Psychological Capital Analysis in Assessing the Career Feasibility of Vocational Graduates as Human Resource Suppliers in the Electronics Industry

Rinandita Wikansari¹*, Adrianto Sugiarito Wiyono², Subekti³

¹Program Studi Perdagangan Internasional, Politeknik APP Jakarta, Indonesia
²Program Studi Manajemen Logistik Industri Elektronika, Politeknik APP Jakarta, Indonesia
³Program Studi Manajemen Logistik Industri Elektronika, Politeknik APP Jakarta, Indonesia

Email: rinandita-w@kemenperin.go.id¹, rian_asw@poltekapp.ac.id², bekti.rambar@gmail.com³

Abstract. The rapid growth of the electronics industry in the era of globalization demands the availability of high-quality Human Resources (HR) ready to compete in the job market. Graduates from vocational programs, with a focus on technical skills, play a vital role in supplying the workforce needs in this industry. However, the success of vocational graduates’ careers is not solely determined by technical competence. This research aims to analyze psychological capital in assessing the career feasibility of vocational graduates as human resource suppliers in the electronics industry. The approach encompasses an in-depth examination of relevant literature employing qualitative analysis, aiming to gain a comprehensive insight into the topic from 2004 to 2023. The study results indicate that in assessing the career feasibility of vocational graduates as human resource suppliers in the electronics industry, it is essential to emphasize that interpersonal skills, autonomy, self-motivation, emotional intelligence, and leadership abilities play a crucial role. The dynamic electronics industry requires individuals with strong technical skills as well as the ability to adapt, collaborate within teams, and possess good emotional intelligence. Therefore, it is crucial not to solely assess technical qualifications when evaluating vocational graduates. Vocational education should pay more attention to the early development of psychological skills so that graduates are prepared to face various challenges in the ever-evolving professional world.

Keywords: Psychological Capital, Career Feasibility, Vocational Education, Human Resources, Electronics Industry

1. Introduction

In an epoch characterized by the globalization phenomenon and the rapid expansion of the electronics industry, there exists an escalating exigency for proficient Human Resources (HR) capable of navigating the competitive terrain of the labor market [1]. Amidst these dynamic forces, graduates of vocational programs assume a pivotal function in furnishing the requisite workforce for the electronics industry. The cornerstone of their triumph in confronting challenges within this domain primarily lies in the cultivation of technical expertise [2]. Nevertheless, the attainment of a graduate’s professional trajectory transcends the singular realm of technical prowess. Psychological capital, encompassing attributes such as robust personality, heightened motivation, and cognitive preparedness, assumes an equally consequential role in delineating the viability and sustainability of their careers [3]. Consequently, it is imperative for vocational graduates to direct their endeavors not exclusively towards the refinement of technical acumen but also towards the cultivation of psychological facets, thus facilitating a comprehensive triumph within the competitive milieu of the electronics industry.

The burgeoning significance of psychological capital analysis in assessing the career viability of graduates from vocational programs, who serve as a crucial source of Human Resources (HR) within the electronics industry sector, is underscored, particularly in light of the evolving dynamics within the contemporary job market [4]. Within this contextual framework, the electronics industry not only mandates a heightened level of technical proficiency from these graduates but also accentuates the indispensability of traits such as adaptability, effective leadership, and robust interpersonal skills [5]. Consequently, there exists a compelling imperative for a
more profound comprehension of the pivotal role that psychological capital, encompassing dimensions of personality, motivation, and mental preparedness, assumes in shaping the performance and ensuing career success of vocational program graduates. In acknowledgment of the mutable requisites of the labor market, it becomes imperative for institutions providing vocational education to earnestly prioritize the cultivation of psychological capital. This emphasis ensures that graduates not only acquire technical proficiency but are also equipped to navigate the dynamic challenges inherent in the perpetually innovating electronics industry.

