
**ENHANCING EMPLOYABILITY OF PROFESSIONAL SELF-EMPLOYED IN
BUSINESS MANAGEMENT THROUGH MAPPING OCCUPATIONAL
STANDARDS IN ENTREPRENEURSHIP WITHIN THE INDONESIAN
QUALIFICATION FRAMEWORK**

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ABSTRACT

This research investigates the enhancement of employability for professional self-employed individuals in business management by mapping occupational standards in entrepreneurship within the Indonesian Qualification Framework (IQF). The study aims to identify the types of entrepreneurship occupations and their corresponding competencies to bridge the gap between formal education and industry needs. Utilizing a combination of the Mapping Study method and Rapid Assessment Process (RAP), the research collects and analyzes secondary data from national employment databases, industry reports, academic publications, and government documents. The findings reveal a comprehensive occupational matrix detailing the progression from foundational to advanced entrepreneurial roles, each with specific core and elective competencies. These competencies are crucial for roles emphasizing strategic leadership and business development. The study provides a structured approach for developing targeted training programs and vocational education policies that align with industry requirements, ultimately enhancing the employability of self-employed business professionals. Recommendations include aligning training programs with industry needs, enhancing access to certification programs, increasing awareness of occupational standards, incorporating practical experience, and standardizing competency descriptions across regions and institutions.

INTRODUCTION

The development of the Indonesian National Qualifications Framework (IQF) aims to synchronize education and training with the evolving needs of the job market. In the context of entrepreneurship, occupational mapping becomes very important as it helps in identifying the right skill needs to support independent entrepreneurs. There is a gap between skills acquired through formal education and skills needed in the field, especially in the business development sector. This poses challenges in job creation and effective business development. This research raises the importance of an occupational map that can be used as a reference to produce training programs that are in accordance with industry needs and business development.

Entrepreneurship is crucial because it contributes to job creation. Entrepreneurs establish businesses that employ others, helping to reduce unemployment rates and drive economic growth. Le Thanh, Huan, and Hong (2021) states that understanding the dynamics of

entrepreneurship can lead to effective policies that promote entrepreneurial activity, thereby contributing to job creation and economic prosperity. Specifically, small- and medium-sized enterprises (SMEs) are highlighted as significant sources of job creation and employment opportunities. Similarly, Padi (2022) emphasizes that the role of entrepreneurial competencies in promoting job creation and reducing unemployment is very important. Furthermore, Komninos et al. (2024) asserts that entrepreneurship is a proven method for stimulating economic growth and reducing unemployment, noting that creating a favorable environment for entrepreneurs can significantly reduce unemployment rates. Additionally, Fute et al. (2024) states that supporting entrepreneurship can lead to job opportunities and overall employment growth within the EU. In conclusion, Padi (2022) reiterates that entrepreneurship is an engine for job creation and economic growth.

Self-employment allows individuals to achieve financial independence and control their economic future. It offers flexibility in work and the opportunity to pursue personal interests or passions in their careers. Struckell et al. (2022) emphasizes that self-employed individuals can leverage their skills and interests to achieve greater flexibility and pursue personal passions, leading to enhanced job satisfaction and economic stability. Similarly, Kisubi, Bonuke, and Korir (2021) points out that self-employed individuals can tailor their work to their personal interests and enjoy greater flexibility in their careers. Likewise, Muñoz-Céspedes, Ibar-Alonso, and Cuerdo-Mir (2023) explains that self-employed individuals benefit from the flexibility to pursue their passions and interests, contributing to overall job satisfaction and career fulfillment. Additionally, Ayalew and Zeleke (2018) highlights that self-employment is a viable path to financial independence and economic control. Furthermore, Batz Liñeiro, Romero Ochoa, and Montes de la Barrera (2024) discusses how self-employed individuals can work flexibly and pursue their personal interests or passions, leading to greater job satisfaction and economic resilience.

