CONSOLIDATED TRACER STUDY REPORT

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KOMBOLCHA POLYTECHNIC COLLEGE

ACKNOWLEDGEMENTS

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Table of Content

List of Tables

List of Figures

List of Acronyms

CSA:	Central Statistical Agency
EASTRIP:	East Africa Skills for Transformation and Regional Integration Project
GDP:	Gross Domestic Product
ICT/IT:	Information and Communications Technology/Information Technology
KPC:	Kombolcha Polytechnic College
LMS:	Labour Market Study
MoE:	Ministry of Education
MoLSA:	Ministry of Labour and Social Affairs
PDF:	Portable Document Format
SD:	Standard Deviation
TVET:	Technical and Vocational Education and Training

List of Symbols

N:	Total population
n:	Sample size
μ:	Measurement of mean score

Executive Summary

The purpose of this study was to generate relevant information that could possibly feed into actions/interventions geared at producing TVET graduates that are suitable for the job market. The study was commissioned by Kombolcha polytechnic college as part of the EASTRIP project. The study traced the whereabouts of the TVET graduates of the polytechnic college and assessed how successful they were in integrating into the labour market after completing their learning program, in 2019/2020. The study was conducted between December 2021 and February 2022. There were a number of limitations to the study including security concerns to trace the respondents, some of whom could not be reached due to the communication complexity in the region, while others have been detached from the study area due to obvious reasons.

The objectives of this study are (i)To examine the level of satisfaction of graduates with the training aids in the college (ii)To investigate employment status of graduates (iii) To identify causes for unemployment of graduates (iv) To identify the occupations employed graduates are mainly engaged in (v) To examine the decency of graduate employment (vi) To identify the level of satisfaction of employed graduates with individual job parameters (vii) To assess how employers get graduates with required skills (viii) To investigate the satisfaction of employers with the graduates with respect to teaching-learning conditions and provisions (ix) To identify the most important recruitment aspects for employers (x) To assess the level of satisfaction of KPC program staff with physical and administrative factors in the college (xii) To pinpoint the trainings needed by graduates (xiii) To forward suggestions to improve the relevance and quality of the training so as to enhance employability of graduates

The study covered graduates of 2019/2020 GC by employing a mixed methods approach. The population of the study included TVET graduates, Employers and KPC staff. A total of 237 graduates, 46 employers, and 16 KPC staff participated in the study. The study focused on four programs (Auto Engine Servicing Level 2, Auto Engine Servicing Level 3, Automotive Servicing Management Level 4, and Automotive Technology Management Level 5, and seven departments: Agriculture, Construction Technology, Hotel and Tourism, Information technology, Metal Manufacturing, Electrical-Electronic Technology, and Textile and Garment. The study was designed to generate both quantitative and qualitative data form primary and secondary sources. Secondary data was sourced from document reviews from KPC and industry firms in the study programs. Primary data was obtained by using three types (Graduates, Employers and KPC staff) of extensive on-line self-administered questionnaire, supported by phone conversation.

The findings of the study indicate that there is variation among graduates from different programs and departments in terms of their employability. The study revealed that the highest unemployment rate of graduates was observed in auto-engine servicing level III (35%) among the four programs of automotive technology department. It was also noticed from the findings that the majority of the graduates in the six departments are unemployed, with the exception of Information technology department, where only 32% of the graduates are unemployed. The highest rate of unemployment is seen in the department of agriculture (83%) followed by Hotel and Tourism department (82%). Most of the employed graduates are in wage employment while the highest self-employment of graduates is seen in Automotive Servicing Management Level 4 program (25%), followed by graduates from the department of construction technology (21%). The findings also show that only few of the graduates are undertaking further professional certification training. This leads to conclude that some programs and departments need to revise their curricula by checking their relevance to the need of the labour market. It is recommended that KPC should develop training programs by consultative processes that rely on inputs from the private sector/industry and other critical stakeholders and that trainings are provided by competent trainers in collaboration with the industry to equip the trainees with the required competencies.

CHAPTER ONE
INTRODUCTION

1.1. Background and context of the study

In a dynamic and complex labour market system, studying the employability status of graduates is indispensable to link training to the labour market and assess the TVET's contribution to the workforce needed in the world of work. Like any other TVET providers, Kombolcha polytechnic college needs to assess the whereabouts of its graduates. This study, therefore, intended to assess the whereabouts of the KPC graduates taking graduates of four programs from automotive technology department and those of seven departments.

Currently, Ethiopia is the second most populous country in Africa, after Nigeria. Urban population has grown from nearly 16% in 2007 to 17% in 2012. Among the urban population, 21% resides in the capital city Addis Ababa. The country is also characterized by a steady population growth. A report by the Ministry of Education (MoE) (2010) indicated that there was 2.6% average growth rate between 1994 and 2008. The proportion of the youth population between ages 15 and 29 according to the Youth Policy of Ethiopia totaled over 20 million, representing 28% of the population (CSA, 2010). About 44% of the population is with ages below 15. This altogether left the country to face with opportunities and challenges of integrating a rising number of youth into the labour market. The country has an annual average increase of more than 3% national labour force which by itself is an additional concern to planners, development partners and the government at large. Unless the demand for labour expands in parallel, such an explosion of the supply of labour force exacerbates the unemployment situation in the country (Berhanu, Aberham & Van der Deijil, 2005/07; CSA, 2010).

Ethiopia’s development strategy is Agriculture Development-Led Industrialization (ADLI). This is because its economy is predominantly agrarian in nature. According to the World Bank (2012), agriculture has contributed around 45% of the GDP, 60% of the export items as well as employed about 85% of the country’s population by 2007. The World Bank affirms that the services sector that contributes slightly over 40% of the GDP was the second largest component of development indicators followed by the industrial sector that took a little more than 10%. Between 2005 and 2010, although the service sector exhibited remarkable performance, the industrial sector under-performed and even

failed to hit its base target. For example, the achievement was less than 5% for textile and garment, about 34% for leather, and nearly 36% for cement.

When it comes to the automotive industry, Ethiopia started developing its own automotive manufacturing industry. An Industrial Zone in Addis Ababa (the capital) and the northern city of Mekelle was under construction. A new Industrial Park funded by the government is under construction near KPC; and a railway is being constructed in the region, though the progress is slow due to conflicts in the area.

The importance of TVET to the economic and social development of a given country cannot be over-emphasised. It is one of the most powerful instruments for economic, social and political development. It plays a significant role in reducing unemployment and creating employment opportunities to the youth. It has a great impact in producing skilled manpower that has substantial role in the development of the country. Hence, many countries recognized the importance of TVET and have been taking different measures since the last three decades to maximize its effectiveness in their education system (UNESCO, 1999).

TVET in Ethiopia is geared towards enhancing the competitiveness of all economic sectors through a dynamic, demand-driven and quality assured system of skills development. This will result in life-long learning and equal access opportunities for all target groups and envisage the formation of citizens able to contribute to the social and economic development of the country (MOE, 2007). The ultimate aim of TVET in Ethiopia is employment, which requires that TVET programs have to be linked to the job market to reduce unemployment rate and to prepare individuals to be employed on the labour market both in public or private and in the form of self-employment. That is, the assumption of TVET system in Ethiopia is that the graduate trainees from various institutions can get job opportunity for wage employment or to start their own business.

One key challenge of the TVET system in Ethiopia is the skills mismatch and high unemployment of TVET graduates (Mekonnen and Tekleselassie, 2018). Poor quality of training in the TVET system is one factor affecting the college-to-work transition of graduates (see, for example, Abebe et al., 2018). The poor quality emanates from the limited competency of teachers, lack of suitable equipment and weak cooperative training due to the reluctance of the industry in providing cooperative training (workplace attachment) opportunities for TVET trainees. This has resulted in skills being not relevant to market demand. An additional key challenge which also affects TVET graduates is poor public

employment services and job centres (Abebe at al., 2016). The MoLSA 2018/9 Annual Bulletin showed that only 17 per cent of jobseekers registered were placed on jobs in 2018/19 (MoLSA, 2020).

Automobile technology like many other disciplines experiences a very high level of technological development and challenges which demand that industries and training institutions must cope with the ongoing innovative and technological changes that require it to continually upgrade their existing skills and knowledge of its participants, (Kolo, 2006). Their training should be relevant and responsive to the ever changing market demands in terms of knowledge, attitudes and skills levels among the graduates (Tom, 2004). It is therefore, very important for training institutions to conduct a study to get insight into the where-about of their Automotive Technology graduates and to adjust their training delivery in accordance with the requirement of the labour market. The results of a study conducted by Kahase (2011) showed that graduates of automotive technology from four TVET institutions in Tigray region were not equipped enough in practical training; employers and graduates were not satisfied in the practical training of the TVET institutions; there was a gap between TVET institutions and employers; and labour market information system was underutilized, etc.

Kombolcha Polytechnic College is established in 2001 With one Campus to offer short term and regular training. In 2002 it was elevated to Industrial Technology College and started to offer technical training for the middle-level manpower for both the private and public sectors of the economy in 2003. In 2008, it was transformed to a TVET college and later to a Polytechnic College in 2012. **Now, KPC has three campuses & provides formal and non –formal** (short term) training in Industrial, Economic Infrastructure, Construction and Agricultural Sectors. Among the Economic Infrastructure sectors automotive technology is the one which is still highly demanded by the industries, MSEs' and also by private and government owned garages. Automotive Technology Department by now is chosen by the world bank under EASTRIP project as a center of excellence not only for Ethiopian market, but also for East Africa.

KPC is managed by Board members appointed by the Government to represent the community, industrialists, professionals and various governmental departments. The Principal serves as the Secretary to the Council. KPC is a member of the Ethiopia Association of Technical Training Institutions (EATTI). KPC has seen tremendous growth in terms of courses offered and the student enrolment.

This study intended to track the effectiveness of KPC in equipping TVET graduates with the

necessary skills to successfully gain employment. To do so, the study traced the whereabouts of graduates from four programs under automotive technology department and seven departments which are offered at KPC. The traces study assessed how successful the graduates of the four programs and the seven departments have been able to integrate into the labour market after completing their learning programmes in 2019/20. The study was conducted from December 2021 to March 2022. The table given below displays the four programs,the seven departments, and the number of graduates from in 2019/2020.

Table1. The number of graduates in the four programs and seven departments

	2019/2020		
	M	**F**	**n**
Auto Engine Servicing Level 2	**17**	**3**	**20**
Auto Engine Servicing Level 3	**18**	**2**	**20**
Automotive Servicing Management Level 4	**20**	**-**	**20**
Automotive Technology Management Level 5	**21**	**-**	**21**
Department of Agriculture	**16**	**5**	**21**
Department of Textile Garment	**10**	**11**	**21**
Department of Information Technology	**4**	**15**	**19**
Department of Electrical and Electronics Technology	**20**	**4**	**24**
Department of Construction Technology	**19**	**5**	**25**
Department of Metal Manufacturing Technology	**23**	**2**	**25**
Department of Hotel and Tourism	**3**	**19**	**22**

Source: Learner admission records, Office of the Registrar KPC
Note: One student in Automotive technology management program did not disclose his/her sex, which makes the total number =22

1.2. Research questions

The basic research question for the study is framed as follows:

- What is the employability status of the KPC graduates and what contributed to that?

In order to address the basic research question, this study sought to address the following twelve specific research questions:

1. What is the level of satisfaction of KPC graduates with the training aids provided in the college?
2. What is the employment status of the graduates from KPC?
3. What are the factors that contributed to the unemployment of graduates from KPC?
4. Which occupations absorb KPC graduates from the selected programs more?
5. Do KPC graduates get meaningful decent employment within a reasonable time-frame?
6. What is the level of satisfaction of KPC graduates with respect to individual job parameters?
7. How do employers get graduates with the required skills?
8. To what extent are employers satisfied with KPC graduates with respect to teaching-learning conditions and provisions?
9. What are the most important recruitment aspects for employers?
10. How are the program staff satisfied with the physical and administrative factors in the college?
11. What kinds of additional trainings do KPC trainees need to be competent in the world of work?
12. What plausible suggestions can be forwarded to enhance employability of the KPC graduates?

1.3. Objectives of the study

The general objective of the study is to track the relevance and quality of the training delivered at Kombolcha Polytechnic College (KPC).

Specific objectives of the study are:

- To examine the level of satisfaction of graduates with the training aids in the college
- To investigate employment status of graduates
- To identify causes for unemployment of graduates
- To identify the occupations employed graduates are mainly engaged in

- To examine the decency of graduate employment
- To identify the level of satisfaction of employed graduates with individual job parameters
- To assess how employers get graduates with required skills
- To investigate the satisfaction of employers with the graduates with respect to teaching-learning conditions and provisions
- To identify the most important recruitment aspects for employers
- To assess the level of satisfaction of KPC program staff with physical and administrative factors in the college
- To pinpoint the trainings needed by graduates
- To forward suggestions to improve the relevance and quality of the training so as to enhance employability of graduates

1.4. The scope of the study

This study was done only for four programs and seven departments in KPC and did not tailor the questions to any other departments and programs in the college, in other colleges in the country or elsewhere. Though the survey data can be used for a variety of inferential analyses, the current study did not go beyond simple descriptive statistics. The study did not include those graduates of the college before and after 2019/2020.

1.5. Limitation of the study

The study was mainly conducted using self-administered questionnaire which resulted in low response rate. Moreover, the researcher had no control of how respondents interpreted the questions, which could affect the validity of their responses. The researcher tried to maximize the response rate by engaging data collectors who made continuous phone call as a follow up mechanism. The respondents were also assisted by the data collectors in providing explanations for vague questions in consultation with the researcher.

1.6. Definition of key terms

TVET graduate: A TVET graduate is a person who has completed TVET training through the formal training and has been given certificate of competence after a national competency assessment.

study: A study or graduate survey is a standardized survey of graduates from TVET institutions, which takes place sometimes after graduation or at the end of the training (Cedefop, 2008).

Employability: The combination of factors which enable individuals to progress towards or get into employment, to stay in employment and to progress during a career (Cedefop, 2008).

1.7. Organization of the study

This study report is divided into four major sections: General introduction (section I), Research Methodology (section II), Results and Discussion (section III), and Major Findings, Conclusions, and Recommendations (section IV).

CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction to the chapter

In this part, pertinent issues facing graduates when attempting to enter or when already in the labour market were Highlighted. It indicates that TVET institutions can encourage wide spread acceptance, acknowledgement and recognition in terms of employability through understanding the essence of the labour market theories, i.e. the Consensus theory, the conflict theory, the human capital theory, the social capital theory and career development. First, it tried to give overview of employability of graduates.

2.2. Employability

Morley (2001) states that employability is not just about students making deposits in a bank of skills. Knight and Yorke (2004) further consider the notion of employability to be a synergic combination of personal qualities, skills of various kinds and subject understanding" (Knight and Yorke, 2004). The jobs market is rapidly changing with new sectors emerging, changing the nature of work and the way employees perceive the workplace. Graduates will have to be flexible and have the personal capabilities to manage changing and challenging work situations. Employers are looking to recruit graduates who fit into the organisational culture and utilise their abilities and skills to transform the company by facilitating innovative teamwork (Harvey et al., 1997).

Baruch (2001) suggests that individuals assume responsibility for their ongoing employability while employers provide opportunities for development. This simplistic view of employability is where individuals manage their careers across employment opportunities and organisations, who in turn offer employment as long as the person is needed. Hillage and Pollard (1998), however, see employability as being capable of getting and fulfilling work through the ability to be self sufficient within the labour market, to realise the potential through sustainable employment.

Nabi (2003) contends that employability is about graduates possessing an appropriate level of skills and attributes, and being able to use them to gain and remain in appropriate employment.

2.3. Theories of employability

The Consensus theory

The consensus theory of employability believes that generic skills development through human capital injection will result in sharpening employability skills of graduates thereby accelerating their career development (Selvadural et. al., 2012). This theory concludes that generic skills development at TVET institution would enhance the employability of graduates and assist them to perform optimally in the workplace.

According to consensus theory, the advancement of generic abilities can improve the employability of students and guide them to perform task at workplace. The focus of this theory is to grab and share the information which includes analysis. Furthermore, it indicates that students should be capable to communicate and represent the information with industrial standards. This includes writing emails, giving presentations, and team discussions. Additionally, it also suggests enhancing creativity and problem-solving skills, which are very important in uncertain situations.

The conflict theory

Conflict theory believes that society is characterized by inequality in wealth, power as well as status and that these inequalities create conflict between individuals and the society (Matsepe, 2002). This theory states that the employer and TVET institutions are both responsible for the development of employable skills in graduates (Brown et. al., 2003). This theory underscores the employer-academic conflict. The theory argues that employability cannot be handled alone by the TVET institutions but that it should be a partnership responsibility for both to provide work place experience that will increase employability (Selvadural et. al., 2012).

The human capital theory

The human capital theory, introduced in the 1960s by Gary Becker, supposes that investments in human capital will subsequently provide higher wages (Becker, 1964/1993). It highlights education as the key enabler of economy and global economic participation (Becker, 2009). Human capital comprises those assets that cannot be separated from the person, as is possible with physical or financial capital. Becker refers to knowledge, skills, and health as examples of human capital. He argues that education and training, said to be the most important factors of human capital, provides people with better earnings later in life. The promise of such benefits, to Becker, is proof for why it is important to invest in individuals. When analysing the employability of students from the companies' perspective, the skills and knowledge of employed graduates are being analysed by emphasising a human capital approach to graduates' employability skills (Jonck, 2014).

Human capital theory asserts a positive relationship between investments in the development of human beings and economic growth. Weber (2002) contends that there is strong empirical evidence that unemployment rates decrease as the educational level rises. The human capital theory views skills as commodities and operates around the notion that an individual will choose to invest in his/her own education and training on the basis that such an investment will result in enhanced marketable skills. These skills will be recognised by a demand in the labour market as technological advances require a competent workforce for the productive system to operate effectively.

Despite extensive research work that has been conducted to demonstrate the human capital model, there is still not adequate evidence to draw firm conclusions about the link between education and training and economic growth. However, despite these issues, there is still a large body of empirical data that suggests that vocational training does have a positive impact on earnings and employment opportunities for the individual with more training opportunities.

In a human capital theory, the primary purpose of TVET Institutions becomes that of preparing graduates for their occupational lives by equipping them with the necessary skills. Buck and Barrick (1992) state that contemporary human capital education and training emphasises generic employability skills, rather than specific technical abilities, rather than specific technical abilities, to address current labour market needs. In other words, employability skills such as critical thinking, problem-solving and a positive attitude towards occupational change are not job specific but transferable among a range of occupational contexts. This translated means that a person should possess a range of skills that can be applied to a variety of jobs because society is now faced with technological, economic and social influences which cause significant change in vocational roles. The graduate has to adapt to and capitalise on these changes by demonstrating the value that their work can add to an organisation. This is imperative to the fulfilment of a satisfying and productive life.

Vandenberghe (1999) avers that the human capital theory is very optimistic as it promotes the idea that education and training is a very powerful individual and social lever. This translates into better educated and trained people and nations earning more and prospering at a faster rate. This model assumes that TVET systems mechanically respond to their private or public clients, or in other words, the labour market.

Human capital accumulation is more than individual effort accomplished by students who expect some financial return on their investment since both the demand and supply side can pose regulatory difficulties (Vandenberghe, 1999). The implication is that if there are no new jobs in the labour market, a graduate cannot progress up the corporate ladder. Sugrue (2004) argues, however, that recognising learning as the primary vehicle for building human capital is the logical argument for the value of learning. In the new economy, work is primarily intellectual and human capital is a competitive advantage for both organisations and nations because it represents the knowledge and skills of the workforce. Learning is the vehicle through which knowledge and skills are developed and maintained. TVET institutions that can provide the right learning opportunities for their students will be most successful in terms of productivity, growth and innovation, thereby boosting human capital.

The social capital theory

In addition to knowledge and skills, social capital has also been regarded as important for an individual's ability to find employment. Social capital consists of a social structure that is productive in the sense that it facilitates the possibilities of undertaking certain actions that otherwise would not have been possible (Coleman, 1990). In other words, social capital is an individual resource consisting of those contacts that are of value when finding employment.

The social structure carries with it norms, trust, knowledge, relationships and nodes to other people and this structure forms an available network that is useful when searching for jobs (Seibert, Kraimer, & Liden, 2001).
In the employability literature, social capital has been recognised by several authors as a potential determinant of employability. For example, Fugate et al. (2004) emphasise the role of social capital in the formation of employability. The strength and size of a personal network is considered important in order to be employable, and through work and contact with other people, career opportunities arise. People with strong social capital are presumed to engage not only in formal networks, but also in informal networks (Fugate et al., 2004). This is supported in a recent study, where networking was found to be an important aspect of employability (McArdle et al., 2007). Other scholars suggest that employability is dependent on one's knowledge of the labour market itself, including how information is exchanged across formal and informal networks (Kluytmans & Ott, 1999).

According to Cross (2005) social capital is about building and establishing networks with people in one's field of study. There should be some movement towards training programs being mapped and adjusted, in order to be aligned more closely with the labour market.

In the literature on job search processes and the labour market, social capital has been used to refer to the social ties one uses to obtain job information or introductions to employers (Granovetter, 1994). This is further elaborated by Woolcock (1998) who proposes four dimensions of social capital: firstly, horizontal associations; secondly, social ties within communities; thirdly, the relationship between civil society, and fourthly, the State and the quality of governing institutions. These are some of the resources for which to strive in order to ensure sustainable futures in a changing socio-economic environment.

Brinton (2000) refers to two types of social capital: *private social capital and institutional social capital.* In private social capital, the individual has access through his or her personal networks whereas in institutional social capital the individual has access by virtue of belonging to a particular organisation, e.g. alumni associations, business firms and government agencies. However, in order to minimise institutional social capital, charges of systematic bias and unfairness against some groups of individuals gradually led to the development of legal provisions that require broad advertisement and an open application process for academic and most other types of jobs (Brinton, 2000). It is hoped that the latter will maximise the variety and depth of the applicant pool by openly soliciting applications. Despite efforts to curb institutional social capital, it is still prevalent in most avenues of employment.

In general, people differ in the degree to which they utilize social capital Granovetter (1994) found that many studies have demonstrated that the overriding mechanism through which individuals find jobs in

the U.S. is through their own social capital, or "connection". They argue that this reliance on social networks means that institutions play an insignificant role in matching workers to jobs. Instead what matters is the individual's own stock of social capital.

Both positive and negative points of contention emerge from this argument as a result. If a graduate is outgoing and open, then he/she may be able to establish social "contacts" whereas others who are reserved and unable to easily communicate possibly due to their own inhibitions, may find it difficult to build up their own social capital. Unfortunately, the reserved graduate may be a highly competent individual who has just not been noticed. This reliance on social networks suggests that institutions play an insignificant role in matching graduates to jobs. Thus Holzer (1987) calls for a more open society. A number of western countries have highly institutionalised systems of moving youth out of school and into the labour market through apprenticeship programmes or other types of school industry partnerships (OECD, 1998). This type of initiative addresses the changing demands of employers and industry.

Another interesting argument is postulated by Holzer (1987), who claims that people's own social networks will often be closely tied to their social class and ethnic origin rather than extending outward into other social groupings. These are constraining factors that span from social, human, fiscal, ethnic and possibly even racial factors, which may prevent educated people from moving into better jobs.

Career development in enhancing employability

An essential facet of career development is to gather information in order to decide how best to build a career at any given time. Through exploration via the acquisition of knowledge, an individual can identify other avenues that require their skills, interests and values. Engaging in further education and training is one sure way of validating the growth potential of an employee's current job. In order to develop human capital reserves, students need to have the verve and gusto to develop themselves in their prospective careers. Society is faced with technological, economic and social influences that are causing significant changes in vocational roles. The ability of the individual to adapt to change is imperative in the fulfilment of a satisfying and productive life.

Career development promotes life-long learning. Hyslop-Margison, Emery and Graham (2001) state that career development should present personal values and attitudes to students, not as abstract

employability skills, but as qualities to critically evaluate on the basis of their personal, workplace and social implications. Kaye and Farren (1996) suggest three simple steps towards career development:

a) Identify an organisational need or opportunity consistent with one's own career development

b) Prepare a plan to address the need by changing the nature of one's work

c) Start lobbying and building the necessary alliances for gaining support for one's ideas and new role in the organisation.

It is hoped that implementation of these steps may help a person's advancement in terms of career development. However, one can no longer assume that moving upward is the natural direction of career growth as opportunities for upward mobility are scarce. Horizontal career development is also to be considered as an option if the new position provides the employee with new goals and experience. It is therefore expected from graduates and employers in making sure that they invest in career development.

2.4. Empirical review of employability of TVET graduates

Pusriawan and Sunaryo (2019) in their study showed that becoming technically skilled alone cannot be a grant for employment (self/paid). In addition of being technically skilled TVET graduates need to develop the necessary soft (employability) and entrepreneurial skills to be employed (self/paid). Their study also shows that although both technical and employability skills are necessary for any position, employers peculiarly look for soft (employability) skills' among job applicants than technical skills. As to employers it is easier to train new employees in hard skills instead of training them in soft skills (Saemah et al. ,2011). This is also supported by a study conducted in Ethiopia by Genene and his colleagues (2019) which indicated that graduates' lack of work ethics is the biggest challenge to employers that lack of technical skills.

A study by Agmassie and Reda (2022) revealed that among 1579 TVET graduates that took CoC assessment in 2018/2019 only 654 were competent and among these competent graduates only 270 (41.28%) were employed whereas 384 (58.72%) were unemployed (both self and paid). Similarly, among 1508 graduates that took CoC assessment in 2019/2020 only 673 were competent and among these only 246 (36.55%) were employed while 427 (63.45%) were unemployed (self/paid) designating again the lower positive impact of employability and entrepreneurial skills on employment of TVET graduates.

Employability of TVET graduates (self/paid) and the reduction of youth unemployment depends on the extent of employability and entrepreneurial skills they developed in their colleges (Devin's & Hogarth, T. ,2005). Waidi (2021) reported the significant positive impact of entrepreneurial skills on job creation and self-employment.

Melaku (2017) in his study found out that most of the unemployed and employed respondents described as they did not learn entrepreneurship education hence, have no entrepreneurial skills. However, few respondents reported as they have heard the importance of entrepreneurship education from their major course teachers. But said the respondents the attention of major course teachers is teaching only technical skills. Hence, graduates did not have the skills of creating their own jobs in their field and are seen to waste so many years in searching for jobs. Moreover, his study revealed that unemployed TVET graduates didn't learn entrepreneurship education by professionals and thus they lacked even basic entrepreneurial skills and thus they were unable to create their own jobs. Regarding TVET graduates' employment choice, Melaku (2017) found out in his study that government and NGO employments are the priority choices for most of them. That means, the concerns of Foster (1965), Jones-Hendrickson (2014), Lauglo (2010), Psacharopoulos (1986) about the incompatibility between government intentions and career choices of student still persisted in the study area. That is, despite the government's intention to enhance self-employment, more and more students rather prefer paid employment to self-employment.

According to Bedada (2010), the major factors that contributed to the inadequacies of TVET graduates in creating their own businesses or getting employment opportunities are the following: Inadequate experience regarding practical training on the part of the trainers, Existence of poor public-private partnership, Minimal stakeholders' involvement in the training programs, Prevalence of inadequate attachment between TVET institutions and the nearby companies and/or industries, Absence of follow-up studies of the graduates, and Availability of cheap labour in the black market.

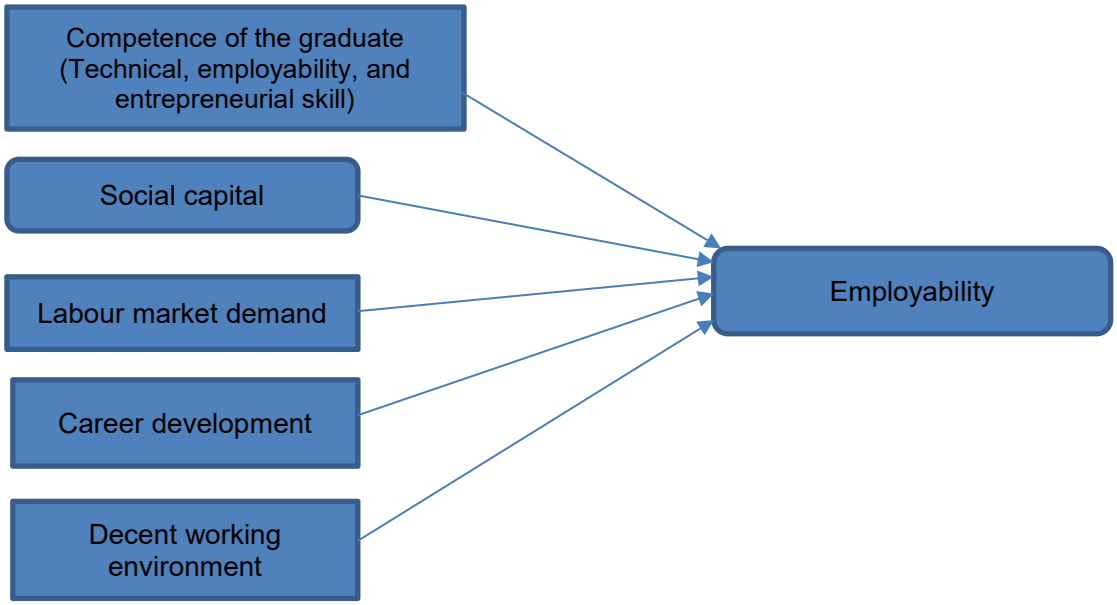
According to Berhane (2017), inadequate allocation of relevant resource (shortage of teaching materials especially in occupational standards newly developed), scarcity of quality academic and support staff, increased enrolment and insufficient industrial internship bases have affected the successful implementation of competence-based training which, in turn, contributed to graduate unemployment and dissatisfaction of different categories of stakeholders. Berhane added that the low competence of TVET colleges to measure the actual skills needed in the labour market and predicting

the number of graduates required from TVET colleges in terms of occupational categories, hinders the effective utilization of market opportunities.

2.5. Conceptual framework

Informed by the theoretical review, empirical review and experience, the following conceptual framework was proposed to guide the study. The framework indicates those variables which affect employability of TVET graduates and how they relate with the dependent variable.

Fig.1. Conceptual model for the study



CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Introduction to the chapter

The KPC study survey was conducted between December 2021 and March 2022. It was done using three (graduates, Instructors and Employers of CPC graduates) extensive online self- administered questionnaires. The questionnaires touched many areas of study, including; course of study, assessment of study conditions, transition to work, qualification and usage of qualifications, relationship between studies and work, working conditions (salary, working hours, kind of contract), job satisfaction and training conditions. This chapter presents the Methodology, it covers (1) Methodology for study, (2) Target study groups, (3) Access to the People, (4) Survey instruments and tools, (5) Ethical Considerations, (6) Methodological challenges and mitigations, and (7) Advantages and Disadvantages of Preferred Method.

3.2. Research Approach

The research approach adopted for this study was mainly quantitative; however various qualitative approaches were also adopted while conducting the study. The combination of qualitative and quantitative approaches is important (method triangulation enhances accuracy and reliability of survey). In this study, qualitative data was collected to supplement the quantitative data. Both the qualitative and the quantitative data were collected simultaneously with a concurrent design. The study took a cross-sectional time horizon. As a deductive research approach, data for the analysis of this work was based on primary and secondary sources. In terms of the primary data, a self-administered questionnaire with mixed methods was used. An online system was designed and used in data collection, analysis, storage and reporting. The population of the study included; graduates from four programs of automotive technology department and graduates of seven departments, Instructors of automotive technology graduates and Employers of the graduates.

3.3. Target Groups for Kombolcha Polytechnic College

Three different groups (graduates, Instructors of Automotive technology department and Employers of the graduates) were targeted in the survey. KPC established a consolidated databases of the graduates. Contacts of the graduates were obtained from the database.

3.3.1 Graduates

The study covered graduates of 2019/2020 whose address was obtained from database. However, the database of Graduates had many gaps. Details such as email address and telephone contacts were missing for some of the data shared by KPC. The database was reviewed and cleaned after which a refined database was prepared for purposes of the study. The participants were hand-picked according to the presence of their contact details, such as, a working phone number and/or an active email address. The study targeted graduates who were employed, unemployed, and self-employed graduates. Totally 237 graduates participated in the study. The graduates filled the tracer study survey questionnaire via telephone conversation with data collectors.

3.3.2 Employers

Four (4) employers were targeted for each program/department. Participant were hand-picked from Human Resource (HR) managers and section supervisors (Head/Deputy Heads of Department). Calls were made to target employers. They had employed graduates from KPC. Totally 46 employers participated in the study.The employers filled the study survey questionnaire via the online system.

3.3.3 Instructors of Automotive Technology Department Graduates

A sample of four (4) instructors was drawn and contacted from each program. The participants included, Departmental Heads, Deputy Departmental Heads, Course Instructors and Workshop Technicians. Totally, 16 instructors participated in the study.They had trained Automotive technology graduates of 2019/2020. The Instructors filled the study survey questionnaire via the online system.

3.4. Access to the people

Multiple communication channels were used to reach the target participants, these included, phone calls, SMS and social media (such as WhatsApp). Initial contacts with graduates, instructors and employers invitations were made between 16th November 2021 and 23rd November 2021. While survey survey invitations were sent out between 25th November 2021 and 4th December 2021. Chase-ups via mobile phones were done on a regular basis. Up to five reminders were sent

via mobile phones as necessary.

The communication included:

1. KPC Graduate survey Survey Introductory Letter – This was sent out as a SMS communication.
2. KPC Graduate survey Survey Explanatory Notes - This was embedded in the online system.
3. Online system introductory message - This was embedded in the online system.
4. The Graduates Questionnaire - This was embedded in the online system.
5. Graduates Guidance Notes for KPC study Survey 2021 – This was embedded in the online system.
6. KPC Graduate survey Survey Invitation letter – This was sent out once the data collection phase is ready.
7. KPC Graduate Tracer Studies Survey Reminder 1 - This was sent out as a SMS communication.
8. KPC Graduate Tracer Studies Survey Reminder 2 - This was sent out as a SMS communication.

3.4.1 Research participant invitation

The participant invitation letter was used to invite the participants. It illustrated the motive of the research and how participants would be involved. In total three standards letters were written, one each for the graduates, Instructors and employers of the graduates. A specific invitation letter was written for each of the three categories of participants. Potential participants were informed that the core objectives of the survey were to improve the study programs and, more specifically, to revise the curricula so it prepares graduates better for the world of work. Further, they were informed that the technical consultant had been contracted by the KPC through a competitive process for the study Project funded by the World Bank. Moreover, they got to know that the Online data management system had been developed to reach the graduates, instructors and employers; so as to collect the data and find out what happened to the graduates after they completed their studies. Invited participants had a chance to request for a PDF version of the study report with the main results of the survey once it was out. All participants were assured of confidentiality of their data.

3.4.2 Guidance Notes

It gave concise information on the research. There were three sets of guidance notes, one each for the three (graduates, Instructors and employers of graduates) categories of participants. Each of the three

guidance notes started by stating the purpose of the survey. Participants were urged to refer to the relevant guidance notes document whenever they were unsure about any of the questions, especially when completing the survey.

3.5. Survey Instruments and Tools

Three questionnaire surveys were designed for the study, Graduate study survey questionnaire (Appendix A1). Employer study survey questionnaire (Appendix A2). Staff study survey questionnaire (Appendix A3). The questionnaires comprising of both closed- ended and open-ended questions were pre-tested and administered through on online system. The original drafts were amended through discussion with the KPC and then tested. Ultimately, the tools were scripted into an Excel drag and drop template and later uploaded onto the web - platform. The questionnaires were self-administered via an online platform specifically created for the survey. Five (5) experienced National Statisticians assisted in the data collection process. The content of the questionnaire was guided by the specific objectives.

3.6. Data analysis

The collected data were first coded then entered in to the specially designed format in SPSS (Statistical Program for Social Science). After completing the data entry, some inconsistencies were revised and incomplete questionnaires were omitted during the data cleaning process. In the quantitative data analysis, tools like frequencies and mean comparison were basically used. The qualitative data was analysed through thematic analysis.

3.7. Ethical Considerations

Upon contacting a potential informant/respondent, the objectives of the study were explained to him/her, and then they were left to decide whether they wanted to participate in the study or not. The respondents and key informants were assured that all information collected would be treated in confidence and only used for the purpose of this study.

3.8. Methodological Challenges and Mitigations

The identification of graduates began at the polytechnic through the use of admission records. The admission records lacked phone numbers or had outdated contact information, identified graduates were expected to help identify other graduates who could participate in the study. Employers were also

contacted in order to verify whether they had employed graduates, with the intention of using the identified employees to identify other graduates. While these approaches were expected to facilitate and increase the response rate, the fieldwork indicated otherwise. The main recorded constraints included the following:

1. The study population was based on the actual data that was provided by the KPC. There is a need for the KPC to establish and improve the database of graduates and employers.
2. Contact information for selected graduates had changed, while, others declined to participate, particularly those who were unemployed.
3. Some of the addresses that were collected were no longer valid. This is because the more time that had lapsed post-graduation, the more the validity of addresses was in question.
4. Online Questionnaires – some would be respondents had challenges with either accessing online system due to internet connectivity or their own inability to participate in online surveys.
5. Language barrier

Despite the above-mentioned challenges and in order to secure a high response rate, the researchers reverted to snowball sampling techniques; where both graduates and employers were asked to identify other graduates that could participate in the study. This meant that while graduates could identify both employed and unemployed peers, employers on the other hand could only identify other employed graduates. The unemployed graduates were reached through the provided databases and snowballing techniques (including the use of WhatsApp forums).

3.9. Advantages and Disadvantages of Preferred Method for study

3.9.1 Advantages of Preferred Method for survey

1. There was a database for the programs and departments. It is on this basis that this study was carried out; following on the lists of graduates in 2019/2020.
2. Participants were invited as individuals. This accorded them a chance to freely give responses.
3. Participants were allowed to seek clarifications, at any time, before and/or during the study period.

4. Questionnaires “gather details that are not instantly seen” and can probe perspectives and experiences.
5. Qualitative approaches made it practicable to conceptualise the participant’s perspectives.

3.9.2 Disadvantages of Preferred Method for survey

1. Self-administered questionnaires did not provide room for ample deliberations and instant explanation. Participants were free to seek clarifications by phone (call or text).
2. Regardless of the distribution method employed, selected participants claimed that they were busy or did not have time to complete the questionnaire.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1. Introduction to the chapter

The data and information extracted from the Online System has been compiled and processed to form the basis of the analysis and findings. The nature of data obtained from this study is both quantitative and qualitative. The quantitative data results, compiled from an online self-administered questionnaire, have been entered into a database and analyzed using Excel. Percentage (%), mean (μ) and standard deviation (SD) has been applied and the data cross-tabulated. Qualitative data has been coded into themes around the key variables of investigation. A code has been placed next to a word or group of words that mentioned these key variables of investigation. Output from the analysis is presented in tables, graphs and verbatim qualitative statements. This chapter, presents the findings for the graduates, the employers, and KPC staff. Comments and Suggestions from the respondents are also included.

4.2. Graduates Findings

All the traced graduates from KPC are based in Ethiopia. The data obtained from the completion of the online questionnaires by the graduates is presented in section 4.1.1 through to section 4.1.8.

4.2.1 Demographic Information

This section highlights the nature and characteristics of graduates, their "*Gender*, *"Civil Status", "Age", "Year of Graduation"*, and *"Additional Subjects/Units studied"* taken by graduates of *KPC"* . Gender in this sense refers to being male or female. Civil status implies to being single or married. Additional subjects/units studied implies to the generic competencies (supportive courses such as mathematics as well as employability skills such as communication skills) that graduates might have taken in addition to the core competencies.

Table 2 summarizes the "*Gender"* distribution, *"*Civil Status", "Age", "Year of Graduation", and "Additional Subjects/Units studied" by KPC graduates.

Table 2. Demographic information of graduates from the 4 programs

Demographic information	Auto level2	Auto Level3	Auto level4	Auto level5
Gender in %	Male=85 (17) Female=15 (3)	Male=90 (18) Female=10 (2)	Male=100 (20) Female=0 (0)	Male=95 (21) Female=0 (0) No naswer= (1)
Civic status in %	Single=60 (12) Married=40 (8)	Single=45 (9) Married=55 (11)	Single=75 (15) Married=25 (5)	Single=68 (15) Married=27 (6) Unwilling=5 (1)
Age in %	Below 25= 30 (6) Between 25-35=65 (13) Above 35=5 (1)	Below 25= 20 (4) Between 25-35=75 (15) Above 35=5 (1)	Below 25= 15 (3) Between 25-35=75 (15) Above 35=10 (2)	Below 25= 18 (4) Between 25-35=73 (16) Above 35=5 (1) Refused=5 (1)
Additional Subject taken	Applied Mathematics=20 (4)	Applied Mathematics=25 (5)	Applied Mathematics=95 (19)	Applied Mathematics=68 (15)
	Communication skills=95 (19)	Communication skills=100 (20)	Communication skills=100 (20)	Communication skills=81 (18)
	ICT Skills=25 (5)	ICT Skills=5 (1)	ICT Skills=100 (20)	ICT Skills=81 (18)
	Problem-solving skills=100 (20)	Problem-solving skills=100 (20)	Problem-solving skills=100 (20)	Problem-solving skills=91 (20)
	Work ethics=100 (20)	Work ethics=100 (20)	Work ethics=100 (20)	Work ethics=91 (20)
	Entrepreneurship skills=100 (20)	Entrepreneurship skills=100 (20)	Entrepreneurship skills=100 (20)	Entrepreneurship skills=86 (19)
	Customer service skills=100 (20)	Customer service skills=100 (20)	Customer service skills=100 (20)	Customer service skills=91 (20)
	Health & Safety skills=100 (20)	Health & Safety skills=95 (19)	Health & Safety skills=100 (20)	Health & Safety skills=91 (20)

Source: From KPC study, 2021

Note: The numbers in the parentheses show the actual number of the graduates.

Among the surveyed automotive technology department graduates, 85 percent of the traced Auto Engine Servicing Level 2 program graduates are "*Male"* and 15 percent of the traced Auto Engine Servicing Level 2 program graduates are *"Female";* 90 percent of the traced Auto Engine Servicing Level 3 program graduates are "*Male"* while 10 percent are "*Female";* 100 percent of the traced Automotive Servicing Management Level 4 program graduates are "*Male";* 95 percent of the traced Automotive Technology Management Level 5 program graduates are "*Male"* while 5 percent "*gave no answer".* The findings show that the participation of females in all Automotive technology programs is very low as compared with males. This is consistent with the results of a study conducted by Kahase (2011) in automotive technology departments in four colleges at Tgray region. Kahase (2011) found that the majority of the graduates from automotive technology department (96.8%) are male. This implies that females have less preference to automotive technology.

Among the traced automotive technology department graduates, 60 percent of the traced Auto Engine Servicing Level 2 program graduates are *"Single"* while 40 percent are *"Married";* 45 percent of the traced Auto Engine Servicing Level 3 program graduates are *"Single"* while 55 percent are *"Married";* 75 percent of the traced Automotive Servicing Management Level 4 program graduates are *"Single"* while 25 percent are *"Married";* 68 percent of the traced Automotive Technology Management Level 5 program graduates are *"Married"* while 42 percent are "*Single",* 5 percent gave *"no answer".* Overall, most graduates of the automotive technology department are single.

