A Model in Building the Quality of Graduates Based on Organizational Culture and Partnership

I Budiarti[1*], I Zulhijayanto[2]

Departemen Manajemen, Universitas Komputer Indonesia, Indonesia
Email : Isniar.budiarti@email.unikom.ac.id

Abstract. The number of public and private vocational school graduates in the Greater Bandung area who are absorbed and working is still below ideal, around 57%. Nationally, SMK graduates who are able to enter the workforce are ideally 80% -85%. This fact shows that there are problems in the quality of graduates. This is thought to be related to organizational culture and partnership issues. This study aims to examine the influence of organizational culture and partnerships on the quality of SMK graduates. The research method used is a survