European Research Studies Journal
Volume XXVIII, Issue 1, 2025

pp. 1072-1084

Perception, Motivation, and Career Alignment: A Study on Trainees' Attitudes Toward Vocational Training Centers in Tana River County, Kenya

Submitted xx/xx/xx, 1st revision xx/xx/xx, 2nd revision xx/xx/xx, accepted xx/xx/xx

Karina Tessar[1], Paweł Cichecki[2], Ooko James Opiyo[3]

Abstract:

Purpose: *This study investigates the factors influencing the acquisition of vocational skills among trainees in vocational training centres within Tana River County, Kenya. It aims to assess how vocational education can address youth unemployment and enhance employability, particularly in marginalized regions.*
Approach/Methodology/Design: *A descriptive research design was employed across nine vocational training institutions located in Galole, Bura, and Tana Delta sub-counties. A total of 207 trainees were selected using stratified and simple random sampling techniques. Data were collected using structured questionnaires and analyzed using descriptive and inferential statistics, including Chi-square tests.*
Findings: *While 69% of trainees acknowledged the adequacy of the skills acquired, 72.5% expressed dissatisfaction with their courses. Despite this, overall ratings remained positive. Motivation and alignment of training with career aspirations significantly influenced satisfaction levels. Major causes of dissatisfaction included insufficient resources, low societal recognition of vocational careers, and misalignment between training content and personal goals. All tested satisfaction variables showed statistical significance ($p < 0.0001$).*
Practical Implications: *The study highlights the need for better facilities, improved resource allocation, and context-specific training that aligns with individual student goals. These measures can enhance the effectiveness and appeal of vocational education in economically disadvantaged regions.*
Originality/Value: *This research provides critical insights into the challenges and opportunities within vocational training in marginalized areas. It contributes valuable evidence to inform policy and practice aimed at making vocational education a viable pathway for youth empowerment and employment.Union.*

Keywords: *Perception, motivation, career alignment, vocational training centers, tana river.*

JEL codes: *I25, J24, O15.*
Paper Type: *Research article.*

Acknowledgment: *Co-financed by the Minister of Science under the "Regional Excellence Initiative".*

[1]*University of Szczecin, Institute of Spatial Management and Socio-Economic Geography, Poland, e-mail: karina.tessar@usz.edu.pl;*
[2]*University of Szczecin, Poland, e-mail: pawel.cichecki@usz.edu.pl;*
[3]*e-mail: jemopiyoo@gmail.com;*

1. Introduction

Vocational education provides the individual with practical skills, making it possible to have enhanced employability and self-reliance, particularly critical in developing countries. Thus, TVET institutions have been given quite a good priority as avenues of countering youth unemployment and bridging the skills gap in Kenya (Republic of Kenya, 2019). In recent years, the rapid spread of digitalization and increased access to the Internet (Czaplewski, 2021) have also begun to influence how young people perceive and engage with vocational training, offering new opportunities for e-learning, skill acquisition, and career exploration (Nacheva *et al.*, 2022).

However, the effectiveness of these centers depends on a great deal on trainees' perceptions, motivation, and, most importantly, how the training aligns to the career aspirations of the trainees. In Tana River County, which is marginalized and an arid locality, vocational training becomes an avenue for local developments, yet many youths are still hesitant or unwilling due to limited awareness, inadequate resources, and perceived low prestige of vocational careers (Olaniran and Mncube, 2018).

Further, motivation hugely impacts how a student will respond to vocational training. There are two forms of motivation towards vocational pathways: intrinsic motivation in the form of interest or self-determination or extrinsic motivators such as job opportunities and financial support (Ryan and Deci, 2020) that often get students towards committing themselves to these pathways.

Career alignments-how well they perceive the training as congruent with their goals-tend to also affect retention and performance in the TVET institutions (Ochieng *et al.*, 2020). Grasping these dynamics is thus crucial for developing vocational programs that will successfully address the socio-economic needs of Tana River County.

