

Research Article

# Employability Skills of Female Employees from Technical and Vocational Training Institutions in Technical and Technology Job Sector: Employer Perspective

Elijah Omutange<sup>\*</sup> , Wesley Kiprotich Mutai , Violet Mecha Barasa 

Department of Technology Education, Moi University, Eldoret, Kenya

## Abstract

Knowledge-based economy allows for the employment of workforce who maximize their professional and semi-professional undertakings in the job market. In Kenya, employers within the industrial sector employ both graduates of the technical, vocational and education and training institutions (TVETs) as well as those from the informal sector, with little evidence of employment for the female graduates. This study therefore, examined the employability skills of female employees from the TVETs in the technical and technology job sector. The research instrument of the current study adapted from the Secretary's Commission on Achieving Necessary Skills (SCANS) where 32 items were used. Among the employability skills were thinking skills, personal qualities, sourcing skills, information skills, interpersonal skills, system skills and technology skills. The survey instrument was provided to a total of 189 industry employers in Kenya. the majority of respondents are from the manufacturing/industrial sector (46.6%), followed by artisanal sector (25.4%) and the least was agricultural sector (27.5%). Based on the survey, the study found that employers ranked highly the resource/capability skills, information skills, and the interpersonal skills. Meanwhile, employers rate the female employees moderate to highly in personal quality skills. Skills that were found to moderate were thinking skills, while system and technology application skills were ranked as low. The current results indicate that female possesses considerable employability skills capable of working in the technical and technology based fields. Future research should look at how the employability skills blend with technical skills and how this affect the employment status of the female graduates.

## Keywords

Employability Skills, Female Employee, Technical and Vocational Students, Kenya, TVET

## 1. Introduction

The knowledge-based economy has created a greater human proficiency needs which enable the knowledgeable workers (k-workers) to maximize their professional and semi-professional undertakings in the job market [1]. Most employers prefer these k-workers due to their adaptability and

capability to perform well in the industry which has the advantage to guarantee their growth and sustainability [2]. In many developing countries, there is gradual transformation from agrarian to industrial, manufacturing and in more recent time, technology based economies [3]. Such transformations

<sup>\*</sup>Corresponding author: [elijahsaji@gmail.com](mailto:elijahsaji@gmail.com) (Elijah Omutange)

**Received:** 1 February 2025; **Accepted:** 14 February 2025; **Published:** 7 March 2025



Copyright: © The Author(s), 2025. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

increase the job demand for skilled workers who also need to possess the requisite technical skills [4]. This situation requires the employees to be proficient in academic qualifications, improved technical skills, and the required employability skills. The employability skills allow the individuals to be able to adapt and to cope with job demands which goes beyond technical skills learned in classroom [5]. Workers with good set of employability skill enable them to succeed in the dynamic and complex workplace environment [6, 7]. There is no universal suffrage as to what employability skills, since they depend on the type of employment in question, some of the employability skills include self-management skills, interpersonal skills, problem solving, adaptability skills, personal quality, resource use, thinking [8, 9]. In addition, industries where technology is required have additional skills such as system and technology skills and innovation skills [10]. These sets of employability skills are rarely provided by the employers. In most cases, the employer expects the employees to acquire these skills from the higher learning institutions [11, 12]. Therefore, employability skills is important for the graduates regardless if the technical skills of the prospect employees.

In developing countries, the economic dynamics has created greater challenge in the employment cycle and female gender especially in the technology industry are the most affected [13]. Due to questions arising from their performance in the technical and technology based sectors, there is an urgent need determine the employability skill especially among the employers in technology related fields [14, 15]. Employers have often perceived female workers as less knowledgeable, have negative attitudes and are less productive in the field related to engineering and technology and more often than not, adjudge them as weak in the job market [16, 17]. In several countries, even the society has failed to recognize women in the field of engineering and technology [18, 19]. Furthermore, clear information on the employability skill's will help theses sets of employees to be appreciated in their workplaces.

In Kenya, there are several reports that indicate that female students who graduate in technical subjects, and engineering in higher learning institutions find it difficult to be absorbed in the formal employment [20, 21]. However, the reason for such anomaly has rarely been investigated based on employability skills among the TVET students in Kenya. Based on the foregoing, the aim of the present study was to determine the employability skills of female technical and vocational students and how it contributes to their employment in the industrial sector.

## 2. Study Methodology

### 2.1. Study Area

The study was conducted in Kenya among employers in the technology and engineering sector.

