SKILLS NEEDS SURVEY REPORT

NOVEMBER 2023
The Federation of Kenya Employers (FKE) is the most representative National employers’ organization in Kenya. Founded in 1959, FKE has a six-decade heritage in advocating key concerns of employers in the areas of employments, Labour relations and social policy. FKE bills the capacity of its members through the employers academy.

FKE represents the interests of employers at the tripartite level involving the Government, Employers and Workers. The Federation represents members at regional and international levels including at East Africa Employers Organization, Confederation of IGAD Employers (CIE), BUSINESSAfrica-Employers Confederation, International Organization of Employers (IOE), and International Labor Organization (ILO) among other global forums.

**Mission**
To improve the business environment in Kenya through advocacy, effective representation, social dialogue, and provision of value - add services.

**Vision**
Resilient and empowered employers in Kenya.

---

### Social Partners

- [MINISTRY OF LABOUR AND SOCIAL PROTECTION](#)
- [Central Organization of Trade Unions (COTU-K)](#)

### International Partners

- [BUSINESS AFRICA](#)
- [AFRIQUE DES AFFAIRES](#)
- [EADB](#)
- [IOE](#)
- [International Labour Organization](#)
- [NHO](#)
- [DFPA](#)
- [SUOMI FINLAND](#)
- [German Cooperation (GIZ)](#)
- [IFC](#)
- [Foreign, Commonwealth & Development Office](#)
The Federation of Kenya Employers (FKE) is the most representative employers’ organization in Kenya. The Federation’s members employ 67% of formal private sector wage employees in Kenya.

The role of the Federation is to build the capacity of employers and to influence the business environment through advocacy, effective representation, social dialogue, and provision of value-add services.

In addition to representing employers at local level, the Federation also represents members at regional and international level including at East Africa Employers Organization, BUSINESSAfrica-Employers Confederation, the International Organization of Employers (IOE), and the International Labour Organization (ILO), and other global forums.

Skills are essential assets of individuals, businesses and society. To cope with a rapidly changing labour market, workers need to benefit from lifelong learning and career development. Training providers need to adopt a more agile and flexible approach to planning, implementing and evaluating courses and programs in line with the rapidly changing needs of the job market and emerging industries. Training programs must fill skills gaps and address imbalances between supply and demand to meet the dynamics of the labour market.

The advent of Industry 4.0 is revolutionizing the way companies produce, innovate and distribute their products. Manufacturers are integrating new technologies, including the Internet of Things (IoT), cloud computing and analytics, AI and machine learning, into their manufacturing facilities and throughout their operations. Thus, technology is developing at an unprecedented rate. What is worse is that technological developments are accelerating and affecting other sectors. With all these technological changes, labour market dynamics are evolving faster than ever and the mismatch between workers’ skills and those required by available jobs has become a top priority policy concern. As such, many employers report difficulties finding suitably skilled workers, even though the unemployment rate is high.

To be up to date with industry trends, the Federation of Kenya employers continually carries out survey to inform its advocacy activities. One of the areas of focus in our surveys has been skills. In 2018, the Federation commissioned a survey dubbed “Skills Mismatch” among employers in Kenya. This year, 2023, we curried out a survey on “Skills Demand” among employers in Kenya. The main objective of the survey was to provide information on skills demand by employers in the post Covid-19 Era. This is to inform on the skills dynamics from the demand side of the labour market. Specifically, the study intended to generate information on skills demand, Information Communication and Technology (ICT) & digitization, green shift & green competence and hard to fill vacancies.

It is my hope that this report will contribute to the necessary reforms in Kenya skilling policies, practices and programs. Reforms that will move Kenya from a certificate country to a skills country.

Jacqueline Mugo, EBS
Executive Director & CEO
Federation of Kenya Employers
ACKNOWLEDGEMENT

This survey and report would have not been possible without the concerted effort and contributions of many persons and institutions. We would have loved to acknowledge you by name from those who help shape the concept, gave technical input to the survey instrument, survey methodology, collected the data, handled the logistics, analysed the data, reviewed the whole process to ensure quality is kept, and provided resources for the survey. The Federation remains grateful to you all.

Special thanks first goes to the Confederation of Norwegian Enterprise (NHO), FKE sister organization in Norway for standing with us in skilling agenda for the last 10 years and growing your support over the years. We value your support over the years.

Nexford University and Africa Digital Media Institute (ADMI) thank you for your invaluable partnership, support and contribution, to this survey. We look forward to moving the partnership to the next level.

We also acknowledge the contribution of 521 employers in Kenya who participated in the survey. Your invaluable responses, views, opinions, suggestions and recommendations greatly contributed to the realization of this report.

To the FKE staff in research, projects, finance, administration, communication, ICT and human resource that worked on this survey, we appreciate your efforts that ensured the success of this survey.

Above all, we acknowledge the leadership and guidance of our Executive Director and CEO, Mrs. Jacqueline Mugo that has made this possible.

Stephen Oduori Obiro

Head Advocacy, Research, Consulting and Partnerships.
This Skills Needs Survey was conducted in the month of March-April 2023. The aim of the survey was to understand the changes in demand for skills for the current and future work environment. The survey targeted enterprises that are members of the Federation of Kenya Employers spanning across different sector of the economy. A total of 521 enterprises participated in the study. Primary data was collected through administration of a questionnaire with both close-ended and open-ended questions to the members of the Federation.

The questionnaire was administered physically and online where links to the questionnaires were share with the respondents. The survey focused on the following areas: skills demand, Information Communication and Technology (ICT) & digitization, green shift & green competence and hard to fill vacancies.

Major skills demanded by the enterprises studied are in the following career fields: information technology (35%); finance & business management (33.9%); engineering (23.7%); transportation, distribution & logistics (23%) and legal (22.5%). These fields majorly require undergraduate degree at 43.8%, and technical and vocational education and training (TVET) at 34.9%. Workers with only secondary education are mostly demand in public safety, corrections & security career fields (12%) and arts & recreational service (14%).

The top TVET skills demand by the respondent enterprises are on transport and logistics (21.3%, electrical (21.1%), building and construction (18.2%). The most demanded engineering skills by enterprises is computer and software engineering (30.7%), followed by electrical and electronics engineering (27.4%) and mechanical and production engineering (25%). Most demanded social skills were effective communication (49.1%), critical thinking (41.7%), teamwork (25.7%) and time management skills at 23.4%. Most of the enterprises studied (73.1%) used training to fill the skills gap in their enterprises. These trainings were offered in collaboration with other organizations in capacity building space.

Most of the enterprises studied generally had ICT competence as indicated by 45%. Areas where ICT competence were needed includes ability to communicate and collaborate on digital platforms (37.6%), followed by use of electronics, machine ware, smart components, and communication technology (34.5%) and digital security (33%).

Regarding the green shift & green competence, the survey revealed that the enterprises generally had plans to make products/services more climate/environmentally friendly as indicated by 50.4%. There were concrete changes made as a consequence of standards/requirements or expectations on a green shift as indicated 33.5% and that enterprise services/products were expected to increase as a consequence of the green shift as indicated by 33%. As such, the enterprises were considered to be moving towards green shift. Some of the competence required for the green shift included: need for leadership competence (34.27%) and need for skilled worker competence 35.64%.

The survey confirmed that 20% of the enterprises had hard to fill vacancies. As such, most of the respondents resorted to employing job applicants with qualifications lower than what they were looking for as indicated by 50.51%. The findings revealed that 2% of the position in the enterprises were hard to fill with most of the position being in the Manufacturing sector. Most hard to fill vacancies requiring a TVET skill level are in architecture, building and construction (36%), engineering (30%) and transportation, distribution and logistics (48%) while those that mostly require first level university education are in information & technology (77%) and finance and business management (71%). Most hard to fill vacancies
requiring a master’s degree qualification are in legal (20%) while those that mostly require doctorate degree qualification are in science and mathematics (8%).

Among the reasons for non-employment or retention of staff was lack of qualified candidates in the companies’ region was singled out as another top cause (29%) and high salary expectations by candidates (26%). Some of the consequences of skills deficit experienced by enterprises inhibition of business expansion (25%), loss of revenue 24% and loss of customers or market share (21%). Some of the measures by enterprises in bridging skills gap includes training employees to increase their competence (48%) and employing new staff who are already in the Kenyan job market (27%).

The study concluded that most demanded skills among employers were Engineering skills offered by TVET institutions specifically computer and software engineering, electrical and electronics engineering and mechanical and production engineering. Some of the hard to fill vacancies which require TVET skills includes architecture, building and construction, engineering and transportation, distribution & logistics. The hard to fill vacancies requiring at university level education were information & technology and finance and business management.

The study recommended that TVET institutions should be empowered to train more on the engineering and information related areas. This will help to bridge the gap one the skills demanded by employers in these technical areas. It was also recommended that training institutions should work together in bridging the existing gap between the skills demanded by employers and the courses offered by learning institutions. By incorporating employers in curriculum development and training through attachments, internships and offering apprentice opportunities; more graduates will have the industry demanded skills, thus helping in bridging the existing gap. These partnerships can be strengthened by ensuring that the existing policies on TVET -employers’ partnerships are implements and any existing policy gaps strengthened.
## ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>AIHR</td>
<td>Academy to Innovate HR</td>
</tr>
<tr>
<td>CUEA</td>
<td>Catholic University of Eastern Africa</td>
</tr>
<tr>
<td>DOSH</td>
<td>Directorate of Occupational Safety &amp; Health Services</td>
</tr>
<tr>
<td>EASA</td>
<td>East African School of Aviation</td>
</tr>
<tr>
<td>FKE</td>
<td>Federation of Kenya Employers</td>
</tr>
<tr>
<td>ICPAK</td>
<td>Institute of Certified Public Accountants of Kenya</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication and Technology</td>
</tr>
<tr>
<td>IHRM</td>
<td>Institute of Human Resource Management</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>IOE</td>
<td>International Organization of Employers</td>
</tr>
<tr>
<td>IoT</td>
<td>Internet of Things</td>
</tr>
<tr>
<td>ISK</td>
<td>Institution of Surveyors of Kenya</td>
</tr>
<tr>
<td>JKUAT</td>
<td>Jomo Kenyatta University of Agriculture and Technology</td>
</tr>
<tr>
<td>KAM</td>
<td>Kenya Association of Manufacturers</td>
</tr>
<tr>
<td>KCNP</td>
<td>Kenya Coast National Polytechnic</td>
</tr>
<tr>
<td>KESRA</td>
<td>Kenya School of Revenue Administration</td>
</tr>
<tr>
<td>KICD</td>
<td>Kenya Institute of Curriculum Development</td>
</tr>
<tr>
<td>KMTC</td>
<td>Kenya Medical Training College</td>
</tr>
<tr>
<td>KUSCO</td>
<td>Kenya Union of Savings &amp; Credit Co-operatives</td>
</tr>
<tr>
<td>ML</td>
<td>Machine Learning</td>
</tr>
<tr>
<td>NITA</td>
<td>National Industrial Training Authority</td>
</tr>
<tr>
<td>RBA</td>
<td>Retirement Benefits Authority</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, technology, engineering and mathematics</td>
</tr>
<tr>
<td>TUK</td>
<td>Technical University of Kenya</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
</tr>
<tr>
<td>UoN</td>
<td>University of Nairobi</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS

FORWARD ................................................................................................................................. ii
ACKNOWLEDGEMENT .............................................................................................................. iii
EXECUTIVE SUMMARY ......................................................................................................... iv
ABBREVIATIONS AND ACRONYMS ................................................................................... vi
LIST OF TABLES ..................................................................................................................... viii
LIST OF FIGURES .................................................................................................................. ix

1.0 INTRODUCTION ............................................................................................................... 1
  1.1 Background ....................................................................................................................... 1
    1.1.1 Labour Market Outlook in Kenya ............................................................................... 1
2.0 RESEARCH METHODOLOGY ........................................................................................... 2
  2.1 Introduction ....................................................................................................................... 2

3.0 SURVEY FINDINGS .......................................................................................................... 3
  3.1 Introduction ....................................................................................................................... 3
  3.2 Respondent Characteristics ............................................................................................. 3
    3.2.1 Distribution of the Enterprises by Economic Sector ................................................. 3
    3.2.2 Distribution of the Enterprises by Size ..................................................................... 4
    3.2.3 Recruitment Challenges resulting from lack of required Skills among Job Seekers ................................................................................................................. 4
    3.2.4 Recruitment Challenges by Sector .......................................................................... 5
  3.3 Skills Demand .................................................................................................................. 6
    3.3.1 Skills Demand per Career Field .............................................................................. 6
    3.3.2 Education Levels required. ..................................................................................... 7
    3.3.3 Academic Requirement by Career Field ................................................................. 7
    3.3.4 Types of TVET Skills needed by Enterprises ......................................................... 8
    3.3.5 Demand for Engineering Skills ............................................................................. 9
    3.3.6 Social Skills needs among Job Seekers ................................................................. 9
    3.3.7 Technical Skills needs among Job Seekers .......................................................... 10
    3.3.8 Actions Taken by Enterprises to Reduce Non-Proficiency among Staff .......... 10
    3.3.9 Nature of Training by Enterprises ...................................................................... 12
    3.3.10 Impact of the Trainings on Reducing Skill Deficiency ....................................... 13
  3.4 Information Communication Technology (ICT) & Digitization .................................... 13
    3.4.1 ICT Competence among Enterprises ..................................................................... 13
    3.4.2 Areas of ICT in which Enterprises need Competence ........................................ 14
  3.5 Green Shift & Green competence .................................................................................... 15
    3.5.1 Status of Green Shift among Enterprises ............................................................... 16
    3.5.2 Competence needs for Green Shift ........................................................................ 17
  3.6 Hard to Fill Vacancies ....................................................................................................... 17