2. Literature Review

The labor market can be defined as a space where exchanges take place between employees and employers, who embody the demand and supply sides (MacKay, Boddy, Brack, Diack, and Jones, 2024). The subject of the exchange in this case is work. Understanding the labor market as a mechanism that coordinates decisions about employment and remuneration (Hajder, 2018) reduces it to the role of a place where the needs of companies and the competences and professional qualifications of job seekers meet (Broulík, 2024).

The basic element of employees' qualifications is their education, which consists primarily of formal education, which should prepare students for the needs of the modern labor market (Belchior-Rocha, Casquilho-Martins, and Simões 2022). In this regard, there is a belief that education should adapt to technological and

demographic changes or modifications to business models (Liotti, 2022; Barhate, Dirani, 2022; World Economic Forum, 2020).

However, it cannot be forgotten that educational requirements differ, among others, depending on the industry. Although in recent years sectors related to information technologies or the green economy have been gaining importance (OECD, 2024), the economy based on skills is also growing stronger.

Therefore, the following trends can be observed in terms of educational requirements for the modern labor market: the impact of technology on the employment structure – the intensive development of artificial intelligence (Ghosh D., Ghosh R., Chowdhury, and Ganguly, 2025; Bejaković and Mrnjavac, 2020) and automation (Luo and Yang, 2023) forces changes in education towards the development of digital competences that will enable employees to adapt to the new requirements of the labor market (Amini, Korth, Patel, Peck, and Zorn, 2025; Hoff, Van Egdom, Napolitano, Hanna, and Rounds, 2021) a shift from formal qualifications to practical skills – recruitment for future job positions will be increasingly based on competences rather than diplomas.

Between 2018 and 2023, demand for AI-related positions increased by 21%, while the number of job postings requiring a college degree decreased by 15% (Bone, Ehlinger, and Stephany, 2023; Jackson and Tomlinson 2020; Tomlinson 2008), development of vocational education and training (VET) – VET training and courses that have been adapted to the needs of the fourth industrial revolution (e.g., artificial intelligence, green technologies) significantly increase employability, which is why programs teaching practical technical and digital competences are considered crucial (Lee and Hong, 2025; Persson Thunqvist, Gustavsson, Halvarsson, and Lundqvist, 2023; Tolonen and Aapola-Kari, 2022; Tūtlys, Buligina, Dzelme, Gedvilienė, Loogma, Sloka, Tikkanen, Tora, Vaitkutė, Valjataga, and Ümarik, 2022; Clarke, Westerhuis, and Winch, 2020; Hoidn and Šťastný, 2021).

The expansion of technical and vocational education and training (TVET) as a tool for the inclusiveness of the labor market – thanks for taking into account the needs of local labor markets, the technical and vocational education (TVET) model constitutes a bridge between education and employment and increases the availability of work for young people and people with lower formal education.

Short-term training in cooperation with industry shapes modern professional competences and is increasingly used in many countries, especially in Southeast Asia and Sub-Saharan Africa (Boahen and Opoku, 2024; Friderichs, Rogan, and Needham, 2024; Kaula, 2023; UNESCO-UNEVOC, 2023; GIZ, 2022; Kaula, 2022; Yadessa Tolossa Woyessa, and Akwasi Arko-Achemfuor, 2021).

As it is visible, technical and vocational education is gaining its importance by providing the individual with practical skills, making it possible to have enhanced employability and self-reliance, particularly critical in developing countries.

Thus, TVET institutions have been given quite a good priority as avenues of countering youth unemployment and bridging the skills gap in Kenya (Republic of Kenya, 2019). In recent years, the rapid spread of digitalization and increased access to the Internet (Czaplewski, 2021) have also begun to influence how young people perceive and engage with vocational training, offering new opportunities for e-learning, skill acquisition, and career exploration (Nacheva *et al.*, 2022).

