

The Impact of ICT Training and Motivation on The Students' Academic Performance

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ARTICLE INFO	ABSTRACT
<i>Keywords:</i> Training Competence Performance	Purpose- ICT training and motivation are important in improving student competence in the learning process. This research is important to improve students' skills in understanding ICT. This study evaluates, individually and holistically, how training and accomplishment motivation affect students' competencies at FEBI UIN SGD Bandung.
	Methodology – Descriptive and verification methodologies are implemented in the investigation. The study was conducted on 100 pupils from FEBI UIN SGD Bandung. Saturated sampling methodologies were implemented to conduct the sampling. Data collection techniques used observation, questionnaires, and interviews. Multiple regression analysis is the methodology utilized for data analysis.
	Finding- The study's results suggest that student competency is influenced by training and achievement motivation, both individually and collectively. As a result, the competencies of FEBI UIN SGD Bandung students are influenced by ICT training and achievement motivation, and there is a correlation between increased enthusiasm for student accomplishment and improved competency. This illustrates that combining achievement incentives and ICT training improves students' competency at FEBI UIN SGD Bandung. The determinant value was 0.889, suggesting that training and motivation accounted for 88.9% of student competency. Concurrently, 11.1% was attributed to supplementary causes.
	Significance- This training will improve students' understanding of ICT, which helps improve students' academic achievement.

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INTRODUCTION

In the age of Industry 4.0, there is a necessity for high-quality human resources that are adaptable to all changes, particularly technological advancements. Consequently, in the context of the Fourth Industrial Revolution, an organization must possess human resources that align with contemporary demands. High-quality human resources are individuals proficient in a specific domain of science and technology, capable of executing tasks professionally, adhering to time management, and producing exceptional work. One

initiative to enhance the quality of human resources is implementing training programs for prospective individuals, such as students.

Training is essential for organizations so that HR has the knowledge, abilities, and competencies to fulfill the organization's current and future requirements (Böttcher-Oschmann et al., 2021). Training as a learning medium to improve the understanding of participants Training aims to help employees understand everything they do (Hakim, 2020, p. 133). Training designed to enhance employee knowledge and character enables practical task completion and the production of high-quality products (Bernadine, 2020). Training serves as a motivational instrument that inspires people to operate at their highest potential, aimed at enhancing their performance (Maulana et al., 2022). The training is designed to fulfill the company's established work standards. Training systematically enhances individuals' knowledge, abilities, and behaviors pertinent to their work. Mathis (2019: 301) asserts, "Training is a process through which individuals acquire specific competencies to facilitate the attainment of organizational objectives." Multiple organizational objectives constrain this process, and training may be perceived in a limited or expansive manner. Training, albeit limited, equips employees with specific and discernible knowledge and skills pertinent to their current roles. As Rivai (2020) noted, training constitutes a segment of education that encompasses the learning process aimed at acquiring and enhancing skills beyond the traditional education system, emphasizing practical application over theoretical understanding. The training is regarded as a brief educational process to develop work-related competencies, encompassing physical, intellectual, social, and management skills. This system prioritizes the execution of work activities in alignment with assigned roles and responsibilities over contemporary theoretical developments. Training is crucial in enhancing the quality of human resources in the workplace. New and existing employees must participate in training to adapt to evolving work demands resulting from changes in the work environment and strategy. Suppose an organization views its employees as assets, training, and development. In that case, it represents a continuous investment in this asset and constitutes one of the most crucial investments an organization can undertake. Training encompasses acquiring immediate knowledge and skills, while employee development focuses on learning that enhances future career prospects for individuals and organizations. Training strategically focused on critical and knowledge-based skills improves employees' abilities and job security, which is very important in today's rapidly changing technological world.