4.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS .............................................. 23
  4.1 Introduction .................................................................................................................... 23
  4.2 Summary of Findings ...................................................................................................... 23
  4.3 Conclusions and Recommendations ............................................................................. 25
LIST OF TABLES

Table 1: Distribution of the Respondents by Region.................................................................3
Table 2: Impact of the Trainings on Reducing Skill Deficiency.................................................14
Table 3: Status of Green Shift among Enterprises......................................................................17
Table 4: Competence needs for Green Shift...............................................................................18
Table 5: Alternative measures to lack of required skills among Job Seekers.......................19
Table 6: Number of Hard to fill Vacancies among Enterprises Studied..................................19
Table 7: Educational level required in the Hard to Fill Vacancies per Career Field..............20
LIST OF FIGURES

Figure 1: Distribution of the Enterprises by Economic Sector ........................................... 5
Figure 2: Distribution of the Enterprises by Size ................................................................ 6
Figure 3: Extent of challenges faced in filling vacancies due to lack of skills ...................... 6
Figure 4: Extent of challenges in filling vacancies due to lack of skills per sector .......... 7
Figure 5: Response on extent of need of competence per Career Field .......................... 8
Figure 6: Need for Staff recruitment per Education Level .................................................. 8
Figure 7: Academic Requirement and Career Field ............................................................ 9
Figure 8: Types of TVET needed by Enterprises ................................................................. 10
Figure 9: Demand for Engineering Skills .......................................................................... 11
Figure 10: Social Skills needs among Job Seekers .......................................................... 11
Figure 12: Actions Taken by Enterprises to Reduce Non-Proficiency among Staff ........ 12
Figure 13: Nature of Training by Enterprises ................................................................... 13
Figure 14: ICT Competence among Enterprises ............................................................... 15
Figure 15: Areas of ICT in which Enterprises need Competence .................................... 16
Figure 16: Existence of Hard to Fill Vacancies ................................................................. 18
Figure 17: Reasons for Non-employment /Retention of Staff with the Right Competence... 21
Figure 18: Impact lack of skills has had on Enterprises ..................................................... 21
Figure 19: Measures by Enterprises to bridge Skills Deficit ............................................. 22
1.0 INTRODUCTION

1.1 Background
The Federation of Kenya Employers (FKE) carried out a survey on skills needs among employers in Kenya. The survey was aimed at understanding changes in demand for skills for the current and future work environment. This report therefore presents the research methodology that was used in carrying out the survey, survey findings and discussions, Conclusions and recommendations.

The term skill refers to practical proficiencies, competencies and abilities which a graduate of a given course has acquired as a result of undergoing training, either formally or informally. A “skill” can also be described as “the capability to carry out job assigned to a level of competence and this can be built upon through learning” (OECD, 2019). A skills gap is defined as a significant gap between an organization’s current capabilities and the skills it needs to achieve its goals and meet customer demand. It is the point at which an organization may not be able to grow or remain competitive because it cannot fill critical jobs with employees who have the right knowledge, skills, and abilities (Bano & Shanmugam, 2020). From the employers’ perspectives skills gap is when employees or the existing workers possess inadequate skills in meeting the business aspirations of the industry or where new employees come out to be qualified but absolutely, they are not qualified (Olusa, 2019).

1.1.1 Labour Market Outlook in Kenya
The development of a reliable and adequate database on skills within the workforce in the economy is a key factor in the achievement of Kenya Vision 2030. It is essential that accurate and up to date data on the labour market is maintained for effective human resource planning and development to be realized. Human capital encompasses human resources and the variety of skills acquired and the capacities and capabilities of all individuals in an economy, their level of skills, education, creativity and innovativeness, health and well-being, capacity for service delivery and empowerment, availability of required skills, and effective participation in various economic activities. To this end, human resource development is a long and continuous process of increasing knowledge, skill, capacities, positive work attitudes and values of all people and it requires focusing on training and skills development, health and social welfare, among others.

The attainment of the Government “Big Four” agenda, with regard to food security, affordable housing, high level manufacturing and universal health care requires adequate supply of critical human resource with necessary skills, which calls for a strong linkage between education, training, and industry. Further, the Kenya Vision 2030 and the third Medium-Term Plan (2018-2023) have emphasized human resource development as key to national transformation. The Vision’s three pillars on economic, social and political development rely greatly on availability of a highly trained, adaptive and productive human resource base. This survey therefore sought to understand changes in demand for skills for the current and future work environment in Kenya.
2.0 RESEARCH METHODOLOGY

2.1 Introduction
The survey targeted enterprises that are members of the Federation of Kenya Employers. The enterprises span across different sectors of the economy and operate across the country but are clustered in four regions i.e., Nairobi, Coast, Western and Rift Valley regions for administration purposes as presented in Table 1. A total of 521 enterprises participated in the study. Majority (58.3%) of the enterprises who participated in the survey located in Nairobi.

Table 1: Distribution of the Respondents by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi Region</td>
<td>304</td>
<td>58.3%</td>
</tr>
<tr>
<td>Western Region</td>
<td>23</td>
<td>4.4%</td>
</tr>
<tr>
<td>Rift Valley Region</td>
<td>19</td>
<td>3.6%</td>
</tr>
<tr>
<td>Coast Region</td>
<td>42</td>
<td>8.1%</td>
</tr>
<tr>
<td>Did not Indicate</td>
<td>133</td>
<td>25.6%</td>
</tr>
<tr>
<td>Total</td>
<td>521</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: 2023 FKE Skills Needs Survey

Primary data was through administration of a questionnaire with both close-ended and open-ended questions to the members of the Federation. The questionnaire was administered physically and online where links to the questionnaires were share with the respondents.
3.0 SURVEY FINDINGS

3.1 Introduction
This section presents the findings of the survey. The major areas captured includes respondent characteristics, skills demand, Information Communication and Technology (ICT) & digitization, green shift & green competence and hard to fill vacancies.

3.2 Respondent Characteristics
This sub-section presents the findings on economic sectors of the enterprises which participated in the survey, size of the enterprises, challenges facing the enterprises due to lack of requires skills by job seekers and recruitment challenges by sector.

3.2.1 Distribution of the Enterprises by Economic Sector
The survey attracted a total of 521 responses from enterprises of different characteristics. The findings show that 21.9% of the respondents were from the manufacturing sector. The findings also revealed that 8.8% of the respondents were from financial and insurance activities and 8.1% were from Not for profit. The rest of the respondents were spread across different economic activities as shown in Figure 1.

Figure 1: Distribution of the Enterprises by Economic Sector

Source: 2023 FKE Skills Needs Survey
3.2.2 Distribution of the Enterprises by Size

In terms of classification by employee size, 34% were large enterprises (with 100 employees or more), followed by small enterprises (10 to 49 employees) at 23%, medium enterprises (50 to 99 employees) at 11%, and finally micro enterprises (less than 10 employees) at 4% as shown in **Figure 2**.