Business development is key to sustainable economic growth. By identifying new opportunities and expanding markets, businesses can increase revenue, create jobs, and drive innovation that benefits the wider society. Gallagher and Oh (2023) states that entrepreneurial activity is crucial to achieving multiple Sustainable Development Goals (SDGs), including promoting inclusive and sustainable economic growth and ensuring decent work for all. Similarly, Endris and Kassegn (2022) emphasizes that investing in SMEs contributes significantly to economic growth and job creation. Furthermore, Bui et al. (2021) notes that economic sustainability is closely linked to firm growth and employment stability. Likewise, Chou, Ngo, and Tran (2023) asserts that entrepreneurship promotes economic growth and reduces unemployment.

Having a good occupation that matches an individual's qualifications and skills can improve the quality of life. A suitable occupation ensures that individuals can contribute productively to society and meet the basic needs of themselves and their families. Endris and Kassegn (2022) found that having a suitable occupation that matches one's qualifications and skills leads to higher job satisfaction and productivity. Additionally, Massing and Schneider (2017) states that educational qualifications facilitate the conversion of cultural capital to economic capital. Similarly, Anjum (2020) highlights the importance of aligning educational

qualifications with occupational requirements to enhance employability and job performance. Furthermore, Tholen (2023) demonstrates that matching candidates to organizational culture through assessments can significantly improve job satisfaction and performance.

The National Qualifications Framework (NQF) is important because it ensures uniform qualification standards across Indonesia, facilitating labor mobility, and helping employers identify and recognize the necessary skills and competencies. It also simplifies the international comparison of qualifications. Morrison (2020) states that NQFs provide a structured system for comparing qualifications across countries, facilitating international mobility of workers and learners. Similarly, Noda (2023) emphasizes that the implementation of NQFs is crucial for promoting labor mobility and ensuring that qualifications are recognized across borders. Additionally, the ILO (2015) highlights that NQFs play a significant role in aligning qualifications with industry needs, thereby improving employability. Furthermore, Tuck and ILO (2007) notes that NQFs help standardize qualifications, making it easier for employers to understand and value the competencies of workers.

Employability: High employability means individuals have the skills and competencies that match the job market's needs. This is important for society because it reduces unemployment, increases productivity, and ensures that the workforce can adapt to changes in industry and technology. Tushar and Sooraksa (2023) emphasizes the importance of employability skills in reducing unemployment and increasing productivity by ensuring that individuals have the necessary skills to match job market needs. Cheng et al. (2022) discusses how employability programs help in equipping students with skills that are in demand, thus enhancing their job prospects and productivity. Fajaryati et al. (2020) highlights the role of employability programs in higher education in reducing unemployment and increasing productivity by aligning graduates' skills with market needs. Scandurra et al. (2023) emphasizes the importance of aligning educational outcomes with job market needs to improve employability and economic productivity. Stijepic (2021) Employability skills are crucial for adapting to industry changes and technological advancements.

However, in increasing the employability of professional self-employed individuals in business management, the following problems still persist: aligning skills with industry needs, gaps in education and training, lack of standardization in competencies, limited access to competency certification, lack of awareness of occupational standards, gaps in work experience and internships, and evaluation and monitoring of occupational standards. Tushar and Sooraksa (2023) highlights that gaps in education and training programs contribute to challenges in aligning graduates' skills with industry needs. Additionally, he points out the lack of work experience and internships as significant barriers to employability. Similarly, Ajoc (2020) emphasizes the necessity of aligning education and workforce training with industry needs to address skills gaps and enhance employability. Furthermore, Cheng et al. (2022) highlights the lack of standardized competencies and limited access to certification programs as barriers to improving job readiness. Sizwe Madonsela (2022) emphasizes the lack of awareness of occupational standards and the need for better evaluation and monitoring of these standards to ensure that graduates meet job market requirements. Likewise, Pardo-Garcia and Barac (2020)

highlights the importance of aligning educational programs with industry needs and the role of internships in providing necessary work experience.

Research Objectives

1. Identify and map occupations in the field of entrepreneurship in accordance with IQF.
2. Assess specific skills needs for self-employed in business development.
3. Develop recommendations for training modules relevant to the needs of the job market.
4. Provide a basis for the development of vocational education policies that are more responsive to industry needs.