Beyond delineating a paradigmatic evolution within the realm of vocational education and training, there is a discernible escalation in the emphasis placed on the production of graduates who not only demonstrate prowess in technical competencies but also manifest adeptness in addressing psychological challenges inherent in a dynamically evolving work milieu. This paradigmatic shift reflects a heightened awareness of the intricate nature of labor requisites within the electronics industry, wherein proficiency extends beyond technical adeptness to encompass adaptability, leadership acumen, and efficacious interpersonal relationships. Consequently, the primary objective of this study is unequivocal: to discern and scrutinize psychological capital as a decisive determinant in evaluating the career viability of graduates from vocational programs within the electronics industry sector. Hence, this research aspires to furnish comprehensive insights into the pivotal role played by psychological capital in configuring the career trajectories of vocational graduates. Simultaneously, it endeavors to bridge extant lacunae in knowledge, thereby fortifying endeavors aimed at enhancing the quality of vocational education geared toward the anticipated needs of the evolving industrial landscape.

In light of an augmented comprehension of the pivotal role played by psychological capital in molding the professional trajectories of vocational graduates, there arises an optimistic expectation that vocational education will be better positioned to adeptly equip students in confronting the intricate challenges inherent in the professional sphere. Within this context, an all-encompassing grasp of psychological capital, enshrining facets such as personality, motivation, and mental preparedness, emerges as paramount. This holistic comprehension is instrumental in ensuring that graduates not only exhibit superlative technical competence but also harbor the adaptability and leadership acumen requisite for navigating a dynamic work milieu.

The advantages of this nuanced understanding of psychological capital extend beyond the realm of vocational education, offering opportunities for the electronics industry as a recipient of these graduates. Through an insightful comprehension and strategic harnessing of the psychological potential inherent in vocational graduates, the industry stands to optimize the utilization of its Human Resources (HR). This dual-pronged approach not only fosters heightened career sustainability for graduates but also catalyzes growth and innovation within the electronics industry itself. Consequently, a heightened emphasis on psychological capital within the domains of education and graduate recruitment engenders mutually advantageous synergies between educational institutions and the industry at large.

1.1 Psychological Capital

Psychological capital refers to various psychological or mental factors possessed by an individual [6]. It encompasses aspects such as personality, motivation, mental readiness, and other psychological attitudes that can influence an individual's behavior and performance in various contexts, including the career and work context [7]. Here are some key components of psychological capital:

1. Personality: Psychological capital includes aspects of an individual's personality, such as the level of extroversion, social friendliness, openness to new experiences, perseverance, and response to stress. One's personality can affect how they interact with colleagues, supervisors, and job tasks.

2. Motivation: This includes an individual's level of intrinsic and extrinsic motivation towards work and achieving career goals. Strong psychological capital creates a drive to excel and progress in one's career.

3. Mental Readiness: Mental readiness includes mental resilience, the ability to cope with pressure and challenges, and resilience in facing failure or difficulties. Individuals with strong psychological capital can respond to changes and pressures more effectively.

4. Career Motivation and Goals: Psychological capital includes clarity and firmness in career goals and motivation to achieve them. It involves self-awareness regarding strengths, weaknesses, and career aspirations.

5. Emotional Intelligence: The ability to understand and manage emotions, both one's own and others', is an integral part of psychological capital. This can affect the ability to communicate, collaborate, and handle conflicts.

In the context of the research on "Psychological Capital Analysis in Assessing the Career Feasibility of Vocational Graduates as Human Resource Suppliers in the Electronics Industry," a focus on psychological capital becomes crucial as it can influence how vocational graduates can succeed and thrive in a dynamic and
competitive work environment. A deeper understanding of these psychological capital aspects can assist vocational colleges and the electronics industry in enhancing the preparation and utilization of human resources.

