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Exploring the Dual Apprenticeship Program in Benin Republic: Analyzing Opportunities and Overcoming Challenges

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ABSTRACT

The purpose of this paper is to explore the current state of Benin's dual apprenticeship program, specifically its opportunities and challenges, as well as potential solutions. Since 2003, the vast majority of Benin young people have been trained on the job in the work techniques of a given trade in the artisan workshop. This study used a mixed-methods approach to understand the effectiveness, efficiency, and sustainability of Benin's dual apprenticeship program. Primary data was collected through online interviews, with secondary data from government documents, decrees, policies, and project progress reports. The study focused on the cities of Cotonou, Sèmè-Podji, Parakou, and Porto-Novo, with 63 purposefully selected participants. The collected data was analyzed using thematic and content analysis to identify key themes and patterns. The results show that the dual apprenticeship program provides apprentices with a three-year training program that combines practical experience in artisan workshops with theoretical training at vocational training centers (VTCs). Upon completion, apprentices receive the *"Certificat de Qualification Professionnelle"* (CQP). However, issues such as outdated entrance or recruitment processes, outdated training materials, insufficient student manuals, lack of trainer quality control, and failure to meet basic obligations hinder its success. Similarly, it is noted that the program only includes 13 out of 300 craft occupations, and trainees are placed in VTCs far from their homes. To this end, the program's expansion to other crafts and engaging all stakeholders in clearly defined responsibilities will lead to

the program's effectiveness and sustainability in Benin Republic.

Keywords
Apprentices
Challenges
Dual apprenticeship
Opportunities
Vocational training center

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Introduction

This article examines the opportunities and challenges of dual apprenticeship programs in Benin. In fact, for a long time, the majority of Benin's youth received on-the-job training in trade skills in craft workshops. This form of training is called traditional apprenticeship [1]. This hands-on training was not regulated by the government, and there was no prior order required for the training program. This applies both to youth who have dropped out of primary education and to youth who have never attended school [2]. While masters and apprentices mostly enter into a verbal apprenticeship contract and each apprentice pays an apprenticeship fee, some apprentices pay nothing due to their financial, social status, or relationship with the master [3]-[5]. According to Swisscontact [6], the method of acquiring trade knowledge and practices was based on the ability to observe and imitate professional gestures.

To make the program more successful, the government, with the support of donor agencies, initiated a series of reforms in the field of technical and vocational education and training [7]. These reforms included a renewal of the vocational training system and the resulting dual apprenticeship system, which led to the *"Certificat de Qualification Professionnelle" (CQP)* in 2003 [8],[9]. The dual apprenticeship system began as a bilateral collaboration in Germany, followed by collaboration in France and Switzerland, with continued support from other donor agencies [10]. The program, which aims to meet the need for quality professional human resources to ensure sustainable development of the country, remains an ongoing problem [11]. Benin has embarked on this type of training to provide competent human resources that can contribute to the country's development [12]. As Kudrzycki et al [2] note, this program is designed for all youth who have dropped out of school. Currently, this training model only applies to the craft sector, while industry and agriculture operate under different models [6].

After more than 20 years of use of this program, several key issues have become critical to most components of the dual apprenticeship system [13]. This article aims to identify the

opportunities and challenges of dual apprenticeships, as well as the actions needed for their sustainability and efficiency, by reviewing the current state of the program in Benin Republic.

Literature Review

The literature review will delve into the existing research on youth employment, technical and vocational education, and dual apprenticeship programs in both developed and developing countries. It will analyze the benefits, challenges, and outcomes of such programs to provide a comprehensive understanding of their impact on enhancing employment opportunities for the youth population.

A. Overview of Dual Apprenticeship

Dual apprenticeship programs, also known as dual-training programs, are vocational training programs that combine on-the-job training with in-class instruction [10]. These programs aim to provide students with practical skills and knowledge in a specific trade or profession while they are still in school. According to Anokye et al. [14], the main features of dual apprenticeship programs include on-the-job training, where apprentices work alongside experienced professionals to learn the necessary skills and techniques, and in-class instruction, where apprentices attend vocational schools or training centers, which helps them acquire a solid foundation of knowledge. Likewise, the programs follow a structured curriculum, with mentors providing guidance and support throughout the training. The duration of dual apprenticeship programs can vary depending on the trade or profession, ranging from a few months to several years [15]. Upon successful completion, apprentices receive a certificate or qualification recognizing their skills and knowledge in their chosen trade [16],[17].