It was also seen from the data that, 30 percent of Auto Engine Servicing Level 2 program graduates are *"Below 25 years"* . 65 percent are *"Between 25 and 35 years"* while 5 percent of the graduates are "*Above 35 years*"; 20 percent of Auto Engine Servicing Level 3 program graduates are *"Below 25 years"* . 75 percent are *"Between 25 and 35 years"* while 5 percent o the graduates are *"Above 35 years"*; 15 percent of Automotive Servicing Management Level 4 program graduates are *"Below 25 years"*. 75 percent are *"Between 25 and 35 years"* while 10 percent of the graduates are "Above 35 years"; 18 percent of Automotive Technology Management Level 5 program graduates are *"Below 25 years"*. 73 percent of Automotive Technology Management Level 5 program graduates are *"Between 25 and 35 years"* while 5 percent of the graduates are "Above 35 years".

Overall, it can be seen from the data that a sizeable proportion of the traced Automotive Technology graduates are *"Between 25 and 35 years".* The variations in the age groups from "*Below 25 years"* to "*Above 35 years*" exist because the Automotive Technology department

graduates have been selected from those who graduated in 2019/2020 and the enrolment/entry requirements of the polytechnic colleges also contributed to this. Moreover, as a result of Covid-19 pandemic, which led to KPC being closed for close to six months, some of the traced *"graduates"* are still continuing with their studies.

With regards to "*Additional Subjects/Units studied*" taken, 20 percent of Auto Engine Servicing level 2 graduates have studied "*Applied Mathematics*", 95 percent have studied *"Communication skills",* 25 percent have studied "*ICT Skills*", 100 percent have studied *"Problem-solving Skills",* 100 percent have studied *"Work ethics",* 100 percent have studied *"Entrepreneurship skills",* 100 percent have studied *"Customer Service skills",* 100 percent have studied *"Health & Safety skills";* 100 percent *of* Auto Engine Servicing Level 3 program graduates have studied *"Communication skills", "Problem-solving Skills", "Work ethics", "Entrepreneurship skills" and "Customer Service skills",* 95 percent have studied*, "Health & Safety skills". Only 5% have studied "ICT skills"* and 25percent *of the graduates have studied "Applied Mathematics"* at 25percent; It can also been from the data that 100 percent of Automotive Servicing Management Level 4 program graduates have studied *"Entrepreneurship skills",* 100 percent have studied *"Work ethics",* 100 percent have studied *"Communication skills,* 100 percent have studied *"Problem- solving Skills",* 100 percent have studied *"Health & Safety skills",* 100 percent have studied *"Customer Service skills",* 95 percent have studied "*Applied Mathematics*"; 91 percent of Automotive Technology Management Level 5 program graduates have studied *"Problem-solving Skills",* 91 percent have studied *"Work ethics",* 91 percent have studied *"Health & Safety skills",* 91 percent have studied *"Customer Service skills,* 86 percent have studied *"Entrepreneurship skills",* 82 percent have studied *"Communication skills",* 82 percent have studied *"ICT skills".*

Generally, it's with concern to realize that in this day and age of technology driven economy, only 5% of Auto Engine Servicing Level 3 program graduates at KPC have studied *"ICT skills".*

Demographic information about the seven departments is also presented in table 3. As can be seen from table 3, the findings have revealed that, 14 percent of the traced Hotel and Tourism department graduates are "*Male"* while 86 percent are "*Female";* 21 percent of the traced Information Technology department graduates are "*Male"* while 79 percent are "*Female";* 92 percent of the traced Metal Manufacturing Technology department graduates are "*Male"* while 8 percent are "*Female";* 76 percent of the traced Agriculture Department graduates are "*Male*" while 24 percent are "*Female*"; 76 percent of the traced Department of Construction Technology

graduates are "*Male*" while 24 percent are "*Female*"; 83 percent of the traced Electrical and Electronics Technology department graduates are "*Male"* while 17 percent are "*Female";* and finally 48 percent of the traced Department of Textile Garment department graduates are "*Male"* while 52 percent are "*Female".*

These study shows that while males are under-represented in the departments of Hotel and Tourism, Information Technology, and Textile and Garment, females are under-represented in the departments of Metal Manufacturing Technology, Agriculture, Construction Technology, and Electrical-Electronics Technology. This is consistent with the result seen in a Global Report on Women in Tourism)2010) which shows that 80.1% of employees in the hotel industry are women implying that females prefer to work in areas such as hotel and tourism.

As can also be seen from able 3, 77 percent of the traced Hotel and Tourism program graduates are *"Single"* while 23 percent are *"Married";* 58 percent of the traced Information Technology program graduates are *"Single"* while 42 percent are *"Married";* 56 percent of the traced Metal Manufacturing Technology program graduates are *"Single"* while 44 percent are *"Married";* 90 percent of the traced Agriculture Department graduates are "*Single*", 10 percent are *"Married*"; 90 percent of the traced Department of Construction Technology graduates are "*Single*", 10 percent are "*Married*"; 71 percent of the traced Electrical and Electronics Technology program graduates are *"Single"* while 29 percent are *"Married"; and* 71 percent of the traced Department of Textile Garment program graduates are *"Single"* while 29 percent are *"Married".* It can be deduced from the findings that most of the graduates are single.

Table 3. Trainees' Demographic information (the 7 departments)

Demographic information	Hotel and Tourism	Information technology	Metal Manufacturing	Agriculture	Construction Technology	Electrical- Electronic Technology	Garment and Textile
Gender in %	Male=14 (3) Female=86 (19)	Male=21 (4) Female=79 (15)	Male=92 (23) Female=8 (2)	Male=76 (16) Female=24(5)	Male=76 (19) Female=24 (5)	Male=83 (20) Female=17 (4)	Male=52 (10) Female=48 (11)
Civic status in %	Single=77 (17) Married=23(5)	Single=58 (11) Married=42(8)	Single=56 (14) Married=44 (11)	Single=90 (19) Married=10 (2)	Single=83 (20) Married=17 (2)	Single=71(17) Married=29 (7)	Single=29 (15) Married=71(6)
Age in %	Below 25=18 (4) Between 25-35=82 (18) Above 35=0	Below 25=10 (2) Between 25-35=74 (14) Above 35=16 (3)	Below 25= 56 (14) Between 25-35=24 (6) Above 35=20 (5)	Below 25= 90 (19) Between 25-35=10 (2) Above 35=0 (0)	Below 25= 63 (15) Between 25-35=29 (7) Above 35=8 (2)	Below 25= 58.3 (14) Between 25-35=33.3 (8) Above 35=8.3 (2)	Below 25= 19(4) Between 25-35=62 (13) Above 35=19 (4)
Additional Subject taken	Applied Mathematics=0 (0)	Applied Mathematics-	Applied Mathematics=96(24)	Applied Mathematics=90 (19)	Applied Mathematics=54 (13)	Applied Mathematics=75 (18)	Applied Mathematics =Not specified
	Communication skills=95 (21)	Communication skills=95 (18)	Communication skills=96 (24)	Communication skills=100 (21)	Communication skills=100 (24)	Communication skills=100 (24)	Communication skills=90 (19)
	ICT Skills=100 (22)	ICT Skills=100 (19)	ICT Skills=96 (24)	ICT Skills=100(21)	ICT Skills=58 (14)	ICT Skills=92 (22)	ICT Skills=95 (20)
	Problem-solving skills=100 (22)	Problem-solving skills=95 (18)	Problem-solving skills=96 (24)	Problem-solving skills=100 (21)	Problem-solving skills=100 (24)	Problem-solving skills=100 (24)	Problem-solving skills=90 (19)
	Work ethics=95 (21)	Work ethics=95(18)	Work ethics=100(25)	Work ethics=100 (21)	Work ethics=100 (24)	Work ethics=100 (24)	Work ethics=95 (20)
	Entrepreneurship skills=100 (22)	Entrepreneurship skills=95 (18)	Entrepreneurship skills=96 (24)	Entrepreneurs hip skills=100 (21)	Entrepreneurship skills=100 (24)	Entrepreneurship skills=100 (24)	Entrepreneurship skills=95 (20)
	Customer service skills=95 (21)	Customer service skills=95 (18)	Customer service skills=92 (23)	Customer service skills=100 (21)	Customer service skills=100 (24)	Customer service skills=95 (23)	Customer service skills=90 (19)
	Health & Safety skills=95 (21)	Health & Safety skills=84 (16)	Health & Safety skills=96 (24)	Health & Safety skills=100 (21)	Health & Safety skills=100 (24)	Health & Safety skills=100 (24)	Health & Safety skills=95 (20)
				Foreign Language =100 (21)			Foreign Language =10 (2)

Source: From KPC study, 2021

Note: The numbers in the parentheses show the actual number of the graduates.

It can also be seen from table 3 that 18 percent of Hotel and Tourism graduates are *"Below 25 years"*, 82 percent are *"Between 25 and 35 years"*; 10 percent of information technology department graduates are *"Below 25 years"*, 74 percent are *"Between 25 and 35 years"* while 16 percent Information Technology program graduates are "Above 35 years"; 56 percent of metal manufacturing department graduates are *"Below 25 years"*, 24 percent are *"Between 25 and 35 years"* while 5 percent Metal Manufacturing Technology department graduates are *"Above 35 years"*; 90 percent of agriculture department are "*Below 25 years*", 10 percent are "*Between 25 and 35 years*"; 63 percent of construction technology department graduates are "*Below 25 years*", 29 percent are "*Between 25 and 35 years*" and 8 percent are "*Above 35*". 58 percent of Electrical and Electronics Technology department graduates are *"Below 25 years"*, 33 percent are *"Between 25 and 35 years"* while 2 percent are *"Above 35 years"*; and finally 19 percent are *"Below 25 years"*. 62 percent of Department of Textile Garment department graduates are *"Between 25 and 35 years"*, 19 percent are "Above 35 years".

Generally, it can be seen from the study that the majority of graduates, except those of Hotel and Tourism, Information Technology, and Garment and Textile are below 25 years old. Overall, the majority of graduates are below 35 years old.

The study also revealed that 100 percent of Hotel and Tourism graduates have studied "ICT skills", 100 percent have studied "Entrepreneurship skills", 95 percent have studied "Work ethics", 95 percent have studied "Communication skills", 100 percent have studied "Problem-solving Skills", 95 percent have studied "Health & Safety skills", 95 percent have studied "Customer Service skills"; 100 percent of information technology department graduates have studied "ICT skills", 95 percent have studied "Entrepreneurship skills", 95 percent have studied "Work ethics", 95 percent have studied "Communication skills", 95 percent have studied "Problem-solving Skills", 84 percent have studied "Health & Safety skills", 95 percent have studied "Customer Service skills"; 96 percent of Metal Manufacturing technology department graduates have studied "Communication skills", "Problem-solving Skills", "Applied Mathematics," "Health & Safety skills", "Entrepreneurship skills", and "ICT skills" whereas 92 percent have studied "Customer Service skills", and 100 percent have studied "Work ethics"; 90 percent of Agriculture department graduates have studied "Applied Mathematics" and all of the traced Agriculture Department graduates have studied "Communication skills", "ICT skills", "Problem-solving skills", "Work ethics", "Entrepreneurship skills", "Customer service skills" and "Health and Safety skills". Moreover, 54 percent of construction technology department graduates have studied "Applied Mathematics", 58 percent have studied "ICT skills (use of computers)" and

100 percent of the traced Department of Construction Technology graduates have studied "Communication skills", "Problem-solving skills", "Work ethics", "Entrepreneurship skills", "Customer service skills" and "Health and Safety skills"; 100 percent of electrical-electronics department graduates have studied "Communication skills", "Problem-solving Skills", "Work ethics", "Entrepreneurship skills" and "Health & Safety skills", 96 percent have studied "Customer service skills"; and 92 percent have studied "ICT skills"; and 95 percent of Textile and Garment department graduates have studied have studied "ICT skills", "Entrepreneurship skills", "Work ethics" and "Health & Safety skills", 90 percent have studied "Communication skills", "Problem-solving Skills" and "Customer Service skills". While, 10 percent have studied "Foreign Languages" and 5 percent have studied "Other Additional Subjects/Units".

The findings imply that most of the graduates have studied important generic competencies including soft skills.

4.2.2 Level of satisfaction of graduates with training aids

Using average mean score (μ), the scale has been interpreted as shown below:

INTERPRETATION OF THE AVERAGE MEAN SCORE					
Range	**1.0 – 1.4**	**1.5 – 2.4**	**2.5 – 3.4**	**3.5 – 4.4**	**4.5 – 5.0**
Verbalisation	**Not at all Satisfied**	**Somewhat not Satisfied**	**Neither Satisfied Nor Dissatisfied**	**Satisfied**	**Very Satisfied**

Table 4 deals with level of satisfaction of Automotive technology department graduates from the four programs. According to the findings, the Auto Engine Servicing Level 2 program graduates are *"Somewhat not Satisfied"* with three (3) Training Aid ($2.3 \leq \mu \leq 2.35$), that is; *"Computers"* ($n = 20$, $\mu = 2.3$), *"Audio-Visual Aids"* ($n = 20$, $\mu = 2.3$), *"Online learning Technologies"* ($n = 20$, $\mu = 2.35$). The study also revealed that for Training Aids, the Auto Engine Servicing Level 2 program graduates are *" Neither Satisfied nor Dissatisfied"* with four (4) Training Aids ($2.95 \leq \mu \leq 3.4$), that is; *"Follow up of graduates progress"* ($n = 20$, $\mu = 2.95$), *"Industry related journal"* ($n = 20$, $\mu = 3.15$), *"Access to external assessor"* ($n = 20$, $\mu = 3.35$) and *"Tools & Equipment"* ($n = 20$, $\mu = 3.4$). The study further revealed that for Training Aids, the Auto Engine Servicing Level 2 program graduates are *" Satisfied"* with eleven (11) Training Aids ($3.45 \leq \mu \leq 4.05$), that is; *"Resource Centre for use by learners"* ($n = 20$, $\mu = 3.45$), *"Involvement of local employers"* ($n = 20$, $\mu = 3.5$), *"Learners study packs"* ($n = 20$, $\mu = 3.6$), *"The recommended text books"* ($n = 20$, $\mu = 3.65$), *"Access to qualification standardization workshop/seminars"* ($n = 20$, $\mu = 3.65$), *"Course curriculum"* ($n = 20$, $\mu = 3.65$), *"Practice workshops and classrooms"* ($n = 20$, $\mu = 3.7$), *"Access to Industrial*

attachment / internship program" (n = 20, μ = 3.7), *"Industrial Visits"* (n = 20, μ = 3.8), *"Learners logbooks for recording practical work"* (n = 20, μ = 3.85) and *"Teaching Guide"* (n = 20, μ = 4.05).

According to Table 4, the Auto Engine Servicing Level 3 program graduates are *"Not at all Satisfied"* with three (3) Training Aid (μ = 1.33), that is; *"Online learning Technologies"* (n = 20, μ = 1.1), *"Computers"* (n = 20, μ = 1.2) and *"Audio-Visual Aids"* (n = 20, μ = 1.3). The tracer study also revealed that for Training Aids, the Auto Engine Servicing Level 3 program graduates are *" Neither Satisfied Nor Dissatisfied"* with one (1) Training Aids (2.5 ≤ μ ≤ 3.4), that is; *"Industry related journal"* (n = 20, μ = 3). The study also revealed that for Training Aids, the Auto Engine Servicing Level 3 program graduates are *" Satisfied"* with four (4) Training Aids (3.5 ≤ μ ≤ 4.4), that is; *"Involvement of local employers"* (n = 20, μ = 3.6), *"Tools & Equipment"* (n = 20, μ = 3.65), *"Learners logbooks for recording practical work"* (n = 20, μ = 3.65), *"Learners study packs"* (n = 20, μ = 3.7), *"Follow up of graduates progress"* (n = 20, μ = 3.7), *"Industrial Visits"* (n = 20, μ = 3.75), *"Access to external assessors"* (n = 20, μ = 3.75), *"Teaching Guide"* (n = 20, μ = 3.85), *"Practice workshops and classrooms"* (n = 20, μ = 3.85), *"Access to qualification standardization workshop/seminars"* (n = 20, μ = 3.85), "*Access to Industrial*"(n=20, μ = 3.95) *"Resource Centre for use by learners"* (n = 20, μ = 4.05), and *"Course curriculum"* (n = 20, μ = 4.15).

Moreover, the study revealed that the Automotive Servicing Management Level 4 program graduates are *"Not at all Satisfied"* with three (3) Training Aid (μ = 1), that is; *"Online learning Technologies"* (n = 20, μ = 1), *"Audio-Visual Aids"* (n = 20, μ = 1) and *"Computers"* (n = 20, μ = 1). The study also revealed that for Training Aids, the Automotive Servicing Management Level 4 program graduates are *"Neither Satisfied nor Dissatisfied"* with one (1) Training Aids (μ ≤ 3.3), that is; *"Tools & Equipment"* (n = 20, μ = 3.3). The study further revealed that for Training Aids, the Automotive Servicing Management Level 4 program graduates are *" Satisfied"* with fourteen (14) Training Aids (3.5 ≤ μ ≤ 4.25), that is; *"Access to qualification standardization workshop/seminars"* (n = 20, μ = 3.5), *"Access to external assessors"* (n = 20, μ = 3.5), *"Industry related journal"* (n = 20, μ = 3.55), *"Involvement of local employers"* (n = 20, μ = 3.6), *"Practice workshops and classrooms"* (n = 20, μ = 3.65), *"Follow up of graduates progress"* (n = 20, μ = 3.65), *"Industrial Visits"* (n = 20, μ = 3.7), *"Teaching Guide"* (n = 20, μ = 3.75), *"Learners logbooks for recording practical work"* (n = 20, μ = 3.8), *"Learners study packs"* (n = 20, μ = 3.8), *"Resource Centre for use by learners"* (n = 20, μ = 3.8), *"Access to Industrial attachment / internship program"* (n = 20, μ = 3.8), *"Course*

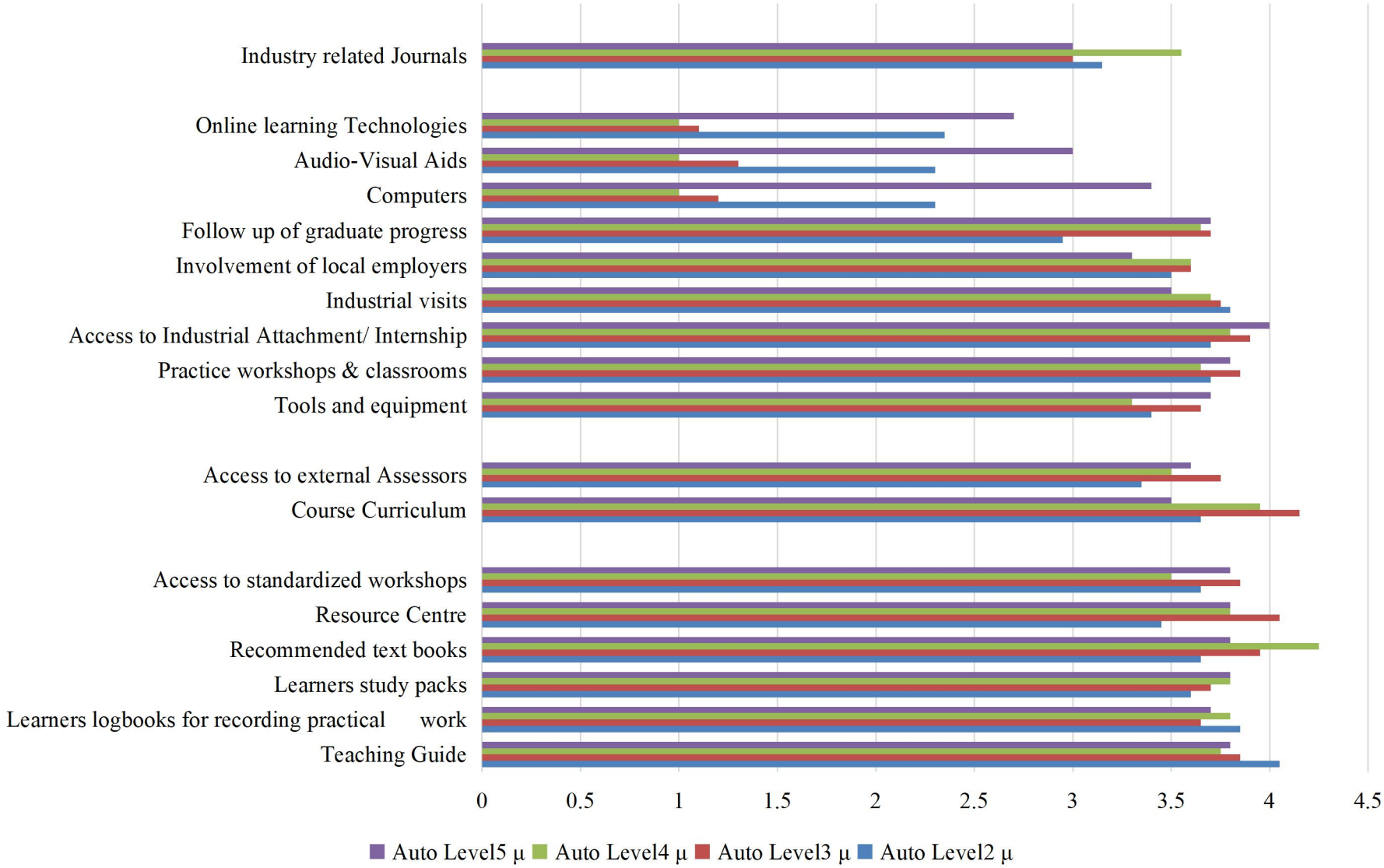
curriculum" (n = 20, μ = 3.95) and *"The recommended text books"* (n = 20, μ = 4.25). Automotive Technology Management Level 5 program graduates are *"Neither Satisfied nor dissatisfied"* with five (5) Training aids ($2.5 \leq \mu \leq 3.4$) that is; *"Online learning Technologies"* (n = 21, μ = 2.7), *"Audio- Visual Aids"* (n = 21, μ = 3), *"Industry related journal"* (n = 21, μ = 3), *"Involvement of local employers"* (n = 21, μ = 3.3) and *"Computers"* (n = 21, μ = 3.4).

Table4: Trainees' satisfaction with training aid (the 4 programs)

Parameter	Auto Engine Level2								Auto Engine Level3								Automotive Servicing Level4								Auto. Tech. Management Level5							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Teaching Guide	1	0	2	11	6	20	4.05	0.94	0	1	2	16	1	20	3.85	0.59	0	1	3	16	0	20	3.75	0.55	1	1	1	16	2	21	3.8	0.87
Learners logbooks for recording practical work	0	2	3	11	4	20	3.85	0.88	1	0	4	15	0	20	3.65	0.75	0	1	2	17	0	20	3.8	0.52	1	0	3	17	0	21	3.7	0.72
Learners study packs	0	2	7	8	3	20	3.6	0.88	1	0	3	16	0	20	3.7	0.73	0	1	3	15	1	20	3.8	0.62	0	1	5	13	2	21	3.8	0.7
Recommended text books	0	3	3	10	3	20	3.65	0.93	0	0	2	17	1	20	3.95	0.39	0	0	0	15	5	20	4.25	0.44	1	1	2	14	3	21	3.8	0.93
Resource Centre	0	1	10	8	1	20	3.45	0.69	0	0	3	13	4	20	4.05	0.6	0	1	4	13	2	20	3.8	0.7	1	1	2	15	2	21	3.8	0.89
Access to standardized workshops	0	1	7	10	2	20	3.65	0.75	0	2	4	9	5	20	3.85	0.93	0	3	7	7	3	20	3.5	0.95	1	0	5	12	3	21	3.8	0.89
Course Curriculum	0	2	6	9	3	20	3.65	0.88	0	0	0	17	3	20	4.15	0.37	0	1	0	18	1	20	3.95	0.51	0	1	8	12	0	21	3.5	0.6
Access to external Assessors	2	2	6	7	3	20	3.35	1.18	0	1	5	12	2	20	3.75	0.72	0	4	5	8	3	20	3.5	1.0	0	3	4	13	1	21	3.6	0.81
Tools and equipment	0	2	8	10	0	20	3.4	0.68	0	1	5	14	0	20	3.65	0.59	0	7	2	9	2	20	3.3	1.08	0	0	8	11	2	21	3.7	0.64
Practice workshops & classrooms	0	1	7	9	3	20	3.7	0.8	0	1	4	12	3	20	3.85	0.75	0	1	8	8	3	20	3.65	0.81	0	1	6	10	4	21	3.8	0.81
Access to Industrial Attachment/ Internship	0	1	7	9	3	20	3.7	0.8	0	2	0	16	2	20	3.9	0.72	0	0	8	8	4	20	3.8	0.77	0	1	1	16	3	21	4	0.63
Industrial visits	0	0	6	12	2	20	3.8	0.62	0	0	5	15	0	20	3.75	0.44	0	2	3	14	1	20	3.7	0.73	1	1	7	10	2	21	3.5	0.93
Involvement of local employers	2	1	6	7	4	20	3.5	1.19	0	2	6	10	2	20	3.6	0.82	0	1	7	11	1	20	3.6	0.68	1	1	9	10	0	21	3.3	0.8
Follow up of graduate progress	5	1	5	8	1	20	2.95	1.32	1	1	1	17	0	20	3.7	0.8	0	1	5	14	0	20	3.65	0.59	1	0	4	16	0	21	3.7	0.73
Computers	10	1	3	5	1	20	2.3	1.45	17	2	1	0	0	20	1.2	0.52	20	0	0	0	0	20	1.0	0	1	1	9	9	1	21	3.4	0.86
Audio-Visual Aids	10	2	2	4	2	20	2.3	1.53	17	1	1	1	0	20	1.3	0.8	20	0	0	0	0	20	1.0	0	1	5	8	7	0	21	3	0.89
Online learning Technologies	7	6	2	3	2	20	2.35	1.39	18	2	0	0	0	20	1.1	0.31	20	0	0	0	0	20	1.0	0	2	10	3	5	1	21	2.7	1.11
Industry related Journals	4	2	3	9	2	20	3.15	1.35	1	0	17	2	0	20	3	0.56	0	0	11	7	2	20	3.55	0.69	1	1	17	1	1	21 3	3	0.71

Source: From KPC study, 2021

Fig. 2. Satisfaction with Training Aids (Four programs)



Source: From KPC study, 2021

The study also revealed that the Automotive Technology Management Level 5 program graduates are *" Satisfied"* with thirteen (13) Training Aids ($3.5 \leq \mu \leq 4.4$), that is; *"Course curriculum"* ($n = 21$, $\mu = 3.5$), *"Industrial Visits"* ($n = 21$, $\mu = 3.5$), *"Access to qualification standardization workshop/seminars"* ($n = 21$, $\mu = 3.6$), *"Learners logbooks for recording practical work"* ($n = 21$, $\mu = 3.7$), *"Tools & Equipment"* ($n = 21$, $\mu = 3.7$), *"Follow up of graduates progress"* ($n = 21$, $\mu = 3.7$), *"Teaching Guide"* ($n = 21$, $\mu = 3.8$), *"Learners study packs"* ($n = 21$, $\mu = 3.8$), *"The recommended text books"* ($n = 21$, $\mu = 3.8$), *"Resource Centre for use by learners"* ($n = 21$, $\mu = 3.8$), *"Access to external assessors"* ($n = 21$, $\mu = 3.8$), *"Practice workshops and classrooms"* ($n = 21$, $\mu = 3.8$) and *"Access to Industrial attachment / internship program"* ($n = 21$, $\mu = 4$).

Table 5 presents the level of satisfaction of graduates from the seven departments. According to the study, the Hotel and Tourism program graduates are *"Not at all satisfied"* with two (2) *Physical and Administrative Factors* ($1.0 \leq \mu \leq 1.4$), that is; *Industry Related Journals* ($n = 22$, $\mu = 1.1$) and *Online Learning Technologies* ($n = 22$, $\mu = 1.1$). Hotel and Tourism program graduates are *"Somewhat not Satisfied"* with four (4) *Physical and Administrative Factors* ($1.5 \leq \mu \leq 2.4$), that is; *Audio- Visual Aids* ($n = 22$, $\mu = 1.1$), *Involvement of Local Employers, e.g. guest lecturers* ($n = 22$, $\mu = 1.6$), *Follow-up of Graduate Progress* ($n = 22$, $\mu = 1.9$) and *Industry Related Journals* ($n = 22$, $\mu = 2.2$). Hotel and Tourism program graduates are *"Neither Satisfied nor Dissatisfied"* with two (2) *Physical and Administrative Factors* ($2.5 \leq \mu \leq 3.4$), that is; *Access to Industrial Attachment/Internship Program* ($n = 22$, $\mu = 2.7$) and *Access to External Assessors* ($n = 22$, $\mu = 3.0$). Hotel and Tourism program graduates are *"Satisfied"* with ten (10) *Physical and Administrative Factors* ($3.5 \leq \mu \leq 4.4$), that is; "*Computers*" ($n = 22$, $\mu = 3.5$), *"Practice Workshops and Classrooms"* ($n = 22$, $\mu = 3.5$), *"Course Curriculum"* ($n = 22$, $\mu = 3.5$), *"Access to Qualification Standardization Workshops/seminars"* ($n = 22$, $\mu = 3.5$), *"Learner Study Packs"* ($n = 22$, $\mu = 3.5$), *"Teaching Guides"* ($n = 22$, $\mu = 3.5$), *"Resource Centre for use by Learners"* ($n = 22$, $\mu = 3.6$), *"The Recommended Text Books (including Reference Materials)"* ($n = 22$, $\mu = 3.6$), *"Learner Logbooks or recording practical work"* ($n = 22$, $\mu = 3.6$), *"Resource Centre for use by Learners"* ($n = 22$, $\mu = 3.6$) and *"Tools and Equipment"* ($n = 22$, $\mu = 3.8$).

With regards to availability of Training Aids, the Information Technology program graduates are *"Not at all Satisfied"* with one (1) Training Aid ($\mu = 1.33$), that is; *"Online learning Technologies"* ($n = 18$, $\mu = 1.33$). The study also revealed that for Training Aids, the Information Technology program graduates are *"Satisfied"* with four (4) Training Aids ($3.79 \leq \mu \leq 4.168$), that is; *"Practice workshops*

and classrooms" (n = 19, μ = 3.79), *"Teaching Guide"* (n = 19, μ = 3.95), *"Learners logbooks for recording practical work"* (n = 19, μ = 3.95) and *"Course curriculum"* (n = 19, μ = 4.16). The study also revealed that the Information Technology department graduates are *"somewhat not Satisfied"* with three (3) Training Aids ($1.89 \leq \mu \leq 2.16$), that is; *"Industry related journal"* (n = 19, μ = 1.89), *"Audio- Visual Aids"* (n = 19, μ = 2.05) and *"Involvement of local employers"* (n = 19, μ = 2.16). The study further revealed that for Training aids, the Information Technology program graduates are *"Neither Satisfied nor dissatisfied"* with ten (10) Training aids ($2.58 \leq \mu \leq 3.47$) that is, *"Industrial Visits"* (n = 19, μ = 2.58), *"Follow up of graduates progress"* (n = 19, μ = 2.58), *"Access to external assessors"* (n = 19, μ = 2.84), *"Computers"* (n = 19, μ = 3.11), *"Access to qualification standardization workshop/seminars"* (n = 19, μ = 3.16), *"Tools & Equipment"* (n = 19, μ = 3.16), *"Access to Industrial attachment / internship program"* (n = 19, μ = 3.16), *"Resource Centre for use by learners"* (n = 19, μ = 3.26), *"Learners study packs"* (n = 19, μ = 3.37) and *"The recommended text books"* (n = 19, μ = 3.47). The study survey findings have revealed that for availability of Training Aids, the Metal Manufacturing Technology program graduates are *"Not at all Satisfied"* with three (3) Training Aid (μ = 1.33), that is; *"Online learning Technologies"* (n = 25, μ = 1.2), *"Computers"* (n = 25, μ = 2.84) and *"Audio- Visual Aids"* (n = 25, μ = 2.2).

The study also revealed that Metal Manufacturing Technology department graduates are *" Neither Satisfied Nor Dissatisfied"* with one (1) Training Aids ($2.5 \leq \mu \leq 3.4$), that is; *"Industry related journal"* (n = 25, μ = 3), The study also revealed that for Training Aids, the Metal Manufacturing Technology program graduates are *" Satisfied"* with four (4) Training Aids ($3.5 \leq \mu \leq 4.4$), that is; *"Involvement of local employers"* (n = 25, μ = 2.32), *"Tools & Equipment"* (n = 25, μ = 3.08), *"Learners logbooks for recording practical work"* (n = 25, μ = 3.4), *"Learners study packs"* (n = 25, μ = 3.72), *"Follow up of graduates progress"* (n = 25, μ = 4.2), *"Industrial Visits"* (n = 25, μ = 2.2), *"Access to external assessors"* (n = 25, μ = 3.76), *"Teaching Guide"* (n = 25, μ = 4), *"Practice workshops and classrooms"* (n = 25, μ = 3.36), *"Access to qualification standardization workshop/seminars"* (n = 25, μ = 4), *"Access to Industrial attachment / internship program"* (n = 25, μ = 3.56), *"The recommended text books"* (n = 25, μ = 3.28) *"Resource Centre for use by learners"* (n = 25, μ = 1.68), and *"Course curriculum"* (n = 25, μ = 4.8).

The study also revealed that the Agriculture Department graduates are "*Somewhat not satisfied*" with three (3) *training aids* ($1.5 \leq \mu \leq 2.4$), that is "*Use of Computers*" (n = 21, μ = 2.19), "*Online Learning Technologies*" (n = 21, μ = 1.67) and "*Industry Related Journals*" (n = 21, μ = 2.24). The

Agriculture Department graduates are "*Neither Satisfied nor Dissatisfied"* with six (6) *training aids* ($2.5 \leq \mu \leq 3.4$), that is; "*Resource Centre for use by Learners*" (n = 21, μ = 3.1), "*Tools and Equipment*" (n = 21, μ = 3.48), "*Industrial Visits*" (n = 21, μ = 3.38), "*Involvement of Local Employers*" (n = 21, μ = 2.62), "*Follow-up of Graduate Progress*" (n = 21, μ = 3.24) and "*Audio-Visual Aids*" (n = 21, μ = 2.71). The Agriculture Department graduates are "*satisfied*" with eight (8) *training aids* ($3.5 \leq \mu \leq 4.4$), that is "*Teaching Guides*"(n = 21, μ = 4.05), "*Learner Logbooks for recording practical work"* (n = 21, μ = 4.29), "*Learner Study Packs*"(n = 21, μ = 3,57), "*The Recommended Text Books (including Reference Materials)*"(n = 21, μ = 3.52), "*Access to Qualification Standardization Workshops/seminars*"(n = 21, μ = 3,57), "*Access to External Assessors"*(n = 21, μ = 3,86), "*Practice Workshops and Classrooms"*(n = 21, μ = 3,81), "*Access to Industrial Attachment/Internship Program*"(n = 21, μ = 4.0). The Agriculture Department graduates are "*Very Satisfied"* with one (1) training aid ($4.5 \leq \mu \leq 5.0$), that is "*Course Curriculum*" (n = 21, μ = 4.52).

The study from the Department of Construction Technology revealed that graduates are "Not at all Satisfied" with one (1) training aid ($1.0 \leq \mu \leq 1.4$),that is "*Online Learning Technologies*" (n= 24, μ = 1.29), "Somewhat not satisfied" with five(5) training aids ($1.5 \leq \mu \leq 2.4$),that is "*Resource Centre for use by Learners*"(n = 24, μ = 2.33), "*Industrial Visits*"(n = 24, μ = 2.25) and "*Use of Computers*"(n = 24, μ = 2.33), "*Audio- Visual Aids*'(n = 24, μ = 2.38) and "Industry Related Journals"(n = 24, μ = 2.04). The Department of Construction Technology graduates are "*Neither Satisfied nor Dissatisfied*" with two (2) training aids ($2.5 \leq \mu \leq 3.4$), that is; "I*nvolvement of Local Employers"* (n = 24, μ = 3.04), "*Follow-up of Graduate Progress*" (n = 24, μ = 3.25). "*Satisfied*" with nine (9) Physical and Administrative Factors ($3.5 \leq \mu \leq 4.4$), that is "*Teaching Guides*"(n = 24, μ = 4.0), "*Learner Logbooks for recording practical work*" (n = 24, μ = 4.38), "*Learner Study Packs*"(n = 24, μ = 3,57), "*The Recommended Text Books (including Reference Materials)*"(n = 24, μ = 3.54), "*Access to Qualification Standardization Workshops/seminars*"(n = 24, μ = 3,67), "*Access to External Assessors*"(n = 24, μ = 3,96), "*Tools and Equipment*" (n = 24, μ = 3.96),"*Practice Workshops and Classrooms*"(n = 24, μ = 3,88), "*Access to Industrial Attachment/Internship Program*"(n = 24, μ = 3.71). The Department of Construction Technology graduates are *"Very Satisfied*" with one (1) training aid ($4.5 \leq \mu \leq 5.0$), that is "Course Curriculum" (n = 24, μ = 4.92).

On the other hand, the study from the department of Electrical and Electronics Technology revealed that graduates are *"Not at all Satisfied"* with one (1) Training Aid ($\mu = 1.33$), that is; *"Online learning Technologies"* ($n = 24$, $\mu = 1.42$). The study also revealed that for Training Aids, the Electrical and Electronics Technology program graduates are *" Somewhat not Satisfied"* with two (2) Training Aids ($1.5 \leq \mu \leq 2.4$), that is; *"Industry related journal"* ($n = 24$, $\mu = 2.17$) and *"Involvement of local employers"* ($n = 24$, $\mu = 1.75$). The study also revealed that for Training Aids, the Electrical and Electronics Technology department graduates are *" Neither Satisfied Nor Dissatisfied"* with seven (7) Training Aids ($2.5 \leq \mu \leq 3.4$), that is; *"The recommended text books"* ($n = 24$, $\mu = 3.3$), *"Access to external Assessors"* ($n = 24$, $\mu = 3.25$), *"Tools and Equipment"* ($n = 24$, $\mu = 3.42$), *"Industrial visits"* ($n = 24$, $\mu = 2.88$), *"Computers"* ($n = 24$, $\mu = 2.88$), *"Audio-Visual Aids"* ($n = 24$, $\mu = 2.54$).

The study also revealed that for Training Aids, the Electrical and Electronics Technology program graduates are *"Satisfied"* with six (6) Training Aids ($3.5 \leq \mu \leq 4.4$), that is; *"Access to Industrial Attachment / Internship program"* ($n = 24$, $\mu = 3.67$),*" Practice workshops and classrooms"* ($n = 24$, $\mu = 3.71$ *"Access to Qualification standardization workshops / seminars"* ($n = 24$, $\mu = 3.85$), *"Practice workshops and classrooms"* ($n = 24$, $\mu = 3.78$), *"Learners study packs"* ($n = 24$, $\mu = 3.64$), *"Learners logbooks for recording practical work"* ($n = 24$, $\mu = 3.54$), *"Teaching Guide"* ($n = 24$, $\mu = 3.46$). The study also revealed that for Training Aids, the Electrical and Electronics Technology program graduates are *"Very Satisfied"* with One (1) Training Aids ($4.5 \leq \mu \leq 5.0$), that is; *"Course Curriculum"* ($n = 24$, $\mu = 4.67$).