1.2 Career Feasibility

Career feasibility refers to the extent to which an individual meets the requirements and standards necessary to succeed and thrive in a specific career path or job [8]. It involves a combination of various aspects, including technical competencies, interpersonal skills, as well as psychological readiness to face the demands and challenges in the workplace. An individual is considered to have career feasibility if they possess knowledge and skills relevant to job requirements, can adapt to changes occurring in the industry or organization, have the ability to collaborate with colleagues, and have sufficient motivation and mental readiness to achieve their career goals [9]. Career feasibility also involves the ability to continue learning and developing over time, ensuring individuals remain relevant and effective in their roles. Therefore, a deep understanding of career feasibility is crucial in ensuring that an individual can achieve long-term success and make maximum contributions in the context of work and career.

1.3 Vocational Education

Vocational education refers to a form of education designed specifically to provide students with knowledge, skills, and competencies relevant to the needs of a specific job market [10]. Vocational programs tend to focus on the direct application of practical skills required in a particular industry or job sector, preparing students to enter the workforce with high readiness. Vocational education can encompass various disciplines, ranging from engineering and technology to skills in the service sector [11]. Uniquely, vocational education often combines practical workplace learning with classroom approaches focused on the direct application of skills. This allows students not only to understand theoretical concepts but also to hone practical skills needed by industries. Vocational education plays a crucial role in meeting workforce needs by providing graduates ready to work and possessing competencies aligned with current job demands. Therefore, a deep understanding of the concept of vocational education becomes essential in addressing the fast-paced dynamics of the current job market.

1.4 Human Resources (HR)

Human Resources (HR) refers to the entire potential, knowledge, skills, and capabilities possessed by individuals or groups of individuals in an organization or society [12]. HR is the primary asset in achieving the goals and sustainability of an entity, be it a company, government agency, or non-profit organization [13]. It includes aspects such as the workforce, skills, creativity, commitment, and productivity that can shape the competitiveness of an organization. HR management involves the processes of planning, development, management, and optimization of the potential of individuals or groups to achieve organizational goals effectively [14]. A good understanding of HR is key in human resource management, including career planning, training, and recruitment strategies. In the context of globalization and rapid changes in various sectors, the success of an organization often depends heavily on the ability of HR to adapt, develop, and contribute maximally. Therefore, HR management becomes a strategic aspect in achieving competitive advantage and organizational sustainability [15].

1.5 Electronics Industry

The electronics industry refers to the economic sector involved in the design, production, and distribution of various electronic devices and components [16]. This industry includes a wide range of products, from consumer electronics such as smartphones, televisions, and electronic home appliances to more complex industrial devices such as semiconductor components, electronic medical equipment, and automated control systems. The electronics industry is the backbone of driving technological innovation, playing a key role in connecting and enhancing the functionality of various economic sectors [17]. Rapid developments in this industry are often triggered by advancements in semiconductor technology, software design, and increasingly complex system integration [18]. Therefore, the electronics industry not only creates significant job opportunities but also acts as a catalyst for technological advancements that can transform how we interact, work, and communicate in modern society. Thus, a deep understanding of the dynamics and innovations in the electronics industry becomes essential in facing the challenges and opportunities in the era of information and communication technology.
2. Method