**Figure 2: Distribution of the Enterprises by Size**

![Distribution of the Enterprises by Size](image)

*Source: 2023 FKE Skills Needs Survey*

3.2.3 Recruitment Challenges resulting from lack of required Skills among Job Seekers

Most of the respondent enterprises encountered challenges in filling vacancies due to lack of appropriate skills by job seekers. The findings revealed that 9% of the respondents indicated that they experienced challenges to a large extent when filling vacancies due to lack of skills by job seekers while 33% faced challenges to some extent (**Figure 3**). However, 23% of the respondent did not face any challenges in filling vacancies in their enterprises while 28% reported facing challenges to a little extent.

**Figure 3: Extent of challenges faced in filling vacancies due to lack of skills by Job Seekers.**

![Extent of challenges faced in filling vacancies due to lack of skills by Job Seekers](image)

*Source: 2023 FKE Skills Needs Survey*
3.2.4 Recruitment Challenges by Sector

Enterprises operating in Not for profit, Education, Financial and insurance activities, Information and communication, Transport and storage, Manufacturing and Agriculture, forestry and fishing had difficulty in recruiting for positions as a result of lack of skills by job seekers (Figure 4). In contrast, enterprises in compulsory social security, Arts, entertainment & recreation, public administration, Real estate activities etc had less challenge in filling vacancies with job seekers with the requisite skills.

**Figure 4: Extent of challenges faced in filling vacancies due to lack of skills by job seekers per sector.**

Source: 2023 FKE Skills Needs Survey
3.3 Skills Demand

This sub-section presents the findings on skills demanded per career field, education levels required, academic requirements by career field, types of technical and vocational education and training skills needed by enterprises, demand for engineering skills, social skills needs among job seekers, Technical skills needs among job seekers, actions taken by enterprises to reduce non-proficiency among staff, nature of training by enterprises and the impact of the trainings on reducing skill deficiency.

3.3.1 Skills Demand per Career Field

From the survey, enterprises are in mainly in need of competence in the following career fields: information technology (35%); finance & business management (33.9%); engineering (23.7%); transportation, distribution & logistics (23%) and legal (22.5%) (Figure 5).

Figure 5: Response on extent of need of competence per Career Field

<table>
<thead>
<tr>
<th>Career Field</th>
<th>Not at all</th>
<th>Little extent</th>
<th>Some extent</th>
<th>Large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science &amp; Mathematics</td>
<td>34.1%</td>
<td>22%</td>
<td>17.8%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Transportation, Distribution and Logistics</td>
<td>39.3%</td>
<td>22%</td>
<td>19.7%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Engineering</td>
<td>32.6%</td>
<td>19.9%</td>
<td>24.2%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Public Safety, Corrections and Security</td>
<td>26.5%</td>
<td>20.4%</td>
<td>29.6%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Legal</td>
<td>27.5%</td>
<td>20.4%</td>
<td>29.6%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Media, Communication &amp; Public Relation</td>
<td>31.8%</td>
<td>19.3%</td>
<td>27.6%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>26.5%</td>
<td>19.3%</td>
<td>27.6%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Social Service &amp; Community development</td>
<td>52.6%</td>
<td>21.1%</td>
<td>14.9%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>47.9%</td>
<td>12.8%</td>
<td>9.2%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Health science</td>
<td>56.6%</td>
<td>16.2%</td>
<td>15.2%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>51.2%</td>
<td>15.4%</td>
<td>23.5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Arts &amp; recreational service</td>
<td>70.4%</td>
<td>14.4%</td>
<td>8.5%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Finance &amp; Business management</td>
<td>51.2%</td>
<td>14.7%</td>
<td>32.3%</td>
<td>33.9%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>13.2%</td>
<td>17.0%</td>
<td>27.5%</td>
<td>22.1%</td>
</tr>
<tr>
<td>Architecture, Building &amp; Construction</td>
<td>43.0%</td>
<td>15.7%</td>
<td>12.1%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Agriculture, Food &amp; Natural Resources</td>
<td>46.8%</td>
<td>9.5%</td>
<td>12.1%</td>
<td>13.7%</td>
</tr>
</tbody>
</table>

Source: 2023 FKE Skills Needs Survey
3.3.2 Education Levels required.
The surveyed enterprises have a higher demand for workers with undergraduate degree at 43.8%, and technical and vocational education and training (TVET) at 34.9%, as shown in Figure 6. This is followed by workers with secondary education (23.4%).

Figure 6: Need for Staff recruitment per Education Level.

![Graph showing the need for staff recruitment per education level](image)

Source: 2023 FKE Skills Needs Survey

3.3.3 Academic Requirement by Career Field
Worker’s education level demanded by enterprises per career field is displayed in Figure 7. Workers with only secondary education are mostly demand in public safety, corrections & security career fields (12%) and arts & recreational service (14%). Workers with up to TVET skill level are mostly demand in transport, distribution & logistics (48%), social service & community development (38%), and hospitality & tourism career fields (41%). Workers with up to undergraduate degree qualification are mostly demand in information technology (71%), finance & business management (71%), and legal professions (71%). Workers with up to master’s degree qualification are mostly demand in legal professions (20%) while those with up to doctorate degree qualifications are in education & training (6%) and science and mathematics professions (8%). From the findings of the study, it can be deducted that most of the career fields require bachelor’s degree and Technical and Vocational Education.
Figure 7: Academic Requirement and Career Field

<table>
<thead>
<tr>
<th>Field</th>
<th>Doctoral degree</th>
<th>Master's degree</th>
<th>Bachelor's degree</th>
<th>Technical &amp; Vocational education</th>
<th>Secondary education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science &amp; Mathematics</td>
<td>41%</td>
<td>14%</td>
<td>64%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Transportation, Distribution and Logistics</td>
<td>24%</td>
<td>37%</td>
<td>48%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Engineering</td>
<td>12%</td>
<td>51%</td>
<td>28%</td>
<td>12%</td>
<td>3%</td>
</tr>
<tr>
<td>Public Safety, Corrections and Security</td>
<td>7%</td>
<td>20%</td>
<td>71%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Legal</td>
<td>3%</td>
<td>10%</td>
<td>38%</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>Media, Communication &amp; Public Relation</td>
<td>12%</td>
<td>69%</td>
<td>77%</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>7%</td>
<td>44%</td>
<td>38%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Social Service &amp; Community development</td>
<td>4%</td>
<td>41%</td>
<td>53%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>16%</td>
<td>64%</td>
<td>31%</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>Health science</td>
<td>9%</td>
<td>43%</td>
<td>71%</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>19%</td>
<td>51%</td>
<td>17%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Arts &amp; recreational service</td>
<td>18%</td>
<td>44%</td>
<td>36%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Finance &amp; Business management</td>
<td>13%</td>
<td>53%</td>
<td>28%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Architecture, Building &amp; Construction</td>
<td>18%</td>
<td>6%</td>
<td>13%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Agriculture, Food &amp; Natural Resources</td>
<td>14%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: 2023 FKE Skills Needs Survey

3.3.4 Types of Technical & Vocation Education and Training Skills needed by Enterprises.

The top TVET skills demand by the enterprises are on transport and logistics (21.3%), electrical (21.1%), building and construction (18.2%) as shown in Figure 8. Other vocation skills in demand are in agriculture, hospitality, automotive, medical and food production.