RESEARCH METHODS

In the development of effective and efficient research, the combination of the Mapping Study (Petersen et al. 2008) of Entrepreneurship self-employed occupation and Rapid Assessment Process (RAP) offers a robust framework for understanding the complex dynamics in vocational education, training, and quality management. RAP, developed by Beebe (2005), is a qualitative research methodology designed to quickly collect and analyze data to develop an initial understanding of a situation from an insider's perspective. To maintain the validity and traceability to international standard, This mapping applies the principles of standard development based on RMCS (Regional Model Competency Standards).

Implementation Steps:

In the first step, defining research objectives and questions involves identifying the specific objectives of the study, which include identifying types of entrepreneurship occupations in business management and understanding how they are grouped within the national qualifications framework. Additionally, it is important to develop a research occupation description framework to guide the mapping process effectively. Additionally, Competency standards are primarily developed as assessment tools, they define the skills, knowledge, and attributes people need to perform a work role.

The second step involves conducting a secondary data search and collection. This entails identifying relevant secondary data sources such as national employment databases, industry reports, academic publications, and government documents. Subsequently, data related to business management occupations and their qualifications are collected from these sources to provide a comprehensive overview.

The third step focuses on data selection. This step requires establishing inclusion and exclusion criteria to determine which data is relevant to the study. Once the criteria are set, the collected data is analyzed based on the IQF descriptor to ensure it aligns with the research objectives.

In the fourth step, data extraction and categorization are performed. Key information, such as job descriptions, required qualifications, expected competencies, and national qualification framework levels, is extracted from the selected data. This information is then categorized by job type, qualification level, or industry sector to facilitate detailed analysis.

The final step is reporting the results. A report is prepared to present the main findings of the research, including a map of self-employed entrepreneurship occupations in business management within the national qualifications framework. The report also discusses the implications of the findings for education and training policy and provides recommendations for further research to enhance the understanding and application of these qualifications.

RESULTS AND DISCUSSION

The study formulated a comprehensive occupational matrix for entrepreneurship within the Indonesian qualification framework. The following tables (1-9) provide detailed mapping includes various occupations, ranging from entry-level positions to high-level strategic roles, each with defined core and elective competencies.

This occupational mapping within the IQF framework provides a structured approach to understanding the competencies required for various entrepreneurial roles. It serves as a foundational tool for developing targeted training programs and policies that align with industry needs, ultimately enhancing the employability of self-employed business professionals.

Tabel 1

Map of Occupational Standards In Entrepreneurship Within Qualification Framework For Self-Employed Business Developers

IQF	OCCUPATIONS
IX	Entrepreneur-in-Residence, Founder and Lead Consultant
VIII	Senior Entrepreneur in Financial Management, Senior Business Consultant, Senior Consultant in Business Strategy
VII	Entrepreneur in Digital Marketing, Business Developer Consultant
VI	Analyst for Market Expansion, Business Developer, Business Facilitator
V	Project Coordinator for Business Initiatives, Entrepreneur in Product Development, Junior Business Developer, Junior Business Facilitator
IV	Small Business Owner in Local Market Development, Sales Representative Coordinator
III	Sales Representative, Customer Service Coordinator
II	Retail Sales Associate, Marketing Assistant

Table 2

Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 9

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
9	Entrepreneur-in-Residence , Usually plays a role in a business incubator or higher education institution, helping guide new startups through product development and market strategy.	<p>Core Competency:</p> <ul style="list-style-type: none"> a. Develop and launch new business initiatives in an incubation environment. b. Develop a strategic and implementative business plan. c. Conduct market analysis and industry trends for business opportunities. d. Guiding startups in the product development process. e. Establish relationships with investors and stakeholders. <p>Elective Competency:</p> <ul style="list-style-type: none"> f. Conducting workshops and training for budding entrepreneurs. g. Manage mentoring programs for startups.
	Founder and Lead Consultant , Founded and led a consulting	<p>Core Competency:</p> <ul style="list-style-type: none"> h. Establish a company and direct the company's vision and mission.