### 2.2. Research Design

This research is an exploratory study based on exploratory research design to gain a deeper understanding of a problem or phenomenon and identify issues that can be the focus of future research. This study investigates the research problem that has not been studied in depth.

### 2.3. Study Population and Sample Size

The study population was drawn from employers in the technology and engineering, including manufacturing sectors in Kenya. Meanwhile, the locations of these employers are scattered throughout Kenya. According to data by the Kenya association of manufacturers (2024), there are approximately 80% of these industries who employ graduates from the technical and vocational training institutions (TVETs).

The sample size for employers was calculated based on the Fisher's Statistical formula for sample size [22] as: Where:

$$\text{sample size} = \frac{Z_{1-\frac{\alpha}{2}}^2(p)(1-p)}{d^2}$$

$Z_{1-\frac{\alpha}{2}}$  = Is standard normal variate (at 5% type 1 error) and is 1.96;  $p = 0.5$  (Proportion of employers absorbing TVET graduates, 80%);  $q = (1-p) = 0.5$  (Proportion TVETs no absorbing TVETs students, 20%);  $d$  = Absolute error or precision (0.05). Therefore, the sample size for the employers was calculated as:  $\text{sample size} = \frac{1.96^2(0.8)(0.2)}{0.05^2} = 245.86 \approx 245$ .

The researcher sampled 245 employers.

### 2.4. Research Instruments

Data were collected through questionnaires. The research instrument of the current study adapted from the Secretary's Commission on Achieving Necessary Skills (SCANS) where 32 items were used. Among the employability skills were thinking skills, personal qualities, sourcing skills, information skills, interpersonal skills, system skills and technology skills. The basic skills was omitted from the final questionnaire as the researcher deemed them to be too basic for TVET graduates. The items in the questionnaire was scored based on a five-point Likert score where a score of 5 indicated a high score on employability skills to the employer, while a score of 1 was low score to the employer.

Validity of the instrument was ascertained through expert judgment [23], where the a prior discussion of items in the questionnaire were conducted with other researchers in the same field. Suggestions were then incorporated in the final instruments. Reliability was evaluated using the Cronbach alpha test [24]. Data for Cronbach test was collected during piloting among respondents not selected for the current study. The data was declared reliable when Cronbach's alpha coefficient was above 0.60 [25, 26].

## 2.5. Data Collection Procedure

The questionnaires were sent to employers through emails, with at least 13 being sent by ordinary mails where there was no email. For those sent by ordinary mail, a prior phone call was made to inform the employer about being selected for the purpose of the current research.

## 2.6. Data Analysis

Collected data in the questionnaire were screened and coded to allow statistical analysis using the IBM Statistical Packages for Social Sciences (SPSS) version 28.0.1.1 software. The collected data were analysed using both descriptive analysis technique using means and standard deviation.

## 2.7. Ethical Consideration

The ethical consideration in the current study informed consent, honesty, objectivity, confidentiality, respect for the subjects and intellectual property rights [21]. Permits to carry out research were sourced from relevant authorization agencies and institutions.

# 3. Results and Discussion

## 3.1. Response Rate and Reliability of the Instrument

For this study, a sample size of 245 employers were selected to take part. From the sampled respondents, a total of 189 questionnaires were duly filled and returned. The duly filled and returned questionnaires represented a response rate of 77.1%. Conventionally, a response rate of 60% is deemed to be good while a response rate of 70% and over is considered excellent [27]. Therefore, for this study, the response rate of 77.1% was excellent for analysis and reporting. The overall reliability of the questionnaires was 0.88. A reliability value above 0.6 is adequate to accept the research instrument's internal consistency [28], which validated the instrument in

the current study.

## 3.2. Profiles of the Respondents

The profiles of the respondents are provided in Table 1. The vast majority of respondents were from the manufacturing/industrial sector, followed by agricultural and the least was artisanal sector. The study sampled more human resource manager. In terms of years of experience, majority had 4-10 years followed by over 10 years and least were less than 4 years.

