evaluating the Effect of PM Courses Offered by HEIs in the Public and Private PM Sectors in Malawi**

The Primary results of this study indicate that PM has brought about development in the Public and Private PM sectors in Malawi, through the delivery of quality projects, importing knowledge from donors and effective cost management. At the same time, there is a low success rate in the PM Sector in Malawi, which is considered unsatisfactory. In line with a study by Developmental Studies Essays (2017), Project Management plays a vital role in the management of Projects by providing activities, mobilizing funds, acting as a development aspect and a way of allocating resources to people. While Project Management by itself is a discipline that can apply to any project intended to deliver solutions for any

purpose, it is often tailored to accommodate the specific and repeatable needs of different and highly specialized industries.

## **CONCLUSIONS AND RECOMMENDATIONS**

In this chapter, the researcher outlines the conclusions and recommendations analysis of the data gathered during the study. The conclusions were made based on the quantitative and qualitative data collected. The chapter also contains recommendations for HEIs and their Policy Makers, as well as future areas of study.

### **Conclusions**

Based on the findings of the study; the researcher came up with the following conclusions in line with the research questions. HEIs tailor their PM curriculum in a way that students attain the essential knowledge that can be applied in the PM Sector, by providing lessons on Project Finance and Cost Management; Project Quality Management; Risk Management and Project Procurement Management. These lessons on their own are adequate to ensure project success. However, from the findings, a higher percentage of 67% outlined that the delivery modes of the PM course are done through group work, practical assignments, lectures and fieldwork. Therefore, the modes of delivering the course might be the reason projects in Malawi are having poor quality deliverables.

The results of the research indicate that HEIs recognize that PM is an essential course to ensure Project success. Various educational programs have been started, professional conferences are held and articles published, all with the goal of a more successful PM.

Projects are considered one of the pillars for assisting developing countries, but most projects are reported to have high failure rates and their performance is often considered not satisfactory. Results of the study indicate that there is a low success rate in the PM Sector in Malawi, which is considered unsatisfactory and that the Public and Private PM Sectors do not conform to the four (4) fundamental criteria of PM.

The researchers' conclusion is that projects in Malawi have a low success rate because the fundamental criteria of PM are not followed when projects are being carried out. Therefore, the PM courses offered by HEIs in Malawi does not have an impact on the Public and Private PM Sector in Malawi. Hence, HEIs must take the initiative to ensure that all the essential concepts of PM are taught to students for higher chances of project success. The results of this study will assist HEIs to restructure their PM Curriculum and aligning it towards achieving development and success in the Project Management

Sector in Malawi.

The limitations that the researcher encountered during this study include the non-availability of information from previous studies on the research area, hence there is a need for further development in this area of study; the resistance from some HEIs to give out information and lastly, limited availability of resources to conduct the study.

## Recommendations

Therefore, the researcher is making the following recommendations based on the results of the study.

### Recommendation to HEIs

The PM Sector has a lot of potential for growth and success, but for this success to be achieved, HEIs need to be in the front line to ensure this happens by offering the PM course in a more practical delivery mode like incorporating fieldwork as a delivery mode so that students acquire hands-on experience on managing projects before they join the PM Sector. At the same time, HEIs should consider offering the PM course starting from the time students are in their first year of study so that they gain in-depth knowledge and understanding of the concept of PM and how the PM Sector works to ensure that once such students become Project Managers or personnel, they will carry out projects in a way that project success will be achieved.

### Recommendations to Policy Makers

Policy Makers must set effective and realistic policies to bring about project success and ensure that the projects bring about development in Malawi. When effective policies are put in place, the Public and Private PM sectors will abide by the four (4) fundamental criteria of PM and this will result in project success. Policy Makers must develop policies that outline the standard quality every project must abide by and even go as far as issuing penalties to those responsible for projects that do not meet the quality standards as outlined in project policies. A monitoring and evaluation team must be established by the Policy Makers so that they monitor if projects being undertaken are in line with the set project policies. At the same time, Policy Makers must consider offering regular trainings to those working in the PM sector on how to efficiently implement projects to ensure project success.

### Recommendations for Future Research

Through this study, the researcher uncovered that there are few studies conducted in this area of study. The

researcher recommends the following areas for future studies:

- Effectiveness of Fundamental Criteria of PM in the Public and Private PM Sector in Malawi;
- Impact of Project Success on Investment in the Public and Private PM Sectors in Malawi.

