

## The Influence of Internship Experience and Work Motivation on Work Readiness in Vocational Students: PLS-SEM Analysis

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DOI: 10.23917/ijolae.v5i1.20033

Received: October 7<sup>th</sup>, 2022. Revised: October 29<sup>th</sup>, 2022. Accepted: November 29<sup>th</sup>, 2022

Available Online: December 14<sup>th</sup>, 2022. Published Regularly: January 1<sup>st</sup>, 2023

### Abstract

Internships have an important role in the experience, application, and development of student's skills. The implementation of the internship has not been maximally achieved because students have not been given full assignments due to a lack of work skills, self-confidence, and work motivation. This study aims to reveal the effect of internship experience and work motivation on work readiness. Sampling used a random sampling technique and obtained a sample of 94 students of class XI automotive engineering at 5 vocational schools in Yogyakarta. The combination of factor analysis and regression analysis was used to analyze the data using second-order PLS-SEM analysis. The evaluation of the measurement model has met the requirements of the convergent validity test at the outer loading of  $\geq 0.70$  and AVE  $\geq 0.50$ . The discriminant validity has met the requirements of the Fornell-Larcker test. Internal consistency reliability meets the requirements of CA, rho\_A, and CR with a score of 0.70. Evaluation of the structural model shows the value of effect size ( $f^2$ ) with a large effect, the determination coefficient ( $R^2$ ) of the variable is 76.20%, and the predictive relevance ( $Q^2$ ) is 58.00%. Hypothesis testing is based on the  $\beta$ -coefficient,  $p$ -value, dan T-statistic values that have met the cut-off values suggested in the literature. So that all hypotheses  $H_a$  is accepted which indicate that there is a positive and significant effect on the internship experience and motivation on student work readiness. There needs to be better efforts to improve internship experience and work motivation so that guidance and supervision from supervising teachers must always be given so that work readiness is more optimal.

**Keywords:** internship experience, work motivation, work readiness, vocational education, PLS-SEM

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## 1. Introduction

The management of education, especially those related to the preparation of the workforce, must be the main point of attention in order to be able to change the structure and quality of a workforce that has high competitiveness and productivity in building the community's economy. In this global era, the most important thing is how to function

education as a process of preparing students to be successful in living their lives in the future (Gilchrest et al., 2022). It is the ability to face the future that needs to be developed in the educational process. Vocational School (VE) is an institution that provides education and training. It is expected that VE graduates can work according to their field of expertise, the grace period for getting a

job after graduation is a maximum of one year, graduates can be absorbed in the world, and the number of graduates who are able to create jobs (Nurtanto et al., 2020). However, the reality in the field of work shows that VE graduates are actually one of the biggest contributors to unemployment (Daryono et al., 2021; Rosantono et al., 2021).

One of the reasons for the high contribution of VE graduates to the number of unemployed is the quality of vocational education that is carried out unevenly so that graduates do not have adequate skills and abilities as needed in the world of work (Heru et al., 2021; Hoidn & Šťastný, 2021). In addition, schools that are passive in terms of looking for links/cooperation with industry cause apprenticeship programs only for small and medium industries (Hoidn & Šťastný, 2021; Husain, 2020). The number of unemployed VE graduates is influenced by the work readiness of VE students who are still lacking (Daryono et al., 2020; Setyadi et al., 2021).

In this era of globalization which is full of challenges and competition, it is very necessary to have qualified human resources, have the ability, knowledge, and skills that are adapted to development needs (Heru et al., 2021; Widayanto et al., 2021). One of the efforts to create qualified and competitive human resources is through education and training (Gunadi et al., 2020; Widayanto et al., 2021). Along with the pace of development, nowadays there are many things that need to be improved in all fields including the economy, and industry with the aim of improving people's welfare. In the end, it requires the community to make skilled workers and have strong personality traits (Daryono et al., 2020). This is a big responsibility of the education system to produce a ready-to-use generation in the field of work.