In this investigation, we employ a qualitative literature review strategy to attain a comprehensive understanding of the analysis of psychological capital in evaluating the career viability of vocational graduates as human resource providers in the electronics industry spanning the period from 2004 to 2023. The primary aim of this approach is to locate, evaluate, and incorporate pertinent scholarly works from diverse academic journals, conference papers, and reputable sources accessible through Google Scholar. The research process consists of distinct phases, starting with defining a specific and relevant research topic to establish a comprehensive background and research objectives understanding. Subsequently, explicit and precise search criteria are established to guide the literature exploration using Google Scholar, covering the period from 2004 to 2023. After obtaining search results, the researcher undergoes a literature selection process by scrutinizing the abstracts and summaries of each identified article or source. Literature lacking relevance or not meeting the research criteria is excluded from the analysis. The selected literature undergoes a meticulous examination, focusing on identifying significant discoveries, concepts, theories, and trends inherent in the literature, utilizing a qualitative approach for a comprehensive understanding of the research subject. The findings from the literature review are then synthesized and elaborated upon by the researcher to construct a comprehensive understanding of the research topic. These findings are organized into a detailed research report with a structured and cohesive format, encompassing key discoveries, analyses, and profound interpretations. The research conclusion formulates concise conclusions summarizing the central findings and implications of the literature review on the research subject. This methodology enables researchers to acquire an extensive and deep understanding of the research topic without the need for primary data collection, potentially making significant contributions to advancing theories, problem-solving, or decision-making across various scientific domains, particularly within the context of evaluating psychological capital in assessing the career feasibility of vocational graduates as human resource providers in the electronics industry.

3. Result and Discussion

The psychological approach in evaluating the career viability of vocational graduates as human resource suppliers (HR) in the electronics industry is not only an aspect that needs to be examined, but also an essential foundation that requires in-depth understanding. Psychological capital, which encompasses an individual's skills, attitudes and psychological characteristics, is not just a set of attributes, but an integral foundation that contributes significantly to one's success in undergoing their professional journey [19]. In this context, vocational graduates in the field of electronics are not only expected to have a proficient technical understanding, but also need to be equipped with adequate psychological capital to face the complex challenges and demands that surround the industry. The development of emotional intelligence, resilience and adaptability are becoming increasingly important keys in responding to dynamic and competitive changes in the world of work [20]. Therefore, highlighting and strengthening the psychological aspects in evaluating the career viability of vocational graduates is not merely an option, but a strategic imperative to ensure their optimal contribution as key players in assuming roles in the ever-evolving world of the electronics industry.

One of the critical aspects focused on in the analysis of psychological capital is interpersonal ability, a dimension that stretches beyond technical skills. Vocational graduates are expected to be able to explore interpersonal relationships with a depth that involves not only effective communication, but also mastery of efficient team collaboration [21]. In the context of the electronics industry, which is often involved in complex team projects, these skills become even more important. Psychological analysis, by exploring elements such as adaptability and conflict management skills, can provide a deep understanding of a graduate's level of interpersonal ability. This understanding is not just knowledge, but a solid foundation on which to build strong working relationships, both with peers and superiors. Thus, the emphasis on interpersonal skills through psychological analysis not only evaluates, but also stimulates the development of critical aspects needed to succeed in a dynamic and challenging work environment in the ever-evolving electronics industry.

In assessing the career viability of vocational graduates in the electronics industry, aspects of independence and self-motivation play a central role. Amidst the complexity of the industry's demands, a professional must be able to go beyond performing technical tasks [22]. Independence, defined by the ability to take initiative and take responsibility, is essential in navigating a dynamic work environment. In addition, high self-motivation is a catalyst for continued professional growth, given that the industry is constantly evolving and bringing new technological innovations [23]. In-depth psychological analyses can provide an understanding of the extent to which vocational graduates have an internal drive to achieve their career goals, while also providing a snapshot
of their level of self-reliance in dealing with the day-to-day challenges of the workplace. Therefore, placing a focus on self-reliance and self-motivation through psychological approaches is not only an evaluation, but also an important strategy to shape individuals who are not only successful, but also highly competitive in the ever-changing and rapidly evolving electronics industry.

Equally essential is an in-depth analysis of the emotional intelligence aspects of vocational graduates. The electronics industry, which often faces intense work pressure and demands for quick problem solving, highlights the need for psychological capital that includes emotional intelligence [24]. The ability to effectively manage stress, adapt to change, and understand one's own and others' emotions are key elements that can be vital indicators of success in this industry. A thorough psychological analysis of graduates' emotional intelligence can provide a comprehensive insight into how they can perform optimally in stressful situations [25]. More than just technical skills, emotional intelligence forms the foundation for effective leadership, harmonious collaboration and adaptive innovation in the ever-evolving dynamics of the electronics industry. Thus, exploring and appreciating aspects of emotional intelligence through psychological approaches is an important strategy to strengthen the competitive advantage of vocational graduates in facing the complex challenges presented by the modern electronics industry.