However, the effectiveness of these centers depends a great deal on trainees' perceptions, motivation, and, most importantly, how the training aligns with the career aspirations of the trainees. In Tana River County, which is marginalized and an arid locality, vocational training becomes an avenue for local developments, yet many youths are still hesitant or unwilling due to limited awareness, inadequate resources, and perceived low prestige of vocational careers (Olaniran and Mncube, 2018).

Further, motivation hugely impacts how a student will respond to vocational training. There are two forms of motivation towards vocational pathways: intrinsic motivation in the form of interest or self-determination, and extrinsic motivators such as job opportunities and financial support (Ryan and Deci, 2020) that often get students towards committing themselves to these pathways. Career alignments—how well they perceive the training as congruent with their goals—tend to also affect retention and performance in the TVET institutions (Ochieng *et al.*, 2020). Grasping these dynamics is thus crucial for developing vocational programs that will successfully address the socio-economic needs of Tana River County.

3. Methodology

3.1 Study Area

The study was conducted in Tana River County in 2022, a region notable for its distinct geographic and demographic characteristics. Located at approximately 1°25.980'S latitude and 39° 32.946'E longitude, Tana River County spans an area of 35,375 square kilometers, making it one of the larger counties in Kenya.

Politically, the county is divided into three main sub-counties: Galole, Bura, and Tana Delta, each contributing to the region's diverse socio-economic dynamics. The study focused on nine vocational training centers in Tana River County.

Tana River County was selected due to its significant population of young people who had not completed their secondary education and lacked job-related skills.

3.2 Research Design

The research design employed in this study was the descriptive research design, selected for its appropriateness in exploring the factors influencing vocational skills among trainees in vocational training centers in Tana River County. As outlined by McCombes (2019), a descriptive research study aims to provide insight into the who, what, where, when, and how much of an issue, making it ideal for this investigation.

By utilizing a descriptive survey, the study was able to collect significant data necessary for generalization and understanding of the factors impacting vocational skills acquisition.

3.3 Sample Size and Sampling Techniques

The sample size for this study was determined based on the target audience, employing a combination of stratified random sampling, simple random sampling, and purposive sampling techniques to select respondents effectively. Stratified Random Sampling technique was employed to ensure adequate representation from each Vocational Training Center.

The trainees were categorized into strata according to their respective centers, creating distinct groups for each center. Within each stratum, trainees were randomly selected, ensuring a diverse and representative sample that reflects the demographics and experiences of the entire trainee population across all centers. The sample size was determined based on the target audience and calculated using Yamane's (1967) formula for finite populations:

$nh = n (Nh/N)$

3.4 Data Collection Instruments

Primary data was sourced and gathered using questionnaires to be administered to the targeted respondents. The questionnaire included both open- and closed-ended items and utilized a Likert scale to collect respondents' attitudes and opinions. The questionnaires were physically distributed through direct distribution.

3.5 Data Analysis

Data analysis was conducted to summarize key features and relationships in the collected data to generalize findings. The raw data were sorted, coded, and structured based on their type (quantitative or qualitative). Descriptive statistics such as frequencies and percentages were used to summarize quantitative data, while inferential statistics including chi-square was employed to examine relationships and patterns in the data.

4. Methodology

4.1 Demographic Information of Trainees

The data shows that out of 207 respondents, 45.4% were male and 54.6% were female. This indicates a slightly higher representation of females in the study sample. In terms of age distribution, the majority of respondents were between 20-25 years old, accounting for 51.7% of the sample.

Those below 20 years old represented 42.0%, while a small percentage fell into the 25-30 years bracket (5.8%), and only one respondent was above 30 years old (0.5%). According to the courses enrolled by respondents the data indicates that Information Communications Technology (ICT) was the most popular course among the respondents, with 24.1% enrolling in this program.

This was followed by Tailoring and Dressmaking (22.2%), Electrical Technology (21.3%), Motor Vehicle Mechanics (14.5%), Building Construction (9.7%), and Hair Dressing Technology (8.2%) (Table 1).