According to Jacoby [18], the dual apprenticeship programs in developed countries are highly regarded for their effectiveness in integrating youths into the labor market. As he highlighted, the programs are a common form of skills training in developed countries like Australia, Austria, Switzerland, and Germany. These programs involve a close collaboration between companies and vocational schools, where trainees split their time between classroom instruction and on-the-job training [19],[20]. This model ensures that apprentices receive standardized training, leading to nationally recognized qualifications [20]. The study of Elliott & Farnbauer [21] revealed that the success of dual apprenticeships in developed countries lies in the active involvement of government, employers, and trade unions in updating training regulations and ensuring quality. Despite the benefits, challenges exist, such as a shortage of skilled workers due to demographic changes and a preference for university education over apprenticeships among young people [21].

Besides, the dual apprenticeship programs in developing countries offer several benefits to apprentices. These include enhanced employability, higher earnings, and broader skill

development. According to ILO [22], apprentices gain practical skills and theoretical knowledge on the job, making them more attractive to employers. They also experience a shorter induction period in new workplaces, allowing them to become productive employees more quickly and efficiently. Additionally, Crépon and Premand [23] found that the dual apprenticeship programs often lead to nationally recognized qualifications, providing apprentices with formal certification that enhances their credibility in the job market and opens up more opportunities for career advancement. These benefits make dual apprenticeship programs a valuable tool for enhancing the employability and earning potential of apprentices in these countries [19],[23].

B. Dual Apprenticeship in Benin Republic

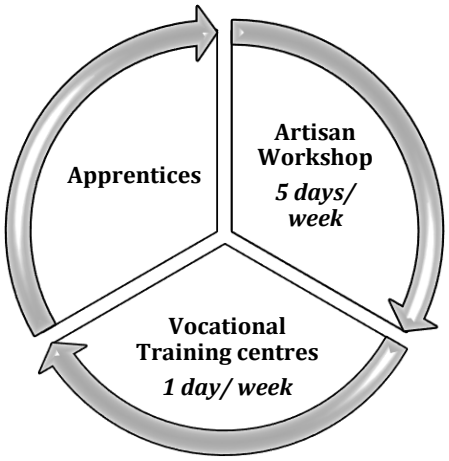
The dual apprenticeship program in Benin Republic, also known as the Benin Technical and Vocational Education and Training (TVET) system, was established in 2005 under the Apprenticeship Act 117/2005. As outlined by Nouatin [24] and Bankolé et al. [25], the program aims to align training programs with the demands of the labor market and encompasses the Certificat de Qualification aux Métiers-CQM and the Certificat de Qualification Professionnelle-CQP. The TVET system consists of three levels: primary education, general secondary education technical secondary education, and tertiary education [26],[27]. In contrast to traditional apprenticeships, the dual apprenticeship program in Benin involves a combination of training in master craftsmen workshops and vocational training centers [28]. Unlike most firms in Benin that provide informal on-the-job training, this program requires a dual approach to training [8]. Nowadays, the program receives support from public institutions, professional associations, and donor agencies, to develop the crafts sector, address tax relief, and promote the role of professional associations in the TVET sector [24]. Additionally, the World Bank has approved a $300 million financing from the International Development Association (IDA) to support employment and economic opportunities for young people and women through access to technical and vocational education and training, as well as entrepreneurship support [29]. However, challenges exist within the program. While apprenticeship contracts are established, there are concerns regarding the remuneration of apprentices by enterprise heads [30]. Similarly, the government authorities through FODEFCA and the National Directorate of TVET play a significant role in informing, guiding, and selecting apprentices; yet, there is limited involvement of social partners (employers and unions) in designing, implementing, and monitoring apprenticeship arrangements [27]. Furthermore, there is a lack of an organized information system for monitoring and evaluation, hindering funding bodies from developing the necessary training capacity to meet economic needs [4],[30],[31]. From this point, it appears that the dual apprenticeship program in Benin Republic is an integral part of the TVET system designed to align training programs with labor market demands. It involves both on-

the-job training in master craftsmen workshops and off-the-job instruction in vocational training centers. However, it faces challenges related to apprentice remuneration and requires improved coordination and funding among stakeholders [8],[13].