Revitalization in VE that in order to improve the quality and competitiveness of

Indonesian human resources, the curriculum should be aligned with industrial competence (Gunadi et al., 2020; Hoidn & Šťastný, 2021; Husain, 2020). Internship practice is an external factor that affects students' work readiness, where internships will be a place for students to try to enter the field according to their field (Setyadi et al., 2021). The implementation of the internship will train students to interact professionally in the world of work so that the match between student competencies and the internship is very important (Hou et al., 2020; Liu, 2021). In accordance with the instructions, it is expected that VE graduates can produce newly educated and competent workers (Daryono et al., 2020; Putra et al., 2022; Rogers et al., 2021). Therefore, to achieve the goal effectively, VE needs to collaborate with the industry.

The purpose of implementing the internship is (a) fulfillment of competencies according to the demands of the curriculum; (b) fulfillment of Competency Implementation into the world of work; (c) growth of work experience (Hou et al., 2020; Postiglione & Tang, 2019; Ryan, 2020; Sutiman et al., 2019). Internships provide real experiences for students to get to know the world of work better and put into practice all the knowledge gained at school. Internships guide students to work according to their competencies. Internships provide knowledge for students about the work environment, and how to behave as employees and students can also practice directly what they have learned at school. Internships can also foster students' self-confidence to work (McHugh, 2017; Rogers et al., 2021). This can be a provision for students to be better prepared to enter the world of work after graduating from VE.

Vocational students are expected to be ready to work and have the drive to work so that they have a mentally ready psycho-

physical attitude (Kunnen, 2022; Rogers et al., 2021). The mental attitude includes being prepared mentally, and physically, for situations and goals. Thus, motivation is one of the most important factors that influence human behavior and performance. Work readiness is also influenced by mental maturity. This can be seen in the high and low motivation of students to work (McGuire et al., 2019). Therefore, the role of work motivation is also very important.

Based on data obtained from observations and documentation, the work readiness of VE students in Yogyakarta is still lacking. Observations were made at Vocational Schools 2 and 3 Yogyakarta, especially for graduates in automotive engineering. Based on interviews from the *Bursa Kerja Khusus* (BKK) and the head of the automotive engineering field, the absorption of VE graduates who work in their fields is still not optimal for students. Because the article is that there are still graduates who choose to continue their studies because they feel they are less capable in their scientific fields, especially in the automotive field. In addition, they feel that the work position for VE graduates is not ideal, so they finally choose to continue their studies with the aim of getting a better job position (Hoidn & Šťastný, 2021; Husain, 2020). There are also some VE graduates who are forced to work not in accordance with their fields because it is difficult to compete in the world of work. This happens because of the lack of motivation and mastery of competence in the automotive field so these students have difficulty competing in the world of work.

From the results of interviews with the internship coordinator, it turned out that the implementation of internship practices could not be achieved optimally, because there were still students who had not been given full assignments because of a lack of confi-

dence in a job that had a big risk. This causes students to be less able to apply the knowledge gained in practice at school. In addition, the results of interviews with the BKK and the head of the Yogyakarta Vocational School 2 and 3 in the field of automotive engineering also show a lack of work readiness, especially in terms of motivation. This can be proven by the fact that there are still students who resign during the job selection process facilitated by the school job fair or decide to stop working when they have been accepted for work due to mental conditions. The implementation of the internship has not been maximally achieved because students have not been given full assignments due to lack of work skills, self-confidence, and work motivation.

Therefore, this study aims to determine the effect of internship experience and work motivation on work readiness. This study is expected to be able to contribute as material for consideration of internship policies to achieve competence and increase work motivation (Christidamayani & Kristanto, 2020) so that concrete efforts can be made by the school in improving students' work readiness.

## **2. Method**

This type of quantitative study with an ex-post facto approach to determine the effect of internship experience and work motivation on work readiness. Sampling using random sampling technique and obtained a sample of 94 students of class XI automotive engineering in 5 vocational schools in Yogyakarta. The list of schools and the number of respondents is SMK Muhammadiyah 3 Yogyakarta (20), SMK PIRI 1 (18), SMK N 3 Yogyakarta (17), SMK Taman Siswa (18), and SMK N 2 Yogyakarta (21). The data collection technique used a questionnaire consisting of 3 variables. The measurement

scale used is a Likert scale, namely strongly agree, agree, fair, and disagree (Wingard et al., 2020). Research variables and measurement constructs are shown in Table 1.