Table 1. *Demographic Information of Trainees*

	Trainees	Frequency	Percent
Gender	Male	94	45.4
	Female	113	54.6
	Total	207	100
Age Bracket	Below 20 years	87	42.0
	20-25 years	107	51.7
	25-30 years	12	5.8
	Above 30 Years	01	0.5
	Total	207	100
Courses Enrolled	Tailoring and Dressmaking	46	22.2
	Motor Vehicle Mechanics	30	14.5
	Electrical wire man	44	21.3
	Hair Dressing Technology	17	8.2
	Masonry/ Building construction	20	9.7
	Information Communications Technology	50	24.1
	Total	207	100

Source: *Own elaboration.*

4.2 Trainees' Perception towards Vocational Training and Skills Acquisition in Vocational Training Centers

Table 2 illustrates the perceptions of trainees toward vocational training and skills acquisition in vocational training centers in Tana River County. The findings revealed a complex landscape regarding the adequacy and relevance of vocational

training provided, as well as trainees' overall satisfaction and motivations toward their courses.

Table 2. *Perception of trainees towards vocational training centres*

Question	Attribute	Frequency	Percent
Are skills acquired in vocational training centers adequate?	Yes	143	69.0
	No	64	31
	Total	207	100.0
How do you perceive courses offered on trade area?	Good	150	72.5
	Bad	57	27.5
	Total	207	100.0
How contented are you with the courses offered?	Highly contented	20	9.6
	Contented	7	3.4
	Not contented	150	72.5
	Neutral	30	14.5
	Total	207	100

Source: *Own elaboration.*

The data indicated that majority of the trainees (69%) believed that the skills acquired in vocational training centers were adequate. This unanimous agreement was somewhat surprising, considering the high level of dissatisfaction expressed in other areas. The discrepancy suggested a possible disconnect between trainees' perception of skill adequacy and their satisfaction with specific courses.

This phenomenon aligned with the work of Adeokun and Opoko (2015), which emphasized that trainees who understood the relevance of their chosen courses to their career aspirations tended to be more motivated and satisfied.

Moreover, 72.5% of trainees rated courses offered to them as good, while 27.5% considered them bad; a staggering 72.5% of trainees expressed that they were "not contented" with the courses offered. Only 9.6% reported being "highly contented," and 3.4% were simply "contented." This stark contrast suggested that while trainees might acknowledge the quality of the skills taught, they may not have found the specific courses fulfilling or aligned with their career aspirations.

The findings supported Haase *et al.* (2012), who argued that contentment and motivation were closely tied to career aspirations. Many trainees seemed to lack motivation or had negative mindsets towards their chosen career paths, evidenced by the high percentage of dissatisfaction.

The negative perception of vocational training centers in Tana River County, often seen as "schools for academic failures," further exacerbated this issue, discouraging potential trainees from engaging fully with the opportunities available to them.

4.3 Degree of Satisfaction among Trainees towards Vocational Training and Skills Acquisition

All statement concerning trainees' satisfaction towards Vocational Training and skills acquisition were highly significant $p<0.0001$. These findings are not consistent with existing literature in the field of vocational education and training, which has highlighted dissatisfaction among trainees' towards to related to training programs.

This could be due the area is mainly marginalized and is due to introduction of County government which has enabled the establishment of such facilities and the trainees haven't exposed to other similar facilities across the country to compare the quality of training. The findings contradict those of Giangreco et al. (2009) found that trainees often express dissatisfaction with the quality of instruction, the relevance of the courses offered, and the availability of resources in vocational training programs.