*Table 1. Profiles of employers.*

| Category                        | Frequency | Percent (%) |
|---------------------------------|-----------|-------------|
| Type of industry                |           |             |
| Agricultural                    | 52        | 27.5        |
| Manufacturing/industrial sector | 88        | 46.6        |
| Artisanal                       | 48        | 25.4        |
| Position                        |           |             |
| Human resource manager          | 98        | 51.9        |
| Artisan                         | 48        | 25.4        |
| Supervisor                      | 43        | 22.8        |
| Manager's work experience       |           |             |
| < 4 years                       | 16        | 8.5         |
| 4 to 10 years                   | 89        | 47.1        |
| > 10 years                      | 84        | 44.4        |

## 3.3. Employability Skills of Female Employees

The employability skills was derived from literature [29]. It was earlier shown that size of the industry or company may determine the employability skills required [30]. Table 2 shows the range of employability skills and their importance.

*Table 2. Employability skills and their level of importance.*

| Most important       | Very important  | Important  | Moderately important |
|----------------------|---|--|----------------------|
| Interpersonal skills | Service to the customer, negotiation ability, leadership ability, teaching ability, ability to work with people from diverse background | Able to participate as members   |                      |
| Thinking skills      | Problem solving, think creative/innovative, know how to learn, able to visualize  | See things with minds, decision making   |                      |
| Personal qualities   | Safety, integrity, honesty, responsibility  | Ability for self-management, self belief, work with minimal supervision, Sociability | Adaptability         |

| Most important                | Very important                  | Important  | Moderately important                                |
|-------------------------------|---------------------------------|--|---|
| Resource skills               | Financial and risk management   | Financial management, time management, human resource management   |   |
| System and technology skills  |                                 | Technological innovation, using technologies while working, fixing tools, observation and improving the implementation |   |
| Information management skills | Ability to evaluate information | Information processing   | Interpret information, and preserve the information |

Source: [30]

The means of the thinking skills of the female employees are provided in Table 3. Thinking skills has a mean of  $3.29 \pm 0.31$ . This shows moderate levels of thinking skills for the female employees as perceived by employers. The current results are in agreement with another study on the employability skills among the graduates of technical and vocational training centers in Malaysia [31] where employers had lower perception of thinking skills among female workers. The highest attributes of thinking skills was Critical visualization while other attributes such as decision making, critical thinking and critical reasoning were low. Lower ranking of these also are in agreement with another study among older women in Poland [32]. Females have generally been found to have lower thinking skills in technical subjects [33].

**Table 3.** Descriptive statistics (mean and standard deviation) for the thinking skills of female employees from the employers' perspective.

| Thinking skills        | Score (mean $\pm$ SD) |
|------------------------|-----------------------|
| Creative thinking      | $3.23 \pm 0.31$       |
| Making decisions       | $3.42 \pm 0.29$       |
| Problem Solving        | $3.04 \pm 0.34$       |
| Critical visualization | $3.73 \pm 0.35$       |
| Critical reasoning     | $3.03 \pm 0.34$       |
| Overall mean           | $3.29 \pm 0.31$       |

The descriptive statistics of the resource/capability skills of the female employees are provided in Table 4. Thinking skills has a mean of  $4.17 \pm 0.27$ . This shows employers rate the female employees highly in resource/capability skills. Ability of female employees to properly manage resources are consistent with findings of female employees in nearly all the sectors [34, 35]. All aspects of resource management skills

like time management, financial management, materials and facility management as well as human resource management were found to be high among the employers. These attributes have also been given high rating in other studies of female employee performance in firms [36]. In the field of human resource management, females have always come out as good managers [37] and hence their ability to manage resources in their firms.

**Table 4.** Descriptive statistics (mean and standard deviation) for the resource/capability skills from the employers' perspective.

| Resource/capability skills | Score (mean $\pm$ SD) |
|----------------------------|-----------------------|
| Time management            | $4.63 \pm 0.33$       |
| Financial management       | $4.42 \pm 0.32$       |
| Materials management       | $4.04 \pm 0.33$       |
| Human resource management  | $4.63 \pm 0.27$       |
| Risk management            | $3.11 \pm 0.25$       |
| Overall Mean               | $4.17 \pm 0.27$       |

The descriptive statistics of the information skills of the female employees are shown in Table 5. The mean of the information skills of the female employees was  $4.02 \pm 0.24$ . This shows employers rate the female employees highly in information skills. The current high levels of female employees information skill are consistent with findings with other studies [38, 39]. All aspects of information skills like ability to evaluate information, organizing and maintaining information, interpretation of information recorded high ranking with use of computer to process information being the only moderate attribute. Several studies have reported that female employees have good information management attributes [13, 40].