<p>firm that provides business and strategy development services to other clients, offering expertise based on in-depth research and industry best practices.</p>	<ul style="list-style-type: none"> i. Lead a team of consultants to provide business solutions to clients. j. Develop marketing and sales strategies. k. Creating a business and financial plan. l. Manage relationships with clients and stakeholders. <p>Elective Competency:</p> <ul style="list-style-type: none"> m. Monitor and evaluate the performance of the consultant team.
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Table 3
Occupation map and its competence in Self-Employed Entrepreneurship Occupation IQF level 8

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
8	<p>Senior Entrepreneur in Financial Management, Specializes in managing financial and investment portfolios for startups or independent businesses.</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> a. Manage and supervise the company's financial strategy. b. Make financial statements and risk analysis. c. Planning budgets and asset management. d. Develop an investment strategy. e. Drawing up internal financial policies. <p>Elective Competency:</p> <ul style="list-style-type: none"> f. Provide strategic financial advice to startups. g. Conduct periodic internal audits.
8	<p>Senior Business Consultant, Provides strategic advice to businesses on how to improve operations, enter new markets, and optimize business success.</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> h. Provide business consulting to improve client efficiency and profitability. i. Analyze business problems and recommend solutions. j. Develop business strategies for clients. k. Conduct market research and competitive analysis. l. Compile reports and presentations for clients. <p>Elective Competency:</p> <ul style="list-style-type: none"> m. Develop case studies for internal training. n. Compile market research reports.
8	<p>Senior Consultant in Business Strategy, Provides advanced consulting and business strategy advisory to companies, often focusing on specific sectors or at critical phases of business growth.</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> o. Design and implement business strategies. p. Conduct competitive and SWOT analysis. q. Develop a long-term business plan. r. Direct the team in the implementation of the strategy. s. Evaluate strategy performance. <p>Elective Competency:</p> <ul style="list-style-type: none"> t. Drawing up a business expansion plan. u. Prepare strategy progress reports.

Table 4
Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 7

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
7	Entrepreneur in Digital Marketing , Develop and implement digital marketing strategies to promote products and services effectively.	Core Competency: a. Develop and manage digital marketing campaigns. b. Optimize SEO and SEM to increase online visibility. c. Analyze marketing data and organize performance reports. d. Manage your company's social media accounts. e. Create creative and engaging marketing content. Elective Competency: f. Conduct digital marketing training for the team. g. Conduct customer surveys for feedback. h. Manage digital marketing budgets.
	Business Developer Consultant , Identifies new business opportunities and assists companies in developing strategies for growth and expansion.	Core Competency: i. Facing Unique Marketing Issues j. The Importance of Intellectual Property k. Preparing for and Evaluating the Challenges of Growth l. Develop Strategies for Firm Growth m. Franchising Elective Competency: n. Drawing up business proposals for strategic partnerships. o. Develop innovative business models.

Table 5
Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 6

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
6	Analyst for Market Expansion , Analyzes potential markets for expansion and assesses market needs for new products or services.	Core Competency: a. Analyze the market to identify expansion opportunities. b. Make recommendations based on market data. c. Develop a market expansion strategy. d. Conduct competitive research. e. Compile market trend reports. Elective Competency: f. Conduct market surveys. g. Develop market analysis tools. h. Manage a database of market information.
	Business Developer , Finding and developing new business opportunities	Core Competency: i. Identify and develop new business opportunities. j. Build relationships with potential clients. k. Drawing up a business plan and sales strategy.

for the company	<ul style="list-style-type: none"> l. Conduct market research and competitive analysis. m. Manage client portfolios. <p>Elective Competency:</p> <ul style="list-style-type: none"> n. Develop a business proposal. o. Manage investor relations.
<p>Business Facilitator, Supports business operations by ensuring that all processes run smoothly.</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> p. Develop standard operating procedures. q. Preparing an ethical and legal foundation for business r. Mengases the strength and financial viability of new ventures s. Building a new business team t. Obtaining financing and capital u. Identify and evaluate market opportunities <p>Elective Competency:</p> <ul style="list-style-type: none"> v. Develop Business Proposal w. Develop digital marketing activities