Table 3. *Degree of Satisfaction*

Statement	SA	A	U	D	SD	Chi-Square (χ^2)
I am satisfied with the courses offered	12 (5.8%)	37 (17.9%)	8 (3.9%)	97 (46.9%)	53 (25.6%)	$\chi^2 = 126.21$ d.f.= 4 $p < 0.0001$
I am satisfied with training methodologies	15 (7.2%)	22 (10.6%)	2 (1.0%)	101 (48.8%)	67 (32.4%)	$\chi^2 = 165.05$ d.f.= 4 $p < 0.0001$
I am satisfied with workshops, work benches & in the respective department	18 (8.7%)	32 (15.5%)	2 (1.0%)	90 (43.5%)	65 (31.4%)	$\chi^2 = 123.36$ d.f.= 4 $p < 0.0001$
I am satisfied with equipment availability	22 (10.6%)	42 (20.3%)	3 (1.4%)	79 (38.2%)	61 (29.5%)	$\chi^2 = 88.14$ d.f.= 4 $p < 0.0001$
I am satisfied with Library and learning Resources	17 (8.2%)	34 (16.4%)	6 (2.9%)	79 (38.2%)	71 (34.3%)	$\chi^2 = 101.28$ d.f.= 4 $p < 0.0001$

Key: SA-Strongly Agree, A-agree, U-Undecided, D-Disagree, SD-Strongly Disagree

Source: *Own elaboration.*

4.4 The Availability of the Physical Facilities and Resources for Vocational Training and Skills Acquisition

The trainees' agreed that there were not enough physical training resources ($p<0.0001$), though the quality of workshop equipment and work benches were available to the trainees ($p<0.0001$), moreover the training tools were modern and

relevant ($p<0.0001$) and nature and availability of training resources influence the acquisition of vocational skills and equipment ($p<0.0001$).

Smith *et al.* (2018) conducted research indicating that trainers frequently perceive a lack of resources and support, which they believe directly impacts the effectiveness of vocational training programs. The current study found that trainees believed that nature and availability of training resources influence the acquisition of vocational skills and equipment which agrees with the Smith *et al.* (2018) study.

In addition, findings of Brown *et al.* (2019) provided insight into the more favorable perspectives held by administrators and policymakers. Their research indicated that these stakeholders often view the resources and support for vocational training programs in a more optimistic light.

Table 4. *Adequacy of the physical facilities for the acquisition of vocational skills*

Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Chi-Square (χ^2)
There is not enough provision of physical training resources and equipment	22 (10.6%)	27 (13.0%)	11 (5.3%	69 (33.3%)	78 (37.7%)	$\chi^2 = 87.17$ d.f.= 4 $p < 0.0001$
There is quality workshop equipment and work benches available	9 (4.3%)	34 (16.4%)	17 (8.2%)	92 (44.4%)	55 (26.6%)	$\chi^2 = 107.37$ d.f.= 4 $p < 0.0001$
The training tools are modern and relevant, providing skills needed to meet market demand.	21 (10.1%)	31 (15.0%)	17 (8.2%)	84 (40.6%)	54 (26.1%)	$\chi^2 = 74.71$ d.f.= 4 $p < 0.0001$
The nature and availability of training resources influence the acquisition of vocational skills and equipment	15 (7.2%)	21 (10.1%)	12 (5.8%)	88 (42.5%)	71 (34.3%)	$\chi^2 = 121.38$ d.f.= 4 $p < 0.0001$

Source: *Own elaboration.*

5. Conclusions and Recommendations

The conducted study confirms the significant role that Technical and Vocational Education and Training (TVET) plays in reducing youth unemployment and enhancing employability in peripheral regions such as Tana River County. The TVET system thus emerges as a potentially effective tool for addressing social inequalities by equipping learners with specific practical skills that enable them to participate in the local labor market.

The majority of respondents were women (54.6%), while men accounted for 45.4%. This indicates a higher interest among women in vocational education in the studied region. The largest age group among the participants was 20–25 years (51.7%), followed by those below 20 years (42.0%). This means that over 93% of the study participants were between 15 and 25 years old—typically individuals at the early stages of their professional development. Only 0.5% of respondents were over 30 years old.

