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Exploring The Impact of Dynamic Learning Capabilities on Career Skill of Generation Z

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ABSTRACT:

The objective of this study is to examine the influence of absorptive capability, innovative capability, and self-learning capability on the development of career skills of generation Z office/business administration graduates and prospective graduates in Indonesia. The study used a quantitative approach and a cross-sectional survey method to collect data from 100 respondents in Central Java. The respondents were graduates and prospective graduates of office/business administration. The analysis was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method to test the relationship between latent variables. The findings of the study suggest that the three primary variables (i.e., absorptive capability, innovative capability, and self-learning capability) exert a positive and significant influence on the development of career skills. Furthermore, it was determined that innovative capability and self-learning capability significantly mediate the relationship between absorptive capability and career skills. This study offers a theoretical contribution by expanding the application of dynamic capabilities theory to the realm of individual development. The practical implications of this study are twofold: first, it can serve as a foundational basis for the development of competency development strategies in graduate education and industry; and second, it can equip Generation Z with the relevant skills necessary for the future of work.

INTRODUCTION

In the current era, characterized by the imperative for sustainability, technological advancements have profoundly impacted various sectors, including the field of administration,

which is undergoing substantial transformations. Consequently, professionals must demonstrate a rapid adaptability to emergent challenges and innovations in order to maintain competitiveness (World Economic Forum, 2025). The role of administrators in contemporary organizations is undergoing a transition. Historically, administrators were tasked with performing conventional administrative functions. However, recent developments have resulted in a shift in their role to that of strategic collaborators. These administrators now play an integral part in the decision-making process, contributing to the enhancement of operational efficiency within organizations (Bhimani & and Willcocks, 2014).

As indicated in the World Economic Forum's Future of Work 2030 Report, the administrator profession continues to be in demand within the labor market; however, it is undergoing a period of transition. Technological developments and automation have led to significant changes in the world of work, particularly in the field of administration. These changes have resulted in the replacement of a number of routine administrative tasks with more strategic and adaptive responsibilities. As a consequence, professionals in this field have been compelled to develop new skills that can effectively address these changes (Li, 2024; Sullivan & Baruch, 2009; Tushar & Sooraksa, 2023). The increasing automation of administrative tasks underscores the imperative for individuals to cultivate competencies in digital literacy, analytical thinking, and technological proficiency. Meanwhile, administrative job positions are expected to decrease by 4.7 million globally over the period 2023-2027 (World Economic Forum, 2025).

Earlier studies in the field of literature have demonstrated that the success of graduates in the fields of office administration and business administration, particularly among Generation Z, is contingent upon the capacity for interorganizational collaboration and the dissemination of knowledge, with the objective of generating value. Consequently, these graduates place considerable emphasis on the acquisition and mastery of a diverse range of skills, encompassing both technical and professional competencies. In the context of contemporary organizations, the cultivation of competencies such as effective communication, teamwork, problem solving, and creative collaboration has emerged as pivotal to propelling innovation and enhancing efficiency within these entities (Babashahi et al., 2024; Heckman & Kautz, 2012; Robles, 2012). Within this paradigm, career skills have been identified as a pivotal element for graduates of office administration and business administration to compete in an increasingly dynamic and digitized global job market (OECD, 2021; World Economic Forum, 2023). The cohort known as Generation Z, which comprises young individuals who

have been reared in a technologically-driven environment, is distinguished by their robust digital competencies and high adaptability. These attributes position them as potential assets in addressing the challenges posed by organizational change and the future demands of the workforce.

The Central Bureau of Statistics—or BPS—said in their 2023 report that Generation Z makes up about 27.9% of the country's total population. That means they're the biggest generation, with 44.5 million people. Around 4.3 million of these individuals are between 15 and 24 years old and fall into the unemployed labor force category, reflecting an open unemployment rate of 42.6% for this age group. This shows that, although Generation Z has the potential to drive economic growth, its members face significant challenges entering the workforce. One of the elements leading to the elevated jobless rate among new college grads is the discrepancy between their abilities and the requirements of the employment sector. The current education and training system mostly focuses on technical skills. It does not focus enough on developing career skills such as communication, leadership, time management, critical thinking, and teamwork. These skills are crucial for adapting to and succeeding in an increasingly complex and dynamic modern work environment.