As future human resources enter the workforce, students must be equipped with various skills pertinent to information and communication technology (ICT). Therefore, an educational institution needs to implement ICT training to improve students' skills in the IT field, enabling them to effectively adjust to changing environmental demands that increasingly necessitate ICT proficiency (Adawiyah et al., 2023). FEBI UIN SGD Bandung organizes ICT training to augment students' knowledge and competencies, specifically in ICT. The ICT training organized by FEBI UIN SGD Bandung is compulsory for all FEBI UIN SGD Bandung community students and aims to prepare them for the workforce. The ICT training conducted is inherently linked to the application of training methodologies. Consequently, practical training relies on implementing successful methodologies that engage employees and improve the educational experience. From the description above, it is very clear that training impacts increasing competence. Several previous research results support the idea that training influences competence, such as the results of research from Oschmann et al. (2021), which states that training influences improving student competence. Consistent with the study's findings, Sergeeva (2021), Kuranchie (2021), Areej ElSayary (2023), and Mallarangan (2024) showed the same research results that training has a positive impact on student competence. Thus, training affects competence. Meanwhile, some research results from Ningtyas (2018) state that training has no effect on competence.

Student academic performance is consistently linked to achievement motivation, which catalyzes human action and endeavor. Numerous personality studies indicate that a significant determinant of student success is a pronounced need for achievement. This requirement is referred to as achievement motivation. This theoretical framework is predicated on the success derived from students' perspectives. According to McClelland, achievement motivation is the drive to attain success or excel in competition, assessed by the accomplishments of others or one's achievements. Achievement motivation is an impetus related to

accomplishments, specifically the mastery, manipulation, and management of social and physical challenges, overcoming obstacles, maintaining high-quality work, and competing to surpass previous performance and the results of others. The achievement drive pushes a person to be successful by measuring themselves against a high standard. This standard can come from their past successes or the successes of others.

Achievement motivation combines "motivation" with "achievement," establishing a consistent meaning and view. Working performance is strongly influenced by achievement motivation. Increased drive for achieving correlates with enhanced performance or work output. Individuals with elevated accomplishment motivation will do tasks optimally because they anticipate outcomes surpassing current standards. Achievement motivation compels individuals to utilize their full capabilities to fulfill their duties and responsibilities to attain certain objectives within each time frame. Motivation is the impetus for all individual behaviors. The influence of personal wants and desires significantly affects the trajectory of behavior. Motivation is founded on feelings and objectives associated with your accomplishments. Motivation manifests in several forms, including extrinsic, intrinsic, physiological, and accomplishment motivation. People who want to achieve greatness or success are said to be achievement-motivated. Individuals are motivated to succeed through various internal and external factors, and they meet their needs through various methods. The main thing that drives us to do things is motivation. Motivation drives us to act in certain ways, including our wants, needs, and goals in life. Achieving our goals and being motivated to do well are important parts of achievement motivation. Achievement goals can affect how well someone does a job and show that they want to show off their skills. Our fundamental physiological drive to be motivated influences how we naturally behave in various situations. Motivation is crucial because it influences our daily existence. We all have an innate drive to succeed that shapes everything we do, think, and believe. People's motivation comprises their thoughts, feelings, wants, perceptions, and choices. Attitudes, expectations, goals, and requirements are examples of internal factors (Indrasvari et al., 2021). The work environment, conditions, and society are examples of external factors. Motivation encompasses the desire to stimulate, direct, and influence individuals' attitudes and behaviors in learning. Achievement motivation is the endeavor to enhance or sustain an individual's capabilities at the highest possible level across various activities, adhering to established standards of excellence, which may result in either success or failure in their execution. Achievement motivation has been defined in several ways. Although they share similarities, numerous approaches to success motivation have been independently established, indicating that most theories of achievement motivation are congruent rather than adversarial. Researchers in motivation have tried to create a hierarchical model that does not rely on achievement motivation by merging the accomplishment goal approach with the achievement motive method; two major theories are combined. Achievement reasons include both the desire to succeed and the fear of failing. This is the main thing that drives us to act in ways that lead to good or bad results. One way to think about achievement goals is to use more solid mental models that help people reach their goals. FEBI UIN SGD Bandung students' desire to do well did not fully improve after ICT training, according to a survey of those students; the deficiency in student achievement motivation hindered their ability to master knowledge and skills in the IT domain. Consequently, student competencies, particularly in the domain of ICT, have not been thoroughly acquired by students. In 2005, Krause, Hartley, James, and McInnis did a study on first-year college students. 36% of those who answered said they had trouble getting to study, and 28% considered dropping out of college during their first year. Increased motivation is a crucial need for attaining academic achievement in higher education. There is a direct link between achievement motivation and situations that involve accomplishment. The achievement goal is thought to have a direct or close effect on outcomes related to success. In contrast, accomplishment motivation has an indirect or far-off effect (Elliot & McGregor in Fadillah, 2024). These incentives and objectives are shown to collaborate in regulating achievement behavior. The hierarchical model posits accomplishment goals as determinants of performance outcomes. This paradigm is being further developed to incorporate more strategies for achievement motivation. A limitation of this approach is its failure to elucidate the mechanisms behind the connection between accomplishment goals and performance. Upon enhancement, this model becomes increasingly effective in forecasting the outcomes of achievement-oriented behaviors (Elliot & McGregor in Fadilah, 2024). Specific traits or attributes characterize an individual possessing achievement motivation. These traits differentiate individuals with high accomplishment motivation from those with low motivation. Motivation is related to competence; if a person's motivation increases, then competence will also increase. Several previous research results support the idea that motivation influences competence. For instance, the findings of Maddens (2023) indicate that motivation affects competence. Similar things were stated by Guseynova (2020), Cahyanti (2024), Lucas M. Jeno (2021), and Kulakow (2020), who stated that motivation is a factor that can increase competence.