Within the framework of psychological capital analysis, the evaluation of leadership ability is a critical factor that enriches the professionalism dimension of vocational graduates. Although they may initially enter the industry as a team member, the presence of the ability to take initiative, provide clear direction, and motivate fellow team members is a huge plus. Leadership is not just about a formal position, but also about the positive influence that can be felt by the whole team [26]. With psychological aspects in mind, evaluating leadership ability can involve an in-depth assessment of communication skills, decision-making ability, and capacity to manage conflict [27]. This analysis includes not only identifying leadership potential, but also exploring how graduates can shape an inclusive and proactive work culture. Amidst the ever-evolving dynamics of the electronics industry, a holistic psychological analysis becomes an important instrument to reveal leadership potential that may not be visible to the naked eye, providing a deeper understanding of how graduates can become agents of change and pioneers in facing complex challenges in this dynamic industry sphere.

Through the incorporation of the previously discussed elements, psychological capital analysis is able to present a holistic and in-depth view of the career viability of vocational graduates as a supply of Human Resources (HR) in the electronics industry. This approach opens a wide window to understanding not only their technical skills, but also the psychological foundations that support their success in dealing with the complex dynamics of a highly competitive labour market. The evaluation of interpersonal skills, self-reliance, self-motivation, emotional intelligence and leadership abilities provides a comprehensive framework, enabling education and industry stakeholders to work together to ensure that vocational graduates are equipped not only with solid technical knowledge, but also with critical psychological capital. This collaboration becomes the bridge that connects theory and practice, ensuring that graduates are able to respond agilely to the challenges presented by the ever-evolving electronics industry, and make maximum contributions as agents of change in a rapidly changing work landscape. Thus, the application of psychological capital analysis is not just an evaluation strategy, but also a strategic step towards the formation of adaptive, innovative and highly competitive human resources in this era of the electronics industry full of complexity.

4. Conclusion

In analyzing the psychological capital of vocational graduates as contributors to the workforce in the electronics industry, it can be concluded that aspects such as interpersonal skills, autonomy, self-motivation, emotional intelligence, and leadership abilities play a crucial role in determining their career eligibility. The dynamic and ever-evolving electronics industry requires individuals who not only possess solid technical expertise but also have the capacity to adapt to changes, collaborate within teams, and cope with work pressure with good emotional intelligence. The significance of psychological capital in this context emphasizes that the evaluation of vocational graduates should not be limited to technical qualifications alone. Vocational education should embrace the early development of psychological skills so that graduates are better prepared to face the challenges of the professional world.

To ensure the quality and career eligibility of vocational graduates as contributors to the workforce in the electronics industry, changes in the approach to education and career guidance are necessary. Firstly, vocational education institutions should integrate psychological skills into their curriculum, focusing on developing interpersonal skills, stress management, and autonomy. This can be achieved through training programs embedded in existing subjects or as additional learning modules. Secondly, career guidance institutions need to provide holistic support to students, including personal counseling, interview training, and work situation
simulations to enhance their psychological skills. Thirdly, there is a need for strengthened collaboration between the industry and vocational education institutions, involving the industry in the educational process through guest lectures, internships, or collaborative projects. Finally, continuous research and evaluation of graduates' performance in the workplace are essential to detect emerging needs and trends, serving as a basis for curriculum adjustments and training programs to maintain the relevance of vocational education to industry demands. Through these steps, it is anticipated that vocational graduates can enter the workforce with better readiness, not only as technical experts but also as individuals with a robust psychological capital for success in the dynamic electronics industry.

References