The concept of dynamic capabilities—originally developed within the domain of organization—has now gained relevance in the context of individual career development. These capabilities include the ability to discern opportunities and threats, capitalize on them, and adjust resources to maintain a competitive advantage (Yudistira et al., 2020, 2022). Concomitantly, prior studies have employed the dynamic capabilities framework to assess the competitive advantage of university graduates (Finch et al., 2016). A comprehensive review of the literature revealed that graduates should possess four key resources: intellectual, personality, meta-skills, and job-specific skills. The integration of these dynamic capabilities has been identified as a key strategy to enhance the value of these individual resources. Additionally, the findings of Khaksar et al. (2020) indicated that knowledge-based dynamic capabilities have the potential to enhance work productivity.

Wang & Ahmed (2007) identified three main components of dynamic capability: innovative capability, adaptive capability, and absorptive capability. As postulated by Marco-Lajara et al. (2023), the determinants of dynamic capability encompass absorptive capability, learning capability, and learning capability. In a manner analogous to that of Parmentier et al. (2024), dynamic capabilities encompass a variety of competencies, including innovation capability, absorptive capability, and learning capability. Consequently, this study identifies

three pivotal factors that facilitate the development of career skills: absorptive capability, creative and innovative capability, and self-learning capability. Absorptive capacity is defined as the ability to identify, incorporate, and utilize external knowledge to generate value within an organizational framework (Gonzalez, 2024; Salam & Bajaba, 2023; Zahra & George, 2002). Creative and innovative capability is the ability to generate new ideas, implement them, and encourage innovation in work processes and results (Masianoga & Chakauya, 2023).

This capacity underscores the significance of receptivity to novel experiences, divergent thinking, and the fortitude to embrace risk (Runco & Acar, 2012). Concomitantly, self-learning capability can be defined as the ability to initiate, implement, and evaluate the learning process autonomously (Armstrong, 1983). These three abilities complement each other and play a crucial role in facing the challenges of the world of work in the era of innovation. Absorptive capability and self-learning capability can facilitate the acquisition and utilization of external knowledge by graduates, while creative and innovative capability can transform knowledge into creative and innovative solutions. In essence, these three competencies can enhance vocational aptitudes such as communication, adaptability, collaborative leadership, and strategic thinking. These abilities are of paramount importance in today's dynamic and knowledge-driven professional landscape.

While the number of studies on absorptive capacity, innovative capability, and self-learning capability has been increasing, the number of studies examining the role of all three in the development of career skills among Generation Z remain limited (Abbasi et al., 2018; van Laar et al., 2020). Indeed, in an era of open innovation and rapid digital transformation, the capacity to assimilate novel knowledge, self-learn, and innovate is a pivotal foundation for cultivating adaptive and competitive career skills (Garrido-Moreno et al., 2024; Karaca-Atik et al., 2023; Noe et al., 2014; Pelser et al., 2022; Robertson et al., 2023; Zhao et al., 2022). The objective of this study is to examine the influence of absorptive capacity, innovative capability, and self-learning capability on career skills development among Generation Z in Indonesia. The findings of this study are expected to contribute to the academic literature by presenting empirical evidence regarding the relationship between an individual's capacity to absorb and create new knowledge and personal learning initiatives on professional career readiness. This research also has practical implications for higher education institutions and industry players in designing graduate competency development strategies that are relevant to the needs of today's workforce.

METHOD

This study uses a quantitative approach to examine the influence of absorptive capability, innovative capability, and self-learning capability on the development of career skills of graduates and prospective graduates of business/office administration in Indonesia. The study focused on individuals who are entering or will soon enter the professional workforce, which is expected to play an important role in the development of the office administration and management sector in the future.

The research design used was a cross-sectional survey. The research sample consisted of graduates and prospective graduates of business/office administration study programs at various public and private universities in Indonesia who were in their last year of college or had graduated within a maximum span of the last 2 years. Because the population in the study was generation Z who belonged to the birth of 1997 - 2012 in Central Java, the sampling technique used was accidental sampling. The sample size uses the Lemeshow formula because the population size is unknown or infinite. Therefore, the sample size of this study was 100 people. Furthermore, data was collected by distributing questionnaires online through social media, alumni groups, and cooperation with business/office administration study programs, until the targeted number of respondents was reached.

This study adopts the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, which is considered appropriate for analyzing the relationship between latent variables in survey-based studies, especially in conditions of non-normal data distribution and relatively small sample sizes. The main advantage of this study lies in the use of a geographically representative sample, covering all regions in Central Java Province, thus strengthening the external validity and potential generalization of the research results to the national level. Theoretically, this study enriches the literature by exploring the influence of absorptive capability, innovative capability, and self-learning capability on the development of career skills among Generation Z. The findings of this study provide a significant contribution to the development of career skills among Generation Z students.

The findings of this study make a significant contribution to the development of educational policy and curriculum design, by emphasizing the urgency of implementing competency improvement programs that are relevant to the characteristics of the younger generation. In particular, the results underscore the importance of integrating digital literacy, adaptability to technological transformation, analytical thinking skills, and ethics in decision-making into the secretarial education and training system. This effort is believed to improve

graduates' readiness to face dynamic industry demands and continuous regulatory changes, while supporting their professional sustainability in the field of modern administration and management.

In data analysis, this study utilized SPSS software to conduct descriptive statistical analysis aimed at assessing data quality and describing the general characteristics of respondents. Meanwhile, hypothesis testing was conducted using SmartPLS through the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, which is known to be effective in handling relationships between complex variables (Ringle et al., 2014). The analysis process is carried out in two stages, namely measurement model evaluation and structural model evaluation.

The measurement model evaluation stage aims to test the validity and reliability of constructs through indicators such as factor loading values (> 0.708), composite reliability (in the range of 0.70 to 0.90), and convergent validity as measured by the Average Variance Extracted value (AVE < 0.50) (Hair et al., 2019). The evaluation of the structural model includes checking for potential multicollinearity between latent variables (with a Variance Inflation Factor value < 3), testing the predictive power of the model through R^2 and Q^2 values, and applying PLS predictive techniques to obtain additional validation of the model built (Shmueli et al., 2019).

RESULTS AND DISCUSSIONS

Demographic Data of Respondents

This research surveyed 100 Generation Z individuals in Central Java, Indonesia. The sample consisted mainly of females (64.0%) and males (36%), with almost all respondents holding a university degree (78%). In terms of professional experience, 39% had 1 - 2 years of work experience in business administration, with the majority working in general administration (56%). Most participants worked in private sector companies (70%), with an average income of IDR 4,000,000 - IDR 15,000,000 (69%).

Descriptive Statistic

The results of descriptive statistical analysis of the main variables in this study indicate that Generation Z graduates in the Central Java region generally have levels of absorptive capability, innovative capability, and self-learning capability that are in the moderate to relatively high category.

Table 1. Descriptive Statistics Data

Variables		Indicators	Mean	SD	Level
Absorptive capability (AC)	AC1	Assimilation capability	3.635	0.458	High
	AC2	Transformation capability	3.655	0.449	High
	AC3	Exploitation capability	3.646	0.459	High
	AC4	Acquisition capability	3.471	0.412	Moderate
Innovative capability (IC)	IC1	Curiosity	3.728	0.836	High
	IC2	Associative thinking	3.679	0.809	High
	IC3	Bravery	3.664	0.842	High
	IC4	Creative self-efficacy	3.683	0.836	High
Self-learning capability (SC)	SC1	Learning Passion	3.669	0.472	High
	SC2	Learning resources	3.591	0.501	High
	SC3	Learning outcome prediction	3.595	0.464	High
	SC4	Learning direction	3.519	0.456	High
Career Skill (CS)	CS1	Entrepreneurship and self-government	3.481	0.505	Tinggi
	CS2	Flexibility and adaptability	3.742	0.376	Tinggi
	CS3	Leadership and responsibility	3.774	0.534	Tinggi
	CS4	Productivity and accountability	3.647	0.408	Tinggi

In table 1, the absorptive capability variable consists of four indicators. The first three indicators-assimilation capability (M = 3.635; SD = 0.458), transformation capability (M = 3.655; SD = 0.449), and exploitation capability (M = 3.646; SD = 0.459)-show a high category, indicating that generation Z graduates in Central Java are quite capable of absorbing and utilizing knowledge. However, acquisition capability shows a slightly lower value (M = 3.471; SD = 0.412) and is in the medium category, indicating the need for improvement in the ability to access and acquire new knowledge.