**Table 5.** Descriptive statistics (mean and standard deviation) for the information skills from the employers' perspective.

| Information skills                              | Score (mean $\pm$ SD) |
|---|-----------------------|
| Information acquisition and evaluation          | 4.01 $\pm$ 0.25       |
| information organization and maintenance        | 4.24 $\pm$ 0.34       |
| Interpretation and communication of information | 4.23 $\pm$ 0.23       |
| Computer application ion information processing | 3.61 $\pm$ 0.20       |
| Overall mean                                    | 4.02 $\pm$ 0.24       |

The descriptive statistics of the interpersonal skills of the female employees are provided in Table 6. Employers perceived interpersonal skills with of  $4.02 \pm 0.28$ . This shows employers rate the female employees to have high interpersonal skills. Most of the attributes of interpersonal skills like teamwork, use leadership ability, work with diversity were found to be high and was found to be consistent with other studies [34, 35]. Female employees always tend to develop special bonds with their customers and hence many have the ability to develop good interpersonal skills [41]. Nevertheless, the current findings differ from another study where employers rated female interpersonal skills as low in the industry [42].

**Table 6.** Descriptive statistics (mean and standard deviation) for the interpersonal skills from the employers' perspective.

| Interpersonal skills    | Score (mean $\pm$ SD) |
|-------------------------|-----------------------|
| Teamwork                | 4.32 $\pm$ 0.28       |
| Good customer serves    | 3.54 $\pm$ 0.27       |
| Use leadership ability  | 4.00 $\pm$ 0.24       |
| Good negotiation skills | 3.98 $\pm$ 0.21       |
| Work with Diversity     | 4.48 $\pm$ 0.21       |
| Overall mean            | 4.06 $\pm$ 0.28       |

The descriptive statistics of the system and technology application skills of the female employees are provided in Table 7. Employers perceived that female employees had low system and technology application skills with a mean of  $2.92 \pm 0.21$ . This shows employers believe that female students from TVETs cannot hand complex aspect of system and technology application in the industry. All the aspects of system and technology application such as understanding systems, observing and improving on the implementation, technology selection, applying technology to tasks, and maintaining and troubleshooting equipment ranked poorly among the respondents. This is not surprising since women employees

have often been reported to have very poor technical skills and abilities in technology industries [7, 43]. The current results are consistent with another study in Malaysia [44] and Greece [33].

**Table 7.** Descriptive statistics (mean and standard deviation) for the system and technology application skills from the employers' perspective.

| System and technology application skills | Score (mean $\pm$ SD) |
|--|-----------------------|
| System knowledge                         | 3.32 $\pm$ 0.23       |
| Improvement of implementation            | 3.04 $\pm$ 0.22       |
| Selection of technology                  | 3.00 $\pm$ 0.21       |
| Technology application in technology     | 2.68 $\pm$ 0.25       |
| Troubleshoots of equipment               | 2.55 $\pm$ 0.16       |
| Overall mean                             | 2.92 $\pm$ 0.21       |

The descriptive statistics of the personal quality skills of the female employees are provided in Table 8. Personal quality skills has a mean of  $3.88 \pm 0.33$ . This shows employers rate the female employees moderate to highly in personal quality skills. Most of the attributes of personal quality skills were moderate to high and was consistent with other studies [34, 35]. Female employees always tend to develop special personal quality skills [41].

**Table 8.** Descriptive statistics (mean and standard deviation) for the personal quality skills from the employers' perspective.

| Personal quality skills | Score (mean $\pm$ SD) |
|-------------------------|-----------------------|
| Responsibility          | 4.13 $\pm$ 0.31       |
| Self confidence         | 3.73 $\pm$ 0.35       |
| Social ability          | 3.22 $\pm$ 0.29       |
| Self-management         | 4.04 $\pm$ 0.34       |



| Personal quality skills       | Score (mean $\pm$ SD) |
|-------------------------------|-----------------------|
| Integrity                     | 4.23 $\pm$ 0.31       |
| Punctual                      | 3.99 $\pm$ 0.35       |
| Adaptability                  | 3.51 $\pm$ 0.29       |
| Work with minimum supervision | 4.23 $\pm$ 0.44       |
| Overall mean                  | 3.88 $\pm$ 0.33       |

## 4. Conclusions and Recommendations

This study set out to determine the employability skills of Kenyan TVET trained female employees in technology-based industry as perceived by the employers. The study found that employers ranked highly in the resource/capability skills, information skills, and interpersonal skills. Meanwhile, employers rate the female employees moderate to highly in personal quality skills. Skills that were found to moderate were thinking skills, while system and technology application skills was ranked as low.