Figure 8: Types of Technical & Vocation Education and Training Skills needed by Enterprises.

Source: 2023 FKE Skills Needs Survey
3.3.5 Demand for Engineering Skills

The most demanded engineering skills by enterprises is computer and software engineering (30.7%), followed by electrical and electronics engineering (27.4%) and mechanical and production engineering (25%), respectively as shown in **Figure 9**. Other types of engineering required by enterprises were civil and construction engineering, chemical and process engineering and agricultural engineering.

**Figure 9: Demand for Engineering Skills**

![Bar chart showing demand for engineering skills](image)

*Source: 2023 FKE Skills Needs Survey*

3.3.6 Social Skills needs among Job Seekers.

Social skills are essential in achieving a harmonious workplace environment. Lack of, or inadequacy of social skills among employees presents a challenge in cultivating synergy in an enterprise. From the survey, 49.1% of the respondent enterprises identified effective communication to be the most lacking social skill in job applicants. This was followed by critical thinking (41.7%), teamwork (25.7%) and time management skills at 23.4% as shown in **Figure 10**.
In a fast-paced work environment, technical functioning of employees is an asset at the workplace. From the survey, 36% of the respondent enterprises identified management skill and computer use proficiency to be the most lacking social skill in job applicants. This was followed by mastery of foreign language (28%), respectively as shown in Figure 11.

Figure 11: Technical Skills needs among Job Seekers

Source: 2023 FKE Skills Needs Survey

3.3.8 Actions Taken by Enterprises to Reduce Non-Proficiency among Staff

In establishing the actions taken by organizations in order to reduce non-proficiency among the staff, the findings revealed that most of the organizations (73.1%) organized for trainings. Other actions included implementing performance assessment and benefits (45.3%), Changing /improving supervision (34.9%), carrying out new recruitments (25.5%) and changing work organization (12.1%). The findings were as presented in Figure 12 below.
Other actions included carrying out appraisals, counselling, assigning of duties on a daily basis and giving deadlines to different tasks, coaching and mentorship, carrying out employment engagement surveys, staff transfers, on the job trainings, reshuffling of workers, promotions and career development and team building. According to Ejiwale (2019) there are ten suggested solutions that can help in minimizing the skills and training gaps for industries and other organization to be successful. The ten suggested solutions to address the causes of skill and training gaps and mismatch between available jobs and potential employees are: 1) Increase STEM education and diversity in STEM industry; 2) Employers should be involved in curriculum development; 3) College graduates should improve their communication skills through extra mural courses; 4) Effective training for new employees upon employment; 5) Learning how to learn skills by students through professional development; 6) Effective marketing of available jobs; 7) Companies to invest in training and development of new and old employers; 8) Effective and efficient estimation of STEM worker demand; 9) Clarity on the skills employers need; 10) Participation in externship and on the job training by educator.
3.3.9 Nature of Training by Enterprises

Those who indicated that their organizations training their staff were asked to indicate the mode of the training their staff go through. The findings revealed that 56% encouraged on the job training. It was also found that 53.7% organized for internal courses, seminars or workshops, 44.3% organized for external courses, seminars or workshops, 24.6% preferred self-directed studies and that 15.7% exclusively participated in online courses administered by external facilitators. The findings were as presented in Figure 13 below.

Figure 13: Nature of Training by Enterprises

These trainings were offered in partnership with training institutions and other institutions offering training services as indicated by 58.9% of the respondents. Some of the organizations which offer the trainings includes NITA, KAM, FKE, College of Insurance, CUEA, Daystar University, EASA, DOSH, Ecosafe, ICPAK, KUSCO, IHRM, ISK, JKUAT, RBA, UoN, TUK, KCNP, KMTC, Kenya School of Revenue Administration, KICD, AIHR etc.
3.3.10 Impact of the Trainings on Reducing Skill Deficiency
The respondents were asked to indicate the extent to which the trainings they attended reduced skill deficiency in their organizations. The findings showed that 48.4% strongly agreed that the trainings indeed reduced their skill deficiency. The findings were as presented in Table 2 below.

Table 2: Impact of the Trainings on Reducing Skill Deficiency

<table>
<thead>
<tr>
<th>Level of agreement</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>252</td>
<td>48.4%</td>
</tr>
<tr>
<td>Agree</td>
<td>125</td>
<td>24.0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>7</td>
<td>1.3%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
<td>1.0%</td>
</tr>
<tr>
<td>Non-response</td>
<td>132</td>
<td>25.3%</td>
</tr>
<tr>
<td>Total</td>
<td>521</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

3.4 Information Communication Technology (ICT) & Digitization
The fourth industrial revolution has been marked with rapid developments with increased adoption of technology. Constant innovation and technology development has brought changes in the world of work necessitating acquisition of new knowledge to keep up with the ICT development. This sub-section presents the findings on ICT competence among enterprises and areas where ICT competence is needed.

3.4.1 ICT Competence among Enterprises
From the survey, 45% of the respondent enterprises indicated that they have ICT competence to a large extent. It was also found that they had ICT competency to some extent as indicated by 42% shown in Figure 14.
3.4.2 Areas of ICT in which Enterprises need Competence.

The most sought-after ICT competencies by the surveyed enterprises are ability to communicate and collaborate on digital platforms (37.6%), followed by use of electronics, machine ware, smart components, and communication technology (34.5%) and digital security (33%) as shown in Figure 15. Others are big data analytics, publishing information on digital platforms, artificial intelligence, robotics, and automation. Large enterprises have more need for artificial intelligence, robotics, and automation skills while small and medium enterprises have more need on communication and collaboration on digital platforms, and publishing information on digital platforms.

Source: 2023 FKE Skills Needs Survey
According to Santora (2019), the most-rare skills that are in demand, and which can be associated with the gaps in Kenya are big data/analytics, cybersecurity and Artificial Intelligence. This means that data security, data analysis and processing, and value addition through the incorporation of AI/ML would be a natural skill demanded by most of the economic sectors. According to World Economic Forum Future of Work report (2020) cloud computing, big data, IoT and connected devices remain high priorities amongst the technologies that companies are likely to adopt by 2025. These new technologies will drive future growth across industries as well as increase the demand of new job roles and skills. The skills gaps in the labour market and the inability to attract the right talent remains among the leading barriers to the adoption of new technologies (WEF 2020).

3.5 Green Shift & Green competence
Enterprises have become conscience of the effect that their operations have on the environment. Environmental concerns have become a core area of focus as witnessed by the drive towards investing and reporting on environmental, social and governance. Enterprises growingly endeavour to ensure that their business
operations cause least environmental degradation and depletion of natural resources. Some of the ways of achieving this is shifting towards use of renewable energy and reducing carbon footprint. This survey sought to uncover the views of enterprises on green shift and it’s the competence required to make a shift towards greening business operation.