Table 6
Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 5

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
	<p>Project Coordinator for Business Initiatives, Coordinates projects related to business development initiatives, such as product launches or marketing campaigns.</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> a. Coordinate business projects from planning to execution. b. Set project resources and timelines. c. Oversee the performance of the project team. d. Compile project progress reports. e. Hold a project evaluation meeting. <p>Elective Competency:</p> <ul style="list-style-type: none"> f. Develop a project management methodology. g. Drawing up project documentation. h. Manage project budgets.
5	<p>Entrepreneur in Product Development, Entrepreneurs who focus on developing and launching new products, often within a specific niche or market.</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> i. Develop new products from concept to market launch. j. Conduct product trials and market validation. k. Develop a product development strategy. l. Manage the product lifecycle. m. Collaborate with teams for product innovation. <p>Elective Competency:</p> <ul style="list-style-type: none"> n. Hold brainstorming sessions for new product ideas. o. Manage product development budgets.
	<p>Junior Business Developer, Assists the business development team by conducting market research, identifying prospects, and preparing</p>	<p>Core Competency:</p> <ul style="list-style-type: none"> p. Support business development efforts by identifying prospects. q. Conduct market research for new opportunities. r. Compile business performance reports. s. Assist in the preparation of business proposals. t. Manage a database of potential customers.

performance reports.	Elective Competency: u. Manage communication with business prospects. v. Hold a business presentation.
Junior Business Facilitator , Assists in daily operational activities, provides administrative support, and manages business documents and records.	Core Competency: w. Identify opportunities and generate ideas x. Creating a business concept y. Business Feasibility analysis z. Developing an effective business model a. Industry and competitor analysis b. Developing a business plan Elective Competency: c. Develop a business proposal d. Develop an SOPs

Table 7
Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 4

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
4	Small Business Owner in Local Market Development , Small business owners who focus on developing and expanding local markets, such as opening new branches or entering new local markets.	Core Competency: e. Manage day-to-day business operations. f. Develop a local marketing strategy. g. Prepare budgets and financial statements. h. Supervise employee performance. i. Establish partnerships with local businesses. Elective Competency: j. Conduct product promotions. k. Develop a customer loyalty program.
	Sales Representative Coordinator , Oversees the sales team and ensures sales targets are met.	Core Competency: l. Supervise the sales team and ensure targets are met. m. Conduct training and development for the sales team. n. Develop a sales strategy. o. Manage and monitor sales performance. p. Compile sales reports for management. Elective Competency: q. Hold a sales evaluation meeting. r. Develop training materials for the team. s. Develop sales incentives.

Table 8
Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 3

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
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3	<p>Sales Representative, Responsible for selling products or services, including negotiating with clients and managing client accounts to ensure satisfaction and long-term relationship development.</p>	<p>Core Competency: t. Sell products or services to customers. u. Achieve set sales targets. v. Give product presentations to potential customers. w. Compile daily sales reports. x. Manage customer relationships.</p> <p>Elective Competency: y. Develop an individual sales strategy.</p>
3	<p>Customer Service Coordinator, Coordinating customer service to ensure that customer needs are met and strengthening the reputation of the business in providing quality service.</p>	<p>Core Competency: a. Manage customer service teams. b. Ensure customer satisfaction through quality service. c. Handling customer complaints and problems. d. Develop customer service procedures. e. Compile customer satisfaction reports.</p> <p>Elective Competency: f. Conduct customer service training for staff. g. Develop a customer loyalty program. h. Conduct customer satisfaction surveys.</p>

Table 9
Occupation map and its competence in Self-Employed Entrepreneurship Occupation within IQF level 2

IQF level	OCCUPATION AND ITS DESCRIPTION	COMPETENCE
2	<p>Retail Sales Associate, Handles direct sales at points of sale, such as stores or kiosks, ensuring that customers receive accurate product information and assistance in purchasing.</p>	<p>Core Competency: i. Helping customers in retail stores and selling products. j. Maintain stock of goods and display arrangement. k. Handle sales transactions. l. Provide product information to customers. m. Compile daily sales reports.</p> <p>Elective Competency: n. Manage store inventory.</p>
2	<p>Marketing Assistant, Assists in basic promotional and marketing activities, such as distribution of marketing materials and setting up product displays at sales locations.</p>	<p>Core Competency: o. Support the marketing team in campaign execution. p. Conduct market research. q. Compile reports on the results of marketing campaigns. r. Assist in the creation of promotional materials. s. Manage customer databases.</p> <p>Elective Competency: t. Assist in the preparation of marketing strategies. u. Conduct customer surveys for feedback.</p>

The comprehensive occupational matrix formulated for entrepreneurship within the

Indonesian Qualification Framework (IQF) successfully achieves the research objectives by addressing key areas in the employability of self-employed individuals in business management. This detailed mapping includes various occupations, ranging from entry-level positions to high-level strategic roles, each with defined core and elective competencies.

Identifying and Mapping Occupations in Entrepreneurship

The study effectively identifies and maps occupations within the IQF framework. Table 1 outlines the occupational standards and job titles for each IQF level, highlighting the progression from foundational roles to advanced entrepreneurial positions. This structured approach ensures a clear understanding of the competencies required for each role, such as Entrepreneur-in-Residence and Founder and Lead Consultant at IQF Level IX, focusing on strategic leadership and business incubation. Furthermore, Dhiman and Arora (2024) underline the significance of roles such as Entrepreneur-in-Residence and Founder and Lead Consultant in fostering strategic leadership and business incubation, aligning with the progression from foundational to advanced roles. Additionally, Rosiello (2022) emphasizes the necessity of mapping entrepreneurial ecosystems to foster innovation and strategic leadership. Similarly, Tadesse Wudu Abate (2023) points out that defining roles and competencies clearly within the NQF aids in understanding the progression needed for strategic entrepreneurial positions. Finally, Jayanna et al. (2024) highlights that by clearly outlining the competencies for roles such as Entrepreneur-in-Residence and Founder and Lead Consultant, the framework facilitates a better understanding of the necessary skills for strategic leadership and business incubation, thereby supporting the progression from foundational to advanced entrepreneurial positions.

Assessing Specific Skills Needs for Self-Employed in Business Development

The core and elective competencies detailed for each occupation assess the specific skills needed for self-employed individuals in business development. For instance, competencies for roles like Senior Entrepreneur in Financial Management and Business Developer Consultant emphasize financial strategy, market analysis, and business expansion, ensuring that self-employed individuals are equipped with the necessary skills to succeed. Additionally, Ferreras-Garcia, et al. (2021) emphasizes the importance of specific skills for self-employed individuals in business development. Moreover, Ndofirepi (2020) underscores the significance of tailored training programs that focus on financial strategy and market analysis for self-employed professionals. Similarly, Cho et al (2016) supports the development of competencies that align with the requirements of roles, ensuring self-employed individuals are prepared for business challenges. Furthermore, Lwesya and Mwakalobo (2023) agrees on the necessity of financial strategy and market analysis skills for self-employed individuals to thrive in business development. Finally, Boldureanu et al. (2020) addresses the need for specific competencies in financial strategy and market analysis to enhance the success of self-employed business professionals.

Developing Recommendations for Training Modules

The structured approach to defining competencies within the IQF framework helps identify educational and training gaps. By outlining the necessary competencies for roles such as Project Coordinator for Business Initiatives and Analyst for Market Expansion, the

framework guides the development of targeted training programs. Consequently, these programs can be tailored to address specific skills gaps, thereby enhancing the overall skill set of the workforce. Furthermore, Schack Noesgaard and Ørngreen (2015) emphasizes the importance of defining competencies within educational frameworks to develop targeted training programs, ensuring the workforce is equipped with relevant skills. Similarly, Tun and Madanian (2023) discuss how frameworks guide the development of competency-based training programs, improving overall skill sets. Additionally, Khaldi, Bouzidi, and Nader (2023) stresses the need for frameworks to outline competencies and guide the development of relevant training programs. Moreover, Rotar (2022) underscores the significance of competency mapping in identifying training needs and developing targeted educational programs to address skill gaps. Finally, Chan (2023) highlights the need for structured approaches to define competencies and address specific educational and training gaps.

Providing a Basis for Vocational Education Policies

The IQF framework provides a standardized set of competencies for each occupational role, ensuring consistency and uniformity across different regions and educational institutions. This standardization helps create a common language for skills and qualifications, making it easier for employers to recognize and value the competencies of job applicants. Furthermore, it serves as a reference tool for developing vocational education policies that are more responsive to industry needs, ultimately enhancing the employability of self-employed business professionals. Additionally, Tripney and Hombrados (2013) ensures consistency and uniformity across various regions and educational institutions, making it easier for employers to recognize and value the competencies of job applicants. Similarly, Mikkonen et al. (2017) notes that standardization facilitates the creation of vocational education policies that align closely with industry needs. Moreover, Ewing (2017) explains that the NQF provides a standardized set of competencies, ensuring that vocational education aligns with the evolving requirements of the job market. Finally, Tieben (2024) highlights how competency-based education frameworks ensure that vocational training programs are standardized and meet industry standards.

The detailed mapping also addresses several key challenges in enhancing employability:

1. **Aligning Skills with Industry Needs:** The alignment helps educational institutions and training providers tailor their programs to meet industry requirements. For instance, roles like Entrepreneur-in-Residence and Founder and Lead Consultant emphasize strategic planning and market analysis, directly aligning with industry needs. Singh (2015) identifies how vocational education needs to align its curriculum with industry requirements, emphasizing the integration of digital skills to prepare students for the demands of Industry 4.0. Furthermore, Abdurrahman et al. (2022) highlights the importance of aligning vocational education with industry needs to ensure that students acquire relevant skills. Moreover, Mahmudah and Santosa (2021) details how industry-based vocational education models can enhance the relevance and applicability of skills taught to students, thereby improving their employability.
2. **Gaps in Education and Training:** The detailed mapping of competencies helps identify specific educational and training gaps. By highlighting the necessary competencies for

roles such as Senior Entrepreneur in Financial Management and Business Developer Consultant, the framework guides the development of targeted training programs that address these gaps. Daka et al. (2023) found that a structured framework like the NQF can guide the development of targeted training programs by outlining the necessary competencies for key roles such as financial management and business development. Similarly, Cabral-Gouveia, Menezes, and Neves (2023) highlights the importance of defining competencies for roles to develop targeted training programs that address these gaps and enhance workforce skills. Moreover, Khalil et al. (2024) notes that by highlighting the essential competencies for roles in business development, the framework provides a basis for creating targeted educational programs that address these gaps, thereby improving the overall skill set of the workforce. Furthermore, Markaki et al. (2021) demonstrates that by defining the necessary skills for specific roles in business management, the framework can guide the development of tailored training programs. Finally, Ondras and Alvero (2023) highlights how mapping competencies within a structured framework like the NQF can help identify gaps in education and training.

3. **Lack of Standardization in Competencies:** The IQF framework provides a standardized set of competencies for each occupational role, ensuring consistency and uniformity across different regions and educational institutions. This standardization helps in creating a common language for skills and qualifications, making it easier for employers to recognize and value the competencies of job applicants. Elken (2017) identifies that standardization ensures consistency and uniformity across different regions and educational institutions, creating a common language for skills and qualifications. Furthermore, Gulled (2023) found that standardizing competencies helps create consistency, making it easier for employers to understand and value the skills of job applicants. Moreover, Calero López and Rodríguez-López (2020) discusses how such standardization helps in creating a common understanding of skills and qualifications, facilitating the recognition of competencies by employers and ensuring consistency across educational institutions.
4. **Limited Access to Competency Certification:** The inclusion of both core and elective competencies facilitates the development of certification programs that are comprehensive and aligned with industry needs. Consequently, certification for roles like Project Coordinator for Business Initiatives and Analyst for Market Expansion ensures that individuals have the credentials required to demonstrate their competencies. Additionally, Gulled (2023) discusses the development of competency frameworks that guide the creation of certification programs, ensuring individuals possess the required skills and credentials. Similarly, Lewis (2023) explains how the inclusion of core and elective competencies facilitates the development of relevant certification programs, ensuring that individuals can effectively demonstrate their skills and competencies. Furthermore, Calero López and Rodríguez-López (2020) highlights how roles like Project Coordinator for Business Initiatives benefit from such certifications, ensuring alignment with industry standards. Moreover, Ma et al. (2024) stresses the importance of certification in demonstrating competencies and enhancing employability.

5. **Lack of Awareness of Occupational Standards:** The occupational matrix serves as a reference tool for both employers and job seekers, increasing awareness of the required standards for various roles. By clearly outlining the competencies for each occupation, such as those for Sales Representative and Customer Service Coordinator, the matrix helps individuals understand the expectations and standards they need to meet. Additionally, Daka et al. (2023) identifies the need for increasing awareness and understanding of vocational standards among both educators and learners to bridge the gap between vocational training and industry needs. Furthermore, Mercado (2023) highlights the importance of making occupational standards more accessible and understandable to all stakeholders in the vocational education and training system, emphasizing the role of clear competency frameworks in improving alignment with industry requirements. Similarly, Anna Cecilia, et al. (2023) emphasizes that a well-defined set of national occupational standards can serve as a crucial reference for employers and employees alike, helping to ensure that job roles and competencies are clearly understood and adhered to across various sectors. Moreover, Lee and Jacobs (2021) discusses how the integration of clear occupational standards into vocational education and training programs can help raise awareness of the required skills and competencies, thereby aligning education outcomes with industry needs more effectively. Lastly, Kineber et al. (2023) underscores the importance of raising awareness of occupational standards through continuous engagement with industry stakeholders, ensuring that the standards remain relevant and widely recognized.
6. **Gaps in Work Experience and Internships:** The emphasis on practical competencies highlights the importance of work experience and internships. Therefore, educational institutions and training providers can use this information to incorporate more hands-on training opportunities into their programs, ensuring that graduates gain the practical experience needed to succeed in the workforce. For example, McGrath and Yamada (2023) notes that workplace-school collaboration has recently gained popularity due to its benefits in delivering skill acquisition. Similarly, Anna Cecilia et al. (2023) found that occupation standard-based curricula are developed in close collaboration with local companies, ensuring alignment with industry needs and incorporating opportunities for students to gain practical experience through industrial internships. Furthermore, Itohan Oviawe (2017) highlights that when apprentices are rotated through different departments at the workplace, they build relationships with many workers and acquire experience from a variety of tasks. Additionally, Mikkonen et al. (2017) notes that the opportunity for students to carry out work practice at a company during the first two years of VET can lead to an apprenticeship or provide a relevant work reference. Finally, Dixit-Bajpai (2023) explains that workplace training can take various forms, such as formal apprenticeships involving contracts lasting two to four years and leading to formal qualifications, as well as shorter, less formal training and work experience programs for youths and employees.
7. **Evaluation and Monitoring of Occupational Standards:** The detailed competency descriptions for each role provide a basis for evaluating and monitoring the effectiveness of educational and training programs. By continuously assessing whether the competencies

being taught align with industry needs, educational institutions can make necessary adjustments to improve their programs and ensure that graduates are well-prepared for the job market. Additionally, Navarro-Ibarra et al (2023) provides essential criteria within the occupational standards to measure educator digital competence and ensure alignment with industry needs. Furthermore, González-Mujico (2023) emphasizes that adequate monitoring and supervision of the Students Industrial Work Experience Scheme (SIWES) program should be intensified, as well as developing a synergy of information between TVET institutions and 21st-century workplaces to ensure the relevance of training programs to industry demands. Similarly, Zhan et al. (2023) highlights that collaborations between vocational education institutions and industries can lead to job guarantees or internship-to-employment programs, providing students with practical experience and ensuring that vocational education programs are aligned with labor market demands. Moreover, González-pérez and Ramírez-montoya (2022) justifies the need for workplace-school collaboration, noting that TVET institutions and their programs are often ineffective and of low quality due to inadequate monitoring and evaluation, which hampers the production of an adequately skilled workforce for the industries.

CONCLUSION

Based The comprehensive occupational matrix formulated for entrepreneurship within the Indonesian Qualification Framework (IQF) successfully achieves its objectives by addressing key areas in the employability of self-employed individuals in business management. The research identifies and maps occupations in entrepreneurship according to IQF, detailing job titles and corresponding competencies from entry-level to advanced roles. It assesses specific skills needed for self-employed individuals in business development through core and elective competencies and develops recommendations for training modules relevant to job market needs. The IQF framework offers a standardized set of competencies for each role, ensuring consistency across regions and institutions, and highlights key challenges in enhancing employability, such as aligning skills with industry needs, identifying educational gaps, and promoting competency certification. The research emphasizes the importance of practical experience and internships and provides a basis for evaluating and monitoring educational programs. Recommendations include aligning training programs with industry needs, enhancing access to certification programs, increasing awareness of occupational standards, incorporating practical experience in education, and standardizing competency descriptions to facilitate labor mobility and qualification recognition.

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