The innovative capability variable has four indicators-curiosity, associative thinking, bravery, and creative self-efficacy-having high mean scores (range M = 3.664 to 3.728) with relatively large standard deviations (>0.8), indicating a wide variation in perceptions among respondents. This reflects that while the majority have good innovative ability, there are significant differences in ability among graduates.

The Self-Learning Capability (SC) variable has four indicators, and all of them show high average scores (M = 3.519-3.669). The highest indicator is learning passion (M = 3.669; SD = 0.472), which indicates a strong enthusiasm for self-learning. Meanwhile, learning direction has the lowest score (M = 3.519; SD = 0.456), which suggests that some respondents may need more guidance or planning in their learning process.

Finally, the Career Skill (CS) variable reflects career capabilities that are important in the modern world of work. All indicators were categorized as high, with leadership and responsibility scoring the highest (M = 3.774; SD = 0.534), indicating that Generation Z has strong leadership potential. Meanwhile, the entrepreneurship and self-government indicator

obtained the lowest average score (M = 3.481; SD = 0.505), indicating that the entrepreneurial aspect still needs strengthening.

Reliability and Validity

Reliability tests for the four latent variables confirmed high reliability with alpha (Cronbach's Alpha) and Composite Reliability (CR) values exceeding 0.70, which meet the acceptable threshold recommended by Hair et al. (2019). In addition, the AVE (Average Variance Extracted) value is greater than 0.50, and meets the criteria set by Fornell & Larcker (1981). These results indicate that the strong convergent validity of the measurement model can ensure that the constructs effectively capture the underlying theoretical concepts.

Table 2. Reliability and Validity

Variable		Indicator	*Loading factor*	*a*	AVE	CR
Absorptive capability (AC)	AC1	Assimilation capability	0.880	0.873	0.632	0.837
	AC2	Transformation capability	0.852			
	AC3	Exploitation capability	0.871			
	AC4	Acquisition capability	0.850			
Innovative capability (IC)	IC1	Curiosity	0.944	0.933	0.788	0.887
	IC2	Associative thinking	0.810			
	IC3	Bravery	0.739			
	IC4	Creative self-efficacy	0.964			
Self-learning capability (SC)	SC1	Learning Passion	0.775	0.835	0.581	0.864
	SC2	Learning resources	0.836			
	SC3	Learning outcome prediction	0.843			
	SC4	Learning direction	0.862			
Career Skill (CS)	CS1	Entrepreneurship and self-government	0.855	0.910	0.619	0.889
	CS2	Flexibility and adaptability	0.848			
	CS3	Leadership and responsibility	0.792			
	CS4	Productivity and accountability	0.733			

Structural Equation Analysis and Hypothesis Testing

The results of the structural equation model analysis using PLS-SEM to test the research hypothesis are shown in Figure 1.

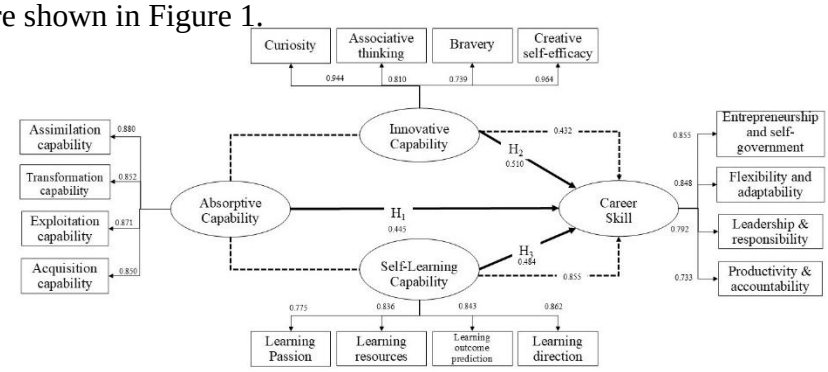

Figure 1. Structural Equation Model

The PLS-SEM structural model analysis conducted to test the research hypotheses confirmed the causal relationship between AC, IC, SC, and CS among business/office administration graduates in Central Java. The results for the three hypotheses (H1, H2, H3) show that AC has a direct relationship with CS, where the value of AC to CS ($\beta = 0.445$, $t = 9.127$, $p < 0.001$), the value of IC to CS ($\beta = 0.510$, $t = 9.759$, $p < 0.001$), and the value of SC to CS ($\beta = 0.484$, $t = 9.579$, $p < 0.001$). In addition, the results of structural model analysis show that IC mediates AC on CS ($\beta = 0.510$, $t = 9.231$, $p < 0.001$), and SC mediates AC on CS ($\beta = 0.855$, $t = 9.567$, $p < 0.001$).