### 3.5.1 Status of Green Shift among Enterprises

From the survey, 50.4% of the respondents strongly agree that their organizations plan to make products/services more climate/environmentally friendly. The findings also showed that 33.5% strongly agree that their organizations have made concrete changes as a consequence of standards/requirements or expectations on a green shift. The findings further showed that 33% of the respondents strongly agreed that the demand for their organization’s services/products will increase as a consequence of the green shift. From the findings of the survey, it can be deduced that the surveyed enterprises are generally moving towards the green shift. The findings were as presented in Table 3 below.

**Table 3: Status of Green Shift among Enterprises**

<table>
<thead>
<tr>
<th>Status of Green Shift</th>
<th>Totally disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company plans to make products/services more climate/environmentally friendly</td>
<td>8.1%</td>
<td>3.5%</td>
<td>21.4%</td>
<td>16.6%</td>
<td>50.4%</td>
</tr>
<tr>
<td>The company has made concrete changes as a consequence of standards/requirements or expectations on a green shift</td>
<td>8.1%</td>
<td>5.7%</td>
<td>29.3%</td>
<td>23.4%</td>
<td>33.5%</td>
</tr>
<tr>
<td>The demand for the company’s services/products will increase as a consequence of the green shift</td>
<td>8.9%</td>
<td>3.5%</td>
<td>36.2%</td>
<td>18.5%</td>
<td>33.0%</td>
</tr>
<tr>
<td>The company develops/adapts services and products being used for the green shift</td>
<td>10.1%</td>
<td>4.0%</td>
<td>31.5%</td>
<td>21.7%</td>
<td>32.7%</td>
</tr>
<tr>
<td>The company is affected by climate and environmental standards/requirements</td>
<td>13.8%</td>
<td>5.4%</td>
<td>26.3%</td>
<td>23.1%</td>
<td>31.4%</td>
</tr>
</tbody>
</table>

*Source: 2023 FKE Skills Needs Survey*
3.5.2 Competence needs for Green Shift

As a consequence of going green, the survey showed that organizations will have an increased need for leadership competence to a large extent as indicated by 43.85%. It was also found that organizations will have an increased need for technological/engineering competence to a large extent as indicated by 42.82% of the respondents. The findings were as presented in Table 4 below.

Table 4: Competence needs for Green Shift

<table>
<thead>
<tr>
<th>Competence Needs</th>
<th>Not at all</th>
<th>To little extent</th>
<th>To some extent</th>
<th>To a large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company will have an increased need for knowledge to adapt production processes/products/services/ in order to live up to climate standards and requirements</td>
<td>21.92%</td>
<td>11.28%</td>
<td>22.95%</td>
<td>43.85%</td>
</tr>
<tr>
<td>The company will have an increased need for technological/engineering competence</td>
<td>16.03%</td>
<td>13.08%</td>
<td>28.08%</td>
<td>42.82%</td>
</tr>
<tr>
<td>The company will have an increased need for skilled worker competence</td>
<td>19.74%</td>
<td>13.08%</td>
<td>31.54%</td>
<td>35.64%</td>
</tr>
<tr>
<td>The company will have an increased need for leadership competence</td>
<td>17.72%</td>
<td>14.51%</td>
<td>33.50%</td>
<td>34.27%</td>
</tr>
</tbody>
</table>

*Source: 2023 FKE Skills Needs Survey*

3.6 Hard to Fill Vacancies

This sub-section presents the findings on the existence of hard to fill vacancies in the enterprises studied, alternative measures to lack of required skills by enterprises and sectors with hard to fill positions.

3.6.1 Existence of Hard to Fill Vacancies

On whether the enterprises had tried to fill vacancies but failed to get the right competence in the last one year, the study found that 20% of the enterprises interviewed had indeed failed to get the right competencies as shown in Figure 16.
3.6.2 Alternative measures to lack of required skills among Job Seekers

As a result, the enterprises that experienced hardship in filling vacancies with the right competence resorted to hire workers with a lower qualification (50.51%) as shown in Table 5. The findings also revealed that the enterprises resorted to hiring employees with higher qualification than what they were looking for (25.25%) and that 24.24% resorted not to employ anyone.

Table 5: Alternative measures to lack of required skills among Job Seekers

<table>
<thead>
<tr>
<th>Alternative measures</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>We did not employ anyone.</td>
<td>24</td>
<td>24.24%</td>
</tr>
<tr>
<td>We did not employ someone with the qualifications we were looking for but employed someone with a higher competence than we were looking for.</td>
<td>25</td>
<td>25.25%</td>
</tr>
<tr>
<td>We did not employ someone with the qualifications we were looking for but employed someone with a lower competence than we were looking for.</td>
<td>50</td>
<td>50.51%</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: 2023 FKE Skills Needs Survey
3.6.3 Number of Hard to fill Vacancies among Enterprises

Among the surveyed enterprises that encountered difficulties in recruiting staff, a total number of 353 vacancies were cited to be hard to fill by the respondents against a cumulative number of 42433 employees in the enterprises as shown in Table 6. This represents about 2% of the workforce in these enterprises.

Table 6: Number of Hard to fill Vacancies among Enterprises Studied.

<table>
<thead>
<tr>
<th>Economic activity</th>
<th>No. of hard to fill vacancies</th>
<th>No. of employees in the enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>196</td>
<td>38080</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>62</td>
<td>1310</td>
</tr>
<tr>
<td>Professional, scientific and technical activities</td>
<td>48</td>
<td>2647</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>47</td>
<td>396</td>
</tr>
<tr>
<td>Total</td>
<td>353</td>
<td>42433</td>
</tr>
</tbody>
</table>

Source: 2023 FKE Skills Needs Survey

3.6.4 Education Levels for Hard to fill Vacancies.

The education level sought by employers on these hard to fill vacancies was mostly a first level university education followed by TVET as shown in Table 7. Most hard to fill vacancies requiring a TVET skill level are in architecture, building and construction (36%), engineering (30%) and transportation, distribution and logistics (48%) while those that mostly require first level university education are in information & technology (77%) and finance and business management (71%). Most hard to fill vacancies requiring a master’s degree qualification are in legal (20%) while those that mostly require doctorate degree qualification are in science and mathematics (8%).
## Table 7: Educational level required in the Hard to Fill Vacancies per Career Field