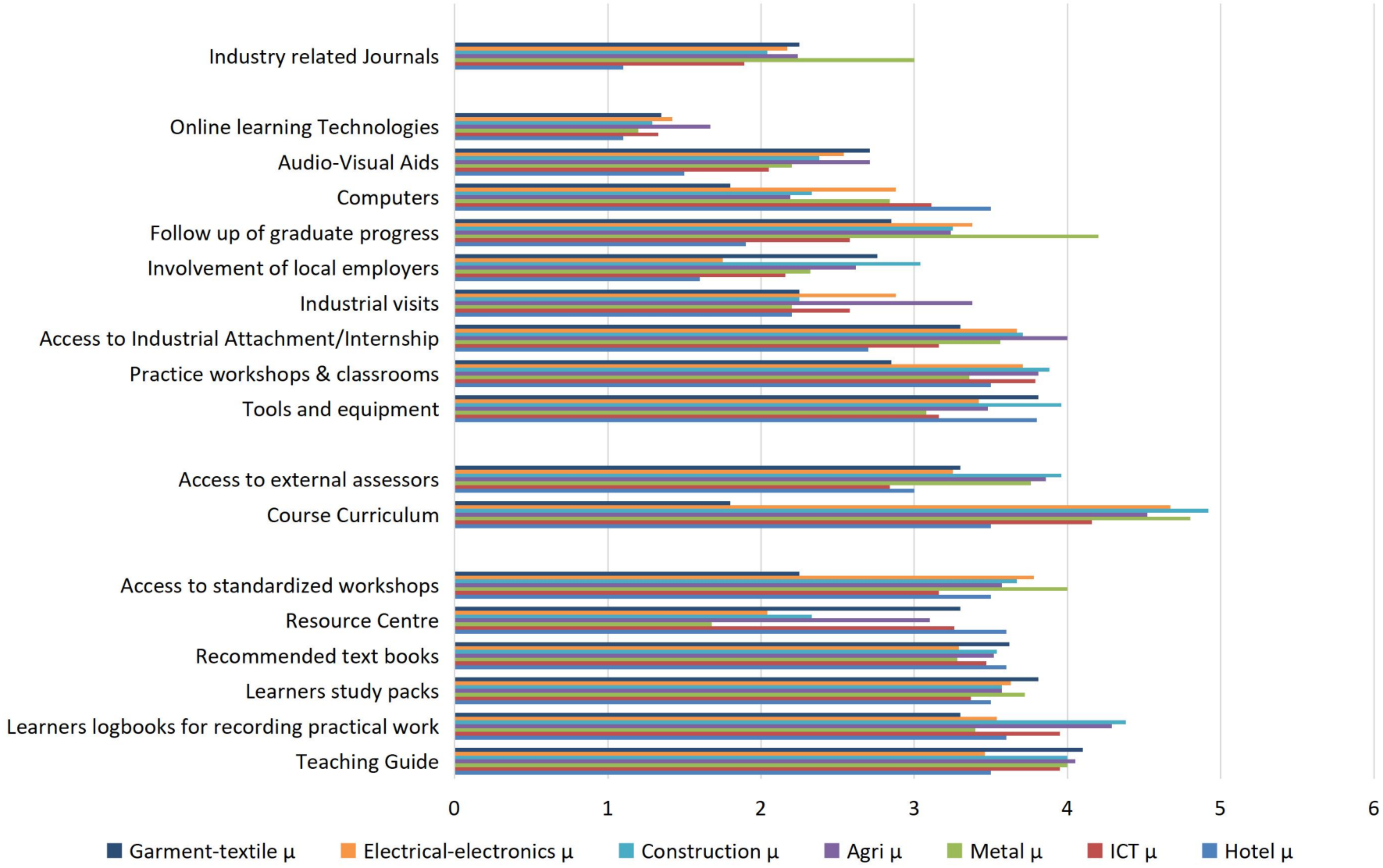
Table5: Trainees' satisfaction with training aid (the 7 departments)

Factors	Degree of Satisfaction for Hotel & Tourism								Degree of Satisfaction for Information Technology								Degree of Satisfaction for Metal Manufacturing								Degree of Satisfaction of Agriculture							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Teaching Guides	0	0	11	11	0	22	3.5	0.5	1	0	1	14	3	19	3.95	0.85	0	0	7	7	10	25	4	1.04	1	0	2	12	6	21	4.05	0.92
Learner Logbooks or recording practical work	0	1	9	9	3	22	3.6	0.79	0	2	5	4	8	19	3.95	1.08	0	2	11	12	0	25	3.4	0.65	0	3	0	6	12	21	4.29	1.06
Learner Study Packs	0	1	11	9	1	22	3.5	0.67	0	2	10	5	2	19	3.37	0.83	0	1	7	15	2	25	3.72	0.68	0	1	8	11	1	21	3.57	0.68
Recommended Text Books (including Reference Materials)	0	0	11	8	3	22	3.6	0.73	0	3	7	6	3	19	3.47	0.96	0	2	14	9	0	25	3.28 1.68	0.61	2	1	5	10	3	21	3.52	1.12
Resource Centre for use by Learners	0	2	7	12	1	22	3.6	0.74	2	2	4	11	0	19	3.26	1.05	11	12	1	1	0	25	4	0.75	1	5	6	9	0	21	3.1	0.94
Access to standardized Workshops/seminars	1	2	7	10	2	22	3.5	0.96	1	2	11	3	2	19	3.16	0.96	0	0	9	7	9	25	4.8	0.87	1	2	7	6	5	21	3.57	1.12
Course Curriculum	0	1	10	11	0	22	3.5	0.6	1	1	2	5	10	19	4.16	1.17	0	0	2	1	22	25	3.76 3.08	0.58	0	0	2	6	13	21	4.52	0.68
Access to External Assessors	0	7	8	7	0	22	3	0.82	3	4	5	7	0	19	2.84	1.12	0	2	3	19	1	25	3.36	0.66	0	1	6	9	5	21	3.86	0.85
Tools and Equipment	0	3	2	13	4	22	3.8	0.91	2	3	7	4	3	19	3.16	1.21	0	5	13	7	0	25	3.56	0.7	1	2	8	6	4	21	3.48	1.08
Practice Workshops and Classrooms	0	2	8	11	1	22	3.5	0.74	1	2	5	3	8	19	3.79	1.27	2	0	12	9	2	25	2.2	0.95	0	3	4	8	6	21	3.81	1.03
Access to Industrial Attachment/Internship Program	2	6	10	4	0	22	2.7	0.88	2	3	5	8	1	19	3.16	1.12	0	2	8	14	1	25	2.32 4.2	0.71	1	0	3	11	6	21	4.0	0.95
Industrial Visits	3	14	3	2	0	22	2.2	0.8	2	6	9	2	0	19	2.58	0.84	4	13	7	1	0	25	2.84	0.76	2	1	7	9	2	21	3.38	1.07
Involvement of Local Employers guest lecturers	12	7	3	0	0	22	1.6	0.73	7	6	2	4	0	19	2.16	1.17	3	15	4	2	1	25	2.2 1.2	0.95	4	5	7	5	0	21	2.62	1.07
Follow-up of Graduate Progress	8	8	6	0	0	22	1.9	0.81	3	9	2	3	2	19	2.58	1.26	0	1	6	5	13	25	1.64	0.96	3	2	6	7	3	21	3.24	1.26
Computers	2	3	2	13	2	22	3.5	1.14	4	2	2	10	1	19	3.11	1.33	2	8	7	8	0	25	2.84	0.99	8	4	6	3	0	21	2.19	1.12
Audio-Visual Aids	13	7	2	0	0	22	1.5	0.67	7	5	6	1	0	19	2.05	0.97	5	12	6	2	0	25	2.2	0.87	2	9	3	7	0	21	2.71	1.06
Online Learning Technologies	19	3	0	0	0	22	1.1	0.35	14	3	0	1	0	18	1.33	0.77	21	3	1	0	0	25	1.2	0.5	12	6	1	2	0	21	1.67	0.97
Industry Related Journals	19	3	0	0	0	22	1.1	0.35	11	1	5	2	0	19	1.89	1.15	10	14	1	0	0	25	3	0.57	6	4	11	0	0	21	2.24	0.89

Factors	Degree of Satisfaction for Construction Technology								Degree of Satisfaction for Electrical -Electronics Department								Degree of Satisfaction for Textile Garment Department							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Teaching Guides	0	0	2	20	2	24	4.0	0.42	2	0	8	13	1	24	3.46	0.93	0	1	5	6	9	21	4.1	0.94
Learner Logbooks or recording practical work	0	1	4	4	15	24	4.38	0.92	0	0	12	11	1	24	3.54	0.59	0	4	8	6	3	21	3.3	0.92
Learner Study Packs	0	2	3	18	1	24	3.57	0.68	0	1	9	12	2	24	3.63	0.71	0	2	5	9	5	21	3.81	0.93
Recommended Text Books (including Reference Materials)	0	3	16	5	0	24	3.54	0.98	1	4	8	9	2	24	3.29	1.0	0	2	7	9	3	21	3.62	0.86
Resource Centre for use by Learners	3	10	11	0	0	24	2.33	0.7	9	6	8	1	0	24	2.04	0.95	0	4	8	6	3	21	3.3	0.92
Access to standardized Workshops/seminars	0	1	9	11	3	24	3.67	0.76	0	1	9	7	6	23	3.78	0.9	7	6	3	2	2	21	2.25	1.37
Course Curriculum	0	0	0	2	22	24	4.92	0.28	1	0	2	0	21	24	4.67	0.96	14	2	3	1	1	21	1.8	1.2
Access to External Assessors	0	3	5	6	10	24	3.96	1.08	2	2	9	10	1	24	3.25	0.99	0	4	8	6	3	21	3.3	0.92
Tools and Equipment	0	1	7	8	8	24	3.96	0.91	1	3	6	13	1	24	3.42	0.93	0	2	5	9	5	21	3.81	0.93
Practice Workshops and Classrooms	1	2	5	7	9	24	3.88	1.15	1	0	7	13	3	24	3.71	0.86	3	2	10	5	1	21	2.85	0.99
Access to Industrial Attachment/Internship Program	1	2	2	17	2	24	3.71	0.91	0	4	3	14	3	24	3.67	0.92	0	4	8	6	3	21	3.3	0.92
Industrial Visits	7	5	11	1	0	24	2.25	0.94	3	7	5	8	1	24	2.88	1.15	7	6	3	2	2	21	2.25	1.37
Involvement of Local Employers guest lecturers	3	6	3	11	1	24	3.04	1.2	8	14	2	0	0	24	1.75	0.61	2	7	7	4	1	21	2.76	1.04
Follow-up of Graduate Progress	0	7	8	5	4	24	3.25	1.07	5	1	6	4	8	24	3.38	1.53	3	2	10	5	1	21	2.85	0.99
Computers	2	1	8	1	0	24	2.33	0.7	0	9	10	4	1	24	2.88	0.85	12	3	3	1	2	21	1.8	1.2
Audio-Visual Aids	4	1	5	4	0	24	2.38	0.97	7	6	3	7	1	24	2.54	1.32	2	7	8	3	1	21	2.71	1.01
Online Learning Technologies	18	5	1	0	0	24	1.29	0.55	16	6	2	0	0	24	1.42	0.65	16	1	3	0	1	21	1.35	0.75
Industry Related Journals	11	2	10	1	0	24	2.04	1.04	8	10	0	6	0	24	2.17	1.17	8	5	3	2	2	21	2.25	1.37

Source: From KPC study, 2021

Fig3. Trainees' Satisfaction with Training Aid (seven departments



Source: From KPC study, 2021

The study also revealed that the Department of Textile Garment program graduates are *"Neither Satisfied Nor Dissatisfied"* with four (4) *Physical and Administrative Factors* ($2.5 \leq \mu \leq 3.4$), that is; "*Practice Workshops & Classrooms"* (n = 21, μ = 3.3), *"Industrial linkages"* (n = 21, μ = 2.76), *"ICT facilities "* (n = 21, μ = 2.85), *"Management of the KPC "* (n =21 , μ = 2.71); "Satisfied" with three (3) *Physical and Administrative Factors* ($3.5 \leq \mu \leq 4.4$), that is; *"Teaching Guidance"* (n = 21, μ = 4.1), *"Learner Logbooks for recording practical work"* (n = 21, μ = 3.81), *"Learner Study Packs"* (n = 21, μ = 3.62); "*Somewhat not Satisfied*" with two (2) *Physical and Administrative Factors* ($1.5 \leq \mu \leq 2.4$), that is; "*Audio- Visual Aids*" (n = 21, μ = 1.8) and "*Careers advice and guidance"* (n = 21, μ = 2.25); "*Not at all Satisfied*" with one (1) *Physical and Administrative Factors* ($1.0 \leq \mu \leq 1.4$), that is; *"Recreational facilities*" (n = 21, μ = 1.35).

4.2.3. Employment status of graduates

Table 6 presents the employment status of Automotive technology department graduates from the four programs. According to the findings, 45 percent of Auto Engine Servicing Level 2 Program Graduates are *"Employed*", 15 percent are "*Self-Employed",* 40 percent are *"Neither employed nor Self-employed".* The findings of the traced Auto Engine Servicing Level 3 program graduates have revealed that 45 percent are *"Employed*". 20 percent are "*Self-Employed without employees".* 35 percent are *"Neither employed nor Self-employed".* The findings of the traced Automotive Servicing Management Level 4 program graduates have also revealed that 50 percent are *"Employed*". 25 percent are "*Self-Employed".* 25 percent are *"Neither employed nor Self-employed".*

The findings of the traced Automotive Technology Management Level 5 program graduates have revealed that 85.7 percent are *"Employed*". 4.8 percent are self-employed, and 9.5 percent are *"Neither employed nor Self-employed".* As can be seen from the table, female's participation in Automotive technology is very low and even those female graduates from the department are not well integrated into the world of work. Overall, the findings show that most of the Automotive technology department graduates from the four programs are employed, Automotive Technology Management level 5 graduates with the highest employability rate.

Table 6 also shows the results of the study of the seven departments with regards to graduates' employment status. The findings of the traced Hotel and Tourism department graduates have revealed that 13.5 percent are *"Employed*", 4.5 percent are "*Self-Employed",* and 82 percent are *"Neither employed nor Self-employed".* The participation of females in Hotel and Tourism is higher than that of their male couterparts. However, their employment rate after graduation was found to be low.

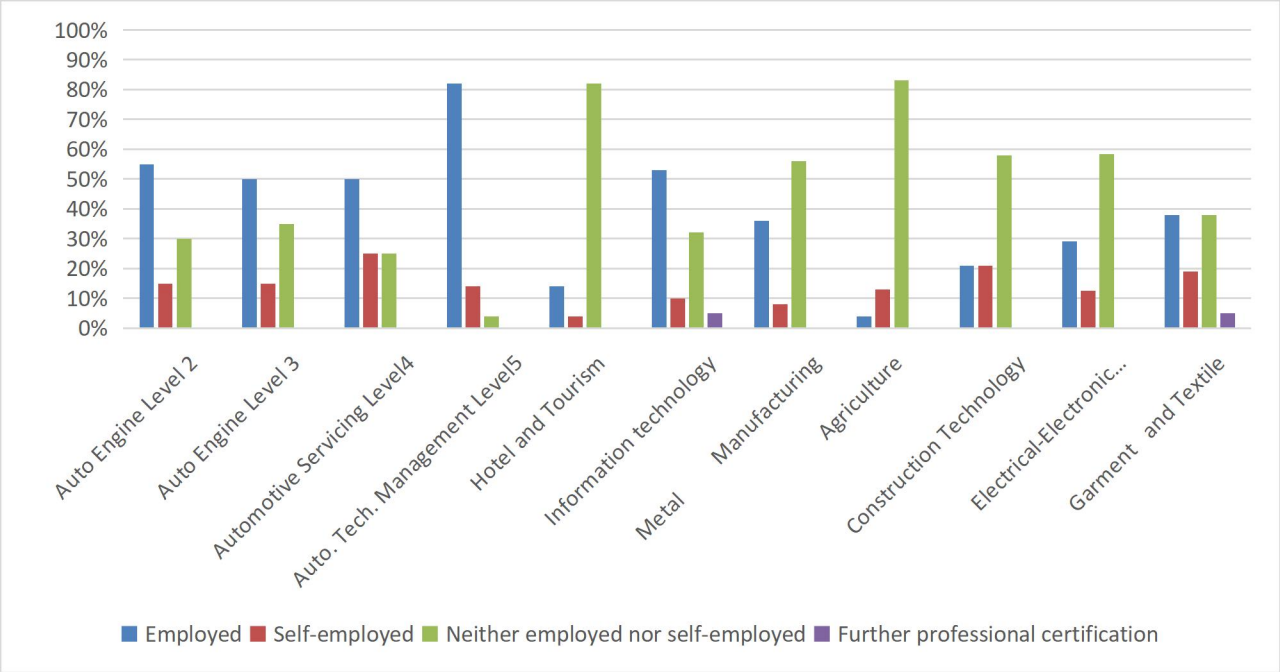
The findings of the traced Information Technology department graduates have revealed that 52.6 percent are *"Employed*", 10.5 percent are "*Self- Employed",* and 31.6 percent are *"Neither employed nor Self-employed".* Here also the participation of females in Information technology is higher than that of their male counter parts. The employment rate of female information technology graduates is also relatively good, that is, 60% of female graduates are employed or self-employed.

Table 6. Employability Status of Graduates

Program/Department	Status	Frequency			Percentage		
		Male	Female	Total	Male	Female	Total
Auto Engine Level2	Employed	9	0	9	45	0	45%
	Self-employed	3	0	3	5	0	15%
	Neither employed nor self-employed	6	2	8	30	10	40%
	Total	**18**	**2**	**20**	**90**	**10**	**100%**
Auto Engine Level3	Employed	8	1	9	40	5	45%
	Self-employed	4	0	4	20	0	20%
	Neither employed nor self-employed	6	1	7	30	5	35%
	Total	**18**	**2**	**20**	**90**	**10**	**100%**
Automotive Servicing Management Level4	Employed	10	0	10	50	0	50%
	Self-employed	5	0	5	25	0	25%
	Neither employed nor self-employed	5	0	5	25	0	25%
	Total	**20**	**0**	**20**	**100**	**0**	**100%**
Automotive Technology Management Level 5	Employed	18	0	18	85.7	0	85.7 %
	Self-employed	1	0	1	4.8	0	4.8 %
	Neither employed nor self-employed	2	0	2	9.5	0	9.5 %
	Total	21	0	**21**	**100**	**0**	**100%**
Hotel and Tourism	Employed	1	2	3	4.5	9	13.5%
	Self-employed	0	1	1	0	4.5	4.5 %
	Neither employed nor self-employed	2	16	18	9	73	82%
	Total	3	19	22	**13.5**	**86.5**	**100%**
Information Technology	Employed	3	7	10	15.8	36.8	52.6 %
	Self-employed	0	2	2	0	10.5	10.5 %
	Neither employed nor self-employed	0	6	6	0	31.6	31.6 %
	Further professional certification	1	0	1	5.3	0	5.3 %
	Total	4	15	19	21.1	78.9	**100%**
Metal Manufacturing	Employed	8	1	9	32	4	36%
	Self-employed	1	1	2	4	4	8%
	Neither employed nor self-employed	14	0	14	56	0	56%
	Total	23	2	**25**	92	8	**100%**

Agriculture	Employed	1	0	1	5	0	5%
	Self-employed	3	0	3	14	0	14%
	Neither employed nor self-employed	12	5	17	57.2	23.8	81%
	Total	16	5	**21**	71.2	23.8	**100%**
Construction Technology	Employed	3	2	5	12.5	8.3	20.8 %
	Self-employed	3	2	5	12.5	8.3	20.8 %
	Neither employed nor self-employed	13	1	14	54.2	4.2	58.4 %
	Total	19	5	**24**	79.2	20.8	**100%**
Electrical-Electronics	Employed	5	2	7	20.8	8.3	29.1 %
	Self-employed	2	1	3	8.3	4.2	12.5 %
	Neither employed nor self-employed	13	1	14	54.2	4.2	58.4 %
	Total	20	4	**24**	83.3	16.7	**100%**
Textile Garment	Employed	2	6	8	9.5	28.5	38 %
	Self-employed	1	3	4	4.8	14.4	19.2 %
	Professional certification/license to practice	1	0	1	4.8	0	4.8 %
	Neither employed nor self-employed	6	2	8	28.5	9.5	38%
	Total	10	11	**21**	47.6	52.4	**100%**

Fig 4. Employability Status of Graduates



Source: From KPC study, 2021

The study further revealed that 36% of metal manufacturing graduates are employed, 8% are self-employed and 56% are neither employed nor self-employed. The participation of females in metal manufacturing is low, but those two graduates from the department are employed or self-employed. Only 5% of agriculture department graduates are employed, 14 % are self-employed, and the majority (83%) are unemployed. Only 25% of agriculture graduates are females and still all of them are unemployed. It can be seen that 21 percent of construction technology department graduates are *"Self-employed*", 21% are employed, while 58 percent are "Neither employed nor Self-employed". The participation of females in construction technology was found to be less than 25 %, and, in fact, 80% of them are either employed or self-employed. In addition, the findings of the traced Electrical and Electronics Technology department graduates have revealed that 29 percent are *"Employed*", 13 percent are "*Self-Employed without employees",* 58 percent are *"Neither employed nor Self-employed".* The participation of females in electrical and electronic technology is about 20% and, of course 75% of them are either employed or self-employed. Moreover, the findings have revealed that 38 percent of textile and garment graduates are *"Employed*". 19 percent are "*Self-Employed".* 38 percent are *"Neither employed nor Self- employed".* 5 percent are undertaking "*Further Professional certification/license to practice".* More than 50% of textile garment graduates were females and 82% of these female graduates are either employed or self-employed.

Overall, the employment status indicates that whereas graduates from Automotive technology have the highest rate of employment with more than 65% of cumulative employment rate, graduates from the departments of Agriculture (83%) and Hotel and Tourism (82%) are the ones with the least employment rate. In addition, more than Fifty per cent (>50%) of graduates from metal manufacturing, construction technology, and electrical-electronics technology are unemployed. These results could be attributed to the market relevance of the programs or the quality of the

training delivery in meeting the labour market expectation. Though the participation of females is low in some departments, their employment rate after graduation was found to be better than that of their male counter parts.

3.2.4 Employed graduates

3.2.4.1. Duration taken to find a job

Table 7 shows the duration taken by the Automotive technology department graduates from the four programs to find their first job. The findings show that for the 5 traced Auto Engine Servicing Level 2 program graduates in first employment, 40 percent took *"Less than 4 Months"* to secure their First Job while 60 percent took *"Between 4 and 6 Months"* to secure their First Job. It was also revealed from the findings that for the 5 traced Auto Engine Servicing Level 3 program graduates in first employment, 40percent took *"Between 4 and 6 Months"* to secure their First Job, 20 percent took *"Between 10 and 12 Months"* to secure their First Job, whereas 40 percent took *"More than 12 Months"* to secure their First Job. The findings have revealed that for the 4 traced Automotive Servicing Management Level 4 program graduates in first employment, 75 percent took *"Less than 4 Months"* to secure their First Job whereas 25 percent took *"Between 4 and 6 Months"* to secure their First Job. For the 4 traced Automotive Technology Management Level 5 program graduates in first employment, 25 percent took *"Between 4 and 6 Months"* to secure their First Job. 25 percent took *"More than 12 Months"* to secure their First Job. 50 percent took "*Between 7 and 9 months"* to secure their First job.

The study generally revealed that the highest employment rate within three months after graduation was registered in Automotive servicing management level 4 program while it took more than 9 months for 60 percent of the employed graduates of Automotive Servicing Level 3 graduates to secure their first job.

It can be seen from the table that the duration taken by the graduates of the seven departments to find their first job. For the 3 traced Hotel and Tourism program graduates in employment, 67 percent took *"Less than 3 Months"* to secure their First Job. 33 percent took *"Between 4 and 6 Months"* to secure their First Job. For the 7 traced Information Technology program graduates in first employment, 58 percent took *"Less than 4 Months"* to secure their First Job. 14 percent took *"Between 4 and 6 Months"* to secure their First Job. 14 percent took "*Between 7 and 9 months"* to secure their First job. 14 percent took *"More than 12 Months"* to secure their First Job. For the 9 traced Metal Manufacturing Technology program graduates in first employment, 56 percent took *"Between 0 and 3 Months"* to secure their First Job. 44 percent took *"Between 4 and 6 Months"* to

secure their First Job. For the 1 traced Agriculture Department graduates in employment, took "*10-12 months*" to secure the First Job.

For the 5 traced Department of Construction Technology graduates in employment, 40 percent took "*0-3 months*" to secure the First Job, 40 percent took "*7-9months*" to secure the First Job while 20 percent took "*Over 12 months*". For the 6 traced Electrical and Electronics Technology program graduates in first employment, 50 percent took *"Between less than 3 Months"* 17percent took *"Between 4 and 6 Months"* to secure their First Job. 33 percent took *"Between 7 and 9 Months"* to secure their First Job. For the 8 traced Department of Textile Garment program graduates in employment who are in their "*first job*", 63 percent took *"Less than 4 Months"* to secure their First Job. 13 percent took *"Between 7 and 9 Months"* to secure their First Job while 24 percent graduates "*Undisclosed*" their answers.

Table7: Duration taken by employed graduates to find their first job

NO	Program/department	Duration taken to find the first job	Frequency		Percentage by percent	
			M	F	M	F
1	Auto engine level II	0-3 Months	4	0	40%	0%
		4-6 Months	6	0	60%	0%
		Total	10	0	100%	0%
2	Auto engine level III	4-6 Months	3	1	33.3%	100%
		10-12 Months	2	0	22.2%	0%
		More than 12 Months	4	0	44.5%	0%
		Total	9	1	100%	100%
3	Automotive servicing management level IV	0-3Months	7	0	70%	0%
		4-6 Months	3	0	30%	0%
		Total	10	0	100%	0%
4	Automotive technology management level V	4-6 Months	5	0	26.3%	0%
		7-9 Months	10	0	52.63%	0%
		More than 12 Months	4	0	21.05%	0%
		Total	19	0	99.98%	0%

5	Hotel and tourism	0-3Months	1	2	100%	66.66%
		4-6 Months	0	1	0%	33.33%
		Total	1	3	100%	99.99%
6	Information Technology	0-3Months	2	5	66.66%	55.55%
		4-6 Months	1	2	33.33%	22.22%
		7-9Months	0	1	0%	11.11%
		More than 12 Months	0	1	0%	11.11%
		Total	3	9	100%	99.99%
7	Metal Manufacturing	0-3Months	6	0	66.66%	0%
		4-6 Months	3	1	33.33%	100%
		Total	9	1	99.99%	100%
8	Agriculture	10-12 Month	1	0	100%	0%
		Total	1	0	100%	0%
9	Construction Technology	0-3Months	1	1	33.33%	50%
		7-9Months	1	1	33.33%	50%
		More than 12 Months	1	0	33.33%	0%
		Total	3	2	99.99%	100%
10	Electrical- Electronics	0-3Months	3	1	60%	50%
		4-6 Months	1	1	20%	50%
		7-9Months	1	0	20%	0%
		Total	5	2	100%	100%
11	Textile Garment	0-3Months	2	3	66.66%	50%
		7-9Months	1	3	33.33%	50%
		Total	3	6	99.99%	100%

Source: From KPC study, 2021

Overall, except for the graduate from Agriculture department, it took less than 3 months for most of the employed graduates to find their first job.

It can also be seen from the table that the highest rate of employability of females within 3 months was observed in the department of Information Technology followed by Hotel and Tourism and Textile & Garment, respectively.

3.2.4.2. Employed graduates by industry sector

Table 8 presents employed Automotive Technology Department graduates by industry sector. As can be seen from the table, for the 11 traced Auto Engine Servicing Level 2 program graduates that are in employment; 9 percent are engaged in *"Manufacturing*" Industry, 9 percent are engaged in "*Electricity, gas, steam & air conditioning supply"* Industry, 9 percent are engaged in "*Financial & insurance activities*" industries, 18 percent are engaged in "*Education*" industries and 55 percent are engaged in "*Other*" industries. The findings have revealed that, for the 10 traced Auto Engine Servicing Level 3 program graduates that are in employment; 10 percent are engaged in *"Electricity, gas, steam and air conditioning supply", "Education"* and *"Other service activities*" industry, 40% are engaged in construction industry, while 30 percent are engaged in "*Other*" industries.

As can be seen from the data, among the 10 traced Automotive Servicing Management Level 4 program graduates that are in employment; 20 percent are engaged in "Water supply, sewerage, waste management & re-mediation activities" Industry, 40 percent are engaged in "Construction" Industry and 40 percent are engaged in "Other" industries. It can also be seen from the findings that, for the 18 traced Automotive Technology Management Level 5 program graduates that are in employment; 6 percent are engaged in *"Agriculture, forestry and fishing"* industry, 6 percent are engaged in engaged in *"Water supply, sewerage, waste management &* re-mediation *activities*" Industry and 6 percent are engaged in engaged in *"Administrative and support service activities"* Industry. 11 percent are engaged in *"Education*", 16 percent are engaged in "*Other*" industries, 22 percent are engaged in *"Construction",* and 33 percent are engaged in *"Transportation and storage"* industry.

Table 8: Employed graduates by industry sector

Program/Department	Industry Sector	Frequency	Percent
Auto Engine Level2	Manufacturing	1	9%
	Electricity, gas, steam & air conditioning supply	1	9%
	Financial & Insurance activities	1	9%
	Education	2	18%
	Other	6	55%
	Total	**11**	**100%**
Auto Engine Level3	Electricity, gas, steam and air conditioning supply	1	10%
	Construction	4	40%
	Education	1	10%
	Other service activities	1	10%
	Other	3	30%
	Total	**10**	**100%**
Automotive Servicing Management Level4	Water supply, sewerage, waste management & remediation activities	2	20%
	Construction	4	40%
	Other	4	40%
	Total	**10**	**100%**
Automotive Technology Management Level 5	Water supply, sewerage, waste management & remediation activities	1	25%
	Construction	2	50%
	Other	1	25%
	Total	**4**	**100%**
Hotel and Tourism	Manufacturing	1	33%
	Accommodation and food service activities	2	67%
	Total	**3**	**100%**
Information Technology	Manufacturing	2	20%
	Water supply, sewerage, waste management & remediation activities	1	10%
	Information and communication	1	10%
	Education	2	20%

	Other service activities	1	10%
	Other	3	30%
	Total	**10**	**100%**
Metal Manufacturing	Electricity, gas, steam and air conditioning supply	1	11%
	Manufacturing	8	89%
	Total	**9**	**100%**
Agriculture	Construction	1	100%
	Total	**1**	**100%**
Construction Technology	Manufacturing	2	40%
	Electricity, gas, steam and air conditioning supply	1	20%
	Others	2	40%
	Total	**5**	**100%**
Electrical-Electronics	Electricity, gas, steam and air conditioning supply	6	85.71%
	Construction	1	14.29%
	Total	**7**	**100%**
Textile Garment	Manufacturing	4	50%
	Education	2	25%
	Other	1	12.5%
	Undisclosed	1	12.5%
	Total	**8**	**100%**

Source: From KPC study, 2021

The study generally revealed that most of the automotive technology department graduates are employed in construction and other occupations which are not that much related to automotive industry.

Table 8 also presents the employment sectors of employed graduates from the 7 departments. The findings have revealed that, for the 3 traced Hotel and Tourism program graduates that are in employment; 33percent are engaged in *"Manufacturing."* 67 percent are engaged in *"Accommodation and food service activities"* industry. It can also be seen from the table that, for the 10 traced Information Technology program graduates that are in employment; 20 percent are engaged in *"Manufacturing"* industry, 10 percent are engaged in *"Water supply, sewerage waste management & remediation activities"* Industry, 10 percent are engaged in *"Information and Communication"*, 20 percent are engaged in *"Education"*, 10 percent are engaged in "*Other service activities"*, and 30 percent are engaged in *"Other"* industries. The findings have revealed that, for the 9 traced Metal Manufacturing Technology program graduates that are in employment; 11 percent are engaged in "*Electricity, gas, steam and air conditioning supply*", and 89 percent are engaged in "Manufacturing". The findings have revealed that, for the 1 traced Agriculture Department graduates that is in employment engaged in "Construction" industry. It is also revealed that, for the 5 traced Department of Construction Technology graduates that are in employment, 40 percent are engaged in manufacturing technology,10 percent are engaged in "*Construction*" industry, while 40 percent are engaged in other sectors.

The study also has revealed that, for the 7 traced Electrical and Electronics Technology program graduates that are in employment; 86 percent are engaged in *"Electricity, gas, steam and air conditioning supply",* and 14 percent are engaged in *"Construction*". Furthermore, the findings have revealed that, for the 8 traced Department of Textile Garment program graduates that are in employment; 12.5 percent are engaged in *"Other service activities."* 25 percent are engaged in "*Education"*. 50 percent are engaged in "*Manufacturing"*. While 12.5 percent "*Undisclosed*" answers. As can be seen from the findings, the majority of Hotel and Tourism department graduates and electrical and electronics department graduates are employed in related sectors, while graduates from other departments are employed in other sectors other than their training areas.

2.4.3. Means of securing employment

Table 9 presents means of securing employment by automotive technology department graduates from the four programs. Note that the total percentage may exceed 100 percent because respondents used more than one media to secure employment.

Table 9: Means of securing employment for employed graduates

Program/Department	Means of securing employment	Frequency	Percent
Auto Engine Level2	Newspaper /Television/Radio	6	55%
	Internet	1	9%
	Relatives, friends or/and colleagues	4	36%
	Total	**11**	**100%**
Auto Engine Level3	Newspaper /Television/Radio	5	50%
	Internet	2	20%
	Relatives, friends or/and colleagues	2	20%
	Referral/ Endorsement by KPC	1	10%
	Social networks (e.g. Facebook, LinkedIn)	1	10%
	Total	**10**	**100%**
Automotive Servicing Management Level4	Newspaper /Television/Radio	6	60%
	Relatives, friends or/and colleagues	4	40%
	Total	**10**	**100%**
Automotive Technology Management Level 5	Newspaper /Television/Radio	16	88%
	Relatives, friends or/and colleagues	1	6%
	Referral/ Endorsement by KPC	1	6%
	Total	**18**	**100%**
Hotel and Tourism	Relatives, friends or/and colleagues	3	100%
	Total	**3**	**100%**
Information Technology	Newspaper /Television/Radio	6	60%
	Relatives, friends or/and colleagues	4	40%
	Total	**10**	**100%**
Metal Manufacturing	Newspaper /Television/Radio	6	67%
	Relatives, friends or/and colleagues	1	11%
	Referral/ Endorsement by KPC	1	11%
	Social networks (e.g. Facebook, LinkedIn)	1	11%
	Total	**9**	**100%**

Agriculture	Newspaper /Television/Radio	1	100%
	Total	**1**	**100%**
Construction Technology	Newspaper /Television/Radio	3	60%
	Relatives, friends or/and colleagues	1	20%
	Social networks (e.g. Facebook, LinkedIn)	1	20%
	Total	**5**	**100%**
Electrical-Electronics	Newspaper /Television/Radio	2	28.57%
	Internet	1	14.29%
	Relatives, friends or/and colleagues	3	42.86%
	Industry Linkages during training	1	14.29%
	Social networks (e.g. Facebook, LinkedIn)	2	28.57%
	Total	**9**	**100%**
Textile Garment	Newspapers/television/radio	1	12.5%
	Relatives, friends or/and colleagues	6	75%
	Undisclosed	1	12.5%
	Total	**8**	**100%**

Source: From KPC study, 2021

As can be shown in table 9, 55 percent of auto engine servicing level 2 graduates secured employment via "Advertisements of vacancies in newspapers/television/radio", 9 percent secured employment via "Advertisements of vacancies on the internet", 36 percent secured employment via referral from "Relatives, friends or/and colleagues" while 9 percent secured employment via "Referral / Endorsement by KPC".

The study also revealed that, 50 percent of auto engine servicing level 3 graduates secured employment via "Advertisements of vacancies in newspapers/television/radio" while 20 percent secured employment via advertisement on internet, 20 percent secured employment via referrals from "Relatives, friends or/and colleagues" and 10 percent secured employment via "Referral/ Endorsement by KPC" and "Social networks (e.g. Facebook, LinkedIn)". The findings also revealed that, 60 percent of automotive servicing management level 4 graduates secured employment via "Advertisements of vacancies in newspapers/television/radio" while 40 percent secured employment via referral from "Relatives, friends or/and colleagues". Moreover, 88 percent of automotive technology

management level 5 graduates secured employment via "Advertisements of vacancies in newspapers/television/radio" while 6 percent secured employment via referrals from "Relatives, friends or/and colleagues" and 6 percent secured employment via Referral/ Endorsement by Kombolcha Polytechnic College.

As can be seen from the data, more than 50 percent of graduates from all the automotive technology department programs secured employment through advertisement.

Table 9 also shows Means of securing employment for employed graduates from the 7 departments. As can be shown from the table, the findings have revealed that, 100 percent of Hotel and Tourism department graduates got employed through "Relatives, friends or/and colleagues." the findings have revealed that, 60 percent of Information Technology department graduates secured employment via "Advertisements of vacancies in newspapers/television/radio" while 40 percent secured employment via referrals from "Relatives, friends or/and colleagues". It can also be seen that, 67 percent of Metal Manufacturing Technology department graduates secured employment via "Advertisements of vacancies in newspapers/television/radio" while 11 percent secured employment via referrals from "Relatives,friends or/and colleagues" and "Internet (e.g. government websites, company websites)" . 11 percent secured employment via "Referral/ Endorsement by KPC" and the remaining 11 percent via "Social networks (e.g. Facebook, LinkedIn)". The findings also revealed that the traced 1 Agriculture Department graduate secured employment via "Newspaper /Television/Radios", while 60 percent of traced Construction Technology Department graduates secured employment via "Newspaper /Television/Radios", 20 percent secured via "Relatives, friends or/and colleagues" and 20 percent secured employment via "Social networks (e.g. Facebook, LinkedIn)".

As can also be seen from the data, 29 percent of electrical-electronics department graduates secured employment via "Advertisements of vacancies in newspapers/television/radio" while 43 percent secured employment via referrals from "Relatives, friends or/and colleagues" 14 percent via "Internet (e.g. government websites, company websites)". 14 percent secured employment via "Industry Linkages during training (e.g. apprenticeship, On the Job Training)" and 29 percent through "Social networks (e.g. Facebook, LinkedIn)". The findings have also revealed that, 12.5 percent of Textile and Garment department graduates on employment secured employment via "Advertisements of vacancies in newspapers/television/radio". 75 percent secured employment via "Personal contacts". While 12.5 percent "Undisclosed" their answers.

Overall, it can be seen from the study that except for the graduates from the department of Garment and Textile, graduates from other departments secured their employment through advertisement.

3.2.4.4. Decency of employment

Table 10 shows the findings on the decency of employment for employed graduates of the four programs of automotive technology department. The findings have revealed that 91 percent of the Automotive Servicing level 2 employed graduates have been employed on a "Permanent" basis while 9 percent are employed on "Temporary" basis; 91 percent of them work "Between 33 to 48 hours per week" while 9 percent work for "More than 48 hours per week"; 64 percent of them in employment earn "Below Birr 5,000", 36 percent earn "Between Birr 5,000 and Birr 9,999"; and 55 percent of the graduates in employment agree that there is "some relation between studies and employment", 45 percent say that there is "no relation between studies and employment".

The data have revealed that, 10 percent of auto engine servicing level 3 employed graduates are working on "Part-time" basis while 90 percent have been employed on a "Permanent" basis; 10 percent work "Less than 16 Hours" and "More than 48 Hours", while 80 percent work "Between 33 to 48 hours per week"; 80 percent of the Auto Engine Servicing Level 3 program graduates in employment, earn "Below Birr 5,000". 20 percent earn "Between Birr 5,000 and Birr 9,999"; and 60 percent of them agree that there is "some relation between studies and employment". 40 percent say that there is "no relation between studies and employment".

Table 10: Decency of employment for employed graduates

Program/ Department	Nature of employment	Frequency	Percent	Weekly Working Hour	Frequency	Percent	Monthly Percent Salary	Frequency	Percent
Auto Engine Level2	Permanent	10	91%	33 to 48 Hours	10	91%	Below Birr 5,000	7	64%
	Temporary	1	9%	More than 48 Hours	1	9%	Birr 5,000 –9,999	4	36%
	Total	**11**	**100%**	**Total**	**11**	**100%**	**Total**	**11**	**100%**
Auto Engine Level3	Part-time	1	10%	Less than 16 Hours	1	10%	Below Birr 5,000	8	80%
	Permanent	9	90%	33 to 48 Hours	8	80%	Birr 5,000 –9,999	2	20%
	Total	**10**	**100%**	More than 48 Hours	1	10%	**Total**	**10**	**100%**
				Total	**10**	**100%**			
Automotive Servicing Management Level4	Permanent	10	100%	33 to 48 Hours	9	90%	Below Birr 5,000	3	30%
	Total	**10**	**100%**	More than 48 Hours	1	10%	Birr 5,000 – 9,999	7	70%
				Total	**10**	**100%**	**Total**	**10**	**100%**
Automotive Technology Management Level 5	Permanent	18	100%	33 to 48 Hours	16	89%	Below Birr 5,000	4	22%
	Total	**18**	**100%**	More than 48 Hours	2	11%	Birr 5,000 – 9,999	12	67%
				Total	**18**	**100%**	Birr 10,000–14,999	2	11%
							Total	**18**	**100%**
Hotel and Tourism	Part-time	-	-	Less than 16 Hours	-	-	Below Birr 5,000	3	100%
	Contractual	-	-	16 to 32 Hours	1	33%	Birr 5,000 –9,999	-	-
	Temporary	3	100%	33 to 48 Hours	2	67%	Birr 10,000–14,999	-	-
	Permanent	-	-	More than 48 Hours	-	-	**Total**	**3**	**100%**

	Total	**3**	**100%**	**Total**	**3**	**100%**			
Information Technology	Contractual	3	30%	16 to 32 Hours	2	20%	Below Birr 5,000	8	80%
	Permanent	7	70%	33 to 48 Hours	8	80%	Birr 5,000 –9,999	2	20%
	Total	**10**	**100%**	**Total**	**10**	**100%**	**Total**	**10**	**100%**
Metal Manufacturing	Part-time	1	11%	33 to 48 Hours	8	89%	Below Birr 5,000	7	78%
	Permanent	8	89%	More than 48 Hours	1	11%	Birr 5,000 –9,999	2	22%
	Total	**9**	**100%**	**Total**	**9**	**100%**	**Total**	**9**	**100%**
Agriculture	Temporary	1	100%	More than 48 Hours	1	100%	Below Birr 5,000	1	100%
	Total	**1**	**100%**	**Total**	**1**	**100%**	**Total**	**1**	**100%**
Construction Technology	Contractual	2	40%	33 to 48 Hours	5	100%	Below Birr 5,000	4	80%
	Permanent	3	60%	**Total**	**5**	**100%**	Birr 5,000 –9,999	1	20%
	Total	**5**	**100%**				**Total**	**5**	**100%**
Electrical-Electronics	Part-time	1	14.29%	Less than 16 Hours	1	14.29%	Below Birr 5,000	2	28.57%
	Contractual	2	28.57%	16 to 32 Hours	1	14.29%	Birr 5,000 – 9,999	4	57.14%
	Temporary	1	14.29%	33 to 48 Hours	5	71.43%	Birr 10,000–14,999	1	14.29%
	Permanent	3	42.86%	**Total**	**7**	**100%**	**Total**	**7**	**100%**
	Total	**7**	**100%**						
Textile Garment	Part-time	1	12.5%	33 to 48 Hours	7	88%	Below Birr 5,000	7	88%
	Contractual	1	12.5%	Undisclosed	1	12%	Undisclosed	1	12%
	Permanent	5	62.5%	**Total**	**8**	**100%**	**Total**	**8**	**100%**
	Undisclosed	1	12.5%						
	Total	**11**	**100%**						

Source: From KPC study, 2021

The findings also revealed that 100 percent of the Automotive Servicing Management level 4 employed graduates have been employed on a "Permanent" basis; 90 percent work "Between 33 to 48 hours per week" while 10 percent work for "More than 48 hours per week"; 30 percent of the Automotive Servicing Management Level 4 program graduates in employment, earn "Below Birr 5,000". 70 percent earn "Between Birr 5,000 and Birr 9,999"; and 80 percent of them agree that there is "some relation between studies and employment". 20 percent say that there is "no relation between studies and employment".

In addition, the findings have revealed that, 100 percent of Automotive Technology Management level 5 employed graduates are working on "Permanent" basis; 89 percent work "Between 33 to 48 hours per week" while 11 percent work "More than 48 hours per week"; 67 percent of them earn "Between Birr 5,000 and Birr 9,999". 22 percent earn "Below Birr 5,000". 11 percent earn "Between Birr 10,000 and Birr 14,999"; and 83 percent of them agree that there is "some relation between studies and employment" while 17 percent say that there is "no relation between studies and employment".

These study revealed that most of the Automotive Technology department graduates have permanent employment working mainly between 33 to 48 hours; and most of them agree that there is some relationship between their studies and employment. With regards to salary, it can be seen that the salary scale increases with increase in program level.

Table 8 also shows the decency of employment of employed graduates from seven departments. The findings have revealed that, 100 percent of Hotel and Tourism department employed graduates are working on "Temporary" basis; 33 percent work "Between 16 to 32 hours per week". While, 67 percent work "Between 33 to 48 hours per week"; 100 percent of the Hotel and Tourism program graduates in employment, earn "Below BIRR 5,000"; and 67 percent of them agree that there is "some relation between studies and employment". 33 percent say that there is "no relation between studies and employment".

The data also show that 30 percent of Information Technology Department employed graduates are working on "Contractual" basis while 70 percent have been employed on a "Permanent" basis; 20 percent work "Between 16 to 32 hours per week" while 80 percent work "Between 33 to 48 hours per week"; 80 percent of the Information Technology program graduates in employment, earn "Below Birr 5,000". 20 percent earn "Between Birr 5,000 and Birr 9,999"; and 60 percent of them agree that there is "some relation between studies and employment". 40 percent say that there is "no relation between studies and employment" .

According to the study, 11 percent of Metal Manufacturing technology employed graduates are working on “Part-time” basis while 89 percent have been employed on a “Permanent” basis; 11 percent work “More than 48 Hours”, while 89 percent work “Between 33 to 48 hours per week”; 78 percent of the Metal Manufacturing Technology program graduates in employment, earn “Below Birr 5,000”. 22 percent earn “Between Birr 5,000 and Birr 9,999”; and 89 percent of them agree that there is “some relation between studies and employment”. 11 percent say that there is “no relation between studies and employment”.