C. Theoretical Framework

In Benin, as in many other countries in Africa and other continents, apprenticeships are one of the main ways in which young people acquire skills [32]. Apprenticeship appears to be a form of training in which young people learn a trade under the guidance of a mentor or supervisor [33]. According to Bhurtel [34], apprenticeship is widely known as a training system in which learners enroll in an industry or workplace for a specific period and learn all the necessary knowledge. In addition, the VTC owner or trainer is paid for the services they provide. That is why apprenticeship is, in a way, an opportunity to secure and provide young people (apprentices) with specific knowledge and skills, making them useful and qualified in the labor market [35]. Looking at the Benin dual apprenticeship system today, although a lot of effort has been made since its introduction and renewal, many aspects need to be changed [5]. Sharp and Gibson [36] stated that apprenticeship is a unique form of education where students acquire skills not only in an academic environment but also in a real work environment. Similarly, Lasserre [37] defines dual apprenticeship as a training system in which apprentices working for an enterprise spend one or two days a week at a vocational training center to acquire theoretical and technical foundations as well as general knowledge of the job, he/she is practicing. The dual system has its origins in Germanic culture and, as a result, is found especially in countries with this tradition, such as Germany, Switzerland, Liechtenstein, the Czech Republic, and Austria [35],[38]. In Benin and other countries using the same system, dual apprenticeships are emerging as a tool to address low skills and increase industrial productivity [1]. The name “dual training” was agreed upon by local Benin stakeholders to indicate that the training was based on a dual system but was not identical. Today, the dual vocational education system plays a key role in youth employment [39]. The dual apprenticeship period is typically three years (32 weeks per year) and leads to a Certificate of Professional Qualification (CQP). This happens in two different places: craft companies (craft workshops/companies) and public or private vocational training centers (VTCs). During these three years, the apprentice attends the vocational training center once a week and spends the remaining five days in the workshop [6].

Fig. 1 illustrates a location-based approach to first learn about Benin's dual apprenticeship program and then identify opportunities and challenges to make some suggestions for improvement.



Source: MoSTEVT [17]

Fig. 1. Benin dual apprenticeship program analysis framework

D. Objectives of the Study

The study aims to examine the current state of Benin's dual apprenticeship program, including opportunities and challenges, and to explore potential solutions for enhancing the program.

E. Research Questions

1. What is the current status of the dual apprenticeship program in Benin Republic in terms of preparing participants for the workforce?
2. What are the key challenges and opportunities experienced by participants in the program?

Material and Methods

This study adopted a mixed-methods approach [40]. Data was primarily collected using online interviews made up of open-ended questions while secondary data was collected through desk-based/documentary research, which included government documents, decrees, policies, project progress reports, and previous research papers [41]. This technique helped gather relevant information from the existing literature on the dual apprenticeship programs in the Benin Republic. Additionally, the interviews helped to gather information, including awareness, perception, employment status, skill development effectiveness, and insights from key stakeholders including trainers, master craftsmen, and apprentices engaged in dual apprenticeship programs in the Benin Republic [41]. The study took place in the Benin Republic, focusing on the cities of Cotonou, Sèmè-Podji, Parakou, and Porto-Novo due to their multi-ethnic composition and the presence of diverse dual apprenticeship stakeholders (Institut National de la Statistique et de l'Analyse Economique [42],[43]. In total 63 participants were randomly selected to ensure equal opportunities for key stakeholders,

including apprentices, master craftsmen, and trainers [44],[45]. Table 1 shows the research participant's selection list.

Table 1. Research participants

	Number of Participants				Total
	Cotonou	Parakou	Porto-Novo	Sèmè-Podji	
Apprentices	06	07	04	10	27
Trainers	03	02	07	05	17
Master craftsmen	03	04	05	07	19
Total	12	13	16	22	63

Source: Primary data

As per Table 1, among the 63 program stakeholders who participated in the study, there were 27 apprentices, 17 trainers, and 19 apprentices. The data collected were analyzed using thematic and content analysis to identify key themes, patterns, and information and provide a comprehensive understanding of the dual apprenticeship program in the Benin Republic [44],[46]. This helps identify the current state, the opportunities as well as the challenges associated with the program before reaching formalized conclusions and recommendations for the effectiveness, efficiency, and sustainability of Benin's dual apprenticeship system. Besides, this study adhered to ethical principles including informed consent, confidentiality, and respect for participant rights throughout the research process [47].

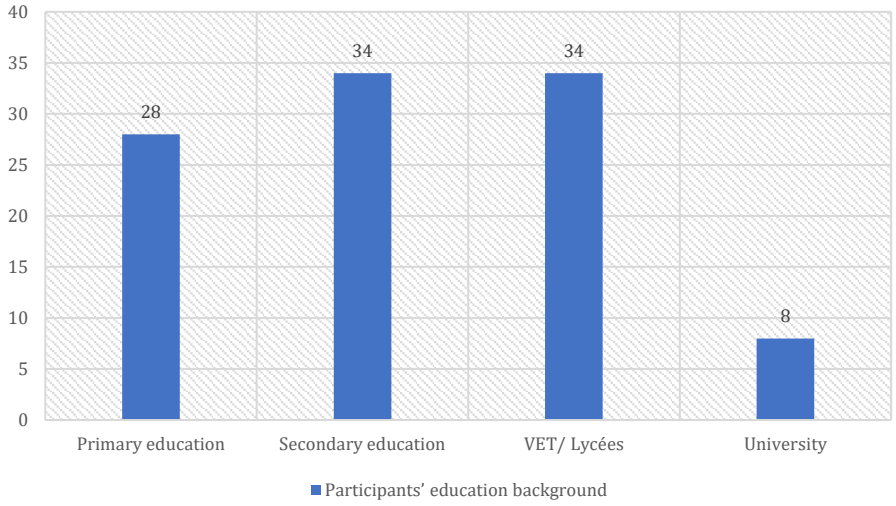
Results

This section presents and discusses the results of the study, including the current status, opportunities, and challenges of the dual apprenticeship program in Benin Republic.

A. Current status of dual apprenticeship

This section discusses the current status of the dual apprenticeship program in Benin Republic. There are 71.4% of females and 28.6% of males involved in the dual apprenticeship program in Benin Republic in terms of apprentices, trainees, and master craftsmen. It seems like there is a gender disparity in stakeholders' participation in the apprenticeship program in Benin Republic, with a higher percentage of females (71.4%) compared to males (28.6%). This is due to various factors such as social norms, access to opportunities, or interest in the program. For instance, in Benin customs and tradition, girls are always encouraged to attend short training programs (i.e. apprenticeship) rather than formal education that lasts long. With the national efforts to support girls and women in education, parents have been sending their school dropout children to apprenticeship programs instead of taking them to the farm. Thus, it would be good to make apprenticeship programs more inclusive and equitable to cater to the needs of both male and female participants.

Fig. 2 displays the educational background of the participants. Based on the results above, it appears that there are significant differences in educational backgrounds between apprentices and master craftsmen, as well as trainers in the Benin Republic. The data show that only 16% of apprentices and 12% of master craftsmen completed primary education, which suggests a lower level of formal education attainment among individuals in these roles. This could be due to various factors such as limited access to quality education, economic constraints, or early entry into the workforce. Interestingly, a higher percentage (34%) of apprentices attended secondary education due to poor school performance, indicating that some individuals may have faced challenges in their academic journey.



Source: Primary data

Fig. 2. Participants' education background

This highlights the importance of providing support and alternative pathways for those who may not excel in traditional educational settings. When looking at the trainers, it is notable that 08% of them attended university while 30% of them completed VET/Lycées, showcasing a higher level of educational attainment among this group. This could potentially influence the quality of training and mentorship provided to apprentices, as well as the overall impact of the apprenticeship program.

Table 2 presents the motivational factors for joining apprenticeship programs in Benin Republic. The results show that in Benin Republic apprentices are joining dual apprenticeship programs for a variety of reasons. As per the data collected, a significant portion, 31.75%, cited financial incentives as their motivation for joining.