Table 1. The Measurement Constructs

Research Variables	Indicators	Constructs	Items
Internship experiences	Student understanding	SU	1-4
	Knowledge and skills materials	KS	1-3
	Suitability of skills with industry demands	SS	1-3
	Guidance from industry teachers and instructors	GI	1-3
Work motivation	Desire and interest to enter the workforce	DI	1-4
	Hopes and aspirations to reach the future	HA	1-3
	Encouragement from the environment	EE	1-4
	Personal physiological needs	PN	1-3
Work Readiness	Physical and psychological maturity	PP	1-3
	Willingness to work with others	WW	1-3
	Courage and responsibility	CR	1-3
	Adapt to the environment	AE	1-4
	Keep up with the world of work	KU	1-3

The evaluation of the measurement model will test the validity and estimate the reliability of the data on each latent variable using the Smart-PLS software. In this study, the hypothesis formulated is that there is a

relationship between the influence of internship experience and work motivation on the work readiness of class XI students in automotive engineering. The research framework and path analysis are shown in Figure 1.

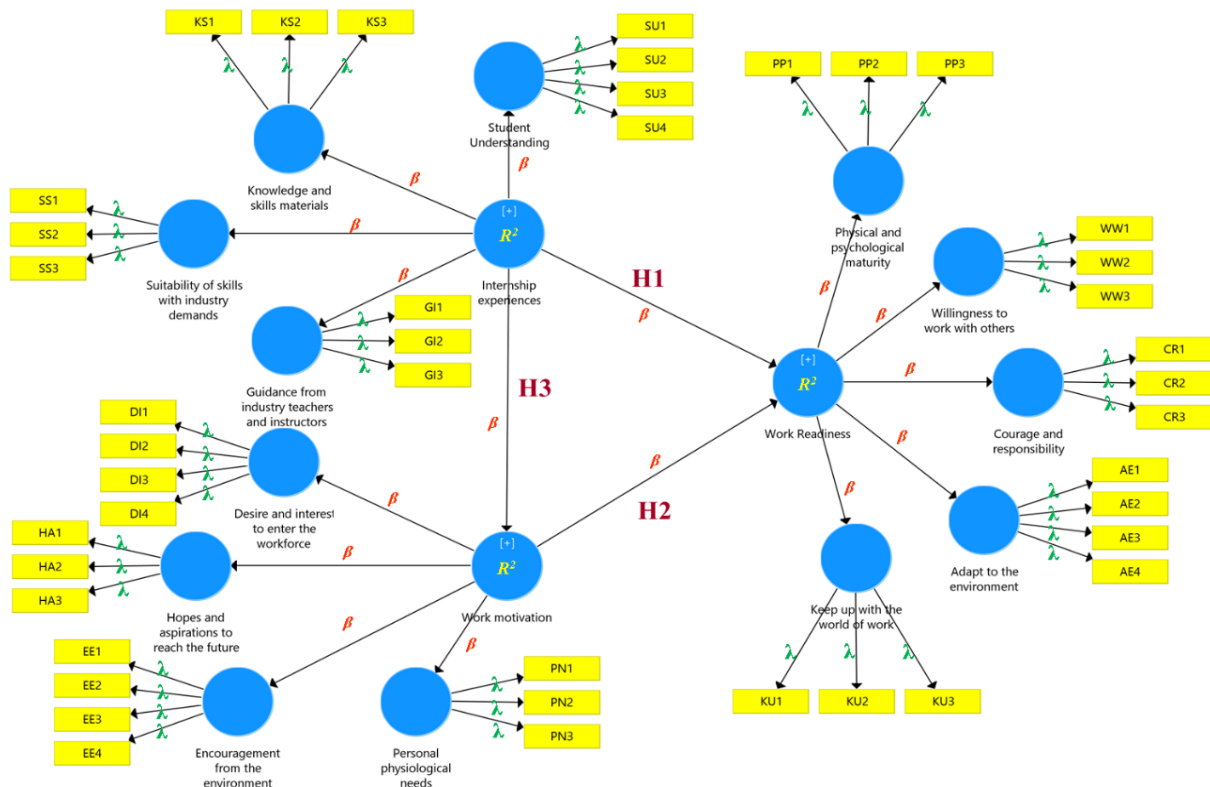


Figure 1. The Research Framework

### 3. Result and Discussion

Internship experience, work motivation, and work readiness are some of the latent variables in this study. Structural analysis of with PLS-SEM was used to determine the relationship between variables and construct indicators. The testing phase consists of the outer model and the inner model. The outer loading value is  $\geq 0.70$  means that the indicator has a strong reflective relationship to the latent variable. The hypothesis in this study will be answered through the analysis of the inner model with the bootstrapping