The current results indicate that female possess considerable employability skills capable of working in the technical and technology-based fields. Future research should look at how the employability skills blend with technical skills and how this affect employment status of the female graduates.

## Abbreviations

|       |   |
|-------|---|
| TVETS | Technical, Vocational and Education and Training Institutions |
| SCANS | Secretary's Commission on Achieving Necessary Skills          |

## Acknowledgments

The authors would like to express their gratitude to the Eldoret National Polytechnic from where the study was conducted and students who took part in this study.

## Author Contributions

**Elijah Omutange:** Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Project administration, Software, Supervision, Validation, Visualization, Writing – review & editing

**Wesley Kiprotich Mutai:** Data curation, Formal Analysis, Funding acquisition, Investigation, Resources, Software, Supervision, Writing – original draft, Writing – review & editing

**Violet Mecha Barasa:** Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Resources, Software, Writing – original draft,

Writing – review & editing

## Funding

This work is not supported by any external funding.

## Data Availability Statement

The data is available from the corresponding author upon reasonable request.

## Conflicts of Interest

The authors declare no conflicts of interest.

## References

- [1] Choong, K. K. and P. W. Leung, A critical review of the precursors of the knowledge economy and their contemporary research: implications for the computerized new economy. *Journal of the Knowledge Economy*, 2022. 13(2): p. 1573-1610. <https://doi.org/10.1007/s13132-021-00734-9>
- [2] Sukharev, O., Measuring the contribution of the “knowledge economy” to the economic growth rate: Comparative analysis. *Journal of the Knowledge Economy*, 2021. 12(4): p. 1809-1829. <https://doi.org/10.1007/s13132-020-00690-w>
- [3] Liu, S. and B. Wang, The decline in agricultural share and agricultural industrialization—some stylized facts and theoretical explanations. *China Agricultural Economic Review*, 2022. 14(3): p. 469-493. <https://doi.org/10.1108/CAER-12-2021-0254>
- [4] Khilji, N. K. and S. A. Roberts. Soft skills acquisition for the knowledge economy: a research strategy for policy evolution in technical and vocational education and training (TVET) in intermediate and emergent economies. in *Eurasian Business and Economics Perspectives: Proceedings of the 34th Eurasia Business and Economics Society Conference*. 2022. Springer.
- [5] Tan, L. M., F. Laswad, and F. Chua, Bridging the employability skills gap: going beyond classroom walls. *Pacific Accounting Review*, 2022. 34(2): p. 225-248. <https://doi.org/10.1108/PAR-04-2021-0050>
- [6] Sony, M. and N. Mekoth, Employee adaptability skills for Industry 4.0 success: a road map. *Production & Manufacturing Research*, 2022. 10(1): p. 24-41. <https://doi.org/10.1080/21693277.2022.2035281>
- [7] Asefer, A. and Z. Abidin, Soft skills and graduates' employability in the 21st century from employers' perspectives: A review of literature. *International Journal of Infrastructure Research and Management*, 2021. 9(2): p. 44-59. <https://iukl.edu.my/rmc/publications/ijirm/>
- [8] Tushar, H. and N. Sooraksa, Global employability skills in the 21st century workplace: A semi-systematic literature review. *Heliyon*, 2023. <https://doi.org/10.1016/j.heliyon.2023.e21023>