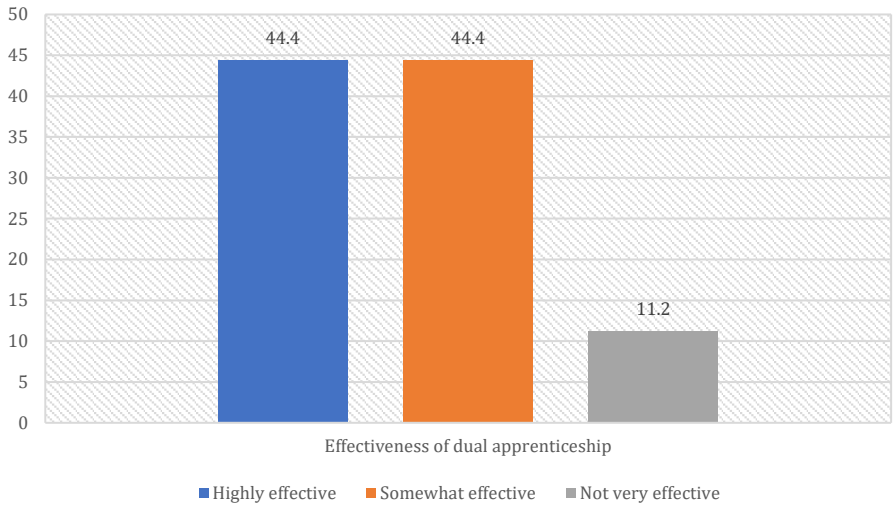
Table 2. Apprentices' motivational factors

Apprentices' motivational factors	Frequency	Percentage
Skill development	6	09.52
Job opportunities	17	26.98
Financial incentives	20	31.75
Personal interest	12	19.05
Parents' guidance	08	12.70
Total	**63**	**100**

Source: Primary data

This highlights the importance of monetary considerations and the appeal of earning while learning in these programs. Likewise, job opportunities (26.98%) also emerged as a key factor driving apprentices to enroll in dual apprenticeships. This indicates that individuals are looking to secure stable employment prospects through their training and education. Similarly, skill development (09.52%) was mentioned by a smaller percentage of apprentices, but it is still a crucial aspect of the decision-making process because enhancing one's skills and knowledge can lead to greater career advancement and opportunities in the future. Besides, personal interest (19.05%) was another substantial motivator for apprentices, suggesting that many are drawn to programs that align with their passions and aspirations. This can contribute to higher levels of engagement and satisfaction throughout the apprenticeship experience. Finally, it is also notable that 12.70% of apprentices based their decision on their parents' guidance. This underscores the influence of family support and advice in shaping educational and career choices. In a nutshell, the data provides valuable insights into the diverse motivations behind apprentices' decisions to join dual apprenticeship programs, highlighting the variety of factors at play in their decision-making process. These results highlight the multifaceted benefits of dual apprenticeship programs and show that individuals are making informed choices based on a variety of factors.

Fig. 3 shows how effective the dual apprenticeship is in Benin Republic. Based on the results, it is evident that the participants have varying opinions regarding the effectiveness of dual apprenticeship programs in preparing individuals for the workforce. 44.40% of the participants believe that the dual apprenticeship program is highly effective. This indicates a significant portion of the respondents view the program as successful in providing necessary skills and training for the workforce. It suggests that these individuals have had positive experiences and outcomes from participating in the dual apprenticeship program.



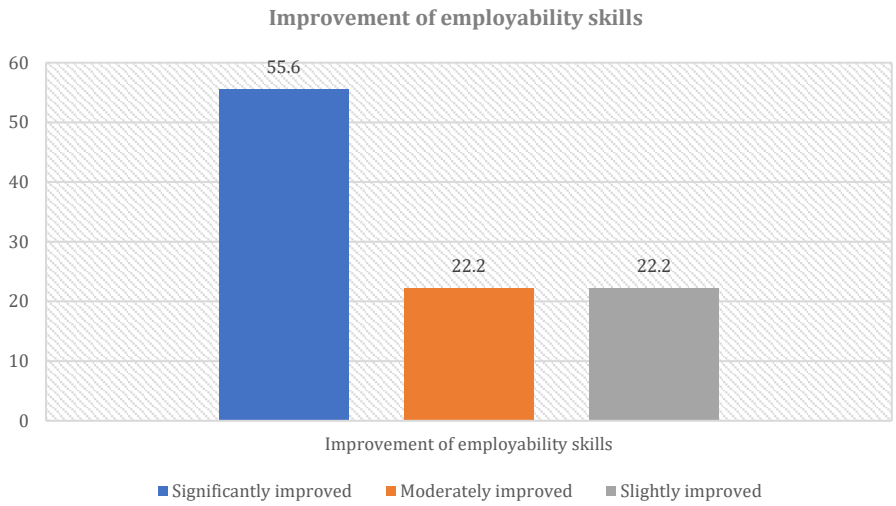
Source: Primary data

Fig. 3. Effectiveness of dual apprenticeship)