#### a. Evaluation of the Measurement Model

Evaluation of the measurement model was carried out to test the validity and esti-

mate the reliability of the data on each variable, namely internship experience, work motivation, and work readiness. In the evaluation of the measurement model, convergent validity was first evaluated which included measurements of the loading factor and the AVE value. The construct can have a good validity value when the loading factor value is  $\geq 0.70$  and the AVE value is  $\geq 0.50$  (Al-Fraihat et al., 2020; Hariyanto et al., 2022; Parmin et al., 2021; Saifurrahman et al., 2021). Measurement model path coefficients PLS-SEM results are shown in Figure 2. The results of the convergent validity and internal consistency reliability are shown in Table 2.

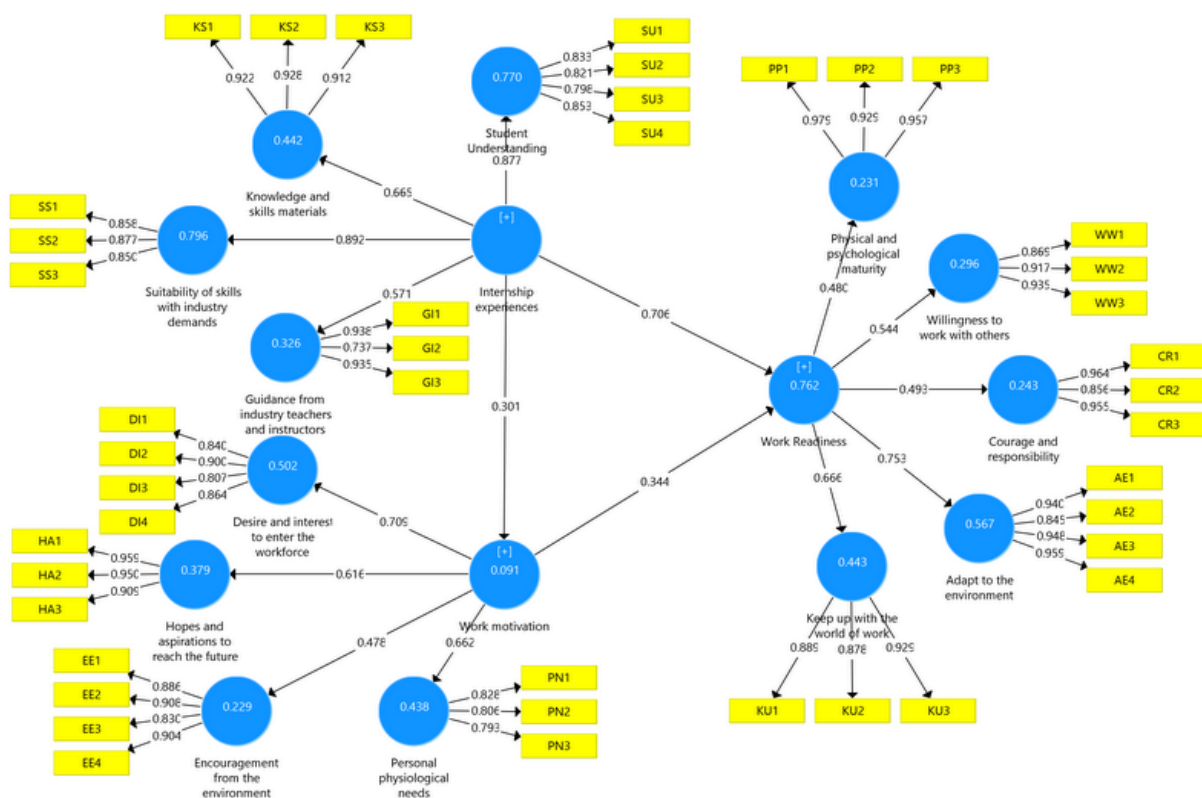


Figure 2. Evaluation of the Measurement Model (Outer Model)