The results showed that AC has a significant effect on CS ($\beta = 0.445$, $t = 9.127$, $p < 0.001$). This is in line with the findings of Sancho-zamora et al. (2022), which emphasize the importance of the ability to absorb knowledge in improving organizational performance through innovation. In addition, a study by Al-Shami et al. (2023) found that absorptive capacity mediates the relationship between transformational leadership and corporate entrepreneurship, suggesting the important role of AC in the development of career skills.

IC has a significant effect on CS ($\beta = 0.510$, $t = 9.759$, $p < 0.001$). A study by Firmansyah & Wahdiniwaty (2023) supports this finding, showing that innovation capability mediates the relationship between digital transformation and firm competitiveness. In addition, research by Heredia et al. (2022), Saunila (2017), dan Sasono et al. (2023) shows that innovation capability acts as a catalyst in improving service quality and work productivity in the manufacturing industry, which is relevant to career skills development.

SC also had a significant effect on CS ($\beta = 0.484$, $t = 9.579$, $p < 0.01$). Although the specific literature on SC is limited, the concept of self-directed learning as part of learning orientation has been linked to improved innovation performance in a study by Calisir et al. (2013). In addition, a study by Agung Nugroho et al. (2021) showed that individual soft skills and organizational learning contribute to the enhancement of innovation capabilities, which in turn can improve career skills. Figure 1 also shows that IC and SC mediate the relationship between AC and CS, with mediation values of $\beta = 0.510$ ($t = 9.231$, $p < 0.001$) and $\beta = 0.855$ ($t = 9.567$, $p < 0.01$), respectively. These findings are consistent with the study by Farzaneh et al. (2022), Subramaniam et al. (2023), and Correia et al. (2020) which identified that dynamic capabilities and innovation contribute to competitive advantage through the mediation path. In addition, the study by Sinaga et al. (2024) showed that absorptive capability mediates the relationship between work motivation and transformational leadership with innovative work behavior, emphasizing the importance of the mediating role in career skills development.

CONCLUSION

This research provides an in-depth understanding of the importance of dynamic learning capabilities - which include absorptive capacity, innovative capacity, and self-learning capacity - in the shaping and development of the career skills of Generation Z in Indonesia, particularly for graduates and prospective graduates of office administration degree programs. These three skills have been shown to have a significant impact in preparing the younger generation for the challenges and demands of the future profession in the context of an increasingly dynamic and technology-driven workplace.

The results of PLS-SEM statistical analysis show that each dynamic learning capability variable not only directly contributes to vocational skills, but also reinforces each other in a mediating relationship. This finding confirms the importance of the ability to absorb external knowledge, develop innovative ideas, and form self-learning initiatives as a key foundation for the development of graduates' competitiveness in the labor market.

There are both theoretical and practical implications to the results of this study. Theoretically, this study expands the scope of the dynamic capabilities literature by placing it in the context of individuals, not just organizations. On the one hand, the findings provide strategic direction for higher education institutions in designing curricula that meet the needs of Generation Z. On the other hand, industry can use the findings to inform the design of new products and services. At the same time, industry will be able to use the findings to better tailor training and career development to young people's characteristics.

However, this research is not without limitations. The scope of generalizing the findings to the national level is limited by the research area, which only covers Central Java Province. Furthermore, the relatively small sample size and the online method used to collect the data may cause bias, especially regarding the digital skills of the respondents.

Therefore, future research should expand geographic coverage and increase the number of respondents for a more representative picture. Other variables, such as organizational support or willingness to use technologies, are often included as moderators. Longitudinal research is also needed to monitor career development. Finally, the understanding of how dynamic learning skills operate in different contexts would be enriched by further research in different educational sectors or occupations. In conclusion, this study has important theoretical and practical implications, as well as opening up opportunities for further, deeper and more comprehensive study in the field of youth career development in the era of digital transformation.

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