Similarly, another 44.40% of the participants find the program somewhat effective. This group of participants may have benefited from the program but could also have some reservations or areas where they feel there is room for improvement. Their feedback could provide valuable insights into how the program can be enhanced to better meet the needs and expectations of participants. On the other hand, 11.20% of the participants perceive the dual apprenticeship program as not very effective in preparing them for the workforce. This minority group's perspective highlights potential gaps or shortcomings in the program that need to be addressed. Understanding their reasons for this perception can help program administrators identify areas for improvement and implement necessary changes. From these results, it is noted that while a significant portion of participants believe in the effectiveness of dual apprenticeship programs, some see room for improvement. Thus, the dual apprenticeship stakeholders have to work towards enhancing the program's overall effectiveness and ensuring that it continues to meet the diverse needs and expectations of individuals seeking to develop their skills and secure job opportunities through apprenticeship.

Fig. 4 displays how helpful is the dual apprenticeship program to employability skills. The data reveals interesting insights into the perceived impact of the dual apprenticeship program on participants' employability skills. 55.60% of the participants believe that the program has significantly improved the employability skills of apprentices and graduates.

This majority indicates a strong positive sentiment toward the effectiveness of the dual apprenticeship program in enhancing participants' skills and readiness for the workforce. The feedback from this group suggests that the program has had a substantial impact on developing key competencies and attributes that are valued by employers. In comparison, 22.20% of participants feel that the program has moderately improved employability skills.



Source: Primary data

Fig. 4. Improvement of employability skills)

This group acknowledges some level of improvement resulting from their participation in the dual apprenticeship program. Their feedback may indicate that while there have been positive developments in their skills, there are areas where further enhancement could be beneficial to fully prepare them for the job market. Furthermore, another 22.20% of participants perceive only slight improvements in their employability skills as a result of the program. This minority group may feel that the impact of the dual apprenticeship program on their skills development has been limited or incremental. Understanding their perspective can provide valuable insights into where potential challenges or gaps exist in the current program structure. The data highlights a generally positive perception of the dual apprenticeship program's effectiveness in improving apprentices' employability skills. However, it also underscores the importance of continuous evaluation and refinement to address varying levels of impact reported by participants. Based on these results, dual apprenticeship stakeholders can tailor interventions to further enhance the program's ability to equip apprentices and graduates with the relevant skills and competencies needed to succeed in the competitive job market.

The data suggests that a significant majority (66.70%) of participants have not secured employment or gained work experience directly as a result of participating in the dual apprenticeship program. This finding may indicate potential challenges or gaps in linking program participation to immediate employment outcomes for a majority of participants. Understanding the factors contributing to this trend can help program administrators identify areas for improvement and develop strategies to enhance participants' post-program

employment opportunities. On the other hand, 33.40% of participants reported securing employment or gaining work experience due to their involvement in the dual apprenticeship program. While this represents a minority of participants, it signifies that the program has been successful in facilitating job placements or work opportunities for a portion of its participants. Examining the experiences of this group can provide valuable insights into the effective elements of the program that contribute to positive employment outcomes. From these results, it sounds like it is important to explore the reasons behind the disparity in employment outcomes among participants and determine how to better support those who have not yet found employment or gained work experience post-program completion. Based on the factors influencing participants' success in securing employment, the dual apprenticeship stakeholders have to take relevant actions that can help improve apprentices and graduates' overall employment outcomes as well as maximize the program's impact on graduates' transition to the workforce.

B. Opportunities for dual apprenticeship

In the Benin Republic, the dual apprenticeship program has dual as well as quality training opportunities which are discussed below.

1. Dual training

Table 3 shows the dual training opportunity of dual apprenticeship for those who attend the program in Benin Republic.

Table 3. Dual training opportunity

Research participants	Frequency	Percentage
Group 1	27	42.86
Group 2	19	30.16
Group 3	17	26.98
Total	**63**	**100**