Table 2. Evaluation Results of Measurement Models

No	Variable	Aspects	Constructs	FL (>0,70)	CA (>0,70)	Rho_A (>0,70)	CR (>0,70)	AVE (>0,50)				
1	Internship experiences	Student Understanding	SU1	0.833	0.846	0.850	0.896	0.683				
2			SU2	0.821								
3			SU3	0.798								
4			SU4	0.853								
5		Knowledge and skills materials	KS1	0.922					0.910	0.917	0.943	0.847
6			KS2	0.928								
7			KS3	0.912								
8		Suitability of skills with industry demands	SS1	0.858					0.827	0.830	0.897	0.743
9			SS2	0.877								
10			SS3	0.850								
11		Guidance from industry teachers and instructors	GI1	0.938					0.843	0.886	0.906	0.765
12			GI2	0.737								
13			GI3	0.935								
14	Work motivation	Desire and interest to enter the workforce	DI1	0.840	0.857	0.878	0.915	0.729				
15			DI2	0.900								
16			DI3	0.807								
17			DI4	0.864								
18		Hopes and aspirations to reach the future	HA1	0.959					0.934	0.938	0.958	0.883
19			HA2	0.950								
20			HA3	0.909								
21		Encouragement from the environment	EE1	0.886					0.905	0.914	0.934	0.799
22			EE2	0.908								
23			EE3	0.830								
24	EE4		0.904									
25	Personal physiological needs	PN1	0.828	0.738	0.738	0.851	0.655					
26		PN2	0.806									
27		PN3	0.793									
28	Work Readiness	Physical and psychological maturity	PP1	0.979	0.952	0.954	0.969	0.913				
29			PP2	0.929								
30			PP3	0.957								
31		Willingness to work with others	WW1	0.869					0.893	0.895	0.933	0.823
32			WW2	0.917								
33			WW3	0.935								
34		Courage and responsibility	CR1	0.964					0.918	0.957	0.948	0.858
35			CR2	0.856								
36			CR3	0.955								
37		Adapt to the environment	AE1	0.940					0.942	0.946	0.959	0.854
38			AE2	0.845								
39			AE3	0.948								
40			AE4	0.959								
41		Keep up with the world of work	KU1	0.889					0.881	0.888	0.927	0.808
42			KU2	0.878								
43			KU3	0.925								

Based on the Table 2, the factor loading (FL) value for all constructs is already  $\geq 0.70$ . The AVE value in all aspects has a value

above 0.50. Meanwhile, the composite reliability (CR) value, Rho\_A, and Composite Reliability (CR) in all aspects have a value



of more than 0.70. So that all indicators in measuring aspects and constructs are declared to meet the convergent validity requirements. Furthermore, the evaluation of discriminant validity is estimated based on the presented Fornell Larcker value. Fornell

larcker test results are shown in Table 3. Based on Table 3, the correlation values of all latent variables obtained higher values than other variables. So, it can be explained that the Fornell Larcker in this study has met the criteria of discriminant validity.

Table 3. The Results of Fornell-Larcker

Const.	AE	CR	DI	EE	GI	HA	KU	KS	PN	PP	SU	SS	WW
AE	<b>0.924</b>												
CR	0.121	<b>0.926</b>											
DI	0.103	0.796	<b>0.854</b>										
EE	0.129	0.078	0.023	<b>0.883</b>									
GI	0.377	0.104	0.211	0.215	<b>0.875</b>								
HA	0.127	0.073	0.224	0.148	0.163	<b>0.940</b>							
KU	0.334	0.234	0.121	0.101	0.276	0.078	<b>0.899</b>						
KS	0.857	0.068	0.150	0.086	0.370	0.082	0.273	<b>0.921</b>					
PN	0.311	0.213	0.315	0.175	0.339	0.190	0.168	0.283	<b>0.809</b>				
PP	0.136	0.139	0.125	0.068	0.352	0.351	0.237	0.079	0.083	<b>0.955</b>			
SU	0.431	0.217	0.103	0.066	0.280	0.062	0.866	0.348	0.165	0.185	<b>0.826</b>		
SS	0.458	0.230	0.114	0.054	0.318	0.090	0.319	0.393	0.180	0.238	0.581	<b>0.826</b>	
WW	0.287	0.227	0.272	0.242	0.352	0.078	0.106	0.271	0.472	0.151	0.073	0.681	<b>0.826</b>

**b. Evaluation of the Structural Model**

SEM is an analysis that describes and predicts causality relationships between latent variables. Causality relationship is seen through bootstrapping. The initial stage of

structural model analysis is to look at the values of  $f^2$ ,  $R^2$ , and  $Q^2$ . The magnitude of the influence between variables with  $f^2$ . The recommended  $Q^2$  is  $>0.00$ . Structural model assessment criteria are shown in Table 4.

Table 4. Effect Size ( $f^2$ ), Coefficient of Determination ( $R^2$ ), Predictive Relevance ( $Q^2$ )

Aspects/Variable	$f^2$		$R^2$		$Q^2$	
	Value	Effects	Value	Effects	Value	Effects
SU → Internship experiences	3.347	Large	0.770	Substantial	0.513	Accepted
KS → Internship experiences	0.791	Large	0.442	Moderate	0.363	Accepted
SS → Internship experiences	3.906	Large	0.796	Substantial	0.580	Accepted
GI → Internship experiences	0.484	Large	0.326	Weak	0.219	Accepted
DI → Work motivation	1.009	Large	0.502	Moderate	0.349	Accepted
HA → Work motivation	0.610	Large	0.379	Moderate	0.308	Accepted
EE → Work motivation	0.297	Medium	0.229	Weak	0.165	Accepted
PN → Work motivation	0.780	Large	0.438	Moderate	0.269	Accepted
PP → Work readiness	0.300	Medium	0.231	Weak	0.203	Accepted
WW → Work readiness	0.421	Large	0.296	Weak	0.231	Accepted
CR → Work readiness	0.321	Medium	0.243	Weak	0.192	Accepted
AE → Work readiness	1.309	Large	0.567	Moderate	0.471	Accepted
KU → Work readiness	0.796	Large	0.443	Moderate	0.347	Accepted

In calculating the effect size on all variables, the smallest value of 2 is obtained, namely the relationship between encouragement from the environment & work motivation, which is 0.297, and physical and psychological maturity & work readiness, which

is 0.300, which means that the influence of the two variables is medium. the variable obtained the smallest  $R^2$  value, namely the relationship between GI to internship experiences, EE to work motivation, and PP, WW, and CR to work readiness are  $<0.333$ . So, the

relationship between variables is classified as weak. The amount of contribution given by the internship experiences and work motivation variables in explaining work readiness is 76.20% (Figure 2). The results of the predictive calculation of the relevance of  $Q^2$  on all

variables obtained a value of 0.165 to 0.580 which explains the results of the model analysis that can explain 16.50% to 58.00% of the work readiness variable.