Competence encompasses the knowledge, talents, expertise, and work attitudes required of a workforce. Michael Zwel, as cited in Wibowo (2020), identifies several aspects that affect competence, including beliefs and values, skills, experience, personality traits, motivation, emotional factors, intellectual capabilities, and accomplishment motivation. Skills, motivation, and cognitive abilities are crucial for enhancing workforce competency. Self-competency can be enhanced through participation in the aforementioned training, thereby facilitating the further development of inherent potential and skill enhancement. Boyatzis (2020) says competencies are "the essential traits of a person that lead to effective and exceptional performance. A competent professional demonstrates a practical understanding derived from the accumulation of information from prior experience, which is refined and enhanced in response to situational variations. Haves posits that competence transcends the mere amalgamation of ability and willingness to perform a task and is delineated by various factors, including generic knowledge, motives, traits, social roles, and individual expertise, all of which pertain to the necessity of demonstrating exceptional performance in task execution. According to Spencer & Spencer in Busro (2020), competence is a fundamental personal attribute to meeting or exceeding performance standards in one's professional endeavors. This perspective elucidates that competence is a skill exhibited by persons who effectively execute diverse professional activities. Each individual has distinct abilities and performance levels. The disparity in competence and performance should align with the requirements of the position or job, ensuring that each distinction pertains to the execution of the role's functions. Integrating the differences into a cohesive work potential that mutually supports executing coordinated, effective, and efficient job functions would be advantageous. Competence reflects an individual's relevant ability to work effectively and indicates the requirements for such effectiveness. According to Spencer and Spencer in Busro (2020), knowledge and skill competencies are comparatively straightforward to comprehend and may be cultivated through education and training. Nonetheless, purpose, characteristics, and self-concept skills are challenging to discern due to their concealed nature. The core of motive and trait constitutes the foundation that forms an individual's personality. Competence is utilized in organizations to delineate job criteria and position descriptions, serve as metrics for performance enhancement, and refine professional development programs. Additionally, it is utilized by individuals to facilitate self-improvement.

Based on the aforementioned description, it is evident that enhancing student competency within the FEBI context is essential for advancing student knowledge and abilities, particularly in the realm of ICT, so that with the competency provisions possessed by students, in the future, students can prepare themselves to face competition in the digital era like today. This competency improvement can be done through ICT training and motivating students. According to Kasmir (2019), training aims to add new knowledge and improve skills. Consequently, this investigation aims to ascertain the impact of motivation and ICT training on the proficiency of FEBI students. Research with students is new as the objective has not been done much. In addition, the novelty in this study is that this ICT training variable is rarely used in research conducted on students. In addition, the study was conducted on students of the FEBI from four departments: management, Islamic financial management, Islamic accounting, and Islamic economics. In addition to this, the study was conducted because of the research gap, as explained above.

METHODOLOGY

Research Design

This research uses descriptive and verification methods. A descriptive study, as defined by Sugiyono (2022:64), aims to identify the presence of independent variables, whether singular or many, without comparing these variables or exploring their correlations with other factors. Meanwhile, the verification research method is a research problem formulation that asks about the relationship between two or more variables. The purpose of verification is to test the study's theories. The learning theory used in this study is cognitive learning theory. The reason for using this theory is to provide students with an understanding of the application of ICT. The reason for using this method is to describe the variables being studied and to test the proposed hypothesis. The purpose of verification is to test the study's theories. Verification research can be based on survey methods to answer the research hypothesis. This type of research can be grouped into exploratory research because it can elucidate the causal link among variables (Cooper & Schindler, 2019). The hypothesis in this study is that ICT training and motivation have a positive influence on competency.

Population and Sample

The population is the entire object (units/individuals) whose characteristics are to be studied. The study population comprised 787 students from FEBI UIN Sunan Gunung Djati Bandung. The sample is part of a collection of elements taken from the population. The study sample comprised 100 students from four distinct departments: management, Islamic financial management, Islamic accounting, and Islamic economics. Furthermore, the sampling method employed in this investigation was simple random sampling.

Instrumen dan Data Collection

The instruments and data collection techniques used in this study are questionnaires. This study primarily used subject-specific instruments to collect data directly from employees as research participants through questionnaires. The aspects measured through this questionnaire include a description of the respondent's condition, the respondent's perception of ICT training, student motivation, and the student's competence. The research instruments prepared in advance were distributed to a number of respondents to test their validity and reliability. The study commenced with the execution of validity and reliability assessments. To assess the validity of items, the criteria employed are a total item correlation coefficient reduced to a minimum threshold of 0.25 or 0.30. This study employed internal consistency reliability, utilizing Cronbach's alpha; a coefficient value beyond 0.6 indicates increased dependability of the obtained data.

Data Analysis

The method used to process the data is multiple regression analysis, which determines how much different variables affect the dependent variable. Regression is a data analysis technique that finds the influence of two or more variables. Simple regression examines two variables, whereas multiple regression analyzes more than two. A regression equation is established in regression analysis to characterize the relationship function between variables. The estimated variable is the dependent or response variable, typically shown on the vertical axis (y-axis). The independent variable, or explanatory variable, is presumed to influence the fluctuation of the dependent variable and is typically shown on the horizontal axis (x-axis). This study used multiple linear regression analysis to assess the extent of influence that training and incentive variables exert on student competence. The formula for multiple regression analysis is:

$$y=\beta 0 + \beta 1x1 + \beta 2x2 + \epsilon$$

Description: x1, x2 = independent variables. $\beta1$, $\beta2$ = coefficients for each independent variable. $\beta0$ = intercept. ϵ = error term.

FINDINGS

The data analysis technique used in this study is multiple regression analysis, which aims to explain the influence between independent and dependent variables. In this study, competence is the dependent variable, while training and motivation are the independent variables. The results of the multiple regression analysis can be seen in the table below for more details.

Madal		Unstandardized Coefficients Standardized Coefficien		Standardized Coefficients		Circ
IVIC	Juei	В	Std. Error	Beta	ι 5.	
	(Constant)	3,301	1,367	-	2,414	,018
1	X1	,626	,037	,753	16,944	,000
	X2	,232	,040	,261	5,865	,000

Table 1. Results of Multiple Regression Analysis

The previously described SPSS output provides the multiple regression equation, namely:

$Y = 3.301 + 0.626X_1 + 0.232X_2$

In the equation above, it can be explained that the Constant Value (α) is 3.301, indicating that the competency regression is unaffected by training and incentive variables. Judging from the β unstandardized coefficients value above, competency shows positive results, meaning that without any increase in all independent variables in this study, namely training and motivation, it has shown promising results. Competence will also increase if both variables also increase. Then, in the equation above, the training regression coefficient (X1) is 0.626, indicating a positive relationship; thus, an increase in the training variable correlates with a competency increase of 0.626. Meanwhile, The motivation regression coefficient (X2) is 0.232, indicating a positive correlation; thus, an increase in the motivation variable results in an enhancement in competency by a coefficient value of 0.232.

These equations say that 3,301 is an independent variable, meaning that ICT training and achievement drive are linked to competence in a good way. The competency constant number of 4.260 shows that having more competence improves ICT training and achievement motivation. ICT training has a 0.626 effect on proficiency. Achievement drive affects competence, which can be measured at 0.232. The multiple regression model's description shows that ICT training and achievement drive are linked well, which can help improve competence.

Partial T-test

The t-test evaluates the relevance of parameters that may yield accurate predictions. The statistical value of t indicates how much the independent variable influences the dependent variable. If the count exceeds the table, it indicates that the variable exerts a significant effect. The variable does not have a big effect if the count is lower than the table. Please look at the table below for more details.

Moc	lel	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
	(Constant)	3,301	1,367		2,414	,018
1	X1	,626	,037	,753	16,944	,000,
	X2	,232	,040	,261	5,865	,000,
a. De	ependent Variable	e: Y		· · · · · ·		-

Table	2.	Partial	Test
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The chance value (sig) from the partial test (t) was 0.00, less than 0.05. This means that Ho is not true and Ha is true. Because of this, the ICT training variable has a significant effect on how well students can do their work. At the same time, the achievement incentive variable has a probability value (sig) of 0.00, which is less than 0.05. This means that Ho is not true and Ha is true. The variable of achievement motivation significantly influences competence. Consequently, a greater level of achievement motivation correlates with

enhanced student competency. The significance value of the t-test regarding the impact of ICT training and accomplishment motivation on student competencies was below 0.05, indicating that motivation partially influences competency.

Simultaneous Test (F)

Simultaneously, an F test is conducted to see whether the independent variables in the regression model significantly influence the dependent variable collectively.

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	3097,111	2	1548,555	388,210	,000b
1	Residual	386,929	97	3,989		
	Total	3484,040	99			

Table 3	Simu	ltaneous	t-Test
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The graph has a 0.00 significance value and an F value of 388.210. At last, review Ftable and make a comparison with the Fcount value. The alternative hypothesis is valid if Fcount is either equal to or more than Ftable. The null hypothesis is true if Fcount is less than or equal to Ftable, rendering the alternative hypothesis untrue. Ftable acquired through 3,092. The study's results indicate that Fcount (388.210) exceeds Ftable (3.092), leading to the rejection of H0 and the acceptance of Ha. Consequently, ICT training and accomplishment motivation collectively impact student competence. The F-test analysis unequivocally demonstrates that ICT training and motivation can simultaneously improve student competency.

Coefficient of Determination

The extent of influence each independent variable exerts on the dependent variable can be ascertained by calculating the coefficient of dependence. Multiplying the correlation coefficient (R) by one hundred percent yields the coefficient of determination (Kd), which reflects the degree to which information and communication technology (ICT) training and success motivation affect variations in employee competency variables, the dependent variable. The table below presents the results of the coefficient of determination (Kd):

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,895ª	,800	,795	3,02795
a. Predictors: ((Constant), X2, X1			

Table 4. Result of the Coefficient of Determination

The study's results demonstrate that ICT training and achievement motivation account for 88.9% of the variance in competency among FEBI UIN SGD Bandung students. This indicates that 88.9% of the change in competency is attributable to these factors, and 11.1% is affected by unidentified variables outside the research model.

DISCUSSION

The study's results show that teaching students ICT does help them get better at what they do. The results of the partial test show this to be true. The chance value (sig) from the partial test (t) was 0.00, less than 0.05. This means that Ho is not true and Ha is true. Consequently, the ICT training variable significantly affects student competence. Training is an effort made by a person or leader to develop human resources, in this case, students. This is expected to develop students' intellectual abilities and personality abilities in the direction desired by the institution or the relevant educational institution; training is also expected to improve the workability of students. To achieve better competence, competence improvement must be directed and actively followed to improve student skills and abilities. So, by holding education and training, it is expected that competence will increase or become better compared to before training is held; it is

essential to be held in order to improve competence (Safitri, 2024; Safitri et al., 2024). One way for employees to have broad skills and insights is to provide education and training organized by the company. The findings of this study align with other research indicating that training impacts competence, such as the results of research from Oschmann (2021), which stated that training influences increasing student competence. Consistent with the study's findings, Sergeeva (2021), Kuranchie (2021), Areej ElSayary (2023), and Mallarangan (2024) showed the same research results that training has a positive impact on student competence. Thus, training affects competence. Competence is critical in determining an individual's ability to produce high-quality work, as per Rivai (2022). It is evident from this perspective that employee competence is inextricably linked to employee performance issues.