Source: Primary data

Based on the findings, 42.86% of apprentices, 30.16% of master craftsmen, and 26.98% of trainers view the program as a valuable opportunity for dual training (combining theoretical and practical elements) to enhance their skills, knowledge, and attitudes. These results indicate that across different participant groups (apprentices, master craftsmen, and trainers), there is a notable proportion of participants who recognize and appreciate the value of dual training within the program for enhancing their overall competencies and development. This highlights a positive perception of the program's ability to support skill development and learning outcomes through a combination of theoretical education and practical hands-on experience. It is noted that the dual apprenticeship program has two features with classical training and traditional training: joint responsibility with the

workshop and training center, and the registered VTC providing theoretical and practical training. Apprentices typically spend five days a week at the master craftsmen workshop and one day at a vocational training center [22]. Measures are taken to ensure the quality and efficiency of training to ensure the success of the dual apprenticeship program in Benin. As per the data, it appears that dual apprenticeship programs are seen as opportunities for different stakeholders, mainly apprentices, master craftsmen, and trainers. A study by Odjo [28] reveals that the dual apprenticeship program offers both theoretical and practical skills that can significantly improve apprentices and graduates' performance. Likewise, the government has taken some relevant policies and provisions to regulate the program from entrance examinations to program implementation, covering the selection/accreditation of instructors, and accreditation of vocational training centers [7].

Furthermore, the data shows that the existing policies allow master craftsmen and trainers to participate in the dual apprenticeship program [48],[49]. According to MoSTEVT [50], the trainers undergo theoretical and practical courses in technology transfer pedagogy, while master craftsmen receive continuous professional training (andragogy, professional skills) necessary for the development of production activities. This ensures the quality and relevance of the training the apprenticeship provides, as the apprentice must work for them during the apprenticeship period and benefit from the training received at the apprenticeship center [16],[26]. Besides, MoSTEVT [17] found that there is a public established body, FODEFCA, which controls the training quality throughout the program duration. At the end of the three years, apprentices' competencies are officially and socially recognized through CQP certification.

2. Quality training

This analysis of the existing literature indicates that establishing an accreditation process for FODEFCA training centers presents an opportunity to ensure the quality of dual training in Benin [51]. Likewise, the development, implementation, and assessment of training programs are conducted by professional organizations with the support of donor agencies which also support the recruitment of skillful instructors [52]. To this end, provisions have been taken for master craftsmen's participation in dual apprenticeship programs. Since July 2014, the West African Economic and Monetary Union (WAEMU/UEMOA) has established a unified craft code regulating apprenticeship programs across the region [53]. It appears that institutions have been established to assess and develop new training programs, with national stakeholders supporting instructor development and recruitment. More importantly, the vocational training center

has a well-organized training system, and provisions have been made to regulate the duration of training based on program, occupation, and apprentice level. Additionally, mechanisms for quality control and supervision have been put in place to ensure the success of dual Apprenticeship Certification Examinations (CQP) [54]. FODEFCA's oversight of TVET curriculum reforms for CQP graduates seeking higher education represents another opportunity for the dual apprenticeship program in Benin [52]. Besides, Nouatin et al. [27] highlighted that the cooperation between companies/workplaces and vocational training centers is also regulated. However, it is noted that after more than 20 years of implementing the dual apprenticeship program, only 13 out of 310 occupations are covered by the *"Certificat de Qualification Professionnelle (CQP)"*, indicating some limitations in the program [10]. Overcoming potential challenges is necessary for the successful and effective implementation of the program.

3. Challenges for dual apprenticeship

From this literature on dual apprenticeship, it is noted that the program faces challenges related to recruitment and selection; training organization, effectiveness, and funding. It is noted that the recruitment and selection process, which must be clearly defined and conducted according to the WAEMU code, and the training organization, is outdated and inadequate. The number of candidates selected for dual training enrollment is decreasing due to a lack of financial resources, and the program does not absorb all recruited apprentices because they must accept certain terms before starting their training journey [55]. Additionally, it takes a long time to conduct entrance exams, announce results, and place successful trainees in vocational training centers [26],[31]. Furthermore, the training organization is also problematic, with outdated and inadequate training programs, and no laws or ordinances regulating the recruitment or qualifications of trainers involved in dual programs. Similarly, it is noted that private Vocational Training Centers (VTCs) predominate over public, faith-based, and association centers, and almost all promoters of private VTCs are members of professional associations participating in the program [27],[50]. Likewise, there are no laws or ordinances regulating the recruitment or qualifications of teachers involved in dual education. Increase the number of vocational training centers [17]. Withdrawal of Swisscontact from training activities; weak controls by government agencies over trainer recruitment and quality control lead to unauthorized trainers entering the system and poor implementation of quality control activities during recruitment, training, or retraining [56].