<table>
<thead>
<tr>
<th>Career Field</th>
<th>Doctoral degree</th>
<th>Master’s degree</th>
<th>Bachelor’s degree</th>
<th>Technical &amp; Vocational education</th>
<th>Secondary education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation, Distribution and Logistics</td>
<td>2%</td>
<td>4%</td>
<td>37%</td>
<td>48%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>4%</td>
<td>4%</td>
<td>41%</td>
<td>41%</td>
<td>9%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Service &amp; Community development</td>
<td>3%</td>
<td>7%</td>
<td>44%</td>
<td>38%</td>
<td>9%</td>
<td>100%</td>
</tr>
<tr>
<td>Architecture, Building &amp; Construction</td>
<td>4%</td>
<td>13%</td>
<td>44%</td>
<td>36%</td>
<td>4%</td>
<td>100%</td>
</tr>
<tr>
<td>Arts &amp; recreational service</td>
<td>3%</td>
<td>9%</td>
<td>43%</td>
<td>31%</td>
<td>14%</td>
<td>100%</td>
</tr>
<tr>
<td>Engineering</td>
<td>4%</td>
<td>12%</td>
<td>51%</td>
<td>30%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Agriculture, Food &amp; Natural Resources</td>
<td>4%</td>
<td>7%</td>
<td>53%</td>
<td>28%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Public Safety, Corrections and Security</td>
<td>2%</td>
<td>7%</td>
<td>50%</td>
<td>28%</td>
<td>12%</td>
<td>100%</td>
</tr>
<tr>
<td>Overall</td>
<td>4%</td>
<td>12%</td>
<td>57%</td>
<td>21%</td>
<td>6%</td>
<td>100%</td>
</tr>
<tr>
<td>Health science</td>
<td>6%</td>
<td>12%</td>
<td>53%</td>
<td>19%</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>6%</td>
<td>18%</td>
<td>51%</td>
<td>17%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Media, Communication &amp; Public Relation</td>
<td>3%</td>
<td>10%</td>
<td>69%</td>
<td>15%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>5%</td>
<td>16%</td>
<td>64%</td>
<td>11%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>1%</td>
<td>12%</td>
<td>77%</td>
<td>10%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>Science &amp; Mathematics</td>
<td>8%</td>
<td>14%</td>
<td>64%</td>
<td>6%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Finance &amp; Business management</td>
<td>3%</td>
<td>19%</td>
<td>71%</td>
<td>5%</td>
<td>1%</td>
<td>100%</td>
</tr>
<tr>
<td>Legal</td>
<td>4%</td>
<td>20%</td>
<td>71%</td>
<td>3%</td>
<td>2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Source: 2023 FKE Skills Needs Survey*

#### 3.6.5 Reasons for Non-employment or Retention of Staff with the Right Competence

Besides competence of jobseekers being a contributor to emergence of hard to fill vacancies, lack of qualified candidates in the companies’ region was singled out as another top cause (29%), followed by high salary expectations by candidates (26%) as shown in Figure 17.
Figure 17: Reasons for Non-employment or Retention of Staff with the Right Competence

<table>
<thead>
<tr>
<th>Reason</th>
<th>Not at all</th>
<th>To little extent</th>
<th>To some extent</th>
<th>To a large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>There were no qualified candidates in the company’s region</td>
<td>40%</td>
<td>21%</td>
<td>10%</td>
<td>29%</td>
</tr>
<tr>
<td>Excess competition from other employers</td>
<td>58%</td>
<td>15%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Qualified candidates had too high salary expectations</td>
<td>27%</td>
<td>38%</td>
<td>9%</td>
<td>26%</td>
</tr>
<tr>
<td>Qualified candidates outside the company’s region were not willing to move</td>
<td>56%</td>
<td>11%</td>
<td>13%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: 2023 FKE Skills Needs Survey

3.6.6 Consequences Skills Deficit

Due to skills deficit experienced by enterprises, 25% had experienced an inhibition of business expansion to some extent, 24% had experience loss of revenue to some extent and that 21% had experienced loss of customers or market share to some extent as shown in Figure 18.

Figure 18: Impact lack of skills has had on Enterprises.

Source: 2023 FKE Skills Needs Survey
3.6.7 Measures by Enterprises to bridge Skills Deficit

To cover for the lack of competence in their enterprises, 48% trained their employees to increase their competence to a very large extent and 27% employed new staff who are already in the Kenyan job market as shown in Figure 19. It was further found that 8% of the enterprises outsourced services that could not be undertaken by their staff due to skills deficiency to a large extent.

It was also found that 12% of the enterprises mostly engaged external experts on a temporary basis and that employing expatriates was the least used option for covering skills deficit used to a large extent by only 4% of the enterprises.

Figure 19: Measures by Enterprises to bridge Skills Deficit

Source: 2023 FKE Skills Needs Survey
4.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

4.1 Introduction
This chapter presents the summary of the study findings and the recommendations.

4.2 Summary of Findings
The survey majorly focused on the following areas: skills demand, Information Communication and Technology (ICT) & digitization, green shift & green competence and hard to fill vacancies. This section therefore presents a summary of findings based on the four thematic areas.

4.2.1 Skills Demand
Major skills demanded by the enterprises studied are in the following career fields: information technology (35%); finance & business management (33.9%); engineering (23.7%); transportation, distribution & logistics (23%) and legal (22.5%). These fields majorly require undergraduate degree at 43.8%, and technical and vocational education and training (TVET) at 34.9%. Workers with only secondary education are mostly demand in public safety, corrections & security career fields (12%) and arts & recreational service (14%).

The top TVET skills demand by the respondent enterprises are on transport and logistics (21.3%, electrical (21.1%), building and construction (18.2%). The most demanded engineering skills by enterprises is computer and software engineering (30.7%), followed by electrical and electronics engineering (27.4%) and mechanical and production engineering (25%). Most demanded social skills were effective communication (49.1%), critical thinking (41.7%), teamwork (25.7%) and time management skills at 23.4%. Most of the enterprises studied (73.1%) used training to fill the skills gap in their enterprises. These trainings were offered in collaboration with other organizations in capacity building space.

4.2.2 Information Communication Technology (ICT) & Digitization
Most of the enterprises studied generally had ICT competence as indicated by 45%. Areas where ICT competence were needed includes ability to communicate and collaborate on digital platforms (37.6%), followed by use of electronics, machine ware, smart components, and communication technology (34.5%) and digital security (33%).
4.2.2 Green Shift & Green Competence

From the survey findings, the enterprises generally had plans to make products/services more climate/environmentally friendly as indicated by 50.4%. There were concrete changes made as a consequence of standards/requirements or expectations on a green shift as indicated 33.5% and that enterprise services/products were expected to increase as a consequence of the green shift as indicated by 33%. As such, the enterprises were considered to be moving towards green shift. Some of the competence required for the green shift included: need for leadership competence (34.27%) and need for skilled worker competence 35.64%.

4.2.3 Hard to Fill Vacancies

The survey confirmed that 20% of the enterprises had hard to fill vacancies. As such, most of the respondents resorted to employing job applicants with qualifications lower than what they were looking for as indicated by 50.51%. The findings revealed that 2% of the position in the enterprises were hard to fill with most of the position being in the Manufacturing sector. Most hard to fill vacancies requiring a TVET skill level are in architecture, building and construction (36%), engineering (30%) and transportation, distribution and logistics (48%) while those that mostly require first level university education are in information & technology (77%) and finance and business management (71%). Most hard to fill vacancies requiring a master’s degree qualification are in legal (20%) while those that mostly require doctorate degree qualification are in science and mathematics (8%).

Among the reasons for non-employment or retention of staff was lack of qualified candidates in the companies’ region was singled out as another top cause (29%) and high salary expectations by candidates (26%). Some of the consequences of skills deficit experienced by enterprises inhibition of business expansion (25%), loss of revenue 24% and loss of customers or market share (21%). Some of the measures by enterprises in bridging skills gap includes training employees to increase their competence (48%) and employing new staff who are already in the Kenyan job market (27%).
4.3 Conclusions and Recommendations

These section presents the conclusions and recommendations based on the survey findings.