The data have revealed that the traced 1 Agriculture Department graduate in employment is working on “Temporary” basis; the traced 1 Agriculture Department graduate in employment works “More than 48 hours per week”; the traced 1 Agriculture Department graduate in employment earns “Below Birr 5,000”; and the graduate agrees that “there is no links between studies and employment”.

The data on the employed graduates of Construction Technology Department revealed that 40 percent is working on “Contractual” basis while 60 percent is working on “Permanent” basis; each of the traced employees works “More than 48 hours per week”; 80 percent earns “Below Birr 5,000” and 20 percent earns “Birr 5,000 – Birr 9,999”; and 60 percent of them agrees that “there is link between studies and employment” while 40 percent agrees that “there is no links between studies and employment” .

The study also revealed that 14 percent of electrical-electronics department graduates on employment are working on “Part-time” basis, 29 percent are working on “Contractual” basis, 14 percent are working on “Temporary” basis while 43 percent have been employed on a “Permanent” basis; 14 percent work “Less than 16 Hours”, 14 percent work “Between 16 to 32 hours per week” while 72 percent work “Between 33 to 48Hours” per week”; 29 percent ofthem earn “Below Birr 5,000”. 57 percent earn “Between Birr 5,000 and Birr 9,999” while 14 percent earn “Between Birr 10,000 and Birr 14,999”; and 100 percent of them agree that there is “some relation between studies and employment”.

The data on the decency of employment for Textile and Garment department employed graduates show that 12.5 percent are working on “Contractual” and “part-time” basis, 62.5 percent are working on “Permanent” basis while 12.5 percent did not answer; 88 percent work “Between 33 to 48 hours per week”. While, 12 percent “Undisclosed” answers; 88 percent of the Department of Textile program graduates in employment, earn “Below Birr 5,000”. 12 percent “Undisclosed” their answers; and 63 percent of them agree that “there is links between studies and employment” while 25 percent do not agree. 12 percent “Undisclosed” their answers.

Overall, it can be seen from the study that employed graduates from Agriculture department and Construction Technology Department work for more than 48 hours per week while the majority of the rest work on average between 33 hours and 48 hours per week. It is in Hotel and Tourism department that 100 percent of the employed graduates are not working on permanent basis. Almost all graduates from the different departments revealed that there is some link between their studies and the employment.

2.4.5. Job satisfaction of employed graduates

Using average mean score, the scale has been interpreted as shown below:

INTERPRETATION OF THE AVERAGE MEAN SCORE					
Range	**1.0 – 1.4**	**1.5 – 2.4**	**2.5 – 3.4**	**3.5 – 4.4**	**4.5 – 5.0**
Verbalisation	**Not at all Satisfied**	**Somewhat not Satisfied**	**Neither Satisfied Nor Dissatisfied**	**Satisfied**	**Very Satisfied**

Table 11 presents the result of job satisfaction for employed graduates of the four programs from the department of automotive technology. The tracer study has revealed that for Individual Job Parameters, the Auto Engine Servicing Level 2 program graduates in employment, are; "Neither Satisfied nor Dissatisfied" with six (6) individual Job Parameter ($3.0 \leq \mu \leq 3.45$), that is; "Possibilities for applying what you learned when studying" ($n = 11$, $\mu = 3.0$), "Job security" ($n = 11$, $\mu = 3.0$), "Social status and recognition" ($n = 11$, $\mu = 3.09$), "Possibilities to put your own ideas into practice" ($n = 11$, $\mu = 3.18$), "Good social climate / work setting" ($n = 11$, $\mu = 3.45$) and"Being able to coordinate/supervise work" ($n = 11$, $\mu = 3.45$). The study findings have also revealed that for Individual Job Parameters, the Auto Engine Servicing Level 2 program graduates in employment, are; "Satisfied" with five (5) individual Job Parameter ($3.55 \leq \mu \leq 3.82$), that is; "Interesting work tasks" ($n = 11$, $\mu = 3.55$), "Good career advancement prospects" ($n = 11$, $\mu = 3.64$), "Being able to work with some independence" ($n = 11$, $\mu = 3.73$), "Income and benefits" ($n = 11$, $\mu = 3.73$), and "Clear and regulated work tasks" ($n = 11$, $\mu = 3.82$).

The study has revealed that for Individual Job Parameters, the Auto Engine Servicing Level 3 program graduates in employment, are; "Neither Satisfied Nor Dissatisfied" with six (6) individual Job Parameter ($2.5 \leq \mu \leq 3.4$), that is; "Being able to coordinate/supervise work" ($n = 10$, $\mu = 3.2$), "Income and benefits" ($n = 10$, $\mu = 3.2$), "Possibilities for applying what you learned when studying" ($n = 10$, $\mu = 3.2$), "Good social climate / work setting" ($n = 10$, $\mu = 3.3$) ,"Job security" ($n = 10$, $\mu = 3.3$) and "Clear and regulated work tasks" ($n = 10$, $\mu = 3.4$).

The tracer study further revealed that the Auto Engine Servicing Level 3 program graduates in employment, are; " Satisfied" with five (5) individual Job Parameter ($3.5 \leq \mu \leq 4.4$), that is; "Good career advancement prospects" ($n = 10$, $\mu = 3.5$), "Being able to work with some independence" ($n = 10$, $\mu = 3.4$), "Social status and recognition" ($n = 10$, $\mu = 3.6$), "Possibilities to put your own ideas into practice" ($n = 10$, $\mu = 3.7$) and "Interesting work tasks" ($n = 9$, $\mu = 3.7$).

The study has revealed that for Individual Job Parameters, the Automotive Servicing Management Level 4 program graduates in employment, are; "Satisfied" with eleven (11) individual Job Parameter ($3.7 \leq \mu \leq 4.3$), that is; "Possibilities for applying what you learned when studying" ($n = 10$, $\mu = 3.7$), "Being able to coordinate/supervise work" ($n = 10$, $\mu = 3.7$), "Being able to work with some independence" ($n = 10$, $\mu = 3.8$), "Good social climate / work setting" ($n = 10$, $\mu = 3.8$), "Job security" ($n = 10$, $\mu = 3.8$), "Income and benefits" ($n = 10$, $\mu = 3.9$), "Interesting work tasks" ($n = 10$, $\mu = 4.0$), "Clear and regulated work tasks" ($n = 10$, $\mu = 4.0$), "Possibilities to put your own ideas into practice" ($n = 10$, $\mu = 4.1$), "Social status and recognition" ($n = 10$, $\mu = 4.2$) and "Good career advancement prospects" ($n = 10$, $\mu = 4.3$).

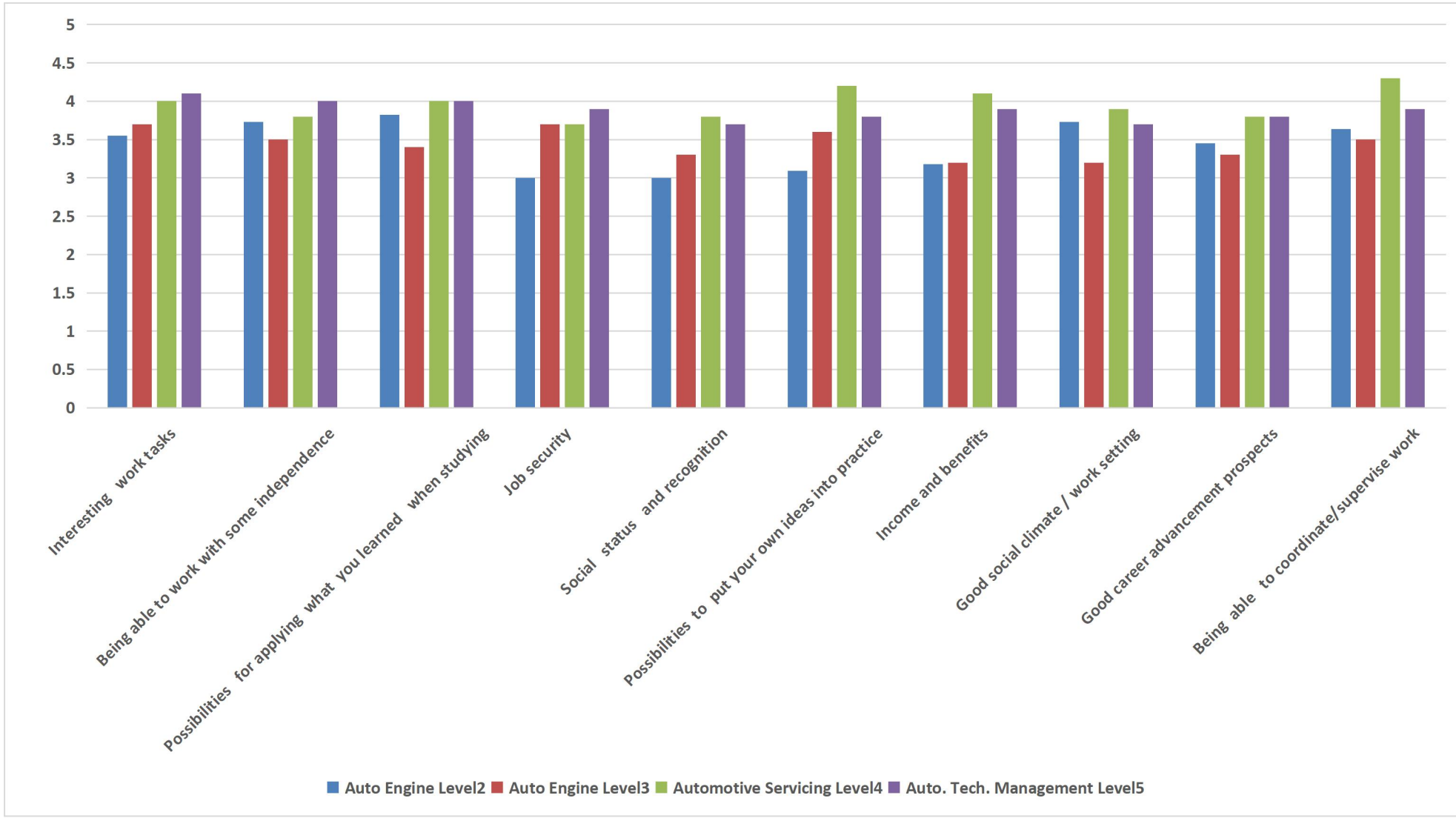
The study has revealed that for Individual Job Parameters, the Automotive Technology Management Level 5 program graduates in employment, are; "Satisfied" with eleven (11) individual Job Parameter ($3.5 < \mu < 4.4$), that is; "Job security" ($n = 18$, $\mu = 3.7$), "Income and benefits" ($n = 18$, $\mu = 3.7$), "Social status and recognition" ($n = 18$, $\mu = 3.8$), "Good social climate / work setting" ($n = 18$, $\mu = 3.8$), "Possibilities for applying what you learned when studying" ($n = 18$, $\mu = 3.9$), "Possibilities to put your own ideas into practice" ($n = 18$, $\mu = 3.8$), "Good career advancement prospects" ($n = 18$, $\mu = 3.9$), "Being able to coordinate/supervise work" ($n = 18$, $\mu = 4$), "Being able to work with some independence" ($n = 18$, $\mu = 4$), "Clear and regulated work tasks" ($n = 18$, $\mu = 4$) and "Interesting work tasks" ($n = 18$, $\mu = 4.1$).

Table 11: Job satisfaction for employed graduates (the 4 programs)

Parameter	Auto Engine Level2								Auto Engine Level3								Automotive Servicing Level4								Auto. Tech. Management Level5							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Interesting work tasks	0	3	2	3	3	11	3.55	1.21	0	1	4	4	1	10	3.7	0.67	0	0	0	10	0	10	4.0	0	1	0	1	11	5	18	4.1	0.94
Being able to work with some independence	0	2	0	8	1	11	3.73	0.9	0	1	5	3	1	10	3.5	0.85	0	0	2	8	0	10	3.8	0.42	0	0	2	14	2	18	4	0.49
Clear and regulated work tasks	0	1	2	6	2	11	3.82	0.87	0	0	4	5	1	10	3.4	0.84	0	0	0	10	0	10	4.0	0	0	0	2	14	2	18	4	0.49
Possibilities for applying what you learned when studying	0	4	3	4	0	11	3.0	0.89	0	1	5	4	0	10	3.7	0.67	0	1	1	8	0	10	3.7	0.67	0	1	3	11	3	18	3.9	0.76
Job security	0	5	2	3	1	11	3.0	1.1	0	0	4	6	0	10	3.3	0.67	0	0	4	4	2	10	3.8	0.79	1	1	2	13	1	18	3.7	0.91
Social status and recognition	0	3	4	4	0	11	3.09	0.83	0	2	4	4	0	10	3.6	0.52	0	0	2	4	4	10	4.2	0.79	0	2	1	14	1	18	3.8	0.73
Possibilities to put your own ideas into practice	0	2	6	2	1	11	3.18	0.87	0	3	3	3	1	10	3.2	0.79	0	0	1	7	2	10	4.1	0.57	0	1	3	11	3	18	3.9	0.76
Income and benefits	0	1	2	7	1	11	3.73	0.79	0	1	6	2	1	10	3.2	1.03	0	0	3	5	2	10	3.9	0.74	0	2	2	13	1	18	3.7	0.75
Good social climate / work setting	0	1	4	6	0	11	3.45	0.69	0	1	4	4	1	10	3.3	0.82	0	0	3	6	1	10	3.8	0.63	0	0	4	13	1	18	3.8	0.51
Good career advancement prospects	0	1	3	6	1	11	3.64	0.81	0	0	5	5	0	10	3.5	0.85	0	0	0	7	3	10	4.3	0.48	0	0	3	13	2	18	3.9	0.54
Being able to coordinate/supervise work	0	1	4	6	0	11	3.45	0.69	0	0	4	5	1	10	3.2	0.53	0	0	3	7	0	10	3.7	0.48	0	0	1	16	1	18	4	0.34

Source: From KPC study, 2021

Fig. 5. Job Satisfaction for Employed graduates(the four programs)



Source: From KPC study, 2021

Overall, the data on the job satisfaction for employed graduates of the four programs in Automotive technology department shows that the employed graduates are either "satisfied" or "neither satisfied nor dissatisfied" with the job parameters. None of them reported that they were not satisfied with the parameters.

Table 12 presents the result of job satisfaction for employed graduates of the seven departments. The study findings have revealed that for Individual Job Parameters, the Hotel and Tourism program graduates in employment, are; "Somewhat not Satisfied" with one (1) individual Job Parameter ($\mu = 2.4$), "Being able to coordinate/supervise work" ($n = 3$, $\mu = 2.3$); They are "Neither Satisfied Nor Dissatisfied" with nine (9) individual Job Parameter ($\mu = 4.4$), "Good career advancement prospects" ($n = 3$, $\mu = 2.7$), "Income and benefits" ($n = 3$, $\mu = 2.7$), "Possibilities for applying what you learned when studying" ($n = 3$, $\mu = 2.7$), "Good social climate / work setting" ($n = 3$, $\mu = 3$), "Social status and recognition" ($n = 3$, $\mu = 3$), "Possibilities put your own ideas into practice" ($n = 3$, $\mu = 3.3$), "Job security" ($n = 3$, $\mu = 3.3$) "Clear and regulated work tasks" ($n = 3$, $\mu = 3.3$) and "Being able to work with some independence" ($n = 3$, $\mu = 3.3$); Additionally, the Hotel and Tourism program graduates in employment, are; "Satisfied" with one (1) individual Job Parameter ($\mu = 4.4$), that is, "Interesting work tasks" ($n = 3$, $\mu = 4.0$).

The tracer study findings have revealed that for Individual Job Parameters, the Information Technology program graduates in employment, are; "Neither Satisfied nor Dissatisfied" with four (4) individual Job Parameter ($3.1 \leq \mu \leq 3.4$), that is; "Good career advancement prospects" ($n = 10$, $\mu = 3.1$), "Being able to coordinate/supervise work" ($n = 10$, $\mu = 3.3$), "Job security" ($n = 10$, $\mu = 3.4$) and "Being able to work with some independence" ($n = 10$, $\mu = 3.4$). The study further revealed that the Information Technology program graduates in employment, are; " Satisfied" with seven (7) individual Job Parameter ($3.5 \leq \mu \leq 3.9$), that is; "Social status and recognition" ($n = 10$, $\mu = 3.5$), "Possibilities to put your own ideas into practice" ($n = 10$, $\mu = 3.5$), "Income and benefits" ($n = 10$, $\mu = 3.6$), "Possibilities for applying what you learned when studying" ($n = 10$, $\mu = 8.8$), "Interesting work tasks" ($n = 9$, $\mu = 3.9$), "Good social climate / work setting" ($n = 10$, $\mu = 3.9$) and) "Clear and regulated work tasks" ($n = 10$, $\mu = 3.9$).

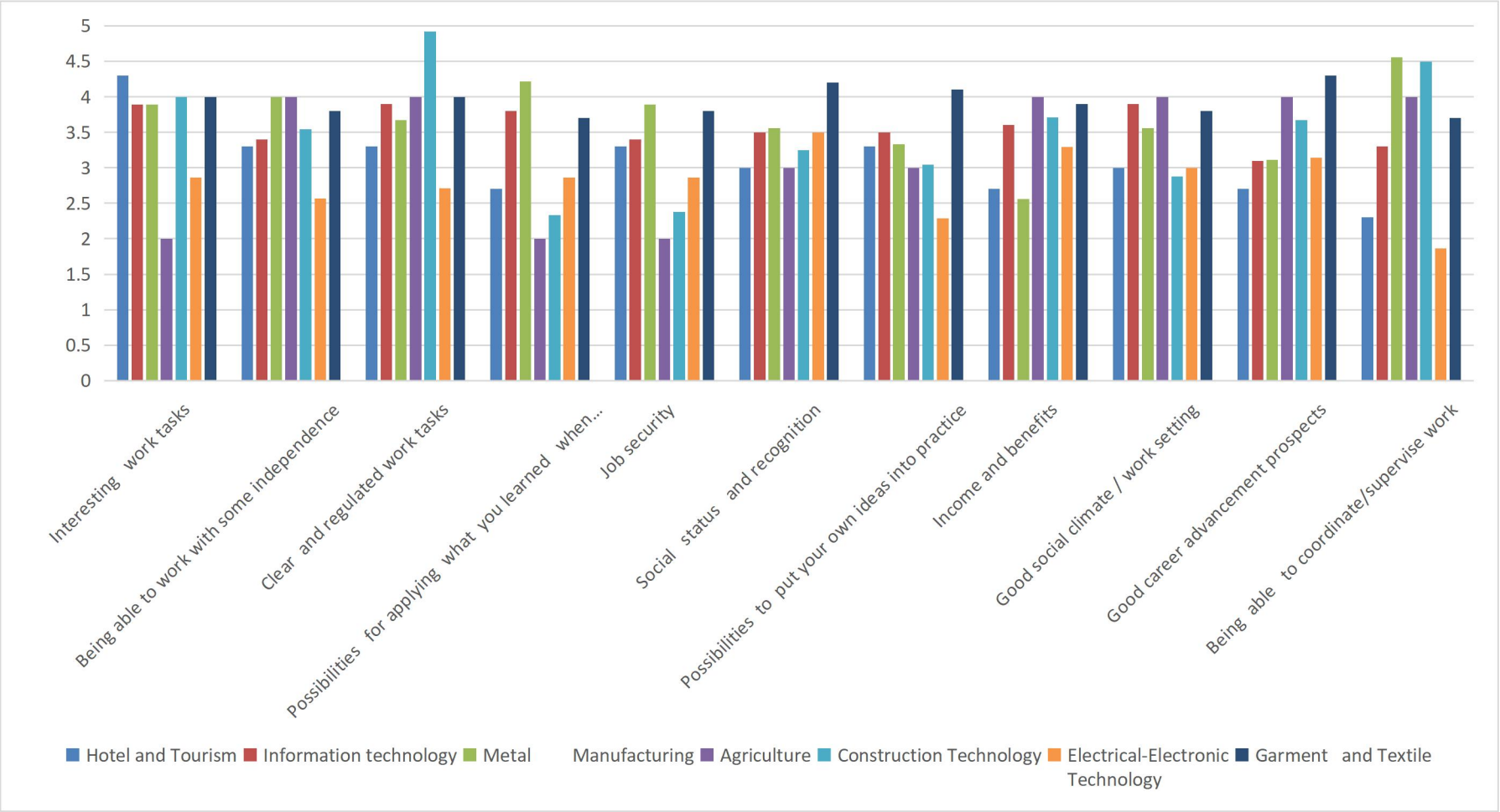
Table 12: Job satisfaction for employed graduates (the 7 departments)

Parameter	Hotel & Tourism								Information Technology								Metal Manufacturing								Agriculture							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Interesting work tasks	0	0	1	0	2	3	4.3	1.15	0	1	1	5	2	9	3.89	0.93	0	0	2	6	1	9	3.89	0.6	0	1	0	0	0	1	2.0	-
Being able to work with some independence	0	1	1	0	1	3	3.3	1.53	0	1	5	3	1	10	3.4	0.84	0	0	2	5	2	9	4	0.71	0	0	0	1	0	1	4.0	-
Clear and regulated work tasks	0	1	0	2	0	3	3.3	1.15	0	0	3	5	2	10	3.9	0.74	0	0	4	4	1	9	3.67	0.71	0	0	0	0	0	1	4.0	-
Possibilities for applying what you learned when studying	0	1	2	0	0	3	2.7	0.58	0	0	2	8	0	10	3.8	0.42	0	1	1	2	5	9	4.22	1.09	0	1	0	0	0	1	2.0	-
Job security	1	0	0	1	1	3	3.3	2.08	0	0	7	2	1	10	3.4	0.70	0	0	1	8	0	9	3.89	0	1	0	0	0	1	1	2.0	-
Social status and recognition	0	0	3	0	0	3	3	0	0	0	6	3	1	10	3.5	0.71	0	0	4	5	0	9	3.56	0.53	0	0	1	0	0	1	3.0	-
Possibilities to put your own ideas into practice	0	0	2	1	0	3	3.3	0.58	0	1	3	6	0	10	3.5	0.71	0	0	6	3	0	9	3.33	0.5	0	0	1	0	0	1	3.0	-
Income and benefits	0	1	2	0	0	3	2.7	0.58	0	1	2	7	0	10	3.6	0.70	1	3	4	1	0	9	2.56	0.88	0	0	0	0	0	1	4.0	-
Good social climate / work setting	0	1	1	1	0	3	3	1	0	0	1	9	0	10	3.9	0.32	0	0	4	5	0	9	3.56	0.53	0	0	0	0	0	1	4.0	-
Good career advancement prospects	0	1	2	0	0	3	2.7	0.58	0	1	7	2	0	10	3.1	0.57	0	3	3	2	1	9	3.11	1.05	0	0	0	0	0	1	4.0	-
Being able to coordinate/ supervise work	0	2	1	0	0	3	2.3	0.58	0	1	6	2	1	10	3.3	0.82	0	0	0	4	5	9	4.56	0.53	0	0	0	0	0	1	4.0	-

Parameter	Construction Technology								Electrical-Electronics Technology								Textile-Garment							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Interesting work tasks	0	0	2	20	2	24	4.0	0.42	0	2	2	3	0	7	3.14	0.9	0	2	4	1	1	8	2.86	0.69
Being able to work with some independence	0	3	16	5	0	24	3.54	0.98	0	1	2	3	1	7	3.57	0.98	1	3	1	2	1	8	2.57	1.13
Clear and regulated work tasks	0	0	0	2	22	24	4.92	0.28	0	2	2	2	1	7	3.29	1.11	1	2	2	2	1	8	2.71	1.11
Possibilities for applying what you learned when studying	3	10	11	0	0	24	2.33	0.7	1	0	2	3	1	7	3.43	1.27	0	2	4	1	1	8	2.86	0.69
Job security	4	11	5	4	0	24	2.38	0.97	0	3	1	3	0	7	3	1	0	4	0	3	1	8	2.86	1.07
Social status and recognition	0	7	8	5	4	24	3.25	1.07	0	0	4	3	0	7	3.43	0.53	0	0	4	2	2	8	3.5	0.79
Possibilities to put your own ideas into practice	3	6	3	11	1	24	3.04	1.2	0	2	2	3	0	7	3.14	0.9	1	4	1	1	1	8	2.29	0.95
Income and benefits	1	2	2	17	2	24	3.71	0.91	0	1	3	2	1	7	3.43	0.98	0	2	2	2	2	8	3.29	1.11
Good social climate / work setting	1	2	2	9	7	24	2.88	1.34	0	2	2	2	1	7	3.29	1.11	0	2	3	2	1	8	3.0	0.82
Good career advancement prospects	0	1	9	11	3	24	3.67	0.76	0	0	6	1	0	7	3.14	0.38	0	1	4	2	1	8	3.14	0.69
Being able to coordinate/ supervise work	2	0	0	0	22	24	4.5	1.65	0	4	0	1	2	7	3.14	1.46	3	2	2	1	0	8	1.86	0.9

Source: From KPC study, 2021

Fig. 6. Job Satisfaction for Employed Graduates (the seven departments)



Source: From KPC study, 2021

The tracer study has revealed that for Individual Job Parameters, the Metal Manufacturing Technology program graduates in employment, are; "Neither Satisfied Nor Dissatisfied" with six (6) individual Job Parameter ($2.5 \leq \mu \leq 3.4$), that is; "Being able to coordinate/supervise work" ($n = 9$, $\mu = 4.56$), "Income and benefits" ($n = 9$, $\mu = 2.56$), "Possibilities for applying what you learned when studying" ($n = 9$, $\mu = 3.33$), "Good social climate / work setting" ($n = 9$, $\mu = 3.56$) ,"Job security" ($n = 9$, $\mu = 3.89$) and "Clear and regulated work tasks" ($n = 9$, $\mu = 3.67$). The study further revealed that the Metal Manufacturing Technology program graduates in employment, are; "Satisfied" with five (5) individual Job Parameter ($3.5 \leq \mu \leq 4.4$), that is; "Good career advancement prospects" ($n = 9$, $\mu = 3.11$), "Being able to work with some independence" ($n = 9$, $\mu = 4$), "Social status and recognition" ($n = 9$, $\mu = 3.56$), "Possibilities to put your own ideas into practice" ($n = 9$, $\mu = 4.22$) and "Interesting work tasks" ($n = 9$, $\mu = 3.89$).

The study has revealed that for Individual Job Parameters, the Electrical and Electronics Technology program graduates in employment, are; "Neither Satisfied Nor Dissatisfied" with Ten (10) individual Job Parameter ($2.5 \leq \mu \leq 3.4$), that is; "Being able to coordinate/supervise work" ($n = 7$, $\mu = 3.14$), "Income and benefits" ($n = 7$, $\mu = 3.43$), "Possibilities for applying what you learned when studying" ($n = 7$, $\mu = 3.14$), "Good social climate / work setting" ($n = 7$, $\mu = 3.29$) ,"Job security" ($n = 7$, $\mu = 3.0$) and "Clear and regulated work tasks" ($n = 7$, $\mu = 3.29$), "Good career advancement prospects" ($n = 7$, $\mu = 3.5$), "Social status and recognition" ($n = 7$, $\mu = 3.43$), "Possibilities to put your own ideas into practice" ($n = 7$, $\mu = 3.43$) and "Interesting work tasks" ($n = 7$, $\mu = 3.14$). The study further revealed that the Electrical and Electronics Technology program graduates in employment, are; "Satisfied" with One (1) individual Job Parameter ($3.5 \leq \mu \leq 4.4$), that is; "Being able to work with some independence" ($n = 7$, $\mu = 3.57$).

Overall, the study on the job satisfaction of employed graduates from the seven departments shows that most of them are either "satisfied" or "neither satisfied nor dissatisfied" with the job parameters. Only employed graduates from the department of hotel and tourism reported that they are somewhat not satisfied with "Being able to coordinate/supervise work", which shows that they need quality training in coordinating or supervising work.

3.2.5 Self-employed graduates

Table 13 presents data on self-employed graduates from the four programs of automotive technology department. Note that none of the 22 traced Automotive Technology Management Level 5

program graduates was in self-employment at the time of the survey. Among the 3 traced Auto Engine Servicing Level 2 program graduates that are in self-employment; 67 percent are involved in "*Other Service activities"* industry while 33 percent are involved in *"Mining and Quarrying"* industry. Among the 3 traced Auto Engine Servicing Level 3 program graduates that are in self-employment, 100 percent are involved in *"Other service activities"* like driving business, advertising, and being a driver.

Among the 5 traced Automotive Servicing Management Level 4 program graduates that are in self-employment; 100 percent are involved in "*Other" industry.* These data showed that all self-employed graduates from the automotive technology department are involved in jobs other than their study areas. This shows that the relevance of the programs or the curricula delivered should be re-visited.

With regards to access to business financing, Auto Engine Servicing Level 2 program graduates in self-employment have revealed that, 67 percent "have no access to Business Financing" while 33 percent "Have access to business financing"; Auto Engine Servicing Level 3 program graduates in self-employment have revealed that, 100 percent "have no access to Business Financing."; and Automotive Servicing Management Level 4 program graduates in self- employment have revealed that, 100 percent "have no access to Business Financing." The study generally shows that the majority of self-employed graduates from the automotive technology department have no access to business financing. This implies that KPC should work with other concerned financial authorities to provide access to business financing for self-employed graduates so as to encourage self-employment.

With regards to the relationship between studies and self-employment, 100 percent of the self-employed Auto Engine Servicing Level 2 program graduates agree that the studies and their business are "Slightly related"; 100 percent of the self-employed Auto Engine Servicing Level 3 program graduates agree that the studies and their business are "Not Related"; 20 percent of the self-employed Automotive Servicing Management Level 4 program graduates agree that the studies and their business are "Highly related", 20 percent say that the studies and their business are "Moderately related." While 60 percent of the self-employed Automotive Servicing Management Level 4 program graduates said that the studies and their business are "Not related".

Table 13: Data on Self-employed graduates

Program/ Department	Self-employed graduates by industry sector	Frequency	Percent	Access to business financing	Frequency	Percent	Relationship between studies & self-employment	Frequency	Percent
Auto Engine Level2	Other Service activities	2	67%	Yes	1	33%	Slightly related	3	100%
	Mining and Quarrying	1	33%	No	2	67%			
	Total	3	100%	**Total**	**3**	**100%**	**Total**	**3**	**100%**
Auto Engine Level3	Other service activities	3	100%	No	3	100%	Not Related	3	100%
	Total	**3**	**100%**	**Total**	**3**	**100%**	**Total**	**3**	**100%**
Automotive Servicing Management Level4	Other	5	100%	No	5	100%	Highly related	1	20%
							Moderately related	1	20%
	Total	5	100%	**Total**	**5**	**100%**	Not Related	3	60%
							Total	**5**	**100%**
Automotive Technology Management Level 5	No data was obtained from the self-employed Automotive Technology Management Level 5 program graduates on the issue.								
Hotel and Tourism	Accommodation and food		100%	Yes	1	100%	Yes	1	100%
	Total	**1**	**100%**	**Total**	**1**	**100%**	**Total**	**1**	**100%**
Information Technology	Information and communication	1	50%	Yes	2	100%	Very Highly related	1	50%
	Other service activities	1	50%				Moderately related	1	50%
	Total	2	100%	**Total**	**2**	**100%**	**Total**	**2**	**100%**

Metal Manufacturing	Manufacturing	1	50%	Yes	1	50%	Related	1	50%
	Wholesale and retail trade, repair of motor vehicles and motorcycles	1	50%	No	1	50%	Not Related	1	50%
	Total	2	100%	**Total**	**2**	**100%**	**Total**	**2**	**100%**
Agriculture	Agriculture, forestry and fishing	1	33%	Yes	2	67%	Yes	1	33%
	Others	2	67%	No	1	33%	No	2	67%
	Total	**3**	**100%**	**Total**	**3**	**100%**	**Total**	**3**	**100%**
Construction Technology	Electricity, gas, steam and air conditioning supply	2	40%	Yes	5	100%	Yes	5	100%
	Construction	1	20%						
	Others	2	40%	**Total**	**5**	**100%**	**Total**	**5**	**100%**
	Total	**5**	**100%**						
Electrical-Electronics	Electricity, gas, steam and air conditioning supply	1	33.3%	Yes	3	100%	Highly Related	1	33.3
	Human health and social work activities	1	33.3%				Slightly Related	1	33.3
	Other service activities	1	33.3%				Not Related	1	33.3
	Total	**3**	**100%**	**Total**	**3**	**100%**	**Total**	**3**	**100%**
Textile Garment	Manufacturing	2	50%	Yes	3	75%	Yes	2	50%
	Real estate activities	1	25%	No	1	25%	No	2	50%
	Other service activities	1	25%	**Total**	**4**	**100%**	**Total**	**4**	**100%**
	Total	**4**	**100%**						

Source: From KPC study, 2021

As can be seen from the data, the majority of the self-employed graduates of automotive technology department agreed that their studies and their businesses are not that much related. This also implies that the irrelevancies of the programs have to be revisited.

Similarly, the 1 traced Hotel and Tourism program self-employed graduate is engaged in "Accommodation and food service activities**";** 50 percent of information technology department self-employed graduates are involved in "Information and communication" while 50 percent are involved in "Other service activities"; 50 percent of metal manufacturing department self- employed graduates are involved in "Manufacturing" like driving business, advertising, and 50 percent are involved in "Wholesale and retail trade, repair of motor vehicles and motorcycles"; 33 percent of agriculture department self-employed graduates are involved in "Agriculture, forestry and fishing", 67 percent are engaged in "Other " industry; 20 percent of construction technology department self-employed graduates are involved in "Construction" industry, 40 percent are engaged in "Electricity, gas, steam and air conditioning supply" industry and 40 percent are engaged in "Others"; 100 percent of electrical-electronics technology department self- employed graduates are involved in "Other service activities" like driving business, advertising, and being a driver; 75 percent of textile and garment department self-employed graduates are involved in "Manufacturing". 25 percent are involved in "Real estate activities" while 25 percent are involved in "Other service activities".

As can be seen from the data, most of the self-employed graduates in the seven departments are involved in businesses not related to their studies. This implies that the irrelevancies of the programs have to be assessed.

With regards to access to business financing, 100 percent of Hotel and Tourism department self-employed graduates have "Access to Business Financing."; 100 percent of information technology department self-employed graduates "have access to Business Financing."; 50 percent of metal manufacturing department self-employed graduates "have no access to Business Financing." And 50 percent "have access to Business Financing"; 67 percent of agriculture department self-employed graduates have "Access to Business Financing" and 33 percent revealed that they have "No Access to Business Financing."; 100 percent of construction technology department self-employed graduates have "Access to Business Financing"; 100 percent of electrical-electronics department self-employed graduates "have access to Business Financing."; and

75 percent of textile and garment department self-employed graduates have " Access to Business Financing." while 25 percent have "NO Access to Business Financing".

The study revealed that unlike self-employed graduates of automotive technology department, most of the self-employed graduates from the other departments have access to business financing. Department heads and other concerned bodies in the department of automotive technology may benefit if they take experience from the other departments with respect to providing graduates with access to business financing.

With regards to relationship between studies and business areas, one (1) self-employed Hotel and Tourism program graduate agrees that there is "some relation between studies and self-employment."; 50 percent of the self-employed Information Technology program graduates agree that the studies and their business are "Very Highly related" while 50 percent say that the studies and their business are "Moderately related."; 50 percent of the self-employed Metal Manufacturing Technology program graduates agree that the studies and their business are "Not Related" and 50 percent agree that their studies and their business are "Related"; 33 percent of the self-employed Agriculture Department program graduates agree that studies is "Very Highly Related" "with self- employment." while 67 percent do not think there is relationship between studies and self- employment; 100 percent of the self-employed Department of Construction Technology graduates agree that studies are "Related" "with "self-employment."; 33.33 percent of the self-employed Electrical and Electronics Technology program graduates agree that the studies and their business are "Highly Related, Slightly Related and Not Related "; and 50 percent of the self-employed Department of Textile Garment department graduates agree that there is "some relation between studies and self-employment." 50 percent say that there is "no relation between studies and self- employment."

As the study revealed, about 50% of self-employed graduates reported that their studies are not related to self-employment. This implies that sufficient self-employment training such as entrepreneurship have to be included in the training.

3.2.6 Unemployed graduates

Table 14 presents data on unemployed graduates from the four programs of automotive technology department and unemployed graduates from the seven departments. With regards to causes for unemployment, 17 percent of the traced Auto Engine Servicing Level 2 program graduates who

are "Unemployed" cited "Unsuccessful applications" as the reason they are unemployed. 67 percent of the traced Auto Engine Servicing Level 2 program graduates who are "Unemployed" cited "Lost previous job" as the reason they are unemployed, 33 percent cited "Other reasons" as the reason they are unemployed while 33 percent did not "disclose" the reason they are unemployed; 100 percent of the traced Auto Engine Servicing Level 3 program graduates who are "Unemployed", cited "Because of the war" and "Not finding job." For their unemployment; 100 percent of the traced Automotive Servicing Management Level 4 program graduates who are "Unemployed" cited "Other" as the reason they are unemployed. This could be war or not finding job, as stated by auto engine servicing level 3 unemployed graduates; 100 percent of the traced Automotive Technology Management Level 5 program graduates who are "Unemployed" cited "Because of war." And "Not finding job "as reasons for their unemployment.

Table 14: Unemployed graduates, reason for unemployment

Program/Department	Reason for unemployment	Frequency	Percent
Auto Engine Level2	Unsuccessful applications	1	17%
	Lost previous job	4	67%
	Other reasons	2	33%
	Undisclosed	2	33%
Auto Engine Level3	Other - Unspecified	3	100%
Automotive Servicing Management Level4	Other - Unspecified	5	100%
Automotive Technology Management Level 5	Other - Reasons	3	100%
Hotel and Tourism	Family concerns	4	21%
	Lost previous job	14	74%
	Other – Because of war	1	5%
Information Technology	Family concerns.	2	28.5%
	Lost previous job	4	57.2%
	Other - Unspecified	1	14.3%
Metal Manufacturing	Unsuccessful applications	1	7%
	Lost previous job	1	7%
	Other - Unspecified	12	86%
Agriculture	No job opportunity	12	70.6%
	Unsuccessful application	3	17.6%
	Other	2	11.8%
Construction Technology	Unsuccessful application	6	43%
	Lost previous job	3	21%
	Other	5	36%
Electrical-Electronics	Unsuccessful application	3	100%
Textile Garment	Unsuccessful application	2	25%
	Lost previous job	2	25%
	Other	4	50%

****The total percentage in some cases exceeds 100 percent because respondents face multiple unemployment challenges.***

Source: From KPC study, 2021

Moreover, 21 percent of the traced Hotel and Tourism program graduates who are "Unemployed", declined to take job offers due to "Family concerns". 74 percent "Lost previous job". 5 percent "because of war"; 49 percent of the traced Information Technology program graduates who are "Unemployed", 67 percent "Lost previous job". 33 percent declined to take job offers due to "Family concerns" and 17 percent cited "Other" as the reason they are unemployed; 86 percent of the traced Metal Manufacturing Technology program graduates who are "Unemployed", cited "No job opportunity" as the reason for their unemployment; 22 percent of the traced Agriculture Department program graduates who are "Unemployed", declined to take job offers due to "Unsuccessful application.", 70 percent because of "No job opportunity", and 18 percent had "Other" reasons; 43 percent of the traced Department of Construction Technology program graduates who are "Unemployed", declined to take job offers due to "Unsuccessful application.", 21 percent because of "Lost previous job", and 36 percent had "Other" reasons; 100 percent of the traced Electrical and Electronics Technology program graduates who are "Unemployed", cited "unsuccessful application" as the reason they are unemployed; that 25 percent of the traced Garment and Textile Department program graduates who are "Unemployed", declined to take job offers due to "Unsuccessful application", 25 percent because of "Lost previous job", and 50 percent had "Other" reasons.

The results imply that war has effect on employment. Moreover, not finding job is the other cause for unemployment, which means that the programs may not be relevant to the market or the labour market is already saturated. It is therefore important to conduct labour market study to see the demand. Some unemployed graduates also mentioned the loss of previous jobs. This could be attributed to lack of continuous professional development support or stability in the labour market. Still others mentioned unsuccessful application for their unemployment. This can be related to lack of training on communication skills. In general, in a depressed economic condition, suitable jobs may not be readily available. Moreover, in 2021 many employers were faced with challenging business environments as a result of the Covid- 19 pandemic. This could explain why a number of the graduates are "*Unemployed*". Further the results confirm that under circumstances where there are shortages of jobs in the labour market, graduates find it difficult to secure jobs.

3.3. Employer findings

3.3.1 Demographic information about the traced employers

Table 15 presents demographic information about graduates' employers. 50 percent of the employers of Auto engine servicing level 2 graduates who participated in the study are "Human Resource Manager or Deputy Human Resource Manager". 25 percent are "Head of Department or Deputy Head of Department" while 25 percent are "Director or Deputy Director"; 50 percent of the employers of Auto engine servicing level 3 graduates in the study are "Human Resource Managers or Deputy Human Resource Managers". 50 percent are "Supervisor"; 100 percent of the employers of Automotive servicing management level 4 graduates in the study are "Supervisors"; 50 percent are "Human Resource Managers or Deputy Human Resource Managers". 25 percent of the employers of Automotive technology management level 5 graduates in the study are "Head of Department or Deputy Head of Department". 25 percent are "Supervisors".

In addition, the data showed that 25 percent of the employers of Hotel and Tourism department graduates who participated in the study are "Director or Deputy Director". 75 percent are "Supervisors"; 25 percent are "Human Resource Managers or Deputy Human Resource Managers". 75 percent of the employers of Information technology department graduates in the study are "Head of Department or Deputy Head of Department"; 20 percent are "Head of Department", 60 percent of the employers of Metal manufacturing department graduates who participated in the study are "Supervisor" and 20 percent did not "Disclose"; 100 percent of 5 traced employers of the Department of Agriculture are "Human Resource Manager or Deputy Human Resource Manager"; 100 percent of 4 traced employers of the Department of Construction Technology are "Supervisors"; 20 percent of the traced employers of the Department of electrical-electronics department "didn't respond", 80 percent are "Supervisor"; 50 percent of the employers of Textile and Garment graduates are "Human Resource Manager or Deputy Human Resource Manager". 50 percent are "Head of Department or Deputy Head of Department".

Overall, it can be seen from the study that most of the employers who participated in the study are on administrative position in their organization.