Moreover, the effectiveness of the training itself is also a challenge, with problems such as the lack of teaching materials or textbooks for trainees; lack of legitimacy based on the

lack of apprentices' evaluations and midterm exams; and the lack of trade association organizations around VTCs [28]. According to David-Gnahoui and Akouété-Hounsinou [52], competition between directors or promoters of vocational training centers and master craftsmen, lack of control over the quality of trainers; compliance with basic responsibilities, poor professional organizations; shift rhythm and apprentices'' attendance; apprentices' dropouts especially female apprentices; instability of the official school calendar in dual training; and high certification costs are some of the challenges that must be addressed to make the program an important means of upskilling young people and attracting a skilled workforce into the labor market. Besides, funding is a key issue for dual apprenticeships, and inconsistency in support causes many problems for the implementation. 90% of tuition fees are covered by FODEFCA, primarily funded by technical and financial partners or the national budget [57]. The availability of these funds largely determines the number of students participating in the program and the number of activities implemented [10]. As highlighted by Atindehou [55], the current funding regime does allow the introduction of new trades or craft occupations as developing new training programs, manuals, and modules; and training new instructors requires financial investments [52]. In short, the Benin dual apprenticeship program faces several challenges in its recruitment, selection, training organization, and funding. These issues require significant improvements in recruitment, training, supervision, programs, and reforms to ensure the success of the program and attract a skilled workforce into the labor market.

Conclusion

This study sheds light on both the opportunities and challenges faced by this innovative training initiative. The findings highlight the unique structure of the program, where vocational training centers (VTCs) play a crucial role in providing theoretical education one day a week, while practical training takes place in workshops over five days. This dual training approach offers apprentices a comprehensive learning experience that combines theoretical knowledge with hands-on skills development, ultimately leading to the attainment of a national certificate of CQP. Although the program offers quality training opportunities and equips graduates with valuable skills for the labor market, it also faces significant challenges in recruitment, selection, training organization, and funding. These obstacles underscore the need for improvements in various aspects of the program to ensure its effectiveness and sustainability. Enhancements in recruitment strategies, training supervision, program design, and financial support are essential to address these challenges and enhance the overall success of the dual apprenticeship program in Benin Republic. Moving forward, it is imperative to implement

reforms that address the identified challenges and promote the long-term viability of the program. Recommendations include expanding the program to encompass a broader range of crafts to cater to diverse skill sets and interests among apprentices. Moreover, engaging stakeholders from the government, industry, and educational institutions is crucial for garnering support, fostering collaboration, and ensuring the continuous improvement and sustainability of the dual apprenticeship initiative. With all this, the Benin Republic dual apprenticeship program can overcome its current challenges, attract a skilled workforce into the labor market, and contribute positively to the economic development and prosperity of the country. It is through concerted efforts and proactive measures that the dual apprenticeship program can realize its full potential as a key player in shaping the future of vocational education and training in the Benin Republic.

Recommendations and Way Forward

In Benin Republic, the dual apprenticeship system has made significant progress and has gained recognition from stakeholders. However, sustaining this system depends on various factors such as program efficiency, financial support, employee motivation, and operational effectiveness. Therefore, it's essential to implement measures and regulations to enhance the effectiveness and sustainability of dual apprenticeship programs. To ensure the quality of dual apprenticeship programs, governments need to enhance the capacity of the system to facilitate effective resource pooling among stakeholders. It's crucial to adapt, adopt, and improve the program to align with workplace changes and innovations. This should involve regular monitoring, testing, and evaluation at every stage. Similarly, the recruitment criteria for dual apprenticeship training programs should adhere to the age requirements specified in the Community Regulations of the West African Economic and Monetary Union (WAEMU), starting at age 15. Additionally, the educational background of candidates should be reconsidered to incorporate universal primary education and vocational training opportunities. Moreover, to increase awareness of dual apprenticeship training programs, a communication plan should be developed and implemented with the support of government authorities and professional organizations. This involvement should begin early in the training process and target master craftsmen, artisans, young people, and parents. Likewise, balanced cooperation among all stakeholders is crucial for the success of the training organization system. Excessive reliance on the Ministry in charge of TVET may not ensure the development of the sub-sector, where companies are key stakeholders. Finally, maintaining FODEFCA's funding mission requires keeping the Apprenticeship Tax at 2%, separate from employer wages, and transferring it to the FODEFCA account. Government subsidies for training activities in the informal economy

should be increased, and partnerships should be explored to address financial and equipment access needs for more workers.

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Conflict of Interest

The author declares that there is no conflict of interest.

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