c. Hypothesis Test

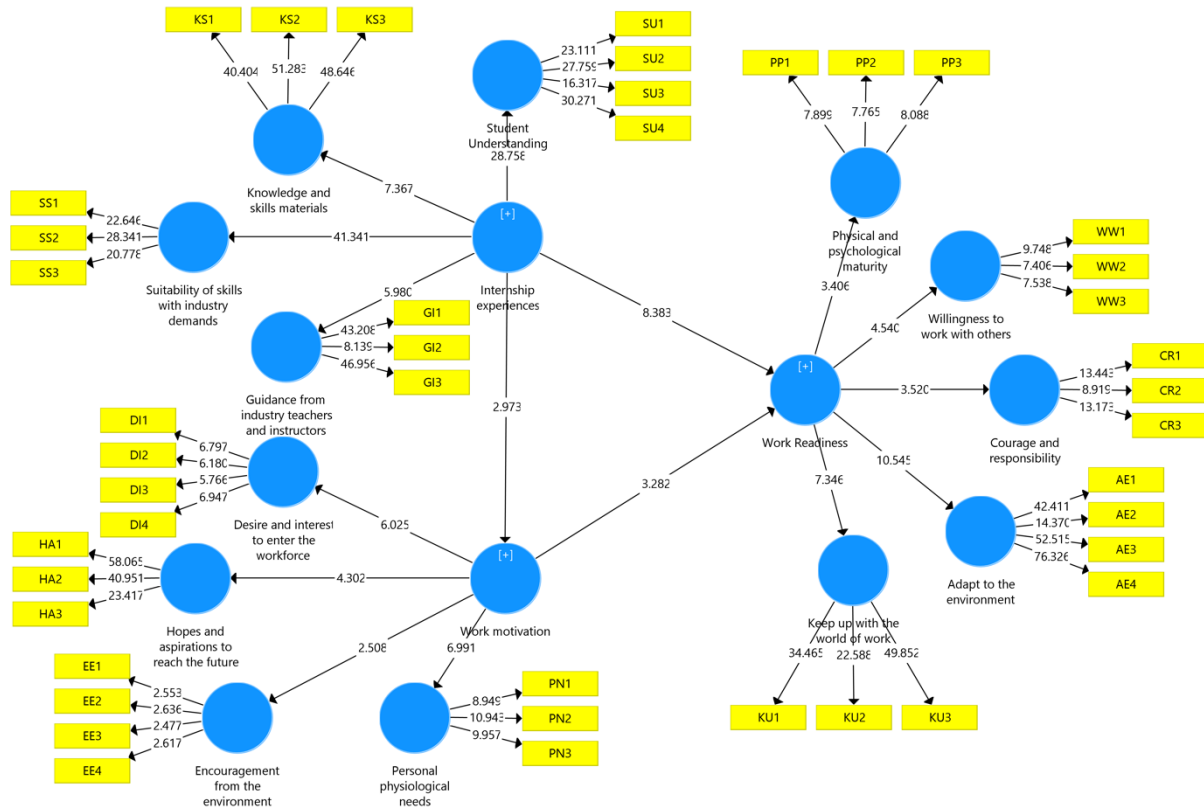


Figure 3. Evaluation of the Structural Model (Inner Model)

Hypothesis testing in this study was indicated by  $T_{\text{statistics}} > T_{\text{table}}$  value with ( $\alpha =$

0.05;  $t_{\text{table}}$  1.96). The results of the significance values can be seen in Table 5.

Table 5. Results of the Direct Influence Hypothesis Test

Path Coefficients	$\beta$ -coefficient	SDV	T-statistic	p-value	Decision
Internship experiences → Work Readiness	0.706	0.084	8.383	0.000	Accepted H1
Work motivation → Work Readiness	0.344	0.105	3.282	0.001	Accepted H2
Internship experiences → Work motivation	0.301	0.101	2.973	0.003	Accepted H3

Based on the Table 5, the  $T_{\text{statistic}}$  value explains that the hypothesis can be accepted if it has a value  $> 1.96$  while the  $\beta$ -coefficient value indicates the direction of the positive or negative hypothesis. H1 shows that Internship experiences have a significant ( $p < 0.00$ ) (Pranita et al., 2021; Setiawan et al.,

2020) and positive effect on the work readiness variable. H2 shows that work motivation has a significant positive effect on work readiness. H3 shows that Internship experiences have a significant positive effect on work motivation. Furthermore, the  $T$ -value on the indirect effect is presented in Table 6.



Table 6. Results of the Indirect Effect Hypothesis Testing

Path Coefficients	$\beta$ -coefficient	SDV	T-statistic	p-value	Decision
Internship experiences $\rightarrow$ Work motivation $\rightarrow$ Work Readiness	0.103	0.049	2.093	0.037	Accepted H4

Based on the Table 6, the T-statistic value for the indirect effect on the internship experiences variable on work readiness mediated by work motivation has a value of 2.093. The value above is from the  $T_{table}$  value (1.96) so it can be explained that Internship experiences have a positive effect on work readiness mediated by work motivation significantly.