Research indicates that motivation influences students' learning efficacy. The accomplishment incentive variable possesses a significance value (sig) of 0.00, which is below the threshold of 0.05. This means that Ho is not true and Ha is true. Achievement motivation is a variable that has a significant effect on performance. Consequently, a greater level of achievement motivation correlates with enhanced student competency. Work motivation is considered decisive; good or bad performance of personnel and organization can be seen from work motivation, and only with high work motivation will work achievement be achieved. Therefore, work motivation is essential to consider in human resource management; in theory, many things can affect work motivation, so this motivation can be associated with several factors that are very much related to work motivation, including the first is the level of employee competence, the variable of employee competence has a relationship with work motivation, someone who is not competent in their field, of course, will not have serious work motivation, because they will not know for sure what to do. The right motivation can increase and grow work spirit, even further increase the spirit to improve performance. All of that can be had when things related to competence are also owned by a lecturer (Gibson, John, & James, 2019). The findings of this study align with prior research indicating that desire affects competence, as evidenced by Maddens (2023), which asserts its influence on competence. The same thing was stated by Guseynova (2020), Cahyanti (2024), Lucas M. Jeno (2021), and Kulakow (2020), who stated that motivation is a factor that can increase competence. Similar to this study's findings, Slamet's research from 2021 also showed that desire affects competence. That being said, motivation affects ability.

Furthermore, Mutaqqinah (2023) also concluded the results of her research that learning motivation influences student learning outcomes so that student motivation can improve student competence. The subsequent study indicates that training and motivation influence competence when the F count exceeds the F table value. The findings of this study align with Mahendra's research (2022), which indicated that competency is influenced by job motivation and the effectiveness of training inside an organization.

CONCLUSION

This is a summary of the study's findings on the influence of ICT training and motivation on the competencies of FEBI UIN SGD Bandung students: The capabilities of pupils at FEBI UIN SGD Bandung are influenced by ICT training. The findings of this investigation are corroborated by prior research outcomes from Oschmann (2021), who stated that training influences improving student competence. Furthermore, Sergeeva (2021), Kuranchie (2021), Areej ElSayary (2023), and Mallarangan (2024) have shown that training positively influences competency. This indicates that the motivation of FEBI UIN SGD Bandung students is affected by their abilities, and proficient ICT training can enhance student competence. The findings of this study are corroborated by prior research, like Maddens (2023), which indicated that motivation affects competence. The same thing was stated by Guseynova (2020), Cahyanti (2024), Lucas M. Jeno (2021), and Kulakow (2020), who stated that motivation is a factor that can increase competence. Consequently, the competencies of pupils at FEBI UIN SGD Bandung are influenced by motivation and ICT training, and there is a correlation between increased enthusiasm for student accomplishment and improved competency. This illustrates that combining achievement incentives and ICT training variable is rarely used in research conducted on students. In addition, the study was conducted on students of the FEBI from four

departments: management, Islamic financial management, Islamic accounting, and Islamic economics. These two elements are innovations in this study. The findings of this study enhance students' knowledge and skills, especially in the field of ICT, where ability in the field of ICT is a skill that must be possessed by students in the digital era today so that it is helpful for education in the future.

Subsequent recommendations are proposed based on the study's findings concerning the influence of ICT Training and Motivation on the competencies of FEBI UIN SGD Bandung students: Study programs shall assess the ICT training assessment's efficacy in enhancing student competency under the FEBI UIN SGD Bandung framework. The study program must function within the FEBI UIN SGD Bandung framework to enhance student motivation for achievement through training and counseling programs.

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