## REFERENCES

- African Development Bank Group (2018). African Development Bank Group. Available at: <https://www.afdb.org/en/projects-and-operations/selected-projects/clean-water-sanitation-services-bring-peace-social-harmony-to-rural-Somalia-166> (Accessed: 31 December 2021).
- African Development Fund (2012). Mzuzu- Nkhata Bay Road Rehabilitation Project: Project Appraisal Report. African Development Fund.
- African Development Fund (2019). Mzuzu- Nkhata Bay Road Rehabilitation Project: Project Completion Report (PCR). African Development Fund.
- Aibinu M, Fageha A (2021). Managing Project Scope Definition to Improve Stakeholders Participation and Enhance Project Outcome *Procedia-Social and Behavioral Sci. J.*, 74: 154-164.
- Anantatmula VS (2015). Project Manager Leadership Role in Improving Project Performance-*Engineering Manag. J.*, 22(1).
- Association for Project Management (2019). APM Body of Knowledge: The Chartered Body for the Project Profession. (7<sup>th</sup>ed.). Buckinghamshire: British Library Cataloguing in Publication, (Chapter 4).
- Barghothi EM, Salah A, Ismail AM (2020). A Comprehensive Software Project Management Framework, *J. Computer and Communications.*, 8(3).
- Costa G, Maccari EA, Martins CB (2014). Research Gate. Available at: [https://www.researchgate.net/publication/275658788\\_Project\\_Management\\_in\\_Higher\\_Education\\_Institutions\\_Pro-Administration\\_Case](https://www.researchgate.net/publication/275658788_Project_Management_in_Higher_Education_Institutions_Pro-Administration_Case) (Accessed: 11 April 2022).
- Crosley J (2021). GradCoach. Available at: <https://gradcoach.com/what-is-thematic-analysis/> (Accessed: 3 January 2022).
- Developmental Studies Essays (2017). 'Evaluating the Role of Projects in the Management of Projects. (Tariro Gwete)', 5<sup>th</sup> September. Available at: <http://tapsudza.blogspot.com/2017/09/evaluating-role-of-projects-in.html> (Accessed: 4 April 2022).
- Eby K (2021). Project Lifecycle. Available at: <https://www.smartsheet.com/blog/demystifying-5-phases-project-management> (Accessed: 26 November 2021).
- Edgar T (2017). Science Direct. Available at: <https://www.sciencedirect.com/topics/computer-science/convenience-sampling> (Accessed: 3 January 2022).
- Espejo R, Gill A (2011). Research Gate. Available at: [https://www.researchgate.net/publication/265740055\\_The\\_Viable\\_System\\_Model\\_as\\_a\\_Framework\\_for\\_Understanding\\_Organizations](https://www.researchgate.net/publication/265740055_The_Viable_System_Model_as_a_Framework_for_Understanding_Organizations) (Accessed: 16 March 2022).
- Fisher C (2014). New Techniques in Project Management, *Am. J. Industrial and Bus. Manag.*, 4(12).
- Fisher E (2011). What practitioners consider to be the skills and behaviours of an effective people project manager-*Int. J. Project Manag.*, 29(8).
- Jokonya O (2014). ResearchGate. Available at: [https://www.researchgate.net/figure/The-Viable-System-Model-Adapted-from-Jackson-14\\_fig3\\_275539238](https://www.researchgate.net/figure/The-Viable-System-Model-Adapted-from-Jackson-14_fig3_275539238) (Accessed: 16 March 2022).
- Kapalamula A (2020). *The Times Group*. Available at: <https://times.mw/six-lane-road-on-card-in-lilongwe/> (Accessed: 15 November 2021).
- Kasten J (2014). Real-World Project Management: Do as they Say, not as they Teach *Am. J. Industrial and Bus. Manag.*, 4(2).
- Kazemi SH, Andersen B, Krane HP (2021). Identification of Early Warning Signs in Front-End Stage of Projects, an Aid to Effective Decision-Making *Procedia - Social and Behavioral Sciences.*, 74: 212-222 DOI: <https://www.doi.org/10.1016/j.sbspro.2021.03.011>
- Kerzner H (2018). Project Management Best Practices: Achieving Global Excellence. (4<sup>th</sup>ed.). New York: John Wiley & Sons, Inc.(Chapter 1,2).
- Kirkpatrick DL, Kirkpatrick JD (2006). Project Management Institute. Available at: <https://www.pmi.org/learning/library/management-training-individual-performance-construction-6109> (Accessed: 15 March 2022).
- Landoni RG, Paola (2015). Adoption of project management practices: The impact on international development projects of non-governmental