4.3.1 Conclusions

The following conclusions were made based on the findings of the study:

i. The study concludes that the most demanded skills among employers were Engineering skills offered by TVET institutions specifically computer and software engineering, electrical and electronics engineering and mechanical and production engineering. Other skills demanded include information technology, building and construction, finance & business management and transport, distribution and logistics. The most demanded social skills by employers include effective communication, critical thinking, teamwork and time management skills.

ii. It was also concluded that on matters information communication technology (ICT) & digitization, employers needed skills on ability to communicate and collaborate on digital platforms, digital security and use of electronics, machine ware, smart components & communication technology.

iii. Regarding green economy, there were indications of enterprises having plans to make products/services more climate/environmentally friendly. As such, more effort and action need to be taken towards green shift. Some of the skills needed towards this realization include leadership competence and skilled worker competence.

iv. The survey finally concluded that some of the hard to fill vacancies which require TVET skills includes architecture, building and construction, engineering and transportation, distribution & logistics. The hard to fill vacancies requiring at university level education were information & technology and finance and business management.
### 4.3.1 Recommendations

The following were the recommendations based on the study findings:

i. TVET institutions should be empowered to train more on the engineering and information related areas. This will help to bridge the gap one the skills demanded by employers in these technical areas.

ii. There is need for training institutions to work together in bridging the existing gap between the skills demanded by employers and the courses offered by learning institutions. By incorporating employers in curriculum development and training through attachments, internships and offering apprentice opportunities; more graduates will have the industry demanded skills, thus helping in bridging the existing gap. These partnerships can be strengthened by ensuring that the existing policies on TVET -employers' partnerships are implements and any existing policy gaps strengthened.

iii. Enterprises should take practical initiatives towards green shift. Some of these measures may include making products which are environment friendly among others. This should be backed up with advocacy initiatives by different stakeholders geared towards green shift.

iv. Employers, Government, Trade unions, Training institutions and development partners should work together to promote initiatives, practices and policies that will enhance demand oriented approach to skills development including:

   a) Structured apprenticeships
   b) Dual training model
   c) Workplace upskilling programs
   d) Life long learning programs
   e) Reskilling programs

v. FKE, ministry of Labour, Ministry of Education, COTU (K) and development partners should work together to promote initiatives, practices and policies that will:
a) Strength the signaling capacity of the education certificates in labour sector
b) Promote flexible policies that make it easier for young Kenyans aged 15 to 25 years to access formal workplaces and employment with a view to learn and develop their skills.
c) Promote programs and practices that build soft skills, positive attitude, values and ethics among the leaners.

References
Annex 1

FKE staff that directly supported the survey.

The survey was supported by various staff from the Federation as follows:

1. Stephen Obiro - Team leader
2. Catherine Mukoko - Questionnaire development
3. Rodgers Agwaya - Research design, questionnaire development.
4. Esther Gathoni - Research design, supervision of data collection, database management, and data analysis
5. Erick Ochieng - Data collection field team 5 supervisor, data analysis and report writing
6. Grace Kaome - HR recruitment of field data collectors
7. Veronica Nyapete - HR recruitment of field data collectors
8. William Wandera - Data collection field team 1 supervisor
9. Dancan Omondi - Data collection field team 2 supervisor
10. Leticia Muhandichi - Data collection field team 3 supervisor
11. Samuel Mungai - Data collection field team 4 supervisor
12. Sandra Thuita - Communication, report design, and launch event management
13. Samson Mugwe - Finance
14. Anthony Mokaya - Finance
15. Ken Mutisya - Finance
16. Fredrick Oduor - Driver
17. Stephen Okal - Logistics
18. Irene Ogola - Collection of data in western Kenya
19. Florence Odwako and Susan Muhuni - Rift Valley Data collection
20. Ruth Barr and Herbert Muna - Coast region Data collection
The Confederation of Norwegian Enterprise (NHO) (in Norwegian Næringslivets Hovedorganisasjon) is Norway’s largest organisation for employers and the leading business lobbyist. Our current membership of 32,000+ (March 2023) companies ranges from small, family-owned businesses to multinational companies in most sectors.

The NHO is the leading voice of business and industry in Norway. Having expert knowledge and an extensive business network, the NHO plays an important and constructive role in Norwegian society.

Our main objective is to create and sustain conditions that safeguard the competitiveness and profitability of business and industry in Norway, and thereby maintain the basis for a good standard of living, sound economic growth and sustainable development.

The NHO is made up of 18 Sectoral Federations and 10 Regional Offices.

While the NHO has a cross-sectoral responsibility for members’ interests, each sectoral federation covers industry-specific issues. The regional offices offer a local point of contact between the NHO, companies and the public authorities.

NHO also has an office in Brussels. NHO Brussels provides colleagues in NHO with information on EU / EEA matters, and work to safeguard our members’ interests in the most important international market for Norwegian business. NHO is the Norwegian member of BusinessEurope. The Director of the NHO Brussels office is Anne Margrethe Lund.

For more information visit our website: https://www.nho.no/en/

Nexford University is designed for a global audience looking to build in-demand skills while earning recognized and accredited credentials.

We have reimagined what a modern university experience looks like, torn down the walls of the traditional campus and designed a modern learning experience 100% online. By leveraging technology, we deliver world-class education, at a fraction of the cost of traditional universities.

Our programs are future-focused and competency-based, enabling you to build practical skills you will use to get ahead in your career. And with no fixed class times, you can flex your learning to fit your schedule.

Tuition fees are charged on a monthly basis, so the faster you graduate the more money you save.

For more information visit our website: www.nexford.edu

Africa Digital Media Institute (ADMI) is Eastern Africa’s premier creative media and technology training institution. It is an innovative career accelerator where digital professionals receive training, mentorship, and a platform to turn their passion into a profession.

ADMI’s enterprise solutions are curated to future-fit your workforce and accelerate the pace of change in your organization. Our team coaching services offer tailored coaching to ensure that your teams not only engage with the program material effectively but also apply these learnings to drive real-world results.

For more information visit our website: https://admi.ac.ke/
HEADQUARTERS
Waajiri House, Argwings Kodhek Road Milimani,
P.O. Box 48311 00100, Nairobi, Kenya
Telephones: 0709 827 101/ 102
Email: fkehq@fke-kenya.org

REGIONAL OFFICES

COAST BRANCH
Ralli House, Nyerere Avenue, Mombasa
Tel: +254 41 2311112
Email: fkems@fke-kenya.org

WESTERN KENYA BRANCH
Re - Insurance Plaza, Oginga Odinga Road, Kisumu
Tel: +254 57 2020620
Email: fkeksm@fke-kenya.org

RIFT VALLEY BRANCH
Giddo Plaza, Ground Floor Nakuru
Tel: +254 51 2216744/690
Email: fkenkr@fke-kenya.org