Data analysis revealed a significant discrepancy between the positive assessment of the adequacy of the acquired competencies (69% of responses) and the low level of satisfaction with the courses themselves (over 72% of respondents dissatisfied). This phenomenon points to a limited alignment between the training programs and the individual expectations and career aspirations of the participants, which may negatively impact their engagement, motivation, and the long-term sustainability of educational outcomes.

These findings are consistent with those of Okinyiyi, Nyerere, and Kariuki (2021), who identified systemic inefficiencies in public vocational training centers in Kenya, including low enrollment rates, high dropout levels, and low completion rates.

The results clearly indicate that both intrinsic motivation (e.g., interest, self-fulfillment) and extrinsic motivation (e.g., expected employment, financial benefits), as well as the alignment of training pathways with participants' career goals, are key factors influencing satisfaction and the perceived usefulness of vocational training. The lack of such alignment significantly reduces the effectiveness of the educational process.

The study revealed significant shortages in the availability of physical resources, such as workshop equipment, teaching aids, and learning spaces. Although the available equipment was assessed as modern and aligned with labor market needs, its limited quantity and restricted access led to a decrease in the quality of the teaching and learning process.

This supports the argument that the effectiveness of vocational training is closely dependent on the availability of technical and logistical infrastructure. These conclusions align with the findings of Musyimi (2021), who emphasized the impact

of modern teaching equipment on Kenya's industrial development, highlighting infrastructure and instructional resources as key determinants of educational quality and graduate employability.

The results also underscore the need to design vocational education programs tailored to local socio-economic and cultural contexts. A lack of public awareness about the value of vocational education and the low societal prestige associated with this educational pathway negatively affect youth interest and their willingness to participate in TVET programs.

Ultimately, the effectiveness of vocational training centers requires comprehensive and long-term support from both governmental and local institutions. This includes not only infrastructural investments but also informational policies aimed at reshaping public perceptions of vocational education as a valuable and promising educational and career pathway.

References:

Adeokun, C.O., Opoko, A.P. 2015. Exploring the Link between motivation for course-choice and retention in the architectural profession: Students' perspectives. Mediterranean Journal of Social Sciences. DOI: 10.5901/mjss.2015.v6n6s1p191.

Amini, L., Korth, H.F., Patel, N., Peck, E., Zorn, B. 2025. Empowering the Future Workforce: Prioritizing Education for the AI-Accelerated Job Market. arXiv preprint arXiv:2503.09613. https://doi.org/10.48550/arXiv.2503.09613.

Barhate, B., Dirani, K.M. 2022. Career aspirations of generation Z: a systematic literature review. European Journal of Training and Development, Vol. 46. No. 1/2, 139-157. https://doi.org/10.1108/EJTD-07-2020-0124.

Bejaković, P., Mrnjavac, Ž. 2020. The importance of digital literacy on the labour market. Employee Relations, Vol. 42, No. 4, 921-932. https://doi.org/10.1108/ER-07-2019-0274.

Belchior-Rocha, H., Casquilho-Martins, Simões, E. 2022. Transversal Competencies for Employability: From Higher Education to the Labour Market. Education Sciences, 12(4), 255. https://doi.org/10.3390/educsci12040255.

Boahen, E.A., Opoku, K. 2024. Inequalities in labour market outcomes of school leavers: Does educational track matter? J. Soc. Econ. Dev., 26, 280-307. https://doi.org/10.1007/s40847-023-00264-x.

Bone, M., Ehlinger, E., Stephany, F. 2024. Skills or Degree? The Rise of Skill-Based Hiring for AI and Green Jobs. https://doi.org/10.48550/arXiv.2312.11942. https://arxiv.org/abs/2312.11942.

Broulík, J. 2024. Relevant Labour Market: Missing in the New Market Definition Notice. Amsterdam Law School Research Paper No. 2024-42. Amsterdam Centre for European Law and Governance Research Paper No. 2024-15, Amsterdam Center for Law & Economics Working Paper No. 2024-13, TILEC Discussion Paper No. 2024-17. http://dx.doi.org/10.2139/ssrn.5027438.