Table 15: Employers' demographic information

Program/ Department	Roles/positions	Frequency	Percent	Industry Sector	Frequency	Percent
Auto Engine Level2	Director or deputy Director	1	25%	Manufacturing	3	75%
	Human Resource Manager or Deputy Human Resource Manager	2	50%	Other	1	25%
	Head of Department or Deputy head of Department	1	25%	**Total**	**4**	**100%**
	Total	**4**	**100%**			
Auto Engine Level3	Human Resource Manager or Deputy Human Resource Manager	2	50%	Construction	1	25%
	Supervisor	2	50%	Transportation and storage	2	50%
	Total	**4**	**100%**	Education	1	25%
				Total	**4**	**100%**
Automotive Servicing Management Level4	Supervisor	4	100%	Mining and Quarrying	1	25%
	Total	**4**	**100%**	Manufacturing	1	25%
				Education	1	25%
				Other	1	25%
				Total	**4**	**100%**
Automotive Technology Management Level 5	Human Resource Manager or Deputy Human Resource Manager	2	50%	Transportation and storage	3	75%
	Head of Department or Deputy Head of Department	1	25%	Construction	1	25%
	Supervisor	1	25%	**Total**	**4**	**100%**
	Total	**4**	**100%**			
Hotel and Tourism	Director or Deputy Director	1	25%	Accommodation and food service activities	4	100%
	Supervisor	3	75%			
	Total	**4**	**100%**			

Information Technology	Human Resource Manager or Deputy Human Resource Manager	1	25%	Transportation and storage	1	25%
	Head of Department or Deputy Head of Department	3	75%	Information and Communication	2	50%
				Education	1	25%
	Total	**4**	**100%**	**Total**	**4**	**100%**
Metal Manufacturing	Head of Department	1	20%	Manufacturing	4	80%
	Supervisor	3	60%	Not Disclosed	1	20%
	Others – Not Specified	**1**	**20%**	**Total**	**5**	**100%**
	Total	**5**	**100%**			
Agriculture	Head of Department or Deputy Head of Department	5	100%	Transportation and storage	1	20%
	Total	**5**	**100%**	Other	4	80%
				Total	**5**	**100%**
Construction Technology	Supervisor	4	100%	Manufacturing	1	25%
				Other	3	75%
	Total	**4**	**100%**	**Total**	**4**	**100%**
Electrical-Electronics	No answer	1	20%	Manufacturing (A3)	1	20%
	Supervisor	4	80%	Electricity, gas, steam and air conditioning supply (A4)	3	60%
		4	**100%**	No answer	1	20%
	Total			**Total**	**5**	**100%**
Textile Garment	Human Resource Manager or Deputy Human Resource Manager	2	50%	Manufacturing	4	100%
	Head of Department or Deputy Head of Department	2	50%	**Total**	**4**	**100%**
	Total	**4**	**100%**	**Total**	**8**	**100%**

Source: From KPC study, 2021

With regards to industry sector of traced employers, 75 percent of the traced employers of auto engine servicing level 2 graduates are in "Manufacturing" industry while 25 percent are in the "Other" sector; 50 percent of the traced employers of auto engine servicing level 3 graduates are in "Transportation and Storage" industry", 25 percent are in the "Construction" sector while 25 percent are in "Education" Sector; 25 percent of the traced employers of automotive servicing management level 4 graduates are in "Mining and Quarrying" industry. 25 percent are in the "Manufacturing" sector, 25 percent are in "Education" Sector while 25 percent are in "Other" sectors; 75 percent of the traced employers of automotive technology management employers are in "Transportation and Storage" industry. 25 percent are in the "Construction" sector.

As can be seen from the data, more than 50 percent of the employers of auto engine servicing level 3 and automotive technology management level 5 graduates are involved in transportation and storage industry, while more than half of the employers of graduates in the other programs are involved in other occupations.

In addition, 100 percent of the traced employers of Hotel and Tourism graduates are in the "Accommodation and food service activities" industry; 25 percent of the traced employers of information technology graduates are in "Transportation and Storage" industry. 50 percent are in the "Information and Communication" sector while 25 percent are in "Education" Sector; 80 percent of the traced employers of metal manufacturing graduates are in "Manufacturing", 20 percent did not "Disclose"; 20 percent of the traced employers of agriculture graduates are in "Transportation and storage" industry while 80 percent are in the "Other" sector; 25 percent of the traced employers of construction technology graduates are in "Manufacturing" industry while 75 percent are in the "Other" sector; 60 percent of the traced employers or electrical-electronics graduates are in "Electricity, gas, steam and air conditioning supply" industry", 20 percent are in the "Manufacturing" sector while 20 percent "Didn't answer" ; and 100 percent of the traced employers of textile and garment graduates are in "Manufacturing" sector.

3.3.2 How employers find employees with the needed skills

The data in table 16 show how employers find employees from the four programs of automotive technology department.

Table 16: How employers find employees with the needed skill

Program/Department	Means of recruiting employees	Frequency	Percent
Auto Engine Level2	Advertisement of vacancies in newspapers	4	100%
	Advertisements on the internet	3	75%
	Internal advertisements of vacancies	3	75%
	Other	1	25%
Auto Engine Level3	Advertisement of vacancies in newspapers	4	100%
	Advertisements on the Internet (e.g. government websites, company websites)	2	50%
	Internal advertisements of vacancies	4	100%
	Direct application by graduates	2	50%
Automotive Servicing Management Level4	Advertisement of vacancies in newspapers	4	100%
	Advertisements on the internet	4	100%
	Internal advertisements of vacancies	3	75%
Automotive Technology Management Level 5	Advertisement of vacancies in newspapers	4	100%
	Public work administration	2	50%
	Personal contacts to graduates	1	25%
Hotel and Tourism	Advertisements of vacancies in newspapers/television/radio	1	25%
	Internal advertisements of vacancies	2	50%
	Direct application by graduates	2	50%
Information Technology	Advertisement of vacancies in newspapers	1	25%
	Direct application by graduates	2	50%
	Personal contacts to graduates	1	25%
Metal Manufacturing	Advertisement of vacancies in newspapers	3	60%
	Personal contacts (Relatives, friends or/and colleagues	1	20%
	Other contacts at the KPC	1	20%
	Public work administration (such as, public placement services, manpower allocation system)	1	20%
	Career Advisory	1	20%
Agriculture	Advertisements of vacancies in newspapers (such as, daily	4	80%

	papers, special periodicals)		
	Advertisements on the Internet	3	60%
	Internal advertisements of vacancies	3	60%
	Other	1	20%
Construction Technology	Advertisements of vacancies in newspapers (such as, daily papers, special periodicals)	1	25%
	Internal advertisements of vacancies	1	25%
	Other	3	75%
Electrical-Electronics	Advertisements of vacancies in newspapers/television/radio (such as, daily papers, special periodicals)	4	80%
	Advertisements on the Internet (e.g. government websites, company websites)	3	60%
	Other	1	20%
Textile Garment	Advertisements ofvacancies in newspapers/television/radio	4	100%
	Internal advertisements of vacancies	2	50%
	Direct application by graduates	2	50%
	Career advisory agency at the KPC	1	25%
	Other contacts to the KPC	1	25%
	Public work administration (such as, public placement services, manpower allocation system)	1	25%

Source: From KPC study, 2021

The study showed that 100 percent of the employers of auto engine servicing level 2 graduates recruit graduates through "Advertisements of vacancies in newspapers". 75 percent of the respondents through "Advertisements on the internet". 75 percent of the employers recruit graduates through "Internal advertisements of vacancies" while 25 percent of the respondents recruit graduates through "Other" media; 50 percent of the employers of auto engine servicing level 3 graduates recruit graduates through "Advertisements on the Internet" and "Direct application by graduates". 100 percent of the respondents through "Advertisement of vacancies in newspapers" and through "Internal advertisements of vacancies"; 100 percent of the employers of automotive servicing management level 4 graduates recruit graduates through "Advertisements of vacancies in newspapers". 100 percent of the employers through "Advertisements on the internet" while 75 percent of the employers recruit graduates through "Internal advertisements of vacancies"; and 100 percent of the employers of automotive technology management level 5 graduates recruit graduates

through “Advertisements of vacancies in newspapers”, 50 percent of the employers through “Public work administration” and 25 percent through “Personal Contacts”.

Overall, it can be seen from the study that most of the employers of automotive technology graduates recruit the graduates through advertisement using different media.

The study showed that 25 percent of the employers of Hotel and Tourism graduates recruit graduates through “Advertise vacancies through Newspapers (such as, daily papers, special periodicals)”. 50 percent of the respondents recruit graduates through “Internal advertisements of vacancies” and “Direct application by graduates”; 50 percent of the employers of information technology graduates recruit graduates through “Direct application by graduates”. 25 percent of the respondents through “Personal Contacts” while 25 percent of the respondents recruit graduates through “Advertisements of vacancies in newspapers”; 60 percent of the employers of metal manufacturing graduates recruit graduates through “Advertisements of vacancies in newspapers” and 20 percent recruit through “Career advisory” and 20 percent ”other contacts” 20 percent of the respondents through “Public work Administration” and through “Personal contacts”.

Among the traced employers, 80 percent of the employers of agriculture graduates recruit graduates through “Advertisements of vacancies in newspapers”, 75 percent of the traced employers recruitthrough “Advertisements on the internet”, 60 percent of the traced employers recruit graduates through “Internal advertisements of vacancies” while 60 percent of the traced employers recruit graduates through “Internal advertisements of vacancies” and 25 percent of the traced employers recruit graduates through “Other” media; 25 percent of the traced employers of construction technology graduates recruit graduates through “Advertisements of vacancies in newspapers”, 25 percent of the respondents recruit graduates through “Internal advertisements of vacancies” while 75 percent of the respondents recruit graduates through “Other” ways.

Among the traced employers, 60 percent of the employers of electrical-electronics department graduates recruit graduates through “Advertisements on the Internet”, 80 percent of the traced employers recruit through “Advertisements of vacancies in newspapers/television/radio (such as, daily papers, special periodicals)” and 20 percent via “other means”; and 100 percent of the traced employers of textile-garment graduates recruit the graduates through “Advertisements of vacancies in newspapers/television/radio”, 50 percent of the respondents recruit graduates through “Internal advertisements of vacancies”. 50 percent “Direct application by graduates”. 50 percent of the respondents recruit graduates through “Career advisory agency at the Kombolcha

Polytechnic College " "Other contacts to the Kombolcha Polytechnic College" and "Public work administration (such as, public placement services, manpower allocation system)".

In general, it can be seen that most of the employers of the KPC graduates from the seven departments recruit graduates through different media. There may be need to strengthen the Industrial Liaison role within the institution. This position could take a leading role in assisting Department of Agriculture program graduates to secure employment.

3.3 Level of importance of recruitment aspects

Using average mean score, the scale has been interpreted as shown below:

INTERPRETATION OF THE AVERAGE MEAN SCORE					
Range	**1.0 – 1.4**	**1.5 – 2.4**	**2.5 – 3.4**	**3.5 – 4.4**	**4.5 – 5.0**
Verbalisation	**Not at all Important**	**Somewhat not Important**	**Neither Important Nor Unimportant**	**Important**	**Very Important**

Table 17 presents the level of importance of recruitment aspects by the employers. The findings have revealed that employers of the Auto Engine Servicing Level 2 program graduates consider one (1) Recruitment Aspect as "Somewhat not important " ($\mu \leq 2.0$), that is "Knowledge of foreign language" ($n = 4$, $\mu = 2.0$); they consider six (6) Recruitment Aspect as "Neither Important nor Unimportant" ($2.75 \leq \mu \leq 3.25$), that is; "Practical experience acquired during course of study" ($n = 4$, $\mu = 2.75$), "Personal presentation" ($n = 4$, $\mu = 2.75$), "Reputation of TVET Institute" ($n = 4$, $\mu = 3.0$), "Results of recruitment tests" ($n = 4$, $\mu = 3.0$), "Candidate's own world view" ($n = 4$, $\mu = 3.0$) and "Recommendations/references from third persons" ($n = 4$, $\mu = 3.25$); they also consider three (3) Recruitment Aspect as " Important" ($3.5 \leq \mu \leq 3.75$), that is;, "Field of study" ($n = 4$, $\mu = 3.5$), "Grades of examination at the TVET Institute" ($n = 4$, $\mu = 3.5$), and "Ability to work in multiracial environment" ($n = 4$, $\mu = 3.75$).

The study has revealed that when it comes to the Importance of recruitment aspects, employers of the Auto Engine Servicing Level 3 program graduates consider one (1) Recruitment Aspect as "Somewhat Not Important" ($1.5 \leq \mu \leq 2.4$), that is; "Knowledge of foreign language" ($n = 4$, $\mu = 2.25$); they consider three (3) Recruitment Aspect as "Neither Important nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is "Results of recruitment's tests" ($n = 4$, $\mu = 3.25$), "Recommendations/references from third persons" ($n = 3$, $\mu = 3.25$) and "Recommendations/references" ($n = 4$, $\mu = 3.5$); they consider six (6) Recruitment Aspect as " important" ($3.5 \leq \mu \leq 4.4$), that is; "Candidate's own world view" ($n = 4$ $\mu = 3.5$), "Ability to work in multiracial environment" ($n = 4$ $\mu = 3.5$), "Reputation of

TVET Institute" (n = 3, μ = 3.75), "Practical experience acquired during course of study" (n = 4, μ = 3.75), "Grades of examination at the TVET Institute" (n = 4, μ = 3.75) and "Field of study" (n = 4, μ = 3.75).

The study also has revealed that the employers of the Automotive Servicing Management Level 4 program graduates consider one (1) Recruitment Aspect as "Somewhat not important " (μ ≤ 2.0), that is "Knowledge of foreign language" (n = 4, μ = 2.0); they consider one (1) Recruitment Aspect as "Neither Important nor Unimportant" (μ ≤ 3.0), that is; "Personal presentation" (n = 4, μ = 3.0); they consider eight (8) Recruitment Aspect as " Important" (3.5 ≤ μ ≤ 4.0), that is; "Reputation of TVET Institute" (n = 4, μ = 3.5), "Results of recruitment's tests" (n = 4, μ = 3.5), "Candidate's own world view" (n = 4, μ = 3.5), "Recommendations/references from third persons" (n = 4, μ = 3.75), "Field of study" (n = 4, μ = 4.0), "Grades of examination at the TVET Institute" (n = 4, μ = 4.0), "Practical experience acquired during course of study" (n = 4, μ = 4.0) and "Ability to work in multiracial environment" (n = 4, μ = 4.0).

The study has revealed that the employers of the Automotive Technology Management Level 5 program graduates consider three (3) Recruitment Aspect as "Neither Important nor Unimportant" (2.5 ≤ μ ≤ 3.4), that is; "Knowledge of foreign language" (n = 4, μ = 3), "Results of recruitment's tests" (n = 4, μ = 3) and "Reputation of TVET Institute" (n = 4, μ = 3); they consider seven (7) Recruitment Aspect as " important" (3.5≤ μ ≤ 4.4), that is; "Candidate's own world view" (n = 4, μ = 3.5), "Personal presentation" (n = 4, μ = 3.3), "Recommendations/references from third persons" (n = 4, μ = 3.8), "Practical experience acquired during course of study" (n = 4, μ = 3.8), "Grades of examination at the TVET Institute" (n = 4, μ = 3.8), "Ability to work in multiracial environment" (n = 4, μ = 4) and "Field of study" (n = 4, μ = 4).

Table 17. Level of importance of recruitment aspects by employers of the 4 programs

Parameter	Auto Engine Level2								Auto Engine Level3								Automotive Servicing Level4								Automotive Technology Management Level5							
	1	**2**	**3**	**4**	**5**	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Field of study	0	0	2	2	0	4	3.5	0.58	0	0	1	3	0	4	3.75	0.5	0	0	0	4	0	4	4	0	0	0	0	4	0	4	4	0
Grades of examination at the TVET Institute	0	0	2	2	0	4	3.5	0.58	0	0	1	2	0	4	3.75	0.5	0	0	0	4	0	4	4	0	0	0	1	3	0	4	3.8	0.5
Practical experience acquired	0	1	3	0	0	4	2.75	0.5	0	0	1	3	0	4	3.75	0.5	0	0	0	4	0	4	4	0	0	0	1	3	0	4	3.8	0.5
Reputation ofthe KPC	0	1	2	1	0	4	3.0	0.82	0	0	1	3	0	4	3.75	0.5	0	0	2	2	0	4	3.5	0.58	0	1	2	1	0	4	3	0.82
Recommendations/references	0	0	3	1	0	4	3.25	0.5	0	0	3	1	0	4	3.25	0.5	0	0	1	3	0	4	3.75	0.5	0	0	1	3	0	4	3.8	0.5
Results of recruitments tests	0	1	2	1	0	4	3.0	0.82	0	0	3	1	0	4	3.25	0.5	0	0	2	2	0	4	3.5	0.58	0	1	2	1	0	4	3	0.82
Knowledge of foreign language	0	4	0	0	0	4	2.0	0	0	3	1	0	0	4	2.25	0.5	0	4	0	0	0	4	2	0	0	1	2	1	0	4	3	0.82
Personal presentation	0	1	3	0	0	4	2.75	0.5	0	1	2	1	0	4	3	0.82	0	0	4	0	0	4	3	0	0	0	1	3	0	4	3.8	0.5
Candidate's own world view	0	0	4	0	0	4	3.0	0	0	0	2	2	0	4	3.5	0.58	0	0	2	2	0	4	3.5	0.58	0	0	0	4	0	4	4	0
Ability to work in multiracial environment	0	0	1	3	0	4	3.75	0.5	0	0	2	2	0	4	3.5	0.58	0	0	0	4	0	4	4	0	0	0	2	2	0	4	3.5	0.58

Source: From KPC study, 2021

Fig. 7. Level of importance of recruitment aspects by employers (the four programs)

Source: From KPC study, 2021

Overall, it can be seen from the study that "Field of study", "Grades of examination at the TVET Institute", and "Ability to work in multiracial environment" are important recruitment aspects in all the programs, and "Practical experience acquired during course of study" was found to be important recruitment aspect in the three programs of automotive technology department.

Table 18 presents the result of' level of importance of the recruitment aspects by employers of the seven departments. The findings have revealed that employers of the Hotel and Tourism program graduates consider three (3) Recruitment Aspect as "Neither Important nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is; "Recommendations/references from third persons" ($n = 4$, $\mu = 3.3$), "Knowledge of foreign language" ($n = 4$, $\mu = 3.3$) and "Recommendations/references" ($n = 4$, $\mu = 3.3$); Further, employers of the Hotel and Tourism program graduates consider seven (7) Recruitment Aspects as "Important" ($3.5 \leq \mu \leq 4.4$), that is; "Ability to work in multiracial environment" ($n = 4$, $\mu = 3.5$), "Candidate's own world view" ($n = 4$, $\mu = 3.5$), "Main focus of subject area/specialization" ($n = 4$, $\mu = 3.8$), "Reputation of TVET Institute" ($n = 4$, $\mu = 4$), "Field of study" ($n = 4$, $\mu = 4$), "Practical experience acquired during course of study" ($n = 4$, $\mu = 4.3$) and "Results of recruitments tests" ($n = 4$, $\mu = 4.3$).

The study has revealed that employers of the Information Technology program graduates consider five (5) Recruitment Aspect as "Neither Important nor Unimportant" ($3.0 \leq \mu \leq 3.3$), that is "Results of recruitments tests" ($n = 3$, $\mu = 3.0$), "Personality and behaviour" ($n = 3$, $\mu = 3.0$), "Candidate's own world view" ($n = 3$, $\mu = 3.3$), "Communication skills" ($n = 3$, $\mu = 3.3$) and "Personal presentation" ($n = 3$, $\mu = 3.3$); they consider five (5) Recruitment Aspect as " important" ($3.7 \leq \mu \leq 4.3$), that is; "Practical experience acquired during course of study" ($n = 3$, $\mu = 3.7$), "Reputation of TVET Institute" ($n = 3$, $\mu = 3.7$), "Recommendations/references from third persons" ($n = 3$, $\mu = 3.7$), "Field of study" ($n = 3$, $\mu = 4.0$), "Grades of examination at the TVET Institute" ($n = 3$, $\mu = 4.0$) and "Main focus of subject area/specialization" ($n = 3$, $\mu = 4.3$).

The data from the study revealed that employers of the Metal Manufacturing Technology program graduates consider one (1) Recruitment Aspect as "Somewhat Not Important" ($1.5 \leq \mu \leq 2.4$), that is; "Knowledge of foreign language" ($n = 4$, $\mu = 2.25$); they consider three (3) Recruitment Aspect as "Neither Important nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is "Results of recruitments tests" ($n = 4$, $\mu = 3.5$), "Recommendations/references from third persons" ($n = 4$, $\mu = 3$) and "Recommendations/references" ($n = 4$, $\mu = 3.5$); they consider six (6) Recruitment Aspect as " imp ortant" ($3.5 \leq \mu \leq 4.4$), that is; "Candidate's own world view" ($n = 4$ $\mu = 3.5$), "Ability to work in multiracial environment" ($n = 4$ $\mu = 4$), "Reputation of TVET Institute" ($n = 4$, $\mu = 3.75$), "Practical

experience acquired during course of study" (n = 4, μ = 3.75), "Grades of examination at the TVET Institute" (n = 4, μ = 3.25) and "Field of study" (n = 4, μ = 3.75).

The study has revealed that employers of the Department of Agriculture program graduates consider one (1) Recruitment Aspect as "Somewhat not important " ($\mu \leq 2.0$), that is "Knowledge of foreign language" (n = 5, μ = 2.0); they consider six (6) Recruitment Aspect as "Neither Important nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is; "Practical experience acquired during course of study" (n = 5, μ = 2.75), "Reputation of the KPC" (n = 5, μ = 3.0), "Recommendations/references " (n = 5, μ = 3.0), "Results of recruitment tests" (n = 5, μ = 3.0), "Personal presentation"(n = 5, μ = 2.75), "Candidate's own world view" (n = 5, μ = 3.0); they consider three (3) Recruitment Aspect as "Important" ($3.5 \leq \mu \leq 4.4$), that is;, "Field of study" (n = 5, μ = 3.5), "Grades of examination at the TVET Institute" (n = 5, μ = 3.5), and "Ability to work in multiracial environment" (n = 5, μ = 3.75).

The study has also revealed that employers of the Department of Construction Technology program graduates consider one (1) Recruitment Aspect as "Somewhat not important " ($1.5 \leq \mu \leq 2.4$), that is "Personal presentation" (n = 3, μ = 2.25); they consider eight (8) Recruitment Aspect as "Neither Important nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is; "Field of study and specialization" (n = 3, μ = 3.0), "Grades of examination at the TVET Institute" (n = 3, μ = 2.75), "Practical experience acquired" (n = 3, μ = 2.75), "Recommendations/references" (n = 3, μ = 2.75), "Results of recruitment tests" (n = 3, μ = 2.75), "Knowledge of foreign language" (n = 3, μ = 2.5), "Candidate's own world view" (n = 3, μ = 2.75) and "Ability to work in multiracial environment"(n = 3, μ = 3); they consider one (1) Recruitment Aspect as " Important" ($3.5 \leq \mu \leq 4.4$), that is;, "Reputation of the KPC" (n = 3, μ = 3.5).

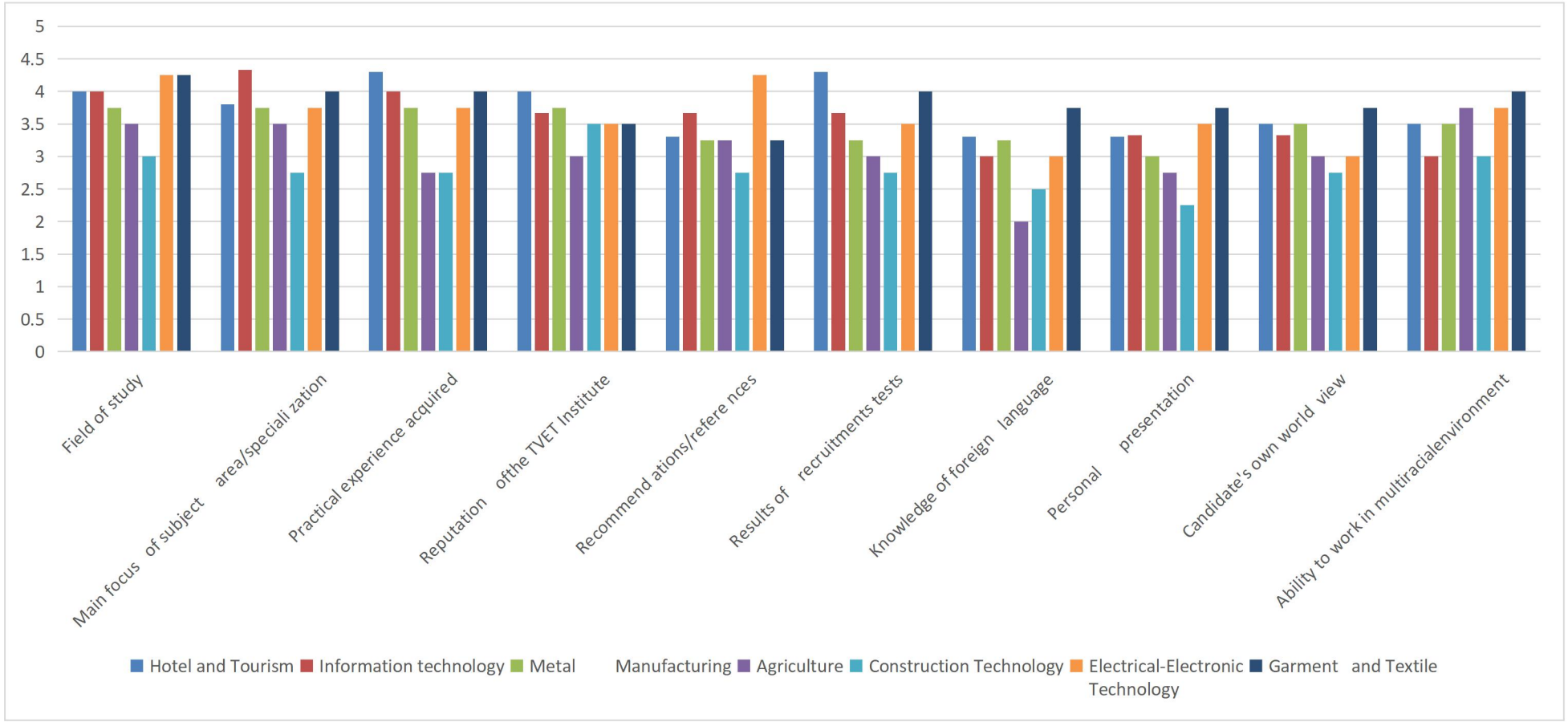
Table 18: Level of importance of recruitment aspects by employers of the 7 departments

Factors	Hotel & Tourism								Information Technology								Metal Manufacturing								Agriculture							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Field of study	0	0	0	4	0	4	4	0	0	0	0	3	0	3	4.0	0	0	0	1	3	0	4	3.75	0.5	0	1	2	2	0	5	3.5	0.58
Main focus of subject area/specialization	0	0	2	1	1	4	3.8	0.96	0	0	0	2	1	3	4.33	0.58	0	0	1	2	0	4	3.75	0.5	0	1	2	2	0	5	3.5	0.58
Practical experience acquired	0	0	0	3	1	4	4.3	0.5	0	0	0	3	0	3	4.0	0	0	0	1	3	0	4	3.75	0.5	1	1	3	0	0	5	2.75	0.5
Reputation ofthe TVET Institute	0	0	1	2	1	4	4	0.82	0	0	1	2	0	3	3.67	0.58	0	0	1	3	0	4	3.75	0.5	0	2	2	1	0	5	3.0	0.82
Recommendations/references	0	0	3	1	0	4	3.3	0.5	0	0	1	2	0	3	3.67	0.58	0	0	3	1	0	4	3.25	0.5	0	1	3	1	0	5	3.25	0.5
Results of recruitments tests	0	0	0	3	1	4	4.3	0.5	0	0	1	2	0	3	3.67	0.58	0	0	3	1	0	4	3.25	0.5	0	2	2	1	0	5	3.0	0.82
Knowledge of foreign language	0	1	1	2	0	4	3.3	0.96	0	1	1	1	0	3	3.0	1.0	0	3	1	0	0	4	2.25	0.5	0	4	1	0	0	5	2.0	0.5
Personal presentation	0	1	1	2	0	4	3.3	0.96	0	1	0	2	0	3	3.33	1.15	0	1	2	1	0	4	3	0.82	1	1	3	0	0	5	2.75	0.5
Candidate's own world view	0	1	1	1	1	4	3.5	1.29	0	1	0	2	0	3	3.33	1.15	0	0	2	2	0	4	3.5	0.58	0	0	5	0	0	5	3.0	0
Ability to work in multiracial environment	0	0	2	2	0	4	3.5	0.58	0	1	1	1	0	3	3.0	1.0	0	0	2	2	0	4	3.5	0.58	0	0	1	3	1	5	3.75	0.5

Factors	Construction Technology								Electrical-Electronics								Textile-Garment							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Field of study	0	0	4	0	0	4	3.0	-	0	0	0	3	1	4	4.25	0.5	0	0	0	3	1	0	4.25	0.5
Main focus of subject area/specialization	0	1	3	0	0	4	2.75	0.5	0	0	1	3	0	4	3.75	0.5	0	0	2	0	2	0	4.0	1.15
Practical experience acquired	0	2	1	1	0	4	2.75	0.96	0	0	1	3	0	4	3.75	0.5	0	0	1	2	1	0	4.0	0.82
Reputation of the TVET Institute	0	0	3	0	0	4	3.5	1.0	0	0	2	2	0	4	3.5	0.58	0	0	2	2	0	0	3.5	0.58
Recommendations/references	0	2	1	1	0	4	2.75	0.5	0	0	0	3	1	4	4.25	0.5	0	0	3	1	0	0	3.25	0.5
Results of recruitments tests	0	1	3	0	0	4	2.75	0.5	0	0	2	2	0	4	3.5	0.58	0	0	0	4	0	0	4.0	0
Knowledge of foreign language	0	3	0	1	0	4	2.5	1.0	0	0	4	0	0	4	3	0	0	0	1	3	0	0	3.75	0.5
Personal presentation	1	1	2	0	0	4	2.25	0.96	0	1	1	1	1	4	3.5	1.29	0	0	1	3	0	0	3.75	0.5
Candidate's own world view	0	1	3	0	0	4	2.75	0.5	0	0	4	0	0	4	3	0	0	0	1	3	0	0	3.75	0.5
Ability to work in multiracial environment	0	1	2	1	0	4	3.0	0.82	0	0	2	1	1	4	3.75	0.96	0	0	0	4	0	0	4.0	0

Source: From KPC study, 2021

Fig. 8. Level of importance of recruitment aspects by employers (the seven departments)



Source: From KPC study, 2021

The study has revealed that employers of the Electrical and Electronics Technology program graduates consider Two (2) Recruitment Aspect as "Neither Important Nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is; "Knowledge of foreign language" ($n = 4$, $\mu = 3.0$) and Ability to work in multiracial environment " ($n = 4$, $\mu = 3.0$); they consider three (3) Recruitment Aspect as "Satisfied" ($3.5 \leq \mu \leq 4.4$), that is "Results of recruitment tests" ($n = 4$, $\mu = 3.5$), "Recommendations/references from third persons" ($n = 4$, $\mu = 4.25$)"; "Candidate's own world view" ($n = 4$ $\mu = 3.75$), "Reputation of TVET Institute" ($n = 3$, $\mu = 3.5$), "Practical experience acquired during course of study" ($n = 4$, $\mu = 3.75$), "Grades of examination at the TVET Institute" ($n = 4$, $\mu = 3.75$) ,"Field of study" ($n = 4$, $\mu = 4.25$), Personal presentation" ($n = 4$, $\mu = 3.5$).

The study has also revealed that employers of the Department of Textile Garment program graduates consider one (1) Recruitment Aspect as "Neither Important nor Unimportant" ($2.5 \leq \mu \leq 3.4$), that is; "Recommendations/references from third persons" ($n = 4$, $\mu = 3.25$); they consider nine (9) Recruitment Aspects as "Important" ($3.6 \leq \mu \leq 4.4$), that is; "Field of study" ($n = 4$, $\mu = 4.25$), "Main focus of subject area/specialization" ($n = 4$, $\mu = 4$), "Practical experience acquired" ($n = 4$, $\mu = 4$), "Reputation of the KPC " ($n = 4$, $\mu = 3.5$), "Results of recruitment tests" ($n = 4$, $\mu = 4$), "Personal presentation"($n = 4$, $\mu = 3.75$), "Personality and behaviour" ($n = 4$, $\mu = 3.75$), "Candidate's own world view"($n = 4$, $\mu = 3.75$) and "Communication skills" ($n = 4$, $\mu = 4$).

The study generally revealed that "Field of study", "Grades of examination at the TVET Institute", "reputation of TVET institute", and "Ability to work in multiracial environment" are considered to be important recruitment aspects by the majority of the departments.

3.3.4 Level of satisfaction of employers with graduates

Using average mean score, the scale has been interpreted as shown below:

INTERPRETATION OF THE AVERAGE MEAN SCORE					
Range	**1.0 – 1.4**	**1.5 – 2.4**	**2.5 – 3.4**	**3.5 – 4.4**	**4.5 – 5.0**
Verbalisation	**Not at all Satisfied**	**Somewhat not Satisfied**	**Neither Satisfied Nor Dissatisfied**	**Satisfied**	**Very Satisfied**

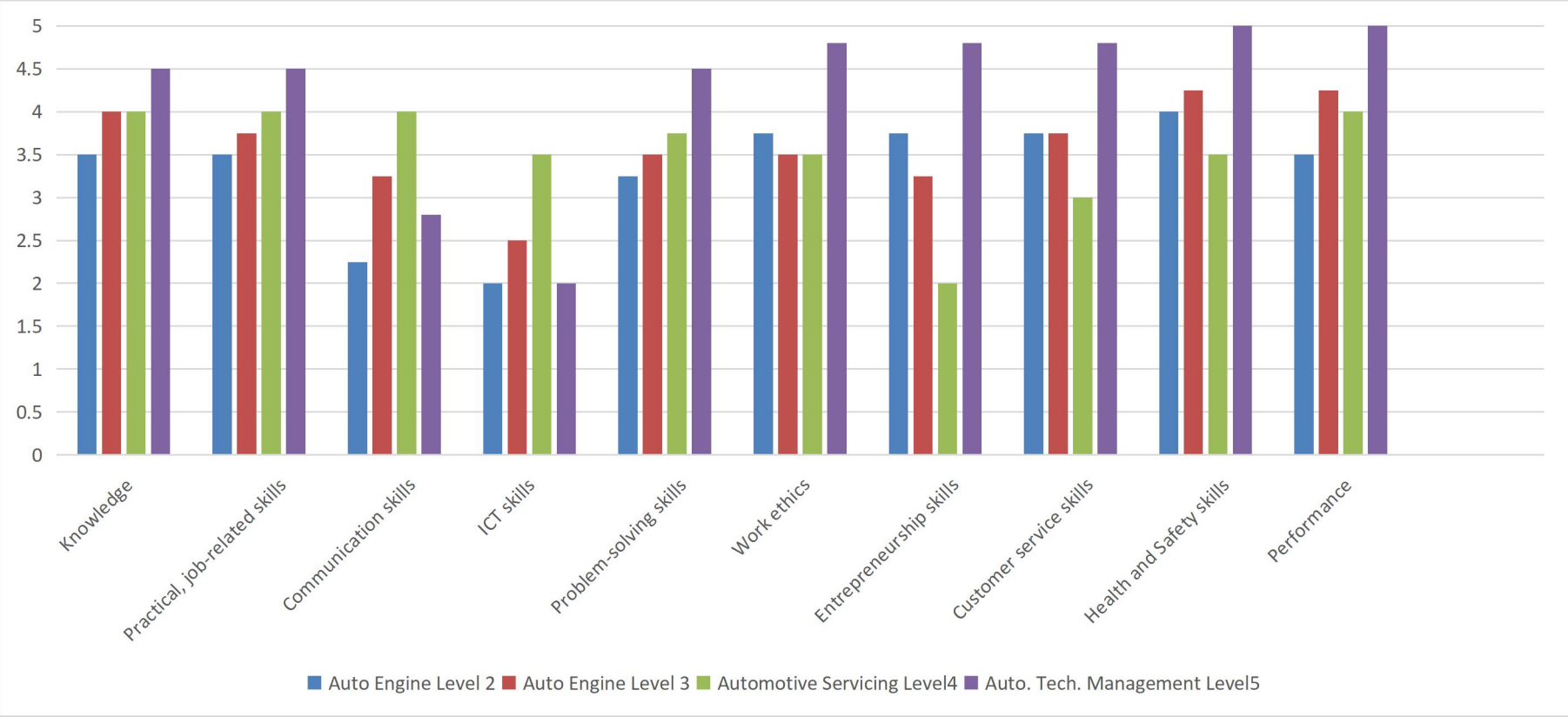
Table 19 presents the level of satisfaction of employers with graduates of the four programs in Automotive technology department.

Table 19: Satisfaction of employers with graduates (the 4 programs)

Parameter	Satisfaction with Auto Engine Level2								Satisfaction with Auto Engine Level3								Satisfaction with Automotive Servicing Level4								Satisfaction with Automotive Technology Management Level5							
	1	**2**	**3**	**4**	**5**	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Knowledge	0	0	2	2	0	4	3.5	0.58	0	0	0	4	0	4	4	0	0	0	0	4	0	4	4	0	0	0	0	2	2	4	4.5	0.58
Practical, job-related skills	0	0	2	2	0	4	3.5	0.58	0	0	1	3	0	4	3.75	0.5	0	0	0	4	0	4	4	0	0	0	0	2	2	4	4.5	0.58
Communication skills	0	3	1	0	0	4	2.25	0.5	0	0	3	1	0	4	3.25	0.5	0	0	0	4	0	4	4	0	0	2	1	1	0	4	2.8	0.96
ICT skills	0	4	0	0	0	4	2.0	0	0	3	0	1	0	4	2.5	1	0	0	2	2	0	4	3.5	0.58	0	4	0	0	0	4	2	0
Problem-solving skills	0	0	3	1	0	4	3.25	0.5	0	0	2	2	0	4	3.5	0.58	0	0	1	3	0	4	3.75	0.5	0	0	0	2	2	4	4.5	0.58
Work ethics	0	0	1	3	0	4	3.75	0.5	0	0	2	2	0	4	3.5	0.58	0	0	2	2	0	4	3.5	0.58	0	0	0	1	3	4	4.8	0.5
Entrepreneurship skills	0	0	1	3	0	4	3.75	0.5	0	1	1	2	0	4	3.25	0.96	0	4	0	0	0	4	2	0	0	0	0	1	3	4	4.8	0.5
Customer service skills	0	0	1	3	0	4	3.75	0.5	0	0	1	3	0	4	3.75	0.5	0	0	4	0	0	4	3	0	0	0	0	1	3	4	4.8	0.5
Health and Safety skills	0	0	0	4	0	4	4.0	0	0	0	0	3	1	4	4.25	0.5	0	0	2	2	0	4	3.5	0.58	0	0	0	0	4	4	5	0
Performance	0	0	2	2	0	4	3.5	0.58	0	0	0	3	1	4	4.25	0.5	0	0	0	4	0	4	4	0	0	0	0	0	4	4	5	0

Source: From KPC study, 2021

Fig.9. Satisfaction of Employers with Graduates (the four programs)



Source: From KPC study, 202

The data has shown that for Knowledge and Skills Factors, the employers ofAuto Engine Servicing Level 2 Program graduates are "Somewhat not satisfied" with two (2) Knowledge and Skills Factors ($2.0 \leq \mu \leq 2.25$), that is; "ICT Skills" ($n = 4$, $\mu = 2.0$) and "Communication Skills" ($n = 4$, $\mu = 2.25$); they are "Neither Satisfied nor Dissatisfied" with one (1) Knowledge and Skills Factors ($\mu \leq 3.25$), that is; "Problem-solving Skills" ($n = 4$, $\mu = 3.25$); they are "Satisfied" with seven (7) Knowledge and Skills Factors ($\mu = 4.5$), that is; "Knowledge" ($n = 4$, $\mu = 3.5$), "Practical, job-related skills" ($n = 4$, $\mu = 3.5$),"Performance" ($n = 4$, $\mu = 3.5$), "Work ethics" ($n = 4$, $\mu = 3.75$), "Entrepreneurship Skills" ($n = 4$, $\mu = 3.75$), "Customer Service Skills" ($n = 4$, $\mu = 3.75$) and "Health & Safety Skills" ($n = 4$, $\mu = 4.0$).

The data has also revealed that for Teaching-Learning conditions & Provisions, the employers of Auto Engine Servicing Level 3 Program graduates are "Neither Satisfied nor Dissatisfied" with three (3) Teaching-Learning condition & Provisions ($\mu = 3.33$), that is; "ICT skills" ($n = 4$, $\mu = 2.5$), "Entrepreneurship skills" ($n = 4$, $\mu = 3.25$), "Communication" ($n = 4$, $\mu = 3.25$); they are " Satisfied" with seven (7) Teaching-Learning conditions and Provisions ($3.5 \leq \mu \leq 4.4$), that is; "Understanding & producing drawings" ($n = 3$, $\mu = 3.67$), "Work ethics" ($n = 4$, $\mu = 3.5$), "Problem- solving skills" ($n = 4$, $\mu = 3.5$), "Customer service skills" ($n = 4$, $\mu = 3.75$), "Practical, job-related skills" ($n = 4$, $\mu = 3.75$), "Performance" ($n = 4$, $\mu = 4.25$), "Health and Safety skills" ($n = 4$, $\mu = 4.25$), and "Knowledge" ($n = 4$, $\mu = 4$).

According to the data, the employers of Automotive Servicing Management Level 4 Program graduates are "Neither Satisfied nor dissatisfied" with two (2) Knowledge and Skills Factors ($2.75 \leq \mu \leq 3.0$), that is; "ICT Skills" ($n = 4$, $\mu = 2.75$) and "Communication Skills" ($n = 4$, $\mu = 3.0$); they are "Satisfied" with four (4) Knowledge and Skills Factors ($4.0 \leq \mu \leq 4.25$), that is; "Knowledge" ($n = 4$, $\mu = 4.0$), "Entrepreneurship Skills" ($n = 4$, $\mu = 4.0$), "Problem-solving Skills" ($n = 4$, $\mu = 4.25$) and "Work ethics" ($n = 4$, $\mu = 4.25$); they are "Very Satisfied" with four (4) Knowledge and Skills Factors ($\mu = 4.5$), that is; "Practical, job- related skills" ($n =$, $\mu = 4.5$), "Customer Service Skills" ($n = 4$, $\mu = 4.5$), "Health & Safety Skills" ($n = 4$, $\mu = 4.5$) and "Performance" ($n = 4$, $\mu = 4.5$).

The data also revealed that for Teaching-Learning conditions & Provisions, the employers of Automotive Technology Management Level 5 Program graduates are "Somewhat Not Satisfied" with two (2) Teaching-Learning condition & Provisions ($\mu = 1.5 \leq \mu \leq 2.4$), that is; "ICT skills"($n = 4$ $\mu = 2$) and "Communication skills" ($n = 4$ $\mu = 2.8$); they are "Very Satisfied" with eight (8) Teaching-Learning condition & Provisions ($\mu = 4.5 \leq \mu \leq 5$), that is; "Problem-solving skills" ($n = 4$ $\mu = 4.5$),

"Practical, job-related skills" (n = 4 μ = 4.5), "Knowledge" (n = 4 μ = 4.5), "Customer service skills" (n = 4 μ = 4.8), "Entrepreneurship skills" (n = 4 μ = 4.8)," Health and Safety skills" (n = 4 μ = 5), and "Performance" (n = 4 μ = 5).

Overall, the study indicates that employers of graduates from the four programs of automotive technology department are not satisfied or they are neither satisfied not dissatisfied with "ICT Skills" and "Communication Skills" of the graduates. This implies that KPC has to work more on the trainees' ICT skills and Communication skills.

Table 20 shows the level of satisfaction of employers with the employed graduates of the seven departments. The findings have revealed that for *Knowledge and Skills Factors,* the employers of Hotel and Tourism Program graduates are *"Satisfied"* with nine (9) *Knowledge and Skills Factors* ($3.5 \leq \mu \leq 4.4$), that is; *"Communication Skills"* (n = 4, μ = 3.8), "*Knowledge"* (n = 4, μ = 4.3), *"ICT Skills"* (n = 4, μ = 4.3), *"Problem-solving Skills"* (n = 4, μ = 4), *"Entrepreneurship Skills"* (n = 4, μ = 4.3), *"Performance"* (n = 4, μ = 4), *"Practical,job-related skills"* (n = 4, μ = 4.3), *"Health & Safety Skills"* (n = 4, μ = 4.3), *"Work ethics"* (n = 4, μ = 4.3); They are *"Very Satisfied"* with one (1) *Knowledge and Skills Factors* ($4.5 \leq \mu \leq 5.0$), that is *"Customer Service Skills"* (n = 4, μ = 4.5).

The study also has revealed that for Teaching-Learning conditions & Provisions, the employers of Metal Manufacturing Technology Program graduates are *"Neither Satisfied nor Dissatisfied"* with three (3) Teaching-Learning condition & Provisions (μ = 3.33), that is; "*ICT skills"* (n = 4, μ = 2.5), "*Entrepreneurship skills*" (n = 4, μ = 3.5), "*Communication*" (n = 4, μ = 4); they are *" Satisfied"* with seven (7) Teaching-Learning conditions and Provisions ($3.5 \leq \mu \leq 4.4$), that is; "*Understanding & producing drawings*" (n = 4, μ = 3.67), "*Work ethics*" (n = 4, μ = 3.75), "*Problem-solving skills*" (n = 4, μ = 2.5), "*Customer service skills*" (n = 4, μ = 3.75), "*Practical, job-related skills*" (n = 4, μ = 3.75), "*Performance*" (n = 4, μ = 3.25), "*Health and Safety skills*" (n = 4, μ = 3.5), and "*Knowledge*" (n = 4, μ = 4).

The study also revealed that for *Knowledge and Skills Factors,* the employers of Department of Agriculture Program graduates are *"Somewhat not satisfied"* with two (2) *Knowledge and Skills Factors* ($1.5 \leq \mu \leq 2.4$), that is; *"ICT Skills"* (n = 5, μ = 2.0) and *"Communication Skills"* (n = 5, μ = 2.25); they are *"Neither Satisfied nor Dissatisfied"* with one (1) *Knowledge and Skills Factors* ($2.5 \leq \mu \leq 3.4$), that is; *"Problem-solving Skills"* (n = 5, μ = 3.25). Additionally, they are *"Satisfied"*

with seven (7) *Knowledge and Skills Factors* (3.5 ≤μ ≤ 4.4), that is; "*Knowledge"* (n = 5, μ = 3.5), *"Practical,job-related skills"* (n = 5 , μ = 3.5),*"Performance"* (n = 5, μ = 3.5), *"Work ethics"* (n = 5, μ = 3.75), *"Entrepreneurship Skills"* (n = 5, μ = 3.75), *"Customer Service Skills"* (n = 5, μ = 3.75) and *"Health & Safety Skills"* (n = 5, μ = 4.0).

With regards to *Knowledge and Skills Factors,* the employers of Department of Construction Technology Program graduates are *"Somewhat not satisfied"* with two (2) *Knowledge and Skills Factors* (1.5 ≤ μ ≤ 2.4), that is; *"ICT Skills"* (n = 4, μ = 2.25) and *"Knowledge"* (n = 4, μ = 2.25); they are *" Satisfied"* with six (6) *Knowledge and Skills Factors* (2.5 ≤μ ≤ 3.4), that is; *"Practical, job-related skills"* (n = 4, μ = 3.5), *"Problem-solving skills*" (n = 4, μ = 3.5), "*Work ethics*" (n = 4, μ = 3.75), "*Entrepreneurship skills*"(n = 4, μ = 3.5), "*Health and Safety skills*"(n = 4, μ = 3.5) and "*Performance*"(n = 4, μ = 3.75). Additionally, they are *"Very Satisfied"* with two (2) *Knowledge and Skills Factors* (3.5 ≤μ ≤ 4.4), that is; "*Communication skills"* (n = 4, μ = 4.5), *"Customer service skills"* (n = 4 , μ = 4.5).

The data on knowledge and skills factors showed that for Teaching-Learning conditions & Provisions, the employers of Electrical and Electronics Technology Program graduates are *"Neither Satisfied nor Dissatisfied"* with One (1) Teaching-Learning condition & Provisions (μ = 3.4), that is; "*ICT skills"* (n = 4, μ = 3.0); they are *" Very Satisfied"* with four (4) Teaching-Learning conditions and Provisions (4.5 ≤ μ ≤ 5.0), that is; "*Practical,job-related skills*" (n = 4, μ = 4.5), "*Work ethics*" (n = 4, μ = 4.5), "*Health and Safety skills*" (n = 4, μ = 4.75), and "*Performance*" (n = 4, μ = 4.5); Additionally, are *" S atisfied"* with Five (5) Teaching-Learning conditions and Provisions (3.5 ≤ μ ≤ 4.4), that is; "*Problem-solving skills*" (n = 4, μ = 4.25), "*Customer service skills*" (n = 4, μ = 4.25), and "*Knowledge*" (n = 4, μ = 4.25), "*Entrepreneurship skills*" (n = 4, μ = 3.75), "*Communication*" (n = 4, μ = 4.0), "*Problem-solving skills*" (n = 4, μ = 4.25).

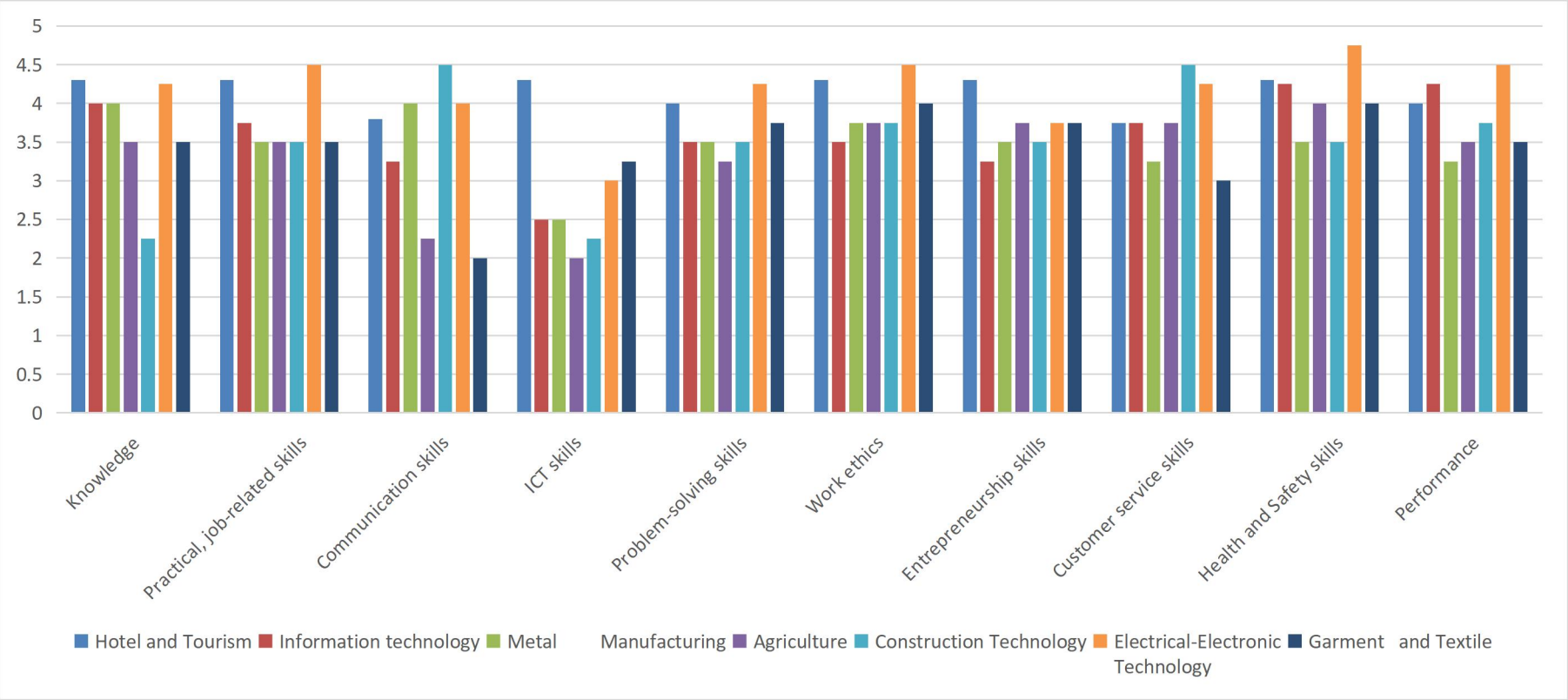
Table 20: Satisfaction of employers with graduates (the 7 Departments)

Parameter	Satisfaction with Hotel and Tourism								Satisfaction with Information technology								Satisfaction with Metal Manufacturing								Satisfaction with Agriculture							
	1	**2**	**3**	**4**	**5**	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Knowledge	0	0	1	1	2	4	4.3	0.96	0	0	0	4	0	4	4	0	0	0	0	4	0	4	4	0	0	0	2	2	1	5	3.5	0.58
Practical, job-related skills	0	0	0	3	1	4	4.3	0.5	0	0	1	3	0	4	3.75	0.5	0	1	1	1	1	4	3.5	0.5	0	0	2	2	1	5	3.5	0.58
Communication skills	0	0	2	1	1	4	3.8	0.96	0	0	3	1	0	4	3.25	0.5	0	0	2	0	2	4	4	0.5	0	3	1	1	0	5	2.25	0.5
ICT skills	0	0	1	1	2	4	4.3	0.96	0	3	0	1	0	4	2.5	1	0	3	0	1	0	4	2.5	1	0	5	0	0	0	5	2	0
Problem-solving skills	0	0	1	2	1	4	4	0.82	0	0	2	2	0	4	3.5	0.58	0	0	1	3	0	4	3.5	0.58	0	1	3	1	0	5	3.25	0.5
Work ethics	0	0	0	3	1	4	4.3	0.5	0	0	2	2	0	4	3.5	0.58	0	0	2	2	0	4	3.75	0.58	0	0	1	3	1	5	3.75	0.5
Entrepreneurship skills	0	0	1	1	2	4	4.3	0.96	0	1	1	2	0	4	3.25	0.96	0	1	1	2	0	4	3.5	0.96	0	0	1	3	1	5	3.75	0.5
Customer service skills	0	0	1	3	0	4	3.75	0.5	0	0	1	3	0	4	3.75	0.5	0	0	1	3	0	4	3.25	0.5	0	0	0	1	3	5	3.75	0.5
Health and Safety skills	0	0	0	3	1	4	4.3	0.5	0	0	0	3	1	4	4.25	0.5	0	1	0	3	0	4	3.5	0.5	0	0	0	0	5	5	4.0	0
Performance	0	0	1	2	1	4	4	0.82	0	0	0	3	1	4	4.25	0.5	0	1	1	2	0	4	3.25	0.5	0	0	2	1	1	5	3.5	0.58

Parameter	Satisfaction with Construction Technology								Satisfaction with Auto Electrical Electronic Technology								Satisfaction with Textile Garment							
	1	**2**	**3**	**4**	**5**	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Knowledge	0	3	1	0	0	4	2.25	0.5	0	0	1	1	2	4	4.25	0.96	0	0	2	2	0	4	3.5	0.58
Practical, job-related skills	0	0	2	2	0	4	3.5	0.58	0	0	0	2	2	4	4.5	0.5	0	0	2	2	0	4	3.5	0.58
Communication skills	0	0	0	2	2	4	4.5	0.58	0	0	1	2	1	4	4	0.82	0	0	1	3	0	4	2	0.5
ICT skills	0	3	1	0	0	4	2.25	0.5	0	0	4	0	0	4	3	0	0	4	0	0	0	4	3.25	0.5
Problem-solving skills	0	0	2	2	0	4	3.5	0.58	0	0	0	3	1	4	4.25	0.5	0	0	3	1	0	4	3.75	0.5
Work ethics	0	0	2	1	1	4	3.75	0.96	0	0	0	2	2	4	4.5	0.58	0	0	1	3	0	4	4.0	0.5
Entrepreneurship skills	0	1	0	3	0	4	3.5	1.0	0	0	2	1	1	4	3.75	0.96	0	0	0	4	0	4	3.75	0.5
Customer service skills	0	0	0	2	2	4	4.5	0.58	0	0	1	1	2	4	4.25	0.96	0	0	4	0	0	4	3	0
Health and Safety skills	0	0	2	2	0	4	3.5	0.58	0	0	0	1	3	4	4.75	0.5	0	1	3	0	4	4	4.0	0
Performance	0	0	2	1	1	4	3.75	0.96	0	0	1	0	3	4	4.5	0.5	0	0	0	4	0	4	3.5	0.58

Source: From KPC study, 2021

Fig. 10. Satisfaction of employers with graduates(the seven departments)



Source: From KPC study, 2021

The study survey has also revealed that for *Knowledge and Skills Factors,* the employers of Department of Textile Garment Program graduates are *"Somewhat not satisfied"* with one (1) *Knowledge and Skills Factors* ($1.5 \leq \mu \leq 2.4$), that is; *"ICT Skills"* ($n = 4$, $\mu = 2.0$). The study survey has further revealed that for *Knowledge and Skills Factors,* the employers of Department of Textile Garment Program graduates are *"Neither Satisfied nor Dissatisfied"* with one (1) *Knowledge and Skills Factors* ($2.5 \leq \mu \leq 3.4$), that is; *"Problem-solving Skills"* ($n = 4$, $\mu = 3.25$). Additionally, the study survey has further revealed that for *Knowledge and Skills Factors,* the employers of Department of Textile Garment Program graduates are *"Satisfied"* with eight(8) *Knowledge and Skills Factors* ($3.5 \leq \mu \leq 4.4$), that is; "*Knowledge"* ($n = 4$, $\mu = 3.5$), *"Practical, job-related skills"* ($n = 4$, $\mu = 3.5$), *"Work ethics"* ($n = 4$, $\mu = 3.75$), *"Entrepreneurship Skills"* ($n = 4$, $\mu = 3.75$), *"Customer Service Skills"* ($n = 4$, $\mu = 3.75$), *"Health & Safety Skills"* ($n = 4$, $\mu = 4.0$) and "*Performance*"($n = 4$, $\mu = 3.5$).

3.3.5 Training needed by graduates as suggested by employers

Table 21 describes the training needed by graduates as suggested by their employers. The analysis show that, 25 percent of the traced employers agree that the Auto Engine Servicing Level 2 program graduates *"Need only an introductory training"* to do the work well while 75 percent suggested that the graduates "*Need to learn some additional skills*" in order to do the work well; 25 percent of the traced employers agree that the Auto Engine Servicing Level 3 program graduates are *"need only an introductory training"* to do the work well while 75 percent suggested that the graduates "*Need to learn additional skills*" in order to do the work well.

Moreover, 25 percent of the traced employers agree that the Automotive Servicing Management Level 4 program graduates are *"Normally fully prepared"* to do the work well while 75 percent suggested that the graduates "*Need only an introductory training*" in order to do the work well; 50 percent of the traced employers agree that the Automotive Technology Management Level 5 program graduates are *"Normally fully prepared"* to do the work well while 50 percent suggested that the graduates "*need only an introductory training*" in order to do the work well. The study generally revealed that level 2 and level 3 graduates of automotive technology department need to learn additional skills while those of level 4 and level 5 graduates need to learn only introductory training which implies that level 4 and level 5 graduates are better prepared for employment as compared with those of level 2 and 3.

Table 21. Training needed by graduates as suggested by their employers

Program/Department	Training needed	Frequency	Percent
Auto Engine Level2	They need only an introductory training	1	25%
	They need to learn some additional skills	3	75%
	Total	**4**	**100%**
Auto Engine Level3	Need only an introductory training	1	25%
	They need to learn some additional skills	3	75%
	Total	**4**	**100%**
Automotive Servicing Management Level4	Normally they are fully prepared to do the work well	1	25%
	They need only an introductory training	3	75%
	Total	**4**	**100%**
Automotive Technology Management Level 5	Normally they are fully prepared to do the work well	2	50%
	They need only an introductory training	2	50%
	Total	**4**	**100%**
Hotel and Tourism	They need only an introductory training	1	25%
	They need to learn some additional skills	3	75%
	Total	**4**	**100%**
Information Technology	Normally they are fully prepared to do the work well	1	33%
	They need to learn some additional skills	2	67%
	Total	**3**	**100%**
Metal Manufacturing	They need serious skills upgrading to start working	1	25%
	They need completely new training	1	25%
	They need to learn some additional skills	2	50%
	Total	**4**	**100%**
Agriculture	They need to learn some additional skills	5	100%
	Total	**5**	**100%**
Construction Technology	They need only an introductory training	3	75%
	They need serious skills upgrading to start working	1	25%
	Total	**4**	**100%**
Electrical-Electronics	Need only an introductory training	3	75%
	They need to learn some additional skills	1	25%
	Total	**4**	**100%**
Textile Garment	They need only an introductory training	2	50%
	They need to learn some additional skills	2	50%
	Total	**4**	**100%**

Source: From KPC study, 2021

In addition, the data showed that, 75 percent of the traced employers agree that the Hotel and Tourism program graduates *"need to learn some additional skills"* to do the work well, while 25 percent of the traced employers agree that the Hotel and Tourism program graduates *"need only an introductory training"* to do the work well; 33 percent of the traced employers agree that the Information Technology program graduates are *"Normally fully prepared"* to do the work well while 67 percent suggested that the graduates "*Need to learn additional skills*" in order to do the work well; 50 percent of the traced employers agree that the Metal Manufacturing Technology program graduates are *"need to learn some additional skills"* to do the work well while 25 percent suggested that the graduates "*Need serious skills upgrading to start working*" in order to do the work well.25 percent "*need completely new training.*"; 100 percent of the traced employers agree that the Department of Agriculture program graduates *"Need only an introductory training"* to do the work well.

The data also shows that 75 percent of the traced employers agree that the Department of Construction Technology program graduates *"Need only an introductory training"* to do the work well while 25 percent of the traced employers agree that the graduates "*need serious skills upgrading to start working*"; 75 percent of the traced employers agree that the Electrical and Electronics Technology program graduates are *"need only an introductory training"* to do the work well while 25 percent suggested that the graduates "*Need to learn additional skills*" in order to do the work well; 50 percent of the traced employers agree that the Department of Textile Garment program graduates *"Need only an introductory training"* to do the work well and 50 percent of the traced employers agree that the graduates "*Need to learn some additional skills*" to do the work well.

The study generally revealed that while graduates of Hotel & Tourism, Information technology, and metal manufacturing departments need to learn some additional trainings, graduates of agriculture, construction technology, electrical-electronics technology, and Textile Garment departments need only introductory training.

3.4. Instructors

3.4.1 Demographic information about instructors

Table 22 shows the demographic information about instructors of the four programs of automotive technology department. All of the traced staff handling Auto Engine Servicing Level 2 hold the role "Course Instructor", and 34 percent were posted (or employed) at KPC "Between 3 and 5 years" while 66 percent were posted (or employed) at KPC "More than 5 years ago."; All of the traced staff handling Auto Engine Servicing Level 3 hold the role "Course Instructor", and 50 percent

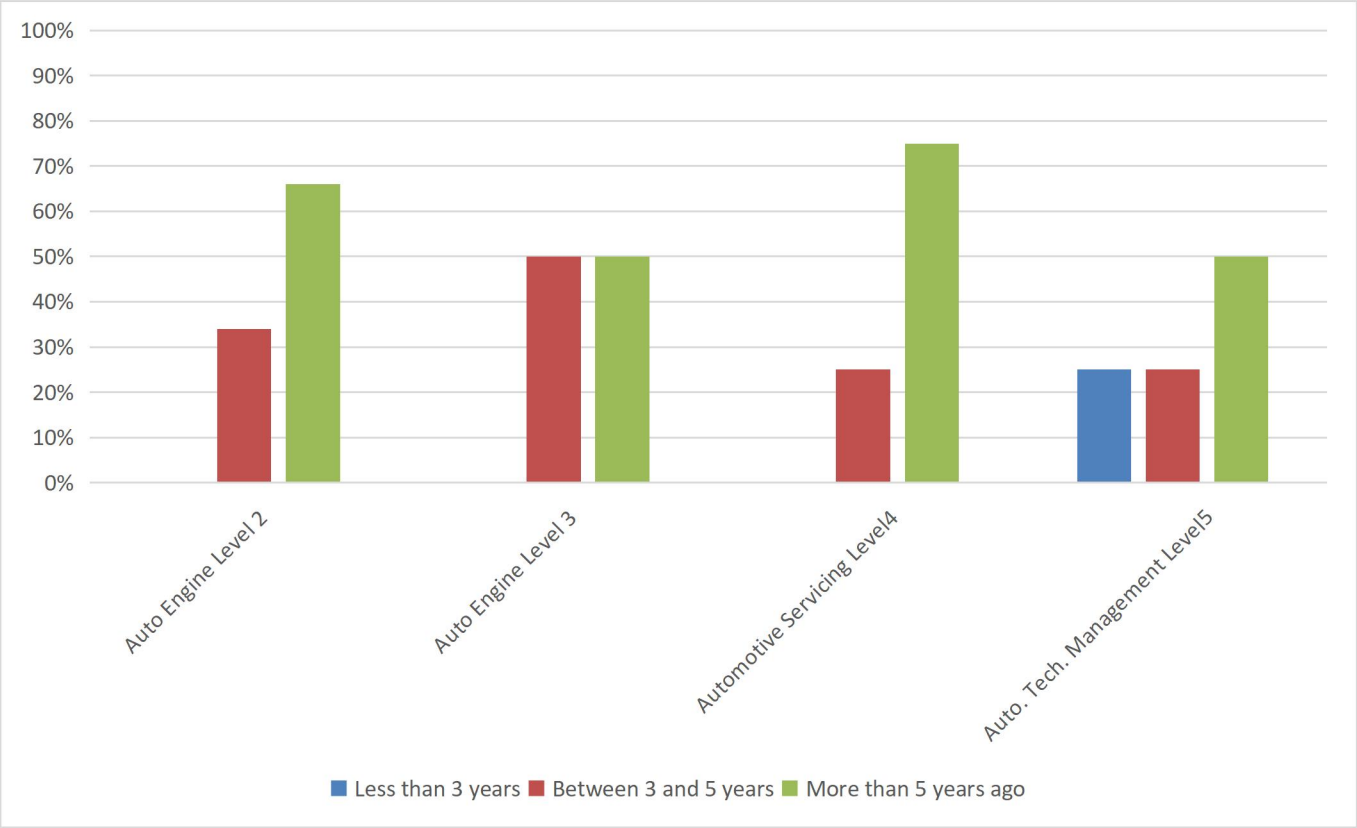
were posted (or employed) at KPC "Between 3 and 5 years" while 50 percent were posted (or employed) at KPC "More than 5 years ago."; All of the traced staff handling Auto Engine Servicing Level 4 hold the role "Course Instructor", and 25 percent were posted (or employed) at KPC "Between 3 and 5 years" while 75 percent were posted (or employed) at KPC "More than 5 years ago."; All of the traced staff handling Automotive Technology Management Level 5 hold the role "Course Instructor", and 25 percent were posted (or employed) at KPC "Less than 3 years", 25 percent were posted (or employed) at KPC "Between 3 and 5 years" while 50 percent were posted (or employed) at KPC "More than 5 years ago."

Table 22. Demographic data of instructors

Program	Role/Position	Frequency	Percentage	First posting at KPC	Frequency	Percentage
Auto Engine Servicing Level 2	Instructor	4	100%	Between 3 and 5 years	1	34%
				More than 5 years ago	3	66%
				Total	**4**	**100%**
Auto Engine Servicing Level 3	Instructor	4	100%	Less than 3 years	0	-
				Between 3 and 5 years	2	50%
				More than 5 years ago	2	50%
				Total	**4**	**100%**
Auto Engine Servicing Management Level 4	Instructor	4	100%	Less than 3 years	0	-
				Between 3 and 5 years	1	25%
				More than 5 years ago	3	75%
				Total	**4**	**100%**
Automotive Technology Management Level 5	Instructor	4	100%	Less than 3 years	1	25%
				Between 3 and 5 years	1	25%
				More than 5 years ago	2	50%
				Total	**4**	**100%**

Source: From KPC study, 2021

Fig. 11. Demographic Data of Instructors



Source: From KPC study, 2021

The results of the study show that all trainers in the four programs of automotive technology department hold the title of course instructor, and the majority of them have experience of more than 5 years at KPC.

3.4.2. Comments of instructors on the details of the four programs

Table 23 presents comments of the instructors of the four programs in automotive technology department. The study in all the four programs show that KPC has some relation with Professional Associations, has some International accreditation but limited and has some relations with employers. This trend of interfacing with industry is a positive development and should be encouraged since it will help relate Auto Engine Servicing Level 2 program to the job market. For KPC, there is need to periodically invite experts from industry to teach some subjects in the college. This type of arrangements relating to the use of experts from professional associations) to teach the Automotive Technology Management Level 5 program should be encouraged.

Table 23. Comments of instructors on the details of the programs

Program	Yes/ No	International Accreditation of the Program		Recognition of the Program by Professional		Recognition of the Program by Employers		Review of the Program Curricula		*Balance/ratio between Practical competencies and theoretical Knowledge*		
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Practice to Theory Ratio	Frequency	Percentage
Auto Level 2	Yes	1	25%	2	50%	1	25%	2	50%	20:80	1	25%
	No	3	75%	2	50%	3	75%	2	50%	30:70	2	50%
	Total	4	100%	4	100%	4	100%	4	100%	60:40	1	25%
										Total	4	100%
Auto Level 3	Yes	3	75%	3	75%	4	100%	4	100%	50:50	1	25%
	No	1	25%	1	25%	0	0	0	0	60:40	2	50%
	Total	4	100%	4	100%	4	100%	4	100%	70:30	1	25%
										Total	4	100%
Auto Level 4	Yes	1	25%	2	50%	3	75%	3	75%	10:90	1	25%
	No	3	75%	2	50%	1	25%	1	25%	20:80	1	25%
	Total	4	100%	4	100%	4	100%	4	100%	70:30	2	50%
										Total	4	100%
	Yes	2	50%	1	25%	1	25%	2	50%	10:90	1	25%
	No	2	50%	3	75%	3	75%	2	50%	50:50	2	50%
	Total	4	100%	4	100%	4	100%	4	100%	60:40	1	25%
										Total	4	100%

Source: From KPC study, 2021

It can also be depicted from table 21 that 25 percent of the Auto Engine Servicing Level 2 staff agree that "20 percent of the training is Practical, 80 percent is Theory.", 50 percent of the staff agree that "30 percent is Practical, 70 percent is Theory." and 25 percent of the staff agree that "60 percent is Practical, 40 percent is Theory"; The findings have revealed that, 25 percent of the Auto Engine Servicing Level 3 staff agree that "50 percent of the training is Practical, 50 percent is Theory.", 50 percent of the staff agree that "60 percent is Practical, 40 percent is Theory." And 25 percent of the staff agree that "70 percent is Practical, 30 percent is Theory."

The study has revealed that 25 percent of the automotive servicing management level 4 instructors agree that "10 percent of the training is Practical, 90 percent is Theory.", 25 percent of instructors agree that the "20 percent is Practical, 80 percent is Theory." and 50 percent of the instructors agree that "70 percent is Practical, 30 percent is Theory."; The findings have revealed that 25 percent of the automotive technology management level 5 staff agree that "10 percent of the training is Practical, 90 percent is Theory.", 50 percent of the staff agree that "50 percent is Practical, 50 percent is Theory." and 25 percent of the staff agree that "60 percent is Practical, 40 percent is Theory."

The study showed that except the auto engine servicing level 3 instructors, majority of the instructors in the other programs agree that the training is more of theoretical with some practical trainings. TVET by its nature requires more of practical training than theory and the result shows that KPC should work more to make sure that trainees get sufficient practical training so that they can be ready for employment.

As can further be seen from table 23, 50 percent of Auto Engine Servicing Level 2 instructors confirm that KPC "Periodically review" the Auto Engine Servicing Level 2 program curricula, 50 percent confirm that KPC "Does Not periodically review" the curricula; All auto engine servicing level 3 instructors confirm that KPC "Periodically review" the Auto Engine Servicing Level 3 program Curricula; 75 percent of auto engine servicing management level 4 instructors confirm that KPC "Periodically review" the Auto Engine Servicing management Level 4 program Curricula while 25 percent not; and 50 percent of automotive technology management level 5 instructors confirm that KPC "Periodically review" the Automotive Technology Management Level 5 program Curricula while 50 percent not. As can generally be seen from the findings, the majority of the instructors confirm that the curricula in all the four programs of automotive technology department are periodically reviewed.

3.4.3. Level of satisfaction of instructors with physical and administrative factors at KPC

Using average mean score, the scale has been interpreted as shown below:

INTERPRETATION OF THE AVERAGE MEAN SCORE					
Range	**1.0 – 1.4**	**1.5 – 2.4**	**2.5 – 3.4**	**3.5 – 4.4**	**4.5 – 5.0**
Verbalisation	**Not at all Satisfied**	**Somewhat not Satisfied**	**Neither Satisfied Nor Dissatisfied**	**Satisfied**	**Very Satisfied**

Table 24 shows the level of satisfaction of instructors with physical and administrative factors at KPC. The study has revealed that the Auto Engine Servicing Level 2 program staff are "Somewhat not Satisfied" with four (4) Physical and Administrative Factors ($1.5 < \mu < 2.4$), that is; "Support from Teachers" ($n = 4$, $\mu = 2.3$), "ICT Facilities" ($n = 4$, $\mu = 2.2$), "Simulators" ($n = 4$, $\mu = 2.4$), and "Access to External Assessors" ($n = 4$, $\mu = 2.22$); "Neither Satisfied nor Dissatisfied" with sixteen (16) Physical and Administrative Factors ($2.5 < \mu < 3.4$), that is; "Online learning Technologies" ($n = 4$, $\mu = 2.7$), "Reference Materials" ($n = 4$, $\mu = 2.8$), "Internship programme for students" ($n = 4$, $\mu = 2.7$), "Access to Guest lecturers" ($n = 4$, $\mu = 3.1$), "Industrial Attachment for instructors" ($n = 4$, $\mu = 3.4$) and "Learners Management System" ($n = 4$, $\mu = 3.3$), "Recreational facilities" ($n = 4$, $\mu = 2.6$), "Recommended Text books" ($n = 4$, $\mu = 3.3$), "Industrial visits for students" ($n = 4$, $\mu = 2.9$), "Support from teachers" ($n = 4$, $\mu = 3.1$), "Relevant course curriculum" ($n = 4$, $\mu = 3.2$), "Access to External Assessors" ($n = 4$, $\mu = 3.1$), "Management of the KPC" ($n = 4$, $\mu = 3.4$) and "Careers advice and guidance" ($n = 4$, $\mu = 3.1$).

The traced Auto engine servicing Level 2 program staff have shown that they are "Satisfied" with six (6) Physical and Administrative Factors ($3.5 < \mu < 4.4$), that is; "Tools and Equipment" ($n = 4$, $\mu = 3.7$), "Teaching guides" ($n = 4$, $\mu = 3.7$), "Learners study pack" ($n = 4$, $\mu = 3.7$), "Practice workshops, laboratories with tools and equipment" ($n = 4$, $\mu = 4$), "Resource Centre with reference materials" ($n = 4$, $\mu = 3.78$), and "Classrooms / lecture halls" ($n = 4$, $\mu = 3.8$).

The study has revealed that the Auto Engine Servicing Level 3 program staff are "Somewhat not Satisfied" with ten (10) Physical and Administrative Factors ($1.5 < \mu < 2.4$), that is; "Teaching guides" ($n = 4$, $\mu = 2.25$), "Relevant course curriculum" ($n = 4$, $\mu = 2.0$), "Access to External Assessors" ($n = 4$, $\mu = 1.75$), and "Simulators" ($n = 4$, $\mu = 1.75$). "Practice workshops, laboratories with tools and equipment" ($n = 4$, $\mu = 2.0$), "Recreational facilities" ($n = 4$, $\mu = 2.0$), "Careers advice and guidance" ($n = 4$, $\mu = 1.75$), "Support from teachers" ($n = 4$, $\mu = 1.25$), "Follow up of graduates progress" ($n = 4$, $\mu = 1.75$), "Audio-Visual Aids" ($n = 4$, $\mu = 2.25$); "Neither Satisfied nor Dissatisfied" with twelve (12) Physical and Administrative Factors ($2.5 < \mu < 3.4$), that is;

"Recommended Text books" (n = 4, μ = 2.75), "Resource Centre with reference materials" (n = 4, μ = 2.75), "Tools and Equipment" (n = 4, μ = 2.5), "Classrooms / lecture halls" (n = 4, μ = 3.25), "Industrial Attachment for instructors" (n = 4, μ = 2.75) and "Industrial visits for students" (n = 4, μ = 2.5). "Access to Guest lecturers" (n = 4, μ = 3.0), "ICT facilities" (n = 4, μ = 2.5), "Online learning Technologies" (n = 4, μ = 2.75), "Reference Materials" (n = 4, μ = 3.0), "Management of the KPC" (n = 4, μ = 3.0), "Help in finding a job" (n = 4, μ = 2.75); and "Satisfied" with two (2) Physical and Administrative Factors (3.5 < μ < 4.4), that is; "Learners study pack" (n = 4, μ = 4.25), "Learners Management System" (n = 4, μ = 3.5).

The study survey has revealed that the Auto Engine Servicing management Level 4 program staff are "Not at all Satisfied" with two (2) Physical and Administrative Factors (1.0 < μ < 1.4), that is: "Recreational facilities"(n = 4, μ = 1.25) and "Support from teachers"(n = 4, μ = 1.25). "Somewhat not Satisfied" with ten (10) Physical and Administrative Factors (1.5 < μ < 2.4), that is; "Recommended Text books" (n = 4, μ = 2.0), "Resource Centre with reference materials" (n = 4, μ = 2.0), "Access to External Assessors" (n = 4, μ = 1.75), and "Simulators" (n = 4, μ = 1.75),"Practice workshops, laboratories with tools and equipment"(n = 4, μ = 2.25), "ICT facilities"(n = 4, μ = 1.5), "Audio-Visual Aids" (n = 4, μ = 2.25), "Management of the KPC" (n = 4, μ = 2.0), "Careers advice and guidance"(n = 4, μ = 2.25), "Follow up of graduates progress" (n = 4, μ = 1.75).

The traced auto engine servicing Level 4 program staff also showed that they are "Neither Satisfied nor Dissatisfied" with twelve (12) Physical and Administrative Factors (2.5 < μ < 3.4), that is; "Teaching guides" (n = 4, μ = 3.25), "Relevant course curriculum" (n = 4, μ = 3.25), "Tools and Equipment" (n = 4, μ = 2.5), "Classrooms / lecture halls" (n = 4, μ = 3.25), "Industrial Attachment for instructors" (n = 4, μ = 2.75) and "Industrial visits for students" (n = 4, μ = 2.5). "Access to Guest lecturers" (n = 4, μ = 3.0), "ICT facilities" (n = 4, μ = 2.5), "Online learning Technologies" (n = 4, μ = 2.75), "Reference Materials" (n = 4, μ = 3.0), "Help in finding a job" (n = 4, μ = 2.75); and "Satisfied" with two (2) Physical and Administrative Factors (3.5 < μ < 4.4), that is; "Learners study pack" (n = 4, μ = 4.0), "Learners Management System" (n = 4, μ = 3.5).

Table 24: Satisfaction of KPC staff

Parameter	Satisfaction with Auto Engine Level2								Satisfaction with Auto Engine Level3								Satisfaction with Automotive Servicing Level4								Satisfaction with Automotive Technology Management Level5							
	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD	1	2	3	4	5	n	μ	SD
Teaching guides	1	2	0	1	0	4	2.25	1.26	1	1	0	2	0	4	2.25	1.5	0	0	2	0	0	4	3.25	0.96	0	0	2	0	0	4	3.25	0.96
Learners study pack	0	2	1	0	1	4	3.0	1.41	0	1	0	0	3	4	4.25	1.5	0	1	0	0	3	4	4.0	1.15	0	1	0	0	3	4	4.0	1.15
Recommended Text books	3	0	0	0	1	4	2.0	2.0	2	1	0	0	1	4	2.75	1.26	2	0	2	0	0	4	2.0	1.15	2	0	2	0	0	4	2.0	1.15
Resource Centre with reference materials	1	2	0	0	1	4	2.5	1.73	1	1	0	2	0	4	2.75	1.5	2	0	2	0	0	4	2.0	1.15	1	1	2	0	0	4	2.25	0.96
Relevant course curriculum	2	1	0	1	0	4	2.0	1.41	1	2	1	0	0	4	2.0	0.82	0	1	1	2	0	4	3.25	0.96	0	1	1	2	0	4	3.25	0.96
Access to External Assessors	3	1	0	0	0	4	1.25	0.5	2	1	1	0	0	4	1.75	0.96	3	1	1	0	0	4	1.75	0.96	1	2	1	0	0	4	2.0	0.82
Tools and Equipment	2	1	1	0	0	4	1.75	0.96	1	1	1	1	0	4	2.5	1.29	1	1	1	1	0	4	2.5	1.29	2	1	1	0	0	4	1.75	0.96
Simulators	3	0	1	0	0	4	1.5	1.0	2	1	1	0	0	4	1.75	0.96	2	1	1	0	0	4	1.75	0.96	2	1	1	0	0	4	1.75	0.96
Practice laboratories equipment	3	0	0	1	0	4	1.75	1.5	2	0	2	0	0	4	2.0	1.15	1	1	2	0	0	4	2.25	0.96	1	1	2	0	0	4	2.25	0.96
Classrooms / lecture halls	0	3	0	0	1	4	2.75	1.5	1	0	1	1	1	4	3.25	1.71	1	0	1	1	1	4	3.25	1.71	1	0	1	1	1	4	3.25	1.71
Industrial Attachment for instructors	1	1	1	1	1	4	2.5	1.29	1	1	1	1	1	4	2.75	1.71	1	1	1	1	1	4	2.75	1.71	1	1	1	1	1	4	2.75	1.71
Industrial visits for students	3	0	0	0	1	4	1.75	1.5	1	0	0	3	0	4	2.5	1.0	1	0	0	3	0	4	2.5	1.0	1	1	2	0	0	4	2.25	0.96
Access to Guest lecturers	2	1	0	1	0	4	2.0	1.41	1	0	1	2	0	4	3.0	1.41	1	0	1	2	0	4	3.0	1.41	1	0	1	2	0	4	3.0	1.41
Learners Management System	0	2	1	1	0	4	2.75	0.96	1	0	0	2	1	4	3.5	1.73	1	0	0	2	1	4	3.5	1.73	1	0	0	2	1	4	3.5	1.73
ICT facilities	3	0	0	1	0	4	1.75	1.5	1	1	1	1	0	4	2.5	1.29	3	0	1	0	0	4	1.5	1.0	1	0	1	2	0	4	3.0	1.41
Audio-Visual Aids	1	2	0	1	0	4	2.25	1.26	1	0	1	1	1	4	2.25	1.71	2	0	1	1	0	4	2.25	1.5	2	1	0	0	0	4	1.75	0.96
Online learning Technologies	1	1	1	1	0	4	2.5	1.29	1	1	0	2	0	4	2.75	1.5	1	1	0	2	0	4	2.75	1.5	1	1	0	2	0	4	2.75	1.5
Reference Materials	1	2	1	0	0	4	2.0	0.82	1	0	1	2	0	4	3.0	1.41	1	0	1	2	0	4	3.0	1.41	1	0	1	2	0	4	3.0	1.41
Management ofthe KPC	0	2	1	0	1	4	3.0	1.41	0	2	1	0	1	4	3.0	1.41	2	0	2	0	0	4	2.0	1.15	2	0	2	0	0	4	2.0	1.15
Recreational facilities	2	1	0	1	0	4	2.0	1.41	2	1	0	1	0	4	2.0	1.41	3	1	0	0	0	4	1.25	0.5	2	0	2	0	0	4	2.0	1.15
Careers advice and guidance	3	0	0	1	0	4	1.75	1.5	3	0	0	1	0	4	1.75	1.5	1	1	2	0	0	4	2.25	0.96	1	0	1	2	0	4	3.0	1.41
Help in finding a job	0	2	1	1	0	4	2.75	0.96	0	2	1	1	0	4	2.75	0.96	0	2	1	1	0	4	2.75	0.96	0	2	1	1	0	4	2.75	0.96
Support from teachers	3	1	0	0	0	4	1.25	0.5	3	1	0	0	0	4	1.25	0.5	3	1	0	0	0	4	1.25	0.5	3	1	0	0	0	4	1.25	0.5
Follow up of graduates progress	2	1	1	0	0	4	1.75	0.96	2	1	1	0	0	4	1.75	0.96	2	1	1	0	0	4	1.75	0.96	2	1	1	0	0	4	1.75	0.96

Source: From KPC study, 2021

The study has also revealed that the Auto Engine Servicing management Level 4 program staff are "Not at all Satisfied" with two (2) Physical and Administrative Factors ($1.0 < \mu < 1.4$), that is: "Recreational facilities"($n = 4, \mu = 1.25$) and "Support from teachers"($n = 4, \mu = 1.25$). "Somewhat not Satisfied" with ten (10) Physical and Administrative Factors ($1.5 < \mu < 2.4$), that is; "Recommended Text books" ($n = 4, \mu = 2.0$), "Resource Centre with reference materials" ($n = 4, \mu = 2.0$), "Access to External Assessors" ($n = 4, \mu = 1.75$), and "Simulators" ($n = 4, \mu = 1.75$),"Practice workshops, laboratories with tools and equipment"($n = 4, \mu = 2.25$), "ICT facilities"($n = 4, \mu = 1.5$), "Audio-Visual Aids" ($n = 4, \mu = 2.25$), "Management of the KPC" ($n = 4, \mu = 2.0$), "Careers advice and guidance"($n = 4, \mu = 2.25$), "Follow up of graduates progress" ($n = 4, \mu = 1.75$).

The traced auto engine servicing management level 4 program staff showed that they are "Neither Satisfied nor Dissatisfied" with twelve (12) Physical and Administrative Factors ($2.5 < \mu < 3.4$), that is; "Teaching guides" ($n = 4, \mu = 3.25$), "Relevant course curriculum" ($n = 4, \mu = 3.25$), "Tools and Equipment" ($n = 4, \mu = 2.5$), "Classrooms / lecture halls" ($n = 4, \mu = 3.25$), "Industrial Attachment for instructors" ($n = 4, \mu = 2.75$) and "Industrial visits for students" ($n = 4, \mu = 2.5$). "Access to Guest lecturers" ($n = 4, \mu = 3.0$), "ICT facilities" ($n = 4, \mu = 2.5$), "Online learning Technologies" ($n = 4, \mu = 2.75$), "Reference Materials" ($n = 4, \mu = 3.0$), "Help in finding a job" ($n = 4, \mu = 2.75$); and "Satisfied" with two (2) Physical and Administrative Factors ($3.5 < \mu < 4.4$), that is; "Learners study pack" ($n = 4, \mu = 4.0$), "Learners Management System" ($n = 4, \mu = 3.5$).

The study has revealed that for Physical and Administrative Factors, the Automotive Technology Management Level 5 program staff are "Not at all Satisfied" with one (1) Physical and Administrative Factors ($1.0 < \mu < 1.4$), that is: "Support from teachers"($n = 4, \mu = 1.25$) . "Somewhat not Satisfied" with eleven (11) Physical and Administrative Factors ($1.5 < \mu < 2.4$), that is; "Recommended Text books" ($n = 4, \mu = 2.0$), "Resource Centre with reference materials" ($n = 4, \mu = 2.25$), "Access to External Assessors" ($n = 4, \mu = 2.0$), and "tools and equipment"($n = 4, \mu = 1.75$), "Simulators" ($n = 4, \mu = 1.75$), "Practice workshops, laboratories with tools and equipment"($n = 4, \mu = 2.25$), "Industrial visits for students"($n = 4, \mu = 2.25$), "Audio-Visual Aids" ($n = 4, \mu = 1.75$), "Management of the KPC" ($n = 4, \mu = 2.0$), "Recreational facilities"($n = 4, \mu = 2.0$), "Follow up of graduates progress" ($n = 4, \mu = 1.75$). Further, the study has revealed that for Physical and Administrative Factors, the Automotive Technology Management Level 5 program staff are "Neither Satisfied nor Dissatisfied" with ten (10) Physical and Administrative Factors ($2.5 < \mu < 3.4$), that is; "Teaching guides" ($n = 4, \mu = 3.25$),

"Relevant course curriculum" (n = 4, μ = 3.25), "Classrooms / lecture halls" (n = 4, μ = 3.25), "Industrial Attachment for instructors" (n = 4, μ = 2.75) and "Access to Guest lecturers" (n = 4, μ = 3.0), "ICT facilities" (n = 4, μ = 3.0), "Online learning Technologies" (n = 4, μ = 2.75), "Reference Materials" (n = 4, μ = 3.0), "Careers advice and guidance"(n = 4, μ = 3.0), "Help in finding a job" (n = 4, μ = 2.75).

Moreover, the study has revealed that for Physical and Administrative Factors, the Automotive Technology Management Level 5 program staff are "Satisfied" with two (2) Physical and Administrative Factors (3.5 < μ < 4.4), that is; "Learners study pack" (n = 4, μ = 4.0), "Learners Management System" (n = 4, μ = 3.5).

3.5. Overall suggestions by graduates and employers

Table 26: Overall suggestions on the Auto Level 2 program

Themes	Graduates	Employers
Training materials & facilities	*"Check on the timetable and adjust the learning hours."* *"Avail sufficient computers",*	
Reading materials	*"Bring in modern course books to help develop the theory fields of the course."* *"Hand out revision papers to candidates for proper revision"*	
Field Trips	*"Visit/take trips to the Automotive companies* *"Expose students to real work situation."* *"Students should be taken on industrial sites for practical training"*	
Instructors	*Employ tutors who have experience in Automotive Industry to make the learning more interesting."*	
New Units	*"Introduce more courses in practicals."*	
Fee Reduction	*"Reducing the amount of money for exam resit (refer)."*	
Practical work	*"More skills concerning practical on Automotive".* *"Enhance more skills by frequently doing practical work."*	*More hands on approach,* *Advanced practical skills insertion.*

On board Training	*"Expose Automotive students to more practical training"*	
STCW courses	*"More short courses for working licenses*	
IT skills		*Gap in Automotive and techno know how*

Source: From KPC study, 2021

Table 27: Overall suggestions on the Auto Level 3 program

Themes	Graduates	Employers
Training materials & facilities	*"It is better to prepare adequate computers and sufficient equipment's for practical. Give more focus for practical..."* *"Luck of Materials and Instruments"* *"Avail sufficient computers",*	
Reading materials	*"Bring in modern IT course books to help develop the theory fields of the course."* *The time limit between finishing level 3 then to start level 4. " "Luck of materials. "*	
Field Trips	*"Visit/take trips to the IT companies* *"Expose students to real work situation."* *"Students should be taken on industrial sites for practical training"*	
Instructors	*"Luck of teaching experience."* *"Teaching system should improve"*	
New Units	*"Introduce more courses in practicals."*	
Practical work	*"In kombolcha there is a lot of industrial company's therefor the collage have to communicate with the company's for the students to find job. ".* *"The school communicate with other companies, enterprises and garages for students to find job."*	

Source: From KPC study, 2021

Table 28: Overall suggestions on the Auto Level 4 program

Themes	Graduates	Employers
Training materials & facilities	*"Check on the timetable and adjust the learning hours."* *"Avail sufficient computers",*	
Reading materials	*"Bring in modern course books to help develop the theory fields of the course."* *"Hand out revision papers to candidatesfor proper revision"*	
Field Trips	*"Visit/take trips to the Automotive companies* *"Expose students to real work situation."* *"Students should be taken on industrial sitesfor practical training"*	
Instructors	*Employ tutors who have experience in Automotive Industry to make the learning more interesting."*	
New Units	*"Introduce more courses in practicals."*	
Fee Reduction	*"Reducing the amount ofmoneyfor exam resit (refer)."*	
Practical work	*"More skills concerning practical on Automotive".* *"Enhance more skills by frequently doing practical work."*	*More hands on approach,* *Advanced practical skills insertion.*
Onboard Training	*"Expose Automotive students to more practical training"*	
STCW courses	*"More short courses for working licenses*	
IT skills		*Gap in Automotive and techno know how*

Source: From KPC study, 2021

Table 29: Overall suggestions on the Auto Level 5 program

Themes	Graduates	Employers
Training materials & facilities	*"Luck of materials for practical practice..."* *"lack of proper attention of providing facilities by the government",* *"I recommend the college should be strict on students attendance and the whole teaching method"* *Only when the lights out them need generator for the night students.*	
Instructors	*"poor quality of teachers"* *"I recommend the college should be strict on students attendance and the whole teaching method"*	
New Units	*"There must be another courses like, auto electric for electric cars."*	
Practical work	*"More practical teaching".* *"Enhance more skills by frequently doing practical work." "Luck of materials for practical practice. "*	
Industrial Training	*"Expose students to more practical training"*	

Source: From KPC study, 2021

Table 30: Overall suggestions on Hotel and Tourism Department

No.	Themes	Graduates	Employers
1	**Survey**	*"the questions are very helpful for study". "The questions are tedious because of their number" "good questions"*	-
2	**Instructors**	*"the skill and attitude ofthe trainer." "teaching methodology ofthe trainer the internal assessment"*	-
3	**New Units**	*"the curriculum must conation some foreigner language specially for hotel and tourism department." "especiallyfor hotel and tourism department require English language. we did n ot take this subject as A course"*	-
4	**Practical work**	*"Internship must be included in the curriculum."*	
5	**Training**	*"Internship must be included in the curriculum." "duration oftraining year should be increase." "the control mechanism of when we go to industry should change*	
6	**courses**	*"More short courses for working licenses i.e. STCW Fire Safety And "Emergency Medical Technician (EMT)" "the assessment and grading system should be changed"*	

Source: From KPC study, 2021

Table 31: Overall suggestions on Information Technology Department

Themes	Graduates	Employers
Training materials & facilities	*"Check on the timetable and adjust the learning hours."* *"Avail sufficient computers",*	
Reading materials	*"Bring in modern IT course books to help develop the theory fields of the course."* *"Hand out revision papers to candidatesfor proper revision"*	
Field Trips	*"Visit/take trips to the IT companies* *"Expose students to real work situation."* *"Students should be taken on industrial sites for practical training"*	
Instructors	*Employ tutors who have experience in IT to make the learning more interesting."*	
New Units	*"Introduce more courses in practicals."*	
Fee Reduction	*"Reducing the amount ofmoneyfor exam resit (refer)."*	
Practical work	*"More skills concerning practical on IT".* *"Enhance more skills byfrequently doing practical work."*	*More hands on approach,* *Advanced practical skills insertion.*
On-board Training	*"Expose IT students to more practical training"*	
STCW courses	*"More short courses for working licenses i.e ICDL*	
IT skills		*Gap in IT and techno know how*

Source: From KPC study, 2021

Table 32: Overall suggestions on Metal Manufacturing Department

Themes	Graduates	Employers
Training materials & facilities	*"It is better to prepare adequate computers and sufficient equipment's for practical. Give more focus for practical..."* *"Luck of Materials and Instruments"* *"Avail sufficient computers",*	
Reading materials	*"Bring in modern IT course books to help develop the theory fields of the course."* *"Luck of materials."*	
Field Trips	*"Visit/take trips to the Manufacturing companies* *"Expose students to real work situation."* *"Students should be taken on industrial sites for practical training"*	
Instructors	*"Luck of teaching experience."* *"Teaching system should improve"*	
New Units	*"Introduce more courses in practicals."*	
Practical work	*"In kombolcha there is a lot of industrial company's therefore the college have to communicate with the company's for the students to find job. ".* *"The school communicate with other companies, enterprises for students to find job."*	

Source: From KPC study, 2021

Table 33: Overall suggestions on Electrical-Electronic Department

Themes	Graduates	Employers
Training materials & facilities	*For further upgrading education require work experience. So it should be correct . That is it should not need work experience for further learning (upgrading).* *Access computer and competent teacher*	*Upgrade computer training methodology*
Reading materials	*Add exceptional material* *Supply additional reference materials*	
Instructors	*Facilitate supply of electronics material*	*Upgrade skills of instructor to enable them teaching advanced*

	upgrade competition of instructors	*machine operation*
Practical work	*Supply transformer* *Facilitate supply of electronics for practice* *Supply modern equipments* *Fill the gap for electronics for practice* *supply modern equipment for laboratory*	*Upgrade practical knowledge of students to operate machines by reading instruction manual and enable students to give attention during apparent ship*

Source: From KPC study, 2021

As can be seen from the suggestions given in table 26, respondents of Auto Level 2 Program suggested that KPC should Procure additional training materials & facilities, Include field trips, Update reference materials, Up skill course instructors, Add new units, Reduce tuition fee, Increase practical work, Organise for industrial training, Introduce short courses, and Include IT component in the training; Respondents of Auto level 3 program (Table 27) suggested that KPC should communicate with this company and other enterprises, prepare adequate computers and sufficient equipment, improve ICT program, help the students find job, improve teaching system, procure Materials and Instruments, address the problems on competency assessment Exam, Reduce the time limit between finishing level 3 then to start level 4, engage industrial companies around the collage, and provide quiz exams to prepare ourselves for the national competency assessment; Respondents of Automotive Servicing Management Level 4 Program (Table 28) suggested that KPC should Procure additional training materials & facilities, Include field trips, Update reference materials, Up skill course instructors, Add new units, Reduce tuition fee, Increase practical work, Organise for industrial training, Introduce short courses, and Include IT component in the training; Respondents of the Automotive Technology Management Level 5 Program (Table 29) suggested that KPC should Procure additional training materials & facilities, More emphasis to be put on Level 1 & 2, Update reference materials, Up skill course instructors, Add new units, Reduce tuition fee, Increase practical work, Organise for industrial training, Introduce short courses, Include IT component in the training, and be strict on attendance of both students and instructors.

Moreover, respondents of Hotel and Tourism department (Table 30) suggested that KPC should work on ship time, focus on English language provision, equip trainers with teaching methodology, work on the skill and attitude of the trainer, revise the curriculum, include Intern-ship in the curriculum, revise the assessment and Evaluation method, devise a controlling mechanism for the effectiveness of industry-based training, increase duration of training year, include some foreign languages in the curriculum, establish more workshops for practical training, focus on Plumbing, Fitting and Turning programs at the KPC as job prospect is high; Respondents of Information Technology department (Table 31) suggested that KPC should Procure additional training materials & facilities, Include field trip, Update reference materials, Up skill course instructors, Add new units, Reduce tuition fee, Increase practical work, Organise for industrial training, Introduce short courses, and Include IT component in the training; Respondents of Metal Manufacturing Technology department (Table 32) suggested that KPC should communicate with companies and other enterprises,

prepare adequate computers and sufficient equipment, improve ICT program more, help the students find job, improve the Teaching system, respond to luck of Materials and Instruments, solve Problems on competency assessment Exam, and provide quiz exams to prepare ourselves for national competency assessment; Respondents of the Electrical and Electronics Technology department (Table 33) suggested that KPC should Find job opportunity for graduates and training related direct with job, Upgrade practical knowledge of students to operate machines by reading instruction manual and enable students to give attention during apparent ship, Upgrade computer training methodology, Upgrade skills of instructor to enable them teaching advanced machine operation, Facilitate supply of electronics material, provide more access to computer and competent teacher to improve the quality of education and computation of teacher. Respondents from other departments (Agriculture, Construction, and Garment and textile) positively commented on the quality and relevance of the tracer study.

The majority of the respondents recommended prospective learners to pursue the already existing programs and departments. The majority also commented the importance of the study to improve the relevance and quality of the training. However, the suggestions given by respondents from different programs and departments are very alike which puts the trustworthiness of some of the suggestions given under question.

Overall, it can be learned from the qualitative data given in the suggestion part that giving more emphasis to practical training, the need to provide opportunities for trainees and trainers to get real world experience are crucial to the quality and the relevance of the training which is provided by KPC. The respondents also stressed the importance of continuous professional development schemes for trainers and the importance of working with nearby companies to provide real world experience to the trainees. Some respondents also emphasized the importance of short terms training, foreign language and ICT skills for employability.

CHAPTER FIVE
MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Major findings

This study is mainly a survey intended to trace KPC graduates from their college to their place of employment or self-employment or further study. The result of the study provides information on the demand for TVET graduates and the training institution. It can be used as a tool to assist in planning for better quality and relevance of the training provided in the college.

The findings presented in this report provide useful information on KPC graduates' employment status and earnings, entrepreneurial pursuits, and further study. It also facilitated feedback from graduates about the extent to which desired learning outcomes have been achieved and the overall quality and relevance of the programs offered in the college. Results from this study are intended to be used to strengthen KPC in improving the overall quality of its program offerings.
The major findings of the study are the following.

i) The majority (>85%) of the respondents in the four programs of Automotive technology department are male. The highest percentage of female graduates is found in Hotel and Tourism (86%) and Information technology (79%) departments.

ii) There is significant variation among graduates in the four programs and seven departments in terms of their civic status and age. In terms of their civic status, most of the graduates are single in some programs and departments and most are married in some other programs and departments. In some programs and departments, most of the graduates are below 25 years old and in some other programs and departments most of them are between 25 to 30 years old, which show that there is inconsistency in civic status and age across programs and departments.

iii) Most of the graduates confirmed that they have taken applied mathematics, communication skills, Work ethics, ICT skills, problem solving skills, entrepreneurship, customer service skills, and Health and Safety skills, whereas only graduates from agriculture and textile and garment departments took foreign language.

iv) Graduates' satisfaction with training aid generally shows that most of the graduates from the four programs of automotive technology department are not satisfied with follow up of graduate progress (in auto engine service level 2, μ=2.95), computers, audio-visual aids, and

online learning technologies in almost all the programs of automotive technology department. Also the majority of graduates from the six departments are not satisfied with Industrial Visits, Involvement of Local Employers guest lecturers, Follow-up of Graduate Progress, Computers, Audio-Visual Aids, Online Learning Technologies, and Industry Related Journals. Data on graduates' satisfaction with training aid was not available from graduates of textile and garment department.

v) The highest unemployment rate of graduates was observed in auto-engine servicing level III (35%) among the four programs of automotive technology department. It was also noticed from the findings that the majority of the graduates in the six departments are unemployed, with the exception of Information technology department, where only 32% of the graduates are unemployed. The highest rate of unemployment is seen in the department of agriculture (83%) followed by Hotel and Tourism department (82%). Most of the employed graduates are in wage employment while the highest self-employment of graduates is seen in Automotive Servicing Management Level 4 program (25%), followed by graduates from the department of construction technology (21%). The findings also show that only few of the graduates are undertaking further professional certification training.

vi) The findings also show that most of the employed graduates from the department of automotive technology get their first job after six months with the exception of Automotive Servicing Management Level4 program graduates (70% of them got their first job between 0 to 3 months). The majority of graduates from the seven departments get their first job within three months after graduation, with the exception of graduates from agriculture department, which takes 12 months for its graduates to get their first job.

vii) The findings show that the majority of graduates from Automotive technology management level 5 (33%) are employed in industry directly related to their occupational area. The majority of the graduates from other programs of automotive technology department are employed in other sectors. Majority of the graduates from Hotel and Tourism (67%), Metal Manufacturing (89%), Electrical-electronic (85.71%), and Textile-Garment departments (50%) are employed in sectors of their occupation, all agriculture graduates are employed in construction, and majority of the employed graduates are employed in areas other than their occupational area.

viii) The majority of the employed graduates secured their employment through different forms of media, with the exception of graduates from Hotel and Tourism, Electrical-Electronics, and

textile and garment departments, where the majority secured their job through relatives, friends, or colleagues.

ix) The majority of the employed graduates from all the programs of Automotive technology department have permanent job with 33 to 48 working hours per week. A general salary increment is seen with increase in program level, with the exception of level 3 where no meaningful salary increment is seen as compared to graduates from level 2. The majority of the employed graduates from the other seven departments also permanent workers working between 33 to 48 hours. The salary scale for most of the employed graduates is below 5000 birr, with the exception of electrical-electronic department graduates where the majority of the employed graduates (57.14%) earn between 5000 to 9990 birr per month. Generally, it can be seen that there is no fixed minimum wage for most of the employed graduates, but the working hour for most of the graduates is as stated by ILO (8 hours per day, 6 days per week), which is considered to be decent work.

x) The findings on job satisfaction of employed graduates show that all automotive technology department graduates on employment are satisfied with their jobs, whereas employed Hotel and Tourism department graduates showed their dissatisfaction in possibilities for applying what they learned, income and benefits they get, career advancement prospects, and in being able to coordinate and supervise work. Employed graduates of metal manufacturing department also showed their dissatisfaction on the income and benefits they get in the work place. Employed graduates of information technology and electrical-electronic technology had no complaints in relation to the job satisfaction parameters included in the study. Data was not available on the job satisfaction of employed graduates of agriculture, construction technology, and Textile-Garment departments.

xi) The findings of the study indicated that none of the Automotive technology management level 5 graduates are engaged in self-employment, whereas self-employed graduates of level 2, 3, and 4 automotive technology programs confirmed that they are engaged in self-employment in areas slightly related or unrelated to their occupation. According to the findings, most of the self-employed graduates in the seven departments are involved in businesses slightly related or related to their studies with the exception of self-employed graduates from the department of agriculture, where most of them are engaged in self-employment unrelated to their study area.

With regards to access to business financing, self-employed graduates from the three programs of automotive technology department indicated that they have limited access to financing. Most

of the self-employed graduates from the seven departments confirmed that they have access to financing.

xii) Most of the unemployed automotive technology department graduates from the four programs attributed their unemployment to losing their previous job. Unemployed graduates from the seven departments attributed their unemployment to unsuccessful application. Most of the unemployed graduates of agriculture department reported that they had no job opportunity to absorb them.

xiii) Demographic information about the sampled employers shows that most of the sampled employers are in managerial position in their respective company. Most of the employers confirmed that they find employees with required skills through external as well as internal advertisement.

xiv) Employers of Automotive technology graduates showed that foreign language is not that much important aspect for recruitment. Practical experience and personal presentation are not found to be important for recruiting Level 2 auto engine servicing technology, where as they are important for recruiting Automotive technology department graduates in the higher levels.

xv) Knowledge of foreign language was not found to be important for employers of graduates from metal manufacturing, agriculture, and construction technology departments, where as they may be needed by employers of graduates from the other departments. Personal presentation by the graduates was not also important for employers of graduates from agriculture and construction technology departments, but it is important aspect of recruitment for employers of graduates from other departments.

xvi) Findings on satisfaction of employers show that most of the employers of automotive technology department graduates are not satisfied with ICT skills of their employees, and employers of level 2 auto engine servicing level 2 graduates also showed that they are not happy with the communication skills of their graduates. Employers of graduates from metal manufacturing, agriculture, construction technology, and textile and garment departments also indicated that they are not satisfied with ICT skills of their employees. Communication skills was also a problem for employers of graduates from agriculture department.

xvii) Most of the sampled instructors have experience of more than five years. Most of the sampled auto engine servicing level 2 instructors noted that the programs delivered are not accredited and also not recognized by employers. The sampled automotive technology management level 5 instructors also noted that the programs are not recognized by professionals as well as the

employers. The instructors in all the four programs of automotive technology department showed their dissatisfaction with almost all the physical and administrative factors at KPC, including follow up of graduates' progress. Most of the KPC staff confirmed that the Practice: theory ratio is nearly 50:50 and even in some cases it is 40:60.

xviii) Overall suggestions by employers and graduates supplement the findings from the quantitative data, including the need to enhance practical training, the need to provide opportunities for trainees and trainers to get real world experience, the importance of continuous professional development schemes for trainers, the importance of working with nearby companies to provide real world experience to the trainees, and the importance of short term training, communication skills, ICT skills and skills tha thelp for self-employment (entrepreneurial skill).

5.2. Conclusions

It can be concluded based on the major findings that there are some variations across departments and programs in terms of employability of TVET graduates from KPC. The findings showed that there is no sufficient support for graduates. The low employability rate and employment (wage as well as self) in areas unrelated to the graduates' occupation indicate that labour market studies have not been conducted regularly. This is also supported by the finding that some graduates did not get job opportunities in the labour market.

Though the findings show that the graduates have taken soft skills like communication skills and ICT skills, it was indicated in the findings that most graduates from some programs and departments lack communication skills and ICT skills. This leads to conclude that the trainings given in these soft skills are not sufficient or not relevant to the needs of the employers.

Based on the results from satisfaction of graduates and KPC staff, it can be concluded that the physical as well as administrative resources at KPC are not satisfactory to deliver quality and relevant training.

The findings also showed that recruitment strategies used by the employers are mainly external and internal advertisements. This also leads to conclude that the collaboration between KPC and the employers in terms of securing employment for the graduates is not strong. It can also be concluded based on the findings that self-employment is not well promoted at KPC.

Most of the employed graduates showed dissatisfaction in income and benefits. This may lead to the conclusion that graduates are employed with a lower salary and benefits than what they might have

expected, which could, in turn, be attributed to absence of minimum wage policy. This is also evidenced by the less decent work experienced by the employed graduates in terms of salary.

Lack of skills in applying for jobs (unsuccessful application) and lack of prior attachment with the employers contributed to unemployment of graduates. Most of the unemployed graduates also attributed their unemployment to losing their previous jobs. Which means that graduates initially get employment but lose their job which may be due to incompetence or unproductivity in the company. One can conclude here that graduates are not getting professional development trainings after recruitment, which keeps them updated and competent in the dynamic world. This is also evidenced by the lower number of graduates who have got professional development opportunities. Lack of competence in the work place can also be related to the less practical nature of the training given in the college.

It can also be concluded based on the findings that trainers lack the required competency and industrial experience, which might have affected the quality and relevance of the training provided in the college.

5.3. Recommendations

This study provides useful information on graduate employment status and earnings, entrepreneurial pursuits, and further study. It also facilitates feedback from graduates about the extent to which desired learning outcomes have been achieved and the overall quality of the programs delivered in the colleges. It also helps to capture graduates' views for improvements of the program of study in terms of teaching/learning environment and curricula.

In the context of KPC, the following recommendations have been offered.

i) KPC should develop training programs by consultative processes that rely on inputs from the private sector/industry and other critical stakeholders. Such consultative processes have to be backed by the labour market and graduate survey to gauge demand for particular skills.

ii) One of the limitations of this study is that only few graduates were reached to get input, which may not indicate the actual picture of the graduates in terms of employability and other issues addressed in the study. KPC should try to conduct the census covering all the passed out graduates to obtain the complete data and comprehensive results.

iii) KPC should establish a tracking system for the graduates and continuous updating of their employment status for up to one year as part of monitoring and evaluation system. This

would be the best source of determining the employment rate, in addition to the formal study that is conducted. Support to graduates after their graduation is also commendable.

iv) KPC should secure proper delivery of cooperative training with the industry to improve relevance and quality of the training which, in turn, contributes to graduates' employability.

v) KPC should avail proper physical facilities and training aids, including online learning technologies.

vi) Library and workshops should be facilitated to enhance students' practical skills and knowledge.

vii) KPC should enter into Collaborations and Partnerships with relevant Stakeholders who are willing to take staff for Industrial Exchange so that the trainers get industry experience.

viii) Training staff in KPC should use appropriate teaching materials in classroom activities.

ix) Soft skills such as communication skills, ICT skills and entrepreneurship skills should be offered with better quality and relevance to the industry. Moreover, sufficient language skills training should be provided to Hotel and Tourism department graduates.

x) KPC should initiate necessary reforms to attract employers to work with the college.

xi) KPC should ensure continuous review of the curricula to address emerging issues and to respond to the labour market demand

xii) KPC should arrange a benchmarking visits to international/world class organisations related to the training programs.

xiii) KPC should consider the facilitation of access to financing to its graduates in collaboration with the local business community, the private sector and the colleges' alumni.

References

Abebe Girum, Degu Tigabu, and Ageba Gebrehiwot. (2018). What drives productivity change in the manufacturing sector? Evidence from the metalworking industry in Ethiopia. Working Papers 020, Ethiopian Development Research Institute.

Abebe, G., Caria, S., Fafchamps, M., Falco, P., Franklin, S., and Quinn, S. (2016). Curse of anonymity or tyranny of distance? The impacts of job-search support in urban Ethiopia. National Bureau of Economic Research. No. w22409.

Agmassie Bazezew Mengistu and Reda Darge Negasie (2022). Evaluating the Employability and Entrepreneurial Skills and the Impact on Employment of Public TVET Graduates. Education Journal, 11 (3), 85-95.

Baruch, Y. (2001b). Employability – substitute to loyalty? *Human Resource Development International*, *4*(4), 543-566.

Becker, G. (1964/1993). Human capital: a theoretical and empirical analysis with special reference to education. (1st ed. 1964/3rd ed. 1993). Chicago: The University of Chicago Press.

Becker, G. S. (2009). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.

Bedada Mergo (2010). Obstacles in Job Creation and Employment for TVET Graduates in Ethiopia: The Case of Oromiya Regional State. The Ethiopian Journal of Sciences and Sustainable Development, 1 (1).

Berhanu, D., Aberham, T. & Van der Deijil, H. (2005/07). Characteristics and determinants of youth unemployment, underemployment and inadequate employment in Ethiopia. Employment Strategy Papers. Employment Policies Unit; Employment Strategy Department.

Birhane Sime Geressu (2017). Impact of competence-based training on employability of Technical and Vocational graduates in Ethiopia. Tuning Journal for Higher Education, 5 (1), 101-119

Brinton, M.C. (2000). Social capital in the Japanese youth labour market: Labour market policy, schools and norms, *Policy Sciences, 33*(3/4): 289-302.

Brown, P., Hesketh, A. & Williams, S. (2003). Employability in a knowledge-driven economy. Journal of Education and Work 16(2), 107-126.

Buck, L. L. & Barrick, R. K. (1992). They're trained, but are they employable?, *Vocational Education Journal, 62*(5): 29-31.

Coleman, J. S. (1990). Foundations of social theory. Cambridge, Mass.: Harvard University Press.

Cross, M. (2005). National review of Masters of Education programmes: Educational policy, planning and management (PPM) "Package" Portfolio. Johannesburg: University of the Witwatersrand.

CSA (2010). The 2007 population and housing census of Ethiopia. Addis Ababa. Unpublished census report.

Davenport, T.O. (1999). Human capital: What it is and why people invest in it. San Francisco: Jossey-Bass.

Devin's & Hogarth, T. (2005). Employing the unemployed: Some case study evidence on the role and Practice of Employers, urban Studies, 42 (2), 245–256.

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: a psycho-social construct, its dimensions, and applications. Journal of Vocational Behavior, 65(1), 14-38.

Genene, A., Bekretsion, H., Yishak, D., Gedefaw, K., Atalel, K., and Atnafu, Y. (2019). Quality of TVET Delivery in Ethiopia. Unpublished study commissioned by Federal TVET Institute, Addis Ababa, Ethiopia.

Granovetter, M. S. (1994). Getting a job: A study of contacts and careers, 2nd Ed. Chicago: Chicago University Press.

Harvey, L. (2001). Defining and measuring employability. Quality in Higher Education, 7(2), 97-109.

Hillage, J., & Pollard, E. (1998). Employability: developing a framework for policy analysis. London: Institute for Employment Studies.

Hillage, J., & Pollard, E. (1998). Employability: developing a framework for policy analysis. London: Institute for Employment Studies.

Holzer, H.J. (1987). Hiring procedures in the firm: Their economic determinants and outcomes. NBER working papers. 2185, National Bureau of Economic Research, Inc

Jonck, P. (2014). A human capital evaluation of graduates from the Faculty of Management Sciences employability skills in South Africa. Academic Journal of Interdisciplinary Studies, 3(6), 265-274.

Kahase G. Gebregziabher (2011). A survey study on the link between Automotive Technology training program and the labor market demand in Tigray region: the cases of four selected Technical and

Vocational Education and Training Institutions. Unpublished MA thesis, Addis Ababa University.

Kaye, B. & Farren, C. (1996). Up Is Not the Only Way, *Training & Development, 50*(2), February 1996.

Kluytmans, F., & Ott, M. (1999). The management of employability in the Netherlands. European Journal of Work and Organizational Psychology, 8(2), 261-272.

Knight, P., & Yorke, M. (2004). Learning, curriculum and employability in higher education. London: Routledge.

Knight, P., & Yorke, M. (2004). Learning, curriculum and employability in higher education. London: Routledge.

Kolo, E. (2006). Does Automotive Service Excellence (ASE) Certification Enhance Job Performance of Automotive Service Technicians. Unpublished PhD thesis, Virginia Polytechnic Institute and State University.

Matsepe, M. W. (2002). Adult education as an agent for social change a case study in Lesotho. Unpublished Doctoral Thesis, University of South Africa. Pretoria.

McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. Journal of Vocational Behavior, 71(2), 247-264.

Mekonnen, B. and Tekleselassie, T. (2018). The state, determinants, and consequences of skills mismatch in the Ethiopian labour market, Working Paper No. 21.

Melaku Mengistu (2017). Graduate Employability as a Function of Career Decision in the Amhara State TVET System. Ethiop. J. Educ. & Sc, 13 (1), 1-21

MoE (2007). Ethiopian Occupational Standard Development Guideline in TVET. Reform Component. Addis Ababa: MoE.

MoE (2010c). Improving effectiveness and efficiency in TVET. (Unpublished manual). Addis Ababa, Ethiopia.

MoLSA. (2020). Annual Labour Market Information Bulletin 2018/19. Ministry of Labour and Social Affairs, Addis Ababa, Ethiopia.

Morley, L. (2001). Producing New Workers: Quality, Equality and Employability in Higher Education. *Quality in Higher Education, 7*, 131-138.

Nabi, G.R. (2003). Situational Characteristics and Subjective Career Success: The Mediating Role of Career-Enhancing Strategies. *International Journal of Manpower, 24*, 653-672.

Pusriawan, P., and Sunaryo, S. (2019). Employability skill of vocational school students in Palucity: entering the work world.

Saemah, R. et al. (2011). Generic Skills among Technical Students in Malaysia: Social and Behavioral Sciences.

Samson, J. M. (2021). Fostering Graduate Employability: Rethinking Tanzania's University Practices.

Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal modell linking proactive personality and career success. Personnel Psychology, 54(4), 845-874.

Selvadurai, S., Choy, E. A., Maros, M. (2012). Generic skills of prospective. Asian Social Sciences, 8(12), 295-303.

Tom, D. (2004). Automobile Electrical and Electronic Systems, England: Elsevier Ltd.

UNESCO. (1999). Second International Congress on Technical & Vocational Education Lifelong Learning: A Bridge to the Future. Seoul: UNESCO.

Waidi, A. A. (2021). Assessment of Entrepreneurship Skills Development on Employment Generation Strategy in Tertiary Institutions in Lagos State: Department of Business Administration, Lagos State University, Lagos, Nigeria.

Weber, E. (2002). Shifting to the right: The evolution of equity in the South African Government's Developmental and Education Policies 1990 – 1999, *Comparative Education Review*, *46* (2002).

Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework, *Theory and Society*, *27*(2): April 1998.

World Bank. (2012). World Development Indicators. (World Bank Publication).

World Tourism Organization (UNWTO) and United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) (2010). Global Report on Women in Tourism 2010.Madrid: World Tourism Organization.

Appendix (Sample questionnaire)

A1: Survey Instruments and Tools for Auto Engine Servicing Level 2 Program Graduates (Sample instrument for the 4 programs)

A1.1 Graduate Survey Documentation

This section presents five (5) documents and templates that were utilised during the Auto Engine Servicing Level 2 program graduates study. The documents and templates include;

- Graduate Survey Introductory Letter
- Graduate Survey Explanatory Notes
- Online system Introductory Message
- The Auto Engine Servicing Level 2 program Graduates Questionnaire

A1.1.1 Graduate Survey Introductory Letter

Dear Graduate,

As head of the research group, I kindly request your participation in a survey of Auto Engine Servicing Level 2 program graduates who completed their studies between 2013 and 2019. We would like to find out what happened to you after you completed your studies at KPC. Did you find a job or are you still looking for a job, did your Auto Engine Servicing Level 2 program studies prepare you well for the workplace, and do you use the knowledge and skills you have learned during your studies?

The core objective of the survey is to improve the Auto Engine Servicing Level 2 program and, more specifically, to revise the curricula.

Your information will be treated in strict confidence. The results will be published in such a way that identification of individual respondents is excluded.

Results of this survey will be published on the website of the KPC.

On your request we will send you a printed version of the report with the main results of the survey.

Please follow the link provided in order to access the survey. Kindly complete the online questionnaire.

If you have any questions or require further clarifications, please send them to the email address mentioned below.

(Phone number of data collectors)
Thank you very much in advance for your kind support.

A1.1.2 Graduate Survey Explanatory Notes

How long does it take to fill in the questionnaire?

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years.

We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions.

How to answer the questions

Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you (e.g. Please go to Q)

Overview of the content of the questionnaire

Section 1 - Demographic Information
Section 2 - Physical and Administrative Factors
Section 3 - Employment Status
Section 3.A - Employed Graduates
Section 3.B - Self-Employed Graduates
Section 3.C - Graduates following Intership Program
Section 3.D - Neither Employed Nor Self-Employed Graduates
Section 3.E - Graduates Pursuing Further Training
Section 4 - Comments and Recommendations

A1.1.3 Online Survey System Cover Note for Graduates

Welcome to this Online Survey System

This online System has been developed to reach the graduates, employers and KPC program staff to collect the data and find out what happened to the graduates after they completed their studies, what are the opinions of the employers on the graduates, what are the opinions of Auto Engine Servicing Level 2 program staff on the education and training of the Auto Engine Servicing Level 2 program graduates.

The core objective of the survey is to improve the Auto Engine Servicing Level 2 program of the KPC and, more specifically, to revise the curricula so as to better prepare graduates for the world of work.

Frequently Asked Questions (FAQs) That Will Help You

How long does it take to fill in the questionnaire?
You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years. We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. It is not necessary to do a lot of typing.

How to answer the questions?

Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you. If there are questions you cannot answer, please leave them blank.

Overview of the Questionnaire Content

Section 1 - Demographic Information
Section 2 - Physical and Administrative Factors
Section 3 - Employment Status
Section 3.A - Employed Graduates
Section 3.B - Self-Employed Graduates
Section 3.C - Graduates following Intership Program
Section 3.D - Neither Employed Nor Self-Employed Graduates
Section 3.E - Graduates Pursuing Further Training
Section 4 - Comments and Recommendations

A1.1.4 Auto Engine Servicing Level 2 Program Graduates Questionnaire

Section 1 – Demographic Information

1. Name: ----------
   1.1 Gender: ( ) Male ( ) Female
   1.2 Civil Status: ( ) Single ( ) Married
   1.3 Age (years): ( ) Below 25 ( ) 25– 35 ( ) Above 35
   1.4 Country of Residence: ---------- City/County: ----------
   1.5 Mobile Phone Number (*Optional, for future consultations*) ----------
   1.6 Mobile Phone Number for Next of Kin (*Optional, for future consultations*) ----------

2. Year of Graduation: *(Tick only one box)*
   ( ) 2013 (*go to Q 3*)
   ( ) 2014 (*go to Q 3*)
   ( ) 2015 (*go to Q 3*)
   ( ) 2016 (*go to Q 3*)
   ( ) 2017 (*go to Q 3*)
   ( ) 2018 (*go to Q 3*)
   ( ) 2019 (*go to Q 3*)
   ( ) I did not complete my studies at the KPC (*go to Q 2.1*)

   2.1 If you did not complete your studies at KPC, then what year did you leave? ----------
   ……

   2.2 Reason(s) why you left KPC? *(Tick all that apply)*

   ( ) I only completed module 1

( ) I only completed module 2
( ) Other (please specify): ……
…….....

3. Title of the course you studied at KPC *(Tick only one box)*
( ) Diploma in Food Science Technology.
( ) Craft In Mechanical Engineering.
( ) Artisan Certificate in Storekeeping.
( ) Artisan in Store Keeping.
( ) Associate in Procurement and Supply.
( ) Accounting Technicians Diploma (Atd).
( ) Certified Procurement Supply of Ethiopia.
( ) Craft Certificate in Supplies Chain Management.
( ) Diploma in Supplies Chain Management.
( ) Diploma In Electrical Engineering (power Option)
( ) Diploma in Telecommunications Engineering.
( ) Craft Certificate in Tour Guiding.
( ) Diploma in Catering and Accommodation.
( ) Diploma in Food and Beverage Management.
( ) Diploma in Tourism Management.
( ) Proficiency in Professional Tour Guiding.
( ) Auto Engine Servicing Level 2 (modular).
( ) Artisan in Plumbing.
( ) Artisan in Refrigeration.
( ) Artisan in Seafarers.
( ) Artisan in Welding and Fabrication.
( ) Certificate in Plumbing, Fitting and Turning.
( ) **Auto Engine Servicing Level 2**.
( ) Plumbing, Fitting And Turning.
( ) Diploma In Mechanical Engineering (Production).
( ) Refrigeration & Air Condition Grade III.
( ) Welding and Fabrication.
( ) Diploma in Medical Laboratory Technology.
( ) Certificate in Stores Management.
( ) Other (please specify): ……

3.1 Additional Subjects/Units studied (*Check all that apply*)
( ) Communication skills *(speaking, writing, listening, reading)*
( ) IT skills *(use of computers)*
( ) Problem-solving skills *(being able to analyse a problem and find creative solutions)*
( ) Work ethics *(such as, attendance at work, reliability, punctuality, team work)*
( ) Entrepreneurship skills *(such as, market research, business planning, financial management, leading others)*
( ) Customer service skills *(such as, personal presentation, being polite, understanding a customer's needs and being able to meet these)*
( ) Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*
( ) Foreign Languages (*such as, Frence, Italian, Spanish, Germany, Chinese*)

( ) Other (please specify): ……

4. What applied to your situation in the first six months after leaving KPC? *(Multiple answers possible.)*
( ) Employed
( ) Self-employed with employees
( ) Self-employed without employees
( ) Further academic education *(higher education, for example degree)*
( ) Further vocational education/training *(such as, certificate, diploma, advanced diploma)*
( ) Professional certification
( ) Internship
( ) Neither employed nor self-employed

Section 2: Physical and Administrative Factors

1. During your Auto Engine Servicing Level 2 Program studies, to what extent were you satisfied with the Physical and Administrative factors? Please respond to each of the ten (10) factors on the five-point scale, as shown below.