- organizations-*Int. J. Project Manag.* 33(3).
- Lester A (2021). Project Management Planning and Control: Managing Engineering, Construction and Manufacturing Projects to PMI, APM and BSI Standards.(6<sup>th</sup> ed.).: Butterworth-Heinemann, (Chapter 2,3).
- Lonsdale Institute (2017). Lonsdale Institute Bespoke. Available at: <https://www.lonsdaleinstitute.edu.au/blog/benefits-studying-project-management/> (Accessed: 15 November 2021).
- Maylor H (2010). Project Management. (4<sup>th</sup> ed.). Essex: Pearson Education Limited, (Chapter 1).
- Molina AR, Ayala MT, Rodriguez J, Arazia ER (2018). Project Management in Higher Education Institutions in Mexico: A Case Study: *Int. J. Engineering Edu.*, 34(4): 1334-1346.
- Mounir EK (2020). Sustainable Project Management: Trends and Alignment *Journal of Theoretical Economics Letters.*, 10(6).
- Nagarajan SK (2018). Impact of Project Management Training on Project Success Rate-*Int. J. Mech. Eng.Technol. (IJMET)*, 9(7):1223-1230.
- Nahod MM, Vukomanovic (2021). The Impact of ICB 3.0 Competences on Project Management *Procedia - Social and Behavioral Sci. J.*, 74:244-254.
- Nassif LN, Filho JCS, Nogueira JM (2021). Project Portfolio Selection in Public Administration Using Fuzzy Logic *Procedia – Soc. and Behavioral Sci. J.*, 74:41-50.
- O'Quiin L (2018). '5 Real-World Successful Project Management Examples', Planview Blog, 2<sup>nd</sup> January. Available at: <https://blog.planview.com/5-real-world-successful-project-management-examples/> (Accessed: 31 December 2021).
- Pica M (2015). Project Life Cycle Economics: Cost Estimation, Management and Effectiveness in Construction Projects. England: Gower Publishing Limited.
- PMBOK (2021). A Guide to the Project Management Body of Knowledge (PMBOK Guide).(5<sup>th</sup> ed.). Pennsylvania: Project Management Institute, Inc., (Chapter 1)
- PRINCE2 (2010). Managing Successful Projects with PRINCE2. (5<sup>th</sup> ed.). Norwich: TSO (The Stationery Office), (Chapter 13).
- Qualtrics (2021). Qualtrics. Available at: <https://www.qualtrics.com/experience-management/research/non-probability-sampling/> (Accessed: 3 January 2022).
- Sambalikagwa L (2020). Malawi24. Available at: <https://malawi24.com/2020/09/23/motorists-to-start-using-area-18-interchange-next-week/> (Accessed: 15 November 2021).
- Saunders M, Lewis P, Thornhill A (2019). Research Methods for Business Students.(8<sup>th</sup> ed.). Italy: Pearson Education Limited.
- Sheard J (2018). ScienceDirect. Available at: <https://www.sciencedirect.com/topics/social-sciences/quantitative-research> (Accessed: 3 January 2022).
- Shroff R (2011). Analysis of the technology acceptance model in examining students' behavioural intention to use an e-portfolio system-*Australasian J. Edu. Technol.*, 27(4).
- Silverman D (2016). Qualitative Research. (4<sup>th</sup> ed.). England: Sage Publication Limited.
- Silvius AJG, Schipper RPJ (2014). Sustainability in Project Management Competencies: Analyzing the Competence Gap of Project Managers- *J. Human Res. Sustainability Studies.*, 2(2).
- Toledo RJ (2012). Effects of project management training on professional individual performance related to engineering and construction projects development. Available at: <https://www.pmi.org/learning/library/management-training-individual-performance-construction-6109> (Accessed: 15 March 2022).
- Uhlir Z (2021). The Effect of the Project Manager Certification Process on the Development of Project Management - A Croatian Perspective *Procedia – Soc. and Behavioral Sci. J.*, 74.
- UKESSAYS (2021) UKESSAYS. Available at: <https://www.ukessays.com/essays/psychology/explanation-of-the-concept-of-research-onion-psychology-essay.php> (Accessed: 27 December 2021).