Brown, C.P., Englehardt, J., Barry, D.P., Ku, D.H. 2019. Examining how stakeholders at the local, state, and national levels made sense of the changed kindergarten. American Educational Research Journal, 56(3), 822-867.

Clarke, L., Westerhuis, A., Winch, C. 2020. Comparative VET European research since the

1980s: accommodating changes in VET systems and labour markets. Journal of Vocational Education & Training, 73(2), 295-315. https://doi.org/10.1080/13636820.2020.1858938.

Czaplewski, M. 2021. Communication networks as the basis for functioning of the Internet. Knowledge-Based and Intelligent Information & Engineering Systems: Proceedings of the 25th International Conference KES2021, 192, pp. 1770-1778. Available at: https://doi.org/10.1016/j.procs.2021.08.181.

Friderichs, T.J., Rogan, M., Needham, S. 2024. Gendered labour market outcomes among South African technical and vocational education and training (TVET) completers. Journal of Vocational, Adult and Continuing Education and Training, 7(2), 35-52. https://doi.org/10.14426/jovacet.v7i2.417.

Ghosh, D., Ghosh, R., Roy Chowdhury, S., et al. 2025. AI-exposure and labour market: a systematic literature review on estimations, validations, and perceptions. Manag Rev Q, 75, 677-704. https://doi.org/10.1007/s11301-023-00393-x.

Giangreco, A., Sebastiano, A., Peccei, R. 2009. Trainees' reactions to training: an analysis of the factors affecting overall satisfaction with training. The international journal of human resource management, 20(1), 96-111.

GIZ, 2022. Skills for a Just Transition to a Green Future. Discussion paper. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn, Eschborn, 27_giz2022-0387en-just-transition-green-future.pdf.

Haase, C.M., Poulin, M.J., Heckhausen, J. 2012. Happiness as a motivator: Positive affect predicts primary control striving for career and educational goals. Personality and Social Psychology Bulletin, 38(8), 1093-1104.

Hajder, K. 2018. Zmiany na rynkach pracy państw OECD ze szczególnym uwzględnieniem Unii Europejskiej w latach 2000-2016. WNPiD UAM.

Hoff, K., Van Egdom, D., Napolitano, C., Hanna, A., Rounds, J. 2021. Dream Jobs and Employment Realities: How Adolescents' Career Aspirations Compare to Labor Demands and Automation Risks. Journal of Career Assessment, 30(1), 134-156. https://doi.org/10.1177/10690727211026183.

Hoidn, S., Šťastný, V. 2021. Labour Market Success of Initial Vocational Education and Training Graduates: A Comparative Study of Three Education Systems in Central Europe. Journal of Vocational Education & Training, 75(4), 629-653. https://doi.org/10.1080/13636820.2021.1931946.

Jackson, D., Tomlinson, M. 2020. Investigating the relationship between career planning, proactivity and employability perceptions among higher education students in uncertain labour market conditions. High Educ., 80, 435-455. https://doi.org/10.1007/s10734-019-00490-5.

Kaula, S. 2022. Technical and Vocational Education and Training and Production of Productive Workforce Graduates: An Incubation Role of Private Sector; A case of selected NACTVET Colleges in Mbeya, Tanzania. J. Gen. Educ. Humanit., vol. 1, no. 4, pp. 187-200. https://doi.org/10.58421/gehu.v1i4.45.

Kaula, S. 2023. Technical and Vocational Education and Training for Producing Graduates with Necessary Skills on Demand of Labour Market: The Moderating Role of Labour Market Information. Journal of General Education and Humanities, 2(1), 35-44. https://doi.org/10.58421/gehu.v2i1.55.

Lee, H., Hong, I. 2025. Quantifying the influence of Vocational Education and Training with text embedding and similarity-based networks. https://doi.org/10.48550/arXiv.2503.17931.

Liotti, G. 2022. Labour Market Regulation and Youth Unemployment in the EU-28. Italian

Economic Journal, 8, 77-103. https://doi.org/10.1007/s40797-021-00154-3.

Luo, C.M., Yang, J.S. 2023. Meeting automation challenges to labor markets: policy inspirations from the governance of Swiss VET. Innovation: The European Journal of Social Science Research, 1-19. https://doi.org/10.1080/13511610.2023.2297350.

MacKay, D.I., Boddy, D., Brack, J., Diack, J.A., Jones, N. 2024. Labour markets under different employment conditions. Taylor & Francis, p. 15.

Nacheva, R., Sulov, V., Czaplewski, M. 2022. The Impact of M-Learning on Sustainable Information Society, In: A.V. Chugunov *et al.* (eds) Electronic Governance and Open Society: Challenges in Eurasia. Cham: Springer International Publishing, pp. 244-262.

Ochieng, O.G., Ngala, F.B., Kiplangat, H.K. 2020. Institutional context factors and female students' choice of career in science TVET in technical training institutes in Siaya County, Kenya. Editon Consortium Journal of Educational Management and Leadership, 1(1), 37-58.

OECD. 2024. OECD Employment Outlook 2024: The Net-Zero Transition and the Labour Market. OECD Publishing, Paris. https://doi.org/10.1787/ac8b3538-en.

Olaniran, S.O., Mncube, D.W. 2018. Barriers to effective youth entrepreneurship and vocational education. Academy of Entrepreneurship Journal, 24(4), 1-10.

Persson Thunqvist, D., Gustavsson, M., Halvarsson Lundqvist, A. 2023. The role of VET in a green transition of industry: a literature review. International journal for research in vocational education and training 10(2023)3, 361-382. DOI: 10.25656/01:28070.

Republic of Kenya. 2019. TVET policy framework. Ministry of Education.

Ryan, R.M., Deci, E.L. 2020. Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. Contemporary educational psychology, 61, 101860.

Smith, M., Bell, K., Bennett, D., McAlpine, A. 2018. Employability in a global context: Evolving policy and practice in employability, work integrated learning, and career development learning. Education Sociology. DOI:10.6084/M9.FIGSHARE.6372506.

Tolonen, T., Aapola-Kari, S. 2022. Head-first Into Upper Secondary Education: Finnish Young People Making Classed and Gendered Educational Choices. Young, 30(4), 344-360. doi:10.1177/11033088221086078.

Tomlinson, M. 2008. The degree is not enough: students' perceptions of the role of higher education credentials for graduate work and employability. British Journal of Sociology of Education, 29(1), 49-61. https://doi.org/10.1080/01425690701737457.

Tūtlys, V., Buligina, I., Dzelme, J., Gedvilienė, G., Loogma, K., Sloka, B., Tikkanen, T.I., Tora, G., Vaitkutė, L., Valjataga, T., Ümarik, M. 2022. VET ecosystems and labour market integration of at-risk youth in the Baltic countries: implications of Baltic neoliberalism, Education + Training, Vol. 64, No. 2, 190-213. https://doi.org/10.1108/ET-09-2021-0349.

UNESCO-UNEVOC. 2023. Innovative and Promising Practices in TVET. (unesco.org)

World Economic Forum & Accenture. 2022. Jobs of Tomorrow, The Triple Returns of Social Jobs in The Economic Recovery, World Economic Forum's Centre, White Paper, 2022, https://www3.weforum.org/docs/WEF_Jobs_of_Tomorrow_2022.pdf.

Yadessa Tolossa Woyessa, Akwasi Arko-Achemfuor, 2021. TVET Curriculum Mapping and Its Responsiveness to the Labour Market Demand the Case of the Building Construction Fields in Ethiopia. International Journal of Vocational Education and Training Research, Vol. 7, No. 2, pp. 41-49. doi: 10.11648/j.ijvetr.20210702.11.