- [9] Mahajan, R., P. Gupta, and R. Misra, Employability skills framework: a tripartite approach. *Education+ Training*, 2022. 64(3): p. 360-379. <https://doi.org/10.1108/ET-12-2020-0367>
- [10] de Assis Domelles, J., N. F. Ayala, and A. G. Frank, Smart Working in Industry 4.0: How digital technologies enhance manufacturing workers' activities. *Computers & Industrial Engineering*, 2022. 163: p. 107804. <https://doi.org/10.1016/j.cie.2021.107804>
- [11] Mainga, W., R. M. Daniel, and L. Alamil, Perceptions of employability skills of undergraduate business students in a developing country: An exploratory study. *Higher Learning Research Communications*, 2022. 12(1): p. 2. <https://doi.org/10.18870/hlrc.2022.v12i1.1257>
- [12] Rizwan, A., H. Alsulami, A. Shahzad, N. Elnahas, S. Almalki, R. Alshehri, M. Alamoudi, and H. Alshoaibi, Perception gap of Employability skills between Employers' and female Engineering graduates in Saudi Arabia. *International Journal of Engineering Education*, 2021. 37(2): p. 341-350. <https://doi.org/10.3390/su132011327>
- [13] Ngoa, G. B. N. and J. S. Song, Female participation in African labor markets: The role of information and communication technologies. *Telecommunications Policy*, 2021. 45(9): p. 102174. <https://doi.org/10.1016/j.telpol.2021.102174>
- [14] Casad, B. J., J. E. Franks, C. E. Garasky, M. M. Kittleman, A. C. Roesler, D. Y. Hall, and Z. W. Petzel, Gender inequality in academia: Problems and solutions for women faculty in STEM. *Journal of neuroscience research*, 2021. 99(1): p. 13-23. <https://doi.org/10.1002/jnr.24631>
- [15] Fry, R., B. Kennedy, and C. Funk, STEM jobs see uneven progress in increasing gender, racial and ethnic diversity. *Pew Research Center*, 2021. 1.
- [16] Del Carpio, L. and M. Guadalupe, More women in tech? Evidence from a field experiment addressing social identity. *Management Science*, 2022. 68(5): p. 3196-3218. <https://doi.org/10.1287/mnsc.2021.4035>
- [17] Meng, L., M. Qamruzzaman, and A. H. E. Adow, Technological adaption and open innovation in SMEs: an strategic assessment for women-owned SMEs sustainability in Bangladesh. *Sustainability*, 2021. 13(5): p. 2942. <https://doi.org/10.3390/su13052942>
- [18] Natarajarathinam, M., S. Qiu, and W. Lu, Community engagement in engineering education: A systematic literature review. *Journal of Engineering Education*, 2021. 110(4): p. 1049-1077. <https://doi.org/10.1002/jee.20424>
- [19] Wilson, D. and J. VanAntwerp, Left out: A review of women's struggle to develop a sense of belonging in engineering. *Sage Open*, 2021. 11(3): p. 21582440211040791. <https://doi.org/10.1177/21582440211040791>
- [20] Kiweu, J. M., D. Mulwa, J. Kinyili, P. Muriungi, R. Kimiti, and J. Muola, Do Kenyan university stem graduates possess employable skills for the job market? *European Journal of Education Studies*, 2021. 8(2). <https://doi.org/10.46827/ejes.v8i2.3621>
- [21] Andiemba, N. and E. Manasi, Female students participation in technical vocational education and training in West Pokot County, Kenya. *East African Journal of Education Studies*, 2021. 3(1): p. 61-69. <https://doi.org/10.37284/eajes.3.1.314>
- [22] Charan, J. and T. Biswas, How to calculate sample size for different study designs in medical research? *Indian journal of psychological medicine*, 2013. 35(2): p. 121-126.
- [23] Demirpence, D. and S. Putnam, Reliability and validity of the self - report version of the Early Adolescent Temperament Questionnaire-Revised (EATQ - R) Short Form in a Turkish sample. *PsyCh Journal*, 2020. 9(1): p. 67-76. <https://doi.org/10.1002/pchj.314>
- [24] Amirrudin, M., K. Nasution, and S. Supahar, Effect of variability on Cronbach alpha reliability in research practice. *Jurnal Matematika, Statistika dan Komputasi*, 2021. 17(2): p. 223-230. <https://doi.org/10.20956/jmsk.v17i2.11655>
- [25] Alkhadim, G. S., Cronbach's alpha and semantic overlap between items: A proposed correction and tests of significance. *Frontiers in psychology*, 2022. 13: p. 171. <https://doi.org/10.3389/fpsyg.2022.815490>
- [26] Resnik, D. B. and A. E. Shamoo, Reproducibility and research integrity. *Accountability in research*, 2017. 24(2): p. 116-123. <https://doi.org/10.1080/08989621.2016.1257387>
- [27] Nulty, D. D., The adequacy of response rates to online and paper surveys: what can be done? *Assessment & evaluation in higher education*, 2008. 33(3): p. 301-314. <https://doi.org/10.1080/02602930701293231>
- [28] Murphy, J. J., M. H. Murphy, C. MacDonncha, N. Murphy, A. M. Nevill, and C. B. Woods, Validity and reliability of three self-report instruments for assessing attainment of physical activity guidelines in university students. *Measurement in Physical Education and Exercise Science*, 2017. 21(3): p. 134-141. <https://doi.org/10.1080/1091367X.2017.1297711>
- [29] Rasul, M. S. and A. Puvanasvaran, Importance of employability skills as perceived by employers of Malaysian manufacturing industry. *Journal of Human Capital Development (JHCD)*, 2009. 2(2): p. 23-35.
- [30] Mohamad Sattar, R., I. Md Yusof, I. Napsiah, R. Rashid, and A. Roseamnah, Aspek kemahiran 'employability' yang dikehendaki majikan industri pembuatan masa kini. *Jurnal Pendidikan Malaysia*, 2009. 34(2): p. 67-79. ISSN 0126-6020 / 2180-0782.
- [31] Kazilan, F., R. Hamzah, and A. R. Bakar, Employability skills among the students of technical and vocational training centers in Malaysia. *European Journal of Social Sciences*, 2009. 9(1): p. 147-160.
- [32] Zientara, P., Employment of older workers in Polish SMEs: employer attitudes and perceptions, employee motivations and expectations. *Human Resource Development International*, 2009. 12(2): p. 135-153. <https://doi.org/10.1080/13678860902764068>
- [33] Pappas, M. A., A. S. Drigas, Y. Papagerasimou, H. Dimitriou, N. Katsanou, S. Papakonstantinou, and Z. Karabatzaki, Female entrepreneurship and employability in the digital era: The case of Greece. *Journal of Open Innovation: Technology, Market, and Complexity*, 2018. 4(2): p. 15. <https://doi.org/10.3390/joitmc4020015>

- [34] Walker, D. P., Engaging female employees: An identification of the skills needed to effectively lead female employees. 2013: University of Pennsylvania.
- [35] Kim, S., The impact of human resource management on state government IT employee turnover intentions. *Public personnel management*, 2012. 41(2): p. 257-279. <https://doi.org/10.1177/00910260120410>
- [36] Shaukat, H., N. Ashraf, and S. Ghafoor, Impact of human resource management practices on employees performance. *Middle-East Journal of Scientific Research*, 2015. 23(2): p. 329-338. <https://doi.org/10.5829/idosi.mejsr.2015.23.02.22117>
- [37] Kolding, M., M. Sundblad, J. Alexa, M. Stone, E. Aravopoulou, and G. Evans, Information management—a skills gap? *The Bottom Line*, 2018. 31(3/4): p. 170-190. <https://doi.org/10.1108/BL-09-2018-0037>
- [38] Murrar, A., M. Batra, V. Paz, B. Asfour, and M. Balmakhtar, Employability of job applicants in skilful jobs: commonality in employer and employee perspectives. *International Journal of Manpower*, 2022. 43(6): p. 1285-1300. <https://doi.org/10.1108/IJM-10-2020-0454>
- [39] Asbari, M., A. B. Prasetya, P. B. Santoso, and A. Purwanto, From creativity to innovation: The role of female employees' psychological capital. *International Journal of Social and Management Studies*, 2021. 2(2): p. 66-77. <https://doi.org/10.5555/ijosmas.v2i2.18>
- [40] Jhamb, D., N. Kampani, and V. Arya, Embracing the employee orientation: does customer relationship matter in brand building? *Benchmarking: An International Journal*, 2022. 29(2): p. 411-433. <https://doi.org/10.1108/BIJ-12-2020-0614>
- [41] Eisler, R. M. and L. W. Frederiksen, Perfecting social skills: A guide to interpersonal behavior development. Vol. 56. 2012: Springer Science & Business Media. ISBN 1461331862, 9781461331865.
- [42] Morris, M. G., V. Venkatesh, and P. L. Ackerman, Gender and age differences in employee decisions about new technology: An extension to the theory of planned behavior. *IEEE transactions on engineering management*, 2005. 52(1): p. 69-84. <https://doi.org/10.1109/TEM.2004.839967>
- [43] Ismail, I. M., N. A. Ahmad, M. H. Amiruddin, M. E. Ismail, and H. Harun, Identifying the employment skills among Malaysian vocational students: An analysis of gender differences. *Journal of Technical Education and Training*, 2019. 11(3). <https://publisher.uthm.edu.my/ojs/index.php/JTET/article/view/3198>
- [44] Abd Majid, M. Z., Hussin, M., Norman, M. H., & Kasavan, S. (2020). The employability skills among students of Public Higher Education Institution in Malaysia. *Geografia*, 16(1). 36-45. <https://doi.org/10.17576/geo-2020-1601-04>