Not at all Satisfied	1	2	3	4	5	**Very Satisfied**
	( )	**( )**	**( )**	**( )**	**( )**	

Physical and Administrative factors	1	2	3	4	5
Resource Centre with reference materials (such as, industry journals, recommended text books)	( )	( )	( )	( )	( )
Relevant Course Curriculum	( )	( )	( )	( )	( )
External collaborations (such as, external assessors, guest lecturers, industry experts, exchange program)	( )	( )	( )	( )	( )
Practice Workshops/laboratories with tools and equipment (including Simulators)	( )	( )	( )	( )	( )
Industrial linkages (such as, Internship Programme and industrial visits for students)	( )	( )	( )	( )	( )
IT facilities (such as, computers, online learning technologies)	( )	( )	( )	( )	( )

Audio-Visual Aids	( )	( )	( )	( )	( )
Management of the KPC	( )	( )	( )	( )	( )
Recreational facilities	( )	( )	( )	( )	( )
Careers advice and guidance (such as, help in finding a job)	( )	( )	( )	( )	( )

Section 3 - Employment Status

1. What is your present employment status?

( ) Employed *(go to 3.A)*
( ) Self-employed *(go to Section 3.B)*
( ) Internship (*go to Section 3.C*)
( ) Neither employed nor self-employed *(go to Section 3.D)*
( ) Further education/training *(go to Section 3.E)*

Sub-section 3.A – Employed Graduates

3.A1 Details of Employment

1. Is this your first job after leaving KPC?

( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 1.2*)

1.1 How long did it take you to find your first job after leaving KPC?

( ) 0-3 Months
( ) 4-6 Months
( ) 7-9 Months
( ) 10-12 Months
( ) More than 12 Months

1.2 How long did it take you to find your present job *(Do not answer if this is your first job)*?

( ) 0-3 Months
( ) 4-6 Months
( ) 7-9 Months
( ) 10-12 Months
( ) More than 12 Months

2. What is the name of your current employer? ----------

2.1 Address of your employer here?

City ----------
Country ----------

Telephone ----------

3. In what industry sector are you employed in?
( ) Agriculture, forestry and fishing
( ) Mining and quarrying
( ) Manufacturing
( ) Electricity, gas, steam and air conditioning supply
( ) Water supply; sewerage, waste management and remediation activities
( ) Construction
( ) Wholesale and retail trade, repair of motor vehicles and motorcycles
( ) Transportation and storage *(such as, road, rail, water and air)*
( ) Accommodation and food service activities
( ) Information and communication
( ) Financial and insurance activities
( ) Real estate activities
( ) Professional, scientific and technical activities
( ) Administrative and support service activities
( ) Public administration and defence; compulsory social security
( ) Education
( ) Human health and social work activities
( ) Arts, entertainment and recreation
( ) Other service activities
( ) Other, please specify: ----------

4. In what way did you find your job? (*Tick all that apply*)
( ) Advertisements of vacancies in newspapers/television/radio (*such as, daily papers, special periodicals*)
( ) Advertisements on the Internet *(e.g. government websites, company websites)*
( ) Internal advertisements of vacancies
( ) Direct applications
( ) Career advisory agency at the KPC
( ) Referral/ Endorsement by KPC
( ) Other contacts at the KPC
( ) Personal contacts (*Relatives, friends or/and colleagues*)
( ) Public work administration (*such as, public placement services, manpower allocation system*)
( ) Private employment agencies
( ) Industry Linkages during training *(e.g. apprenticeship, on the job training)*
( ) Social networks *(e.g. Facebook, LinkedIn)*
( ) Binding students by scholarships
( ) Other (please specify): ……

5. What is the status of your employment? *(Tick only one box)*
( ) Part-time ( ) Contractual ( ) Temporary ( ) Permanent

6. State number of working hours per week *(Tick only one box)*
( ) Less than 16 Hours ( ) 16 to 32 Hours ( ) 33 to 48 Hours ( ) More than 48 Hours

7. How much is your salary (per month) of your present job? *(Tick only one box)*

( ) Below Birr 5,000
( ) Birr 5,000 – Birr 9,999
( ) Birr 10,000 – Birr 14,999
( ) Birr 15,000 and above

8. Are you facing any challenges in relation to your present job?
( ) Yes *(go to Q 8.1)* ( ) No

8.1 What employment challenges are you facing? *(Check all that apply)*
Please specify----------

3.A2 Relationship Between Study and Employment *(Demonstration of Knowledge and Skills)*

1. Is your present work related to the Auto Engine Servicing Level 2 Program you studied at KPC?
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 1.2*)

1.1 Based on your Auto Engine Servicing Level 2 program studies and your present work, to what extent are you satisfied with the Knowledge and Skills you acquired at Kombolcha Polytechnic College? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	( )	( )	( )	( )	

KNOWLEDGE AND SKILLS ASPECTS	1	2	3	4	5
Knowledge (*theoretical training related to my specialization and occupation*)	( )	( )	( )	( )	( )
Practical, job-related skills (*such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance*)	( )	( )	( )	( )	( )
Communication skills (*speaking, writing, listening, reading*)	( )	( )	( )	( )	( )
IT skills (*use of computers*)	( )	( )	( )	( )	( )

Problem-solving skills (*being able to analyse a problem and find creative solutions*)	( )	( )	( )	( )	( )
Work ethics (*such as, discipline, attendance at work, reliability, punctuality, team work*)	( )	( )	( )	( )	( )
Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)	( )	( )	( )	( )	( )
Customer service skills (*such as, personal presentation, being polite, understanding a customer's needs and being able to meet these*)	( )	( )	( )	( )	( )
Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*	( )	( )	( )	( )	( )
Performance (*such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides*)	( )	( )	( )	( )	( )

1.2 If **NO**, what are the reason/s? (*Tick all that apply*)
( ) I didn't find a job opportunity related to my course of study
( ) I found something not related which had better salary and benefits
( ) Personal reason(s)
( ) The workplace is close to where I live
( ) Others, please specify----------

3.A3 Job Satisfaction for Employed Graduates

1. To what extent are you satisfied with the following aspects of your present job? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	**( )**	**( )**	**( )**	**( )**	

Job Satisfaction	1	2	3	4	5
Interesting work tasks	( )	( )	( )	( )	( )
Being able to work with some independence	( )	( )	( )	( )	( )
Clear and regulated work tasks	( )	( )	( )	( )	( )
Possibilities for applying what you learned when studying	( )	( )	( )	( )	( )
Job security	( )	( )	( )	( )	( )
Social status and recognition	( )	( )	( )	( )	( )
Income and benefits	( )	( )	( )	( )	( )
Good social climate / work setting	( )	( )	( )	( )	( )
Good career advancement prospects	( )	( )	( )	( )	( )
Being able to coordinate/supervise work	( )	( )	( )	( )	( )

3.A4 – Further Training for Employed Graduates

1. Did you participate in further training since you graduated?
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 2*)

1.1 If **YES**, what type of further training did you participate in *(Tick only one box)*
( ) Further academic education *(higher education, for example degree)*
( ) Further vocational education/training *(such as, certificate, diploma, advanced diploma)*
( ) Further professional certification/license to practice

1.2 What courses did you study while pursing further training?
( ) Course 1----------
( ) Course 2----------
( ) Course 3----------

2. If **NO**, why did you not pursue further training? (*Tick all that apply*)

( ) No relevant course available
( ) No need for further training
( ) No money to pay for training
( ) No time to attend training
( ) Others, please specify ----------

3. Would you like to pursue further training?
( ) Yes (*go to Q 3.1*) ( ) No (*go to Section 4*)

3.1 If **YES**, what further training do you need? please specify.....
.....

Sub-section 3.B – Self-Employed Graduates

3.B1 Details of Business Activities for Self-Employed Graduates

1. How long did it take you to start your present business *(Do not answer if this is your first business)*?
( ) 0-3 Months
( ) 4-6 Months
( ) 7-9 Months
( ) 10-12 Months
( ) More than 12 Months

2. In what industry sector are you engaging in?
( ) Agriculture, forestry and fishing
( ) Mining and quarrying
( ) Manufacturing
( ) Electricity, gas, steam and air conditioning supply
( ) Water supply; sewerage, waste management and remediation activities
( ) Construction
( ) Wholesale and retail trade, repair of motor vehicles and motorcycles
( ) Transportation and storage *(such as, road, rail, water and air)*
( ) Accommodation and food service activities
( ) Information and communication
( ) Financial and insurance activities
( ) Real estate activities
( ) Professional, scientific and technical activities
( ) Administrative and support service activities
( ) Public administration and defence; compulsory social security
( ) Education
( ) Human health and social work activities
( ) Arts, entertainment and recreation
( ) Other service activities
( ) Other, please specify: ----------

3.B2 Busines Size and Financing for Self-Employed Graduates

1. Do you have employees?

( ) Yes, I am Self-employed with employees
( ) No, I am Self-employed without employees

2. Were you able to access financing for your business?
( ) Yes *(go to Q 2.1)* ( ) No *(go to Q 3)*

2.1 Which business financing options were you able to access *(Check all that apply)*
( ) Sacco
( ) Bank loan/overdarft
( ) Government sources
( ) Friends & Relatives
( ) Business Incubation
( ) Others, please specify----------

3. Are you facing any challenges in relation to your business?
( ) Yes *(go to Q 4.1)* ( ) No

3.1 What business challenges are you facing? *(Check all that apply)*
( ) Cashflow
( ) No Customers/clients
( ) Others, please specify----------

3.B3 Relationship Between Study and Self-Employment (Demonstration of Knowledge and Skills)

1. Is your present business, related to the Auto Engine Servicing Level 2 program you studied at KPC? *(Tick only one box)*
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 1.2*)

1.1 Based on your Auto Engine Servicing Level 2 Program studies and your present business, to what extent are you satisfied with the Knowledge and Skills you acquired at KPC? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	( )	( )	( )	( )	

KNOWLEDGE AND SKILLS ASPECTS	1	2	3	4	5
Knowledge (*theoretical training related to my specialization and occupation*)	( )	( )	( )	( )	( )

Practical, job-related skills (*such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance*)	( )	( )	( )	( )	( )
Communication skills (*speaking, writing, listening, reading*)	( )	( )	( )	( )	( )
IT skills (*use of computers*)	( )	( )	( )	( )	( )
Problem-solving skills (*being able to analyse a problem and find creative solutions*)	( )	( )	( )	( )	( )
Work ethics (*such as, discipline, attendance at work, reliability, punctuality, team work*)	( )	( )	( )	( )	( )
Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)	( )	( )	( )	( )	( )
Customer service skills (*such as, personal presentation, being polite, understanding a customer's needs and being able to meet these*)	( )	( )	( )	( )	( )
Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*	( )	( )	( )	( )	( )
Performance (*such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides*)	( )	( )	( )	( )	( )

1.2 If **NO**, what are the reason/s?
( ) There was no business opportunity related to my course of study
( ) I found an unrelated business opportunity which had better returns
( ) Personal Reason(s)
( ) The business is close to where I live
( ) Others, please specify----------

3.B4 – Further Training for Self-Employed Graduates

1. Did you participate in further training since you graduated?
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 2*)

1.1 If **YES**, what type of further training did you participate in *(Tick only one box)*
( ) Further academic education *(higher education, for example degree)*
( ) Further vocational education/training *(such as, certificate, diploma, advanced diploma)*
( ) Further professional certification/license to practice

1.2 What courses did you study while pursing further training?
( ) Course 1----------
( ) Course 2----------
( ) Course 3----------

2. If **NO**, why have you not pursued further training?
( ) No relevant course available
( ) No need for further training
( ) No money to pay for training
( ) No time to attend training
( ) Others, please specify ----------

3. Would you like to pursue further training?
( ) Yes (*go to Q 3.1*) ( ) No (*go to Section 4*)

3.1 If **YES**, what further training do you need? please specify.....
.....

Sub-section 3.C – Graduates Following an Internship Program

3.C1 Details of Internship Program

1. How long did it take you to find your present Internship assignment?
( ) 0-3 Months
( ) 4-6 Months
( ) 7-9 Months
( ) 10-12 Months
( ) More than 12 Months

2. What is the name of company/organisation where you are undergoing internship? ----------

---

2.1 Address of company/organisation offering internship here?
City ----------
Country ----------
Telephone ----------

3. In what industry sector are you undergoing internship?
( ) Agriculture, forestry and fishing
( ) Mining and quarrying
( ) Manufacturing
( ) Electricity, gas, steam and air conditioning supply
( ) Water supply; sewerage, waste management and remediation activities
( ) Construction
( ) Wholesale and retail trade, repair of motor vehicles and motorcycles
( ) Transportation and storage *(such as, road, rail, water and air)*
( ) Accommodation and food service activities
( ) Information and communication
( ) Financial and insurance activities
( ) Real estate activities
( ) Professional, scientific and technical activities
( ) Administrative and support service activities
( ) Public administration and defence; compulsory social security
( ) Education
( ) Human health and social work activities
( ) Arts, entertainment and recreation
( ) Other service activities
( ) Other, please specify: ----------

4. Are your receiving an allowance in your present Internship practice?

( ) Yes *(go to Q 4.1)* ( ) No *(go to Q 5)*

4.1 How much is your allowance (per month) of your present Internship? *(Tick only one box)*
( ) Below Birr 5,000
( ) Birr 5,000 – Birr 9,999
( ) Birr 10,000 – Birr 14,999
( ) Birr 15,000 and above

5. State number of internship practice hours per week *(Tick only one box)*
( ) Less than 16 Hours ( ) 16 to 32 Hours ( ) 33 to 48 Hours ( ) More than 48 Hours

6. In what way did you find your present Internship? *(Check all that apply)*
( ) Advertisements of vacancies in newspapers/television/radio (*such as, daily papers, special periodicals*)
( ) Advertisements on the Internet *(e.g. government websites, company websites)*
( ) Internal advertisements of vacancies
( ) Direct applications
( ) Career advisory agency at the KPC
( ) Referral/ Endorsement by KPC
( ) Other contacts at the KPC
( ) Personal contacts (*Relatives, friends or/and colleagues*)
( ) Public work administration (*such as, public placement services, manpower allocation system*)

( ) Private employment agencies
( ) Industry Linkages during training *(e.g. apprenticeship, on the job training)*
( ) Social networks *(e.g. Facebook, LinkedIn)*
( ) Binding students by scholarships
( ) Other (please specify): ----------

7. Are you facing any challenges in relation to your internship program?
( ) Yes (*go to Q 7.1*) ( ) No (*go to Sub-section 3.C2*)

7.1 If **YES**, what challenges are you facing in relation to your internship program *(Check all that apply)*
( ) Actual work related challenges
( ) Not being paid during Internship.
( ) Frequent changes in assigned tasks
( ) Other, please specify: ----------

3.C2 Relationship Between Study and Internship Program *(Demonstration of Knowledge and Skills)*

1. Is your present Internship practice related to the Auto Engine Servicing Level 2 Program course you followed at KPC?
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 1.2*)

1.1 Based on your Auto Engine Servicing Level 2 Program studies and your present Internship practice, to what extent are you satisfied with the Knowledge and Skills you acquired at KPC? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	( )	( )	( )	( )	

KNOWLEDGE AND SKILLS ASPECTS	1	2	3	4	5
Knowledge (*theoretical training related to my specialization and occupation*)	( )	( )	( )	( )	( )
Practical, job-related skills (*such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance*)	( )	( )	( )	( )	( )
Communication skills (*speaking, writing, listening, reading*)	( )	( )	( )	( )	( )

IT skills (*use of computers*)	( )	( )	( )	( )	( )
Problem-solving skills (*being able to analyse a problem and find creative solutions*)	( )	( )	( )	( )	( )
Work ethics (*such as, discipline, attendance at work, reliability, punctuality, team work*)	( )	( )	( )	( )	( )
Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)	( )	( )	( )	( )	( )
Customer service skills (*such as, personal presentation, being polite, understanding a customer's needs and being able to meet these*)	( )	( )	( )	( )	( )
Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*	( )	( )	( )	( )	( )
Performance (*such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides*)	( )	( )	( )	( )	( )

1.2 If **NO**, what are the reason/s? (*Tick all that apply*)

( ) I didn't find an Internship practice opportunity related to my course of study
( ) I found something not related which had better allowances and benefits
( ) Personal Reason(s)
( ) The workplace is close to where I live
( ) Others, please specify----------

3.C3 Job Satisfaction for Internship Program Graduates

1. To what extent are you satisfied with the following aspects of your present internship practice? Please respond to of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	**( )**	**( )**	**( )**	**( )**	

Job Satisfaction	1	2	3	4	5
Interesting work tasks	( )	( )	( )	( )	( )
Being able to work with some independence	( )	( )	( )	( )	( )
Clear and regulated work tasks	( )	( )	( )	( )	( )
Possibilities for applying what you learned when studying	( )	( )	( )	( )	( )
Job security	( )	( )	( )	( )	( )
Social status and recognition	( )	( )	( )	( )	( )
Income and benefits	( )	( )	( )	( )	( )
Good social climate / work setting	( )	( )	( )	( )	( )
Good career advancement prospects	( )	( )	( )	( )	( )
Being able to coordinate/supervise work	( )	( )	( )	( )	( )

3.C4 – Further Training for Internship Practice Graduates

1. Did you participate in further training since you graduated?
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 2*)

1.1 If **YES**, what type of further training did you participate in *(Tick only one box)*
( ) Further academic education *(higher education, for example degree)*
( ) Further vocational education/training *(such as, certificate, diploma, advanced diploma)*
( ) Further professional certification/license to practice

1.2 What courses did you study while pursing further training?
( ) Course 1----------
( ) Course 2----------
( ) Course 3----------

2. If **NO**, why did you not pursue further training? (*Tick all that apply*)

( ) No relevant course available
( ) No need for further training
( ) No money to pay for training
( ) No time to attend training
( ) Others, please specify ----------

3. Would you like to pursue further training?
( ) Yes (*go to Q 3.1*) ( ) No (*go to Section 4*)

3.1 If **YES**, what further training do you need? please specify.....
.....

Sub-section 3.D – Neither Employed Nor Self-Employed Graduates

3.D1 – Reasons for Not being employed Nor Self-Employed

1. If you are not employed, please tick (✓) the reason (s) (*Tick all that apply*).
( ) Family concerns
( ) Opted not to look for a job
( ) Unsuccessful application
( ) Lost previous job
( ) Not employed at the end of Internship Program.
( ) No job opportunity in the desired field
( ) No professional certification
( ) Insufficient Sea-time
( ) Other reasons, please specify----------

3.D2 – Further Training for Graduates who are Neither Employed Nor Self-Employed

1. Did you participate in further training since you graduated?
( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 2*)

1.1 If **YES**, what type of further training did you participate in (*Tick all that apply*)
( ) Further academic education *(higher education, for example degree)*
( ) Further vocational education/training *(such as, certificate, diploma, advanced diploma)*
( ) Further professional certification/license to practice

1.2 What courses did you study while pursing further training?
( ) Course 1----------
( ) Course 2----------
( ) Course 3----------

2. If **NO**, why did you not pursue further training? (*Tick all that apply*)
( ) No relevant course available
( ) No need for further training
( ) No money to pay for training
( ) No time to attend training
( ) Others, please specify ----------
3. Would you like to pursue further training?

( ) Yes (*go to Q 3.1*) ( ) No (*go to Section 4*)

3.1 If **YES**, what further training do you need? please specify.....
.....

Sub-section 3.E Graduates Pursuing Further Training

1. If you are presently pursuing further training (*university, evening classes, short courses*), what type of further training have you participate in? *(Tick only one box)*
( ) Further academic education *(higher education, for example degree)*
( ) Further vocational education/training *(such as, certificate, diploma, advanced diploma)*
( ) Further professional certification/license to practice

2. What courses have you studied while pursing further training?
( ) Course 1----------
( ) Course 2----------
( ) Course 3----------

3. Would you like to attend any further training courses?
( ) Yes (*go to Q 3.1*) ( ) No (*go to Section 4*)

3.1 If **YES**, what further training do you need? please specify.....
.....

Section 4 - Comments and Recommendations

1. What important changes would you recommend for the Auto Engine Servicing Level 2 Program of study at the KPC? (*Please share your opinion on the areas that require improvement*.)
( ) Yes *(go to Q 1.1)* ( ) No *(go to Q 2)*

1.1 If **YES**, please specify.....
.....

2. Would you recommend a prospective learner to pursue the Auto Engine Servicing Level 2 Program course at the KPC?
( ) Yes *(go to Q 3)* ( ) No *(go to Q 2.1)*

2.1 If **NO**, please specify .....
.....

3. Do you have any comments/suggestions regarding this survey?
( ) Yes *(go to Q 3.1)* ( ) No

3.1 If **YES**, please specify.....
.....

Thank you for your cooperation!

A1.2 KPC Survey Documentation for Employers

In this section we have presented five (5) documents and templates that will be utilised during the Auto Engine Servicing Level 2 Program graduates study. The documents and templates include;

- KPC Employers survey Survey Introductory Letter
- KPC Employers survey Survey Explanatory Notes
- Sunmaker Online system Introductory message for Employers
- The Auto Engine Servicing Level 2 Program Employers Questionnaire

A1.2.1 KPC Employer Survey Introductory Letter

Dear Employer,

As head of the research group, I kindly request your participation in a survey of employers of Auto Engine Servicing Level 2 Program graduates who completed their studies between 2013 and 2019. We would like to find out what happened to them after they completed their studies. Did they find jobs or are they still looking for jobs, did their Auto Engine Servicing Level 2 Program of studies prepare them well for the workplace, and do they use the knowledge and skills they learnt during their studies?

The core objective of the survey is to improve the Auto Engine Servicing Level 2 Program of study and, more specifically, to revise the curricula.

Your information will be treated in strIT confidence. The results will be published in such a way that identification of individual respondents is excluded. Results of this survey will be published on the website of the Kombolcha Polytechnic College. On your request we will send you a printed version of the report with the main results of the survey.

Please follow the link provided in order to access the survey. Kindly complete the online questionnaire between Monday, 16th November 2020 and Friday, 30th November 2020.

If you have any questions or require clarifications, please send them to the email address below.

(Phone number of data collectors)

Thank you very much in advance for your kind support.

A1.2.2 Employers survey Survey Explanatory Notes

How long does it take to fill in the questionnaire?

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years.

We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. It is not necessary to do a lot of typing.

How to answer the questions

Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you (e.g. Please go to Q)

Overview of the content of the questionnaire

Section 1 - Identification of the Company/Organization
Section 2 – Employment of Auto Engine Servicing Level 2 Program Graduates
Section 3 - Internship Program for Auto Engine Servicing Level 2 Program Graduates
Section 4 – Industrial Exchange for Auto Engine Servicing Level 2 Program Staff
Section 5 – Ease of Finding Employees with Needed Skills
Section 6 - Demographic Information
Section 7 - Comments and Recommendations

A1.2.3 Sunmaker Online study System Cover Note for Employers

Welcome to Sunmaker Online study System

Sunmaker has been contracted by the KPC to conduct survey (TS) with 2019/2020 graduates covering four(4) programs of automotive technology department and 7 departments.

This online System has been developed by Sunmaker to reach the Graduates, Employers and KPC Managers and Instructors to collect the data and find out what happened to the graduates after they completed their studies, what are the opinions of the employers on the graduates, what are the opinions of Auto Engine Servicing Level 2 Program staff on the Auto Engine Servicing Level 2 Program training they received.

The core objective of the survey is to improve the Auto Engine Servicing Level 2 Program of the KPC and, more specifically, to revise the curricula so as to better prepare graduates for the world of work.

Frequently Asked Questions (FAQs) That Will Help You

How long does it take to fill in the questionnaire?

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years.

We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. It is not necessary to do a lot of typing.

How to answer the questions?

Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you. If there are questions you cannot answer, please leave them blank.

Overview of the content of the questionnaire

Section 1 - Identification of the Company/Organization
Section 2 – Employment of Auto Engine Servicing Level 2 Graduates
Section 3 - Internship Program for Auto Engine Servicing Level 2 Graduates
Section 4 – Industrail Exchange for Auto Engine Servicing Level 2 Program Staff
Section 5 – Ease of Finding Employees with Needed Skills
Section 6 - Demographic Information
Section 7 - Comments and Recommendations
A1.2.4 Questionnaire for Employers of KPC Auto Engine Servicing Level 2 Program Graduates

Section 1 - Identification of the Company/Organization

1. Enterprise name ----------
1.1 City ----------
1.2 Country ----------
1.3 Telephone ----------

1. In what industry sector are you operating?
( ) Agriculture, forestry and fishing
( ) Mining and quarrying
( ) Manufacturing
( ) Electricity, gas, steam and air conditioning supply
( ) Water supply, sewerage, waste management and remediation activities
( ) Construction
( ) Wholesale and retail trade, repair of motor vehicles and motorcycles
( ) Transportation and storage
( ) Accommodation and food service activities
( ) Information and communication
( ) Financial and insurance activities
( ) Real estate activities
( ) Professional, scientific and technical activities
( ) Administrative and support service activities
( ) Public administration and defense, compulsory social security
( ) Education
( ) Human health and social work activities
( ) Arts, entertainment and recreation
( ) Other service activities
( ) Other, please specify: ----------

3. What advertising media does the company/organization use to recruit employees? *(Tick all that apply.)*

( ) Advertisements of vacancies in newspapers/television/radio (*such as, daily papers, special periodicals*)
( ) Advertisements on the Internet *(e.g. government websites, company websites)*
( ) Internal advertisements of vacancies
( ) Direct applications by graduates
( ) Career advisory agency at the KPC
( ) Referral/ Endorsement by KPC
( ) Other contacts at the KPC
( ) Personal contacts (*Relatives, friends or/and colleagues*)
( ) Public work administration (*such as, public placement services, manpower allocation system*)
( ) Private employment agencies
( ) Industry Linkages during training *(e.g. apprenticeship, on the job training)*
( ) Social networks *(e.g. Facebook, LinkedIn)*
( ) Binding students by scholarships
( ) Other (please specify): …….....

Section 2 - Employment of Auto Engine Servicing Level 2 Graduates

1. Have you employed Auto Engine Servicing Level 2 Program graduates from the KPC or any other TVET Institute? *(Include Permanent and Casual employees)*

( ) Yes (*go to Q 2*) ( ) No (*go to Q 7*)

2. How many male and/or female Auto Engine Servicing Level 2 Program graduates have you employed from the Kombolcha Polytechnic College and any other TVET Institute? *(Include Permanent and Casual employees)*

( ) Kombolcha Polytechnic College ..... Male …….., Female…….....
( ) TVET Institute 2 *[Insert Institution Name]* Male …….., Female…….....
( ) TVET Institute 3 *[Insert Institution Name]* Male …….., Female…….....
( ) TVET Institute 4 *[Insert Institution Name]* Male …….., Female…….....

3. How important in general are the following aspects for the recruitment of Auto Engine Servicing Level 2 **Program** Graduates? Please respond to each of the ten factors on the five-point scale, as shown below**.**

Not at all important	**1**	**2**	**3**	**4**	**5**	**Very important**
	( )	( )	( )	( )	( )	

Recruitment of Auto Engine Servicing Level 2 Program Graduates	**1**	**2**	**3**	**4**	**5**

Field of study and specialization	( )	( )	( )	( )	( )
Grades of examinations at the AUTO ENGINE SERVICING LEVEL 2 Institute	( )	( )	( )	( )	( )
Practical experience acquired during course of study	( )	( )	( )	( )	( )
Reputation of AUTO ENGINE SERVICING LEVEL 2 Institute	( )	( )	( )	( )	( )
Recommendations/references from third persons	( )	( )	( )	( )	( )
Results of recruitments tests	( )	( )	( )	( )	( )
Knowledge of foreign language	( )	( )	( )	( )	( )
Personal presentation	( )	( )	( )	( )	( )
Candidate's own world view	( )	( )	( )	( )	( )
Ability to work in multiracial environment	( )	( )	( )	( )	( )

4. If you employ Auto Engine Servicing Level 2 Program graduates from KPC, to what extent are you satisfied with their demonstration of the following Knowledge and Skills aspects? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	( )	( )	( )	( )	

KNOWLEDGE AND SKILLS ASPECTS	1	2	3	4	5
Knowledge (*theoretical training related to my specialization and occupation*)	( )	( )	( )	( )	( )

Practical, job-related skills (*such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance*)	( )	( )	( )	( )	( )
Communication skills (*speaking, writing, listening, reading*)	( )	( )	( )	( )	( )
IT skills (*use of computers*)	( )	( )	( )	( )	( )
Problem-solving skills (*being able to analyse a problem and find creative solutions*)	( )	( )	( )	( )	( )
Work ethics (*such as, discipline, attendance at work, reliability, punctuality, team work*)	( )	( )	( )	( )	( )
Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)	( )	( )	( )	( )	( )
Customer service skills (*such as, personal presentation, being polite, understanding a customer ' s needs and being able to meet these*)	( )	( )	( )	( )	( )
Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*	( )	( )	( )	( )	( )
Performance (*such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides*)	( )	( )	( )	( )	( )

5. Do Auto Engine Servicing Level 2 Program Graduates from KPC need additional training to do their work well in your company? *(Tick only one box)*

( ) Normally they are fully prepared to do the work well
( ) They need only an introductory training
( ) They need to learn some additional skills
( ) They need serious skills upgrading to start working
( ) They need completely new training

6. Are you experiencing any challenge(s) with the Auto Engine Servicing Level 2 Program graduates you have employed**?**

( ) Yes *(go to Q 6.1)* ( ) No (*go to Section 3*)

6.1 If **YES**, please specify.....
.....

7. If you do not employ any Auto Engine Servicing Level 2 Program graduates from KPC, what are the decisive reasons for this?
Please specify: .....

Section 3 - Internship Program for Auto Engine Servicing Level 2 Program Graduates

1. Do you have an internships program for Auto Engine Servicing Level 2 Program?

( ) Yes *(go to Q 2)* ( ) No *(go to Section 4)*

2. Are the Auto Engine Servicing Level 2 program graduates undergoing internships in your company/organization paid an allowance?

( ) Yes ( ) No

3. Do you have graduates undergoing internship program from the KPC or any other TVET Institute?
( ) Yes (*go to Q 4*) ( ) No (*go to Q 5*)
4. How many male and/or female Auto Engine Servicing Level 2 Program graduates are undergoing Internship?

( ) Kombolcha Polytechnic College..... Male ……..., Female…….....
( ) TVET Institute 2 *[Insert Institution Name]* Male ……..., Female…….....
( ) TVET Institute 3 *[Insert Institution Name]* Male ……..., Female…….....
( ) TVET Institute 4 *[Insert Institution Name]* Male ……..., Female…….....

5. If Auto Engine Servicing Level 2 Program graduates from KPC are undergoing Internship, to what extent are you satisfied with their demonstration of the following Knowledge and Skills aspects? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	( )	( )	( )	( )	

KNOWLEDGE AND SKILLS ASPECTS	1	2	3	4	5

Knowledge (*theoretical training related to my specialization and occupation*)	( )	( )	( )	( )	( )
Practical, job-related skills (*such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance*)	( )	( )	( )	( )	( )
Communication skills (*speaking, writing, listening, reading*)	( )	( )	( )	( )	( )
IT skills (*use of computers*)	( )	( )	( )	( )	( )
Problem-solving skills (*being able to analyse a problem and find creative solutions*)	( )	( )	( )	( )	( )
Work ethics (*such as, discipline, attendance at work, reliability, punctuality, team work*)	( )	( )	( )	( )	( )
Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)	( )	( )	( )	( )	( )
Customer service skills (*such as, personal presentation, being polite, understanding a customer ' s needs and being able to meet these*)	( )	( )	( )	( )	( )
Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*	( )	( )	( )	( )	( )
Performance (*such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides*)	( )	( )	( )	( )	( )

6. Are you experiencing any challenge(s) with the Auto Engine Servicing Level 2 Program graduates enrolled in your internship program**?**

( ) Yes *(go to Q 6.1)* ( ) No (*go to Section 4*)

6.1 If **YES**, please specify.....
.....

7. If your internship program does not include any Auto Engine Servicing Level 2 Program graduates from KPC, what are the decisive reasons for this?
   Please specify: .....
   .....

Section 4: Industrial Exchange Program for Auto Engine Servicing Level 2 Program Staff

1. Do you have an **Industrial Exchange** program with instructors from TVET polytechnics?

( ) Yes *(go to Q 2)* ( ) No *(go to Section 5)*

2. Do you have Industrial Exchange program participants from the KPC or any other TVET Institute?

( ) Yes (*go to Q 3*) ( ) No (*go to Q 5*)

3. How many male and/or female Auto Engine Servicing Level 2 Program Staff are participating in the Industrial Exchange program?

( ) KPC..... Male ……..., Female…….....
( ) TVET Institute 2 *[Insert Institution Name]* Male ……..., Female…….....
( ) TVET Institute 3 *[Insert Institution Name]* Male ……..., Female…….....
( ) TVET Institute 4 *[Insert Institution Name]* Male ……..., Female…….....

4. Are you experiencing any challenge with the Auto Engine Servicing Level 2 Program Staff participating in your Industrial Exchange program**?**

( ) Yes *(go to Q 5.1)* ( ) No (*go to Section 5*)

4.1 If **YES**, please specify.....
.....

5. If your Industrial Exchange program does not include Auto Engine Servicing Level 2 Program Staff from KPC, what are the decisive reasons for this?
   Please specify: .....
   .....

Section 5 – Ease of Finding Employees with Needed Skills

1. Is your company/organization experiencing problems finding employees with the skills that you need?

( ) Yes *(go to Q 2)* ( ) No (*go to Section 6*)

2. In which occupations does your company/organization commonly experience skills shortages?

( ) Occupation 1----------
( ) Occupation 2----------

( ) Occupation 3----------
( ) Occupation 4----------
( ) Occupation 5----------

Section 6: Demographic Information

1. Which of the options below best describes your Role/Position in the Company/Organization?

( ) Director or Deputy Director
( ) Human Resource Manager or Deputy Human Resource Manager
( ) Head of Department or Deputy Head of Department
( ) Supervisor

Section 7: Comments and Recommendations

1. What important changes would you recommend for the Auto Engine Servicing Level 2 program of study at the KPC? (*Please share your opinion on the areas that require improvement.*)

( ) Yes *(go to Q 1.1)* ( ) No *(go to Q 2)*

1.1 If **YES**, please specify.....
.....

2. Would you recommend a prospective learner to pursue the Auto Engine Servicing Level 2 Program at the KPC?

( ) Yes *(go to Q 3)* ( ) No *(go to Q 2.1)*

2.1 If **NO**, please specify .....
.....

3. Do you have any comments/suggestions regarding this survey?

( ) Yes *(go to Q 3.1)* ( ) No

3.1 If **YES**, please specify.....
.....

Thank you very much for completing this questionnaire.

A1.3 KPC Teaching Staff Survey Documentation

In this section we have presented five (5) documents and templates that will be utilised during the **Auto Engine Servicing Level 2 graduates** study. The documents and templates include;

- KPC Teaching Staff survey Survey Introductory Letter
- KPC Teaching Staff survey Survey Explanatory Notes
- Sunmaker Online system Introductory message
- The **Auto Engine Servicing Level 2** program Staff Questionnaire

A1.3.1 KPC Teaching Staff survey Survey Introductory Letter

Dear KPC staff member,

As head of the research group, I kindly request your participation in a survey of Auto Engine Servicing Level 2 program graduates who completed their studies in 2019/2020.

We would like to findout what happened to them during their studies. Did they find jobs or are they still looking for jobs, did their studies prepare them well for the workplace, and if they use the knowledge and skills they learnt during their studies?

The core objective of the survey is mainly to improve the Auto Engine Servicing Level 2 program and, more specifically, to revise the curricula. Your information will be treated in strIT confidence. The results will be published in such a way that identification of individual respondents is excluded. Results of this survey will be published on the website of the Kombolcha Polytechnic College. On your request we will send you a printed version of the report with the main results of the survey.

Please follow the link provided in order to access the survey. Kindly complete the online questionnaire between Monday, 16th November 2021 and Friday, 30th November 2021.

If you have any questions or require further clarifications, please send them to the email address below.

(Phone number of data collectors)
Thank you very much in advance for your kind support.

A1.3.2 KPC Teaching Staff survey Survey Explanatory Notes

How long does it take to fill in the questionnaire?

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years.

We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. It is not necessary to do a lot of typing.

How to answer the questions

Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you (e.g. Please go to Q)

Overview of the content of the questionnaire

Section 1: Details of the Auto Engine Servicing Level 2 program
Section 2: Physical and Administrative Factors
Section 3: Demonstration of Knowledge and Skills.
Section 4: Industrial Exchange Program
Section 5: Demographic Information
Section 6: Comments and Recommendations

A1.3.3 Online Survey System Cover Note for KPC Staff

Welcome to the Online Survey System

This study was conducted based on a request by the (KPC) to conduct eleven (11) survey, including; Auto Engine Servicing Level 2 program.

The twenty-nine (29) survey have been applied to 2019/2020 graduates.
This online System has been developed to reach the Auto Engine Servicing Level 2 program Graduates, Employers and KPC staff to collect the data and find out what happened to the Auto Engine Servicing Level 2 program graduates after they completed their studies, what are the opinions of the employers on the Auto Engine Servicing Level 2 program graduates, what are the opinions of KPC Managers and Instructors on the education and training.

The core objective of the survey is to improve the Auto Engine Servicing Level 2 program at the KPC and, more specifically, to revise the curricula so as to better prepare graduates for the world of work.

Frequently Asked Questions (FAQs) That Will Help You

How long does it take to fill in the questionnaire?

You will need about half an hour (30 minutes), depending on the kind of experiences you have undergone during recent years. We have developed a highly standardised questionnaire, which mainly asks you to mark (✓) boxes which refer to relevant answers. With this approach we hope that we have made it easy for you to answer the questions. It is not necessary to do a lot of typing.

How to answer the questions?

Please answer all questions applicable to you. In some cases, you will note that the questionnaire suggests you disregard some questions not applicable to you. If there are questions you cannot answer, please leave them blank.

Overview of the Questionnaire Content

Section 1: Details of the Auto Engine Servicing Level 2 program
Section 2: Physical and Administrative Factors
Section 3: Demonstration of Knowledge and Skills.
Section 4: Industrial Exchange Program
Section 5: Demographic Information
Section 6: Comments and Recommendations

A1.3.4 KPC Auto Engine Servicing Level 2 Teaching Staff Questionnaire

Section 1: Details of the Auto Engine Servicing Level 2 program

1. Is the Auto Engine Servicing Level 2 program internationally accreditated? *(such as, City & Guilds, ICM, Edexel,*)

   ( ) Yes (*go to Q 1.1*) ( ) No (*go to Q 2*)

1.1 If YES, please list up to three International Awarding Boards

( ) Awarding Board 1----------
( ) Awarding Board 2----------
( ) Awarding Board 3----------

2. Is the Auto Engine Servicing Level 2 program recognised by Professional Associations? *(Such as, Seafarers Union of Ethiopia, International Transport Workers' Federation)*

   ( ) Yes (*go to Q 2.1*) ( ) No (*go to Q 3*)

2.1 If YES, please list up to three Professional Associations

( ) Professional Association 1----------
( ) Professional Association 2----------
( ) Professional Association 3----------

3. Is the Auto Engine Servicing Level 2 program recognised by Employers?

   ( ) Yes (*go to Q 3.1*) ( ) No (*go to Q 4*)

3.1 If YES, please list up to three Employers

( ) Employer 1----------
( ) Employer 2----------
( ) Employer 3----------

4. Which of the options below best describes the balance/ratio between Practical competences and theoretical Knowledge requirements for Auto Engine Servicing Level 2 program? *(Tick only one box)*

( ) 10 percent Practical, 90 percent Theory
( ) 20 percent Practical, 80 percent Theory
( ) 30 percent Practical, 70 percent Theory
( ) 40 percent Practical, 60 percent Theory
( ) 50 percent Practical, 50 percent Theory
( ) 60 percent Practical, 40 percent Theory
( ) Other (Please specify)…….. ……

5. Is the Auto Engine Servicing Level 2 program curriculum periodically reviewed?

( ) Yes (*go to Q 5.1*) ( ) No (*go to Q 5.3*)

5.1 How often is the Auto Engine Servicing Level 2 program curricula reviewed? *(Tick only one box)*

( ) Less than 24 Months
( ) 25 Months to 48 Months
( ) 49 Months to 60 Months
( ) More than 60 Months

5.2 How is the Auto Engine Servicing Level 2 program curricula reviewed? *(Tick all that apply.)*

( ) Directly checking with employers
( ) Using occupational standards
( ) Through Ethiopia Institute of Curriculum Development (EICD)
( ) Through Curiculum Development Assessment and Certificate Council (CDACC)
( ) Technical and Vocational Education and Training (TVET) Authority
( ) Through National Industrial Training Authority (NITA)
( ) Ethiopia Maritime Authority
( ) Other (please specify): ……

5.3 If NO, why not?

( ) Please specify…….. ……

Section 2: Physical and Administrative Factors

1. If you teach **Auto Engine Servicing Level 2** program, to what extent are you satisfied with the ten (10) Physical and Administrative factors? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	1	2	3	4	5	**Very Satisfied**
	( )	**( )**	**( )**	**( )**	**( )**	

Physical and Administrative factors	1	2	3	4	5
Resource Centre with reference materials (such as, industry journals, recommended text books)	( )	( )	( )	( )	( )
Relevant Course Curriculum	( )	( )	( )	( )	( )
External collaborations (such as, external assessors, guest lecturers, industry experts, exchange program)	( )	( )	( )	( )	( )
Practice Workshops/laboratories with tools and equipment (including Simulators)	( )	( )	( )	( )	( )
Industrial linkages (such as, Internship Programme and industrial visits for students)	( )	( )	( )	( )	( )
IT facilities (such as, computers, online learning technologies)	( )	( )	( )	( )	( )
Audio-Visual Aids	( )	( )	( )	( )	( )
Management of the KPC	( )	( )	( )	( )	( )
Recreational facilities	( )	( )	( )	( )	( )
Careers advice and guidance (such as, help in finding a job)	( )	( )	( )	( )	( )

Section 3: Demonstration of Knowledge and Skills

1. If you trained Auto Engine Servicing Level 2 program graduates, to what extent are you satisfied with their demonstration of the following Knowledge and Skills aspects? Please respond to each of the ten factors on the five-point scale, as shown below.

Not at all Satisfied	**1**	**2**	**3**	**4**	**5**	**Very Satisfied**
	( )	( )	( )	( )	( )	

KNOWLEDGE AND SKILLS ASPECTS	1	2	3	4	5
Knowledge (*theoretical training related to my specialization and occupation*)	( )	( )	( )	( )	( )
Practical, job-related skills (*such as, use of tools, equipment and machinery, use of materials and parts, equipment maintenance*)	( )	( )	( )	( )	( )
Communication skills (*speaking, writing, listening, reading*)	( )	( )	( )	( )	( )
IT skills (*use of computers*)	( )	( )	( )	( )	( )
Problem-solving skills (*being able to analyse a problem and find creative solutions*)	( )	( )	( )	( )	( )
Work ethics (*such as, discipline, attendance at work, reliability, punctuality, team work*)	( )	( )	( )	( )	( )
Entrepreneurship skills (*such as, market research, business planning, financial management, leading others*)	( )	( )	( )	( )	( )
Customer service skills (*such as, personal presentation, being polite, understanding a customer*	( )	( )	( )	( )	( )

's needs and being able to meet these)					
Health and Safety skills *(such as, safety and emergency awareness, emergency preparedness, working in a safe way)*	( )	( )	( )	( )	( )
Performance (*such as, understanding and producing drawings, doing measurements at work, use of written instructions and working guides*)	( )	( )	( )	( )	( )

Section 4: Industrial Exchange Program

1. Have you participated in an **Industrial Exchange** program? *(Tick only one)*

( ) Yes *(go to Q 1.2)* ( ) No *(go to Q 3)*

1.2. If Yes, when was the last time that you participated in an **Industrial Exchange** program? *(Tick only one)*

( ) 0 - 6 Months
( ) 7 - 12 Months
( ) 13 - 18 Months
( ) 19 - 24 Months
( ) More than 24 Months

2. Did you experiencing any challenge while participating in the **Industrial Exchange** program**?**

( ) Yes *(go to Q 2.1)* ( ) No *(go to Q 3)*

2.1 If **YES**, please specify.....
.....

3. If you have not participated in an **Industrial Exchange** program, what are the decisive reasons for this?
Please specify: .....
.....

Section 5: Demographic Information

1. Which of the options below best describes your Role/Position at the KPC? *(Tick only one box)*

   ( ) Head of Department
   ( ) Deputy Head of Department
   ( ) Course Instructor
   ( ) Workshop Technician

2. When were you first posted to (or employed at) KPC? *(Tick only one box)*

   ( ) Less than 3 years ( ) Between 3 and 5 years ( ) More than 5 years

Section 6: Comments and Recommendations

1. What important changes would you recommend for Auto Engine Servicing Level 2 program of study at the Kombolcha Polytechnic College? (*Please share your opinion on the areas that require improvement.*)

   ( ) Yes *(go to Q 1.1)* ( ) No *(go to Q 2)*

   1.1 If **YES**, please specify.....
   .....

2. Would you recommend a prospective learner to pursue the Auto Engine Servicing Level 2 program at the KPC?

   ( ) Yes *(go to Q 3)* ( ) No *(go to Q 2.1)*

   2.1 If **NO**, please specify .....
   .....

3. Do you have any comments/suggestions regarding this survey?

   ( ) Yes *(go to Q 3.1)* ( ) No

   3.1 If **YES**, please specify.....
   .....

Thank you very much for completing the questionnaire!