#### d. Discussion

Based on the analysis of the study results, the price coefficient is positive, this indicates that the higher the internship experience, the higher the work readiness, and vice versa, the lower the internship experience, the lower the work readiness. So, it can be said that the relationship between internship experience and student work readiness is unidirectional. Thus, there is a need for better efforts in order to improve the internship experience of class XI students in automotive engineering. Internships will benefit, one of which is practical experience, so that the results of the training become richer and wider (Oberman et al., 2021; Ryan, 2020). Thus, it will increase the provision in entering the world of work. Basically, the internship practice is one source of experience and knowledge that must be felt by vocational students, where this activity that has good systematics and concepts in its implementation will be able to improve student's skills and knowledge in working after graduation in accordance with their field of expertise (Gilcrest et al., 2022; Hou et al., 2020).

The results of previous study by (Gilcrest et al., 2022) showed an effective

role between internships and work readiness. The point of difference in this study lies in the number of respondents selected, the study instrument, the concentration of the majors, and the place where the study is carried out. Given the increasingly advanced era, vocational student graduates are expected to have the ability to work and have work readiness. This study reveals that work motivation affects the work readiness of class XI students in automotive engineering. Thus, it can be concluded that the higher the work motivation, the higher the students' work readiness, and vice versa, the low student work motivation will also result in low work readiness of students. Motivation has a function to direct and activate and improve activities, in this case, every activity that aims to prepare vocational students to work with the knowledge, attitudes, and skills (Faikhamta & Clarke, 2018; McGuire et al., 2019). Thus, the existence of work motivation will make a person better prepare himself. VE must be able to motivate in order to prepare graduates who are ready to work because basically work motivation is one of the factors that make students able to make logical considerations (Xu et al., 2022). The lower the motivation to work will cause the work readiness of students to be low.

Based on previous study by (Hou et al., 2020) which showed internship experience and work motivation together had a significant influence on work readiness. The point of difference in this study lies in the number of independent variables used, the number of respondents who selected the study instrument, the concentration of the field, and the

location of the study. This result is strengthened by the study of relevant theories and study which stated that one of the factors that influence students' work readiness is the level of mastery of science (Kaibori et al., 2016), other studies also state that the practical experience of internships will be one of the factors that affect the work readiness of participants. teach VE to work (Kunnen, 2022). Thus, efforts are needed in order to increase the practical experience of internships, learning outcomes of automotive subjects, and work motivation in order to improve the work readiness of vocational students (Kaibori et al., 2016; Qu et al., 2021). For example, by further improving the quality of internship practices, evaluating and improving the activities of the learning process and internship practices, and conducting periodic counseling activities.

The role of industry in fostering the implementation of internships is very important (McHugh, 2017; Oberman et al., 2021; Sutiman et al., 2019). Based on the results of this study, it is in line with study by (Gilchrest et al., 2022; Liu, 2021; Ryan, 2020) that the guidance is carried out by the industry by providing direction and supervision and guidance to students. So, that the role of the industry at the time of the internship will be able to provide benefits if it is carried out in earnest. From this activity, the criteria for achieving the role of the industry will be known in the implementation of internship assistance in order to improve work readiness according to the implementation carried out by students (Ocampo et al., 2020; Rogers et al., 2021). The role of industry in mentoring internships is certainly very influential on internship activities by students and must be in accordance with the competence of students at school. Guidance from both school supervisors and industry supervisors who routinely or routinely provide direction

on responsibilities, work methods, quality culture, work culture, and performance standards in the industry.

#### 4. Conclusion

This study reveals that the internship experience has an effect on the work readiness of VE students. This finding implies that the higher students' experience in internships will lead to an increase in student work readiness. Thus, there is a need for better efforts in order to improve the student internship experience. The higher the student's motivation to enter the world of work, the higher the student's work readiness. In order to increase student motivation, it is necessary for teachers to always provide direction and motivation for students before learning begins, providing counseling assistance on a regular basis.

The learning instrument has an indicator of the independent variable of internship experience which is low on the indicator monitoring of the supervising teacher. Based on this, it is necessary to take action from the school, including the need for an evaluation of the implementation of the internship, especially regarding the suitability of the work in the internship place with the competencies needed by students. In addition, it is necessary to choose an internship place and place students according to the required competencies. The importance of increasing supervision of supervising teachers so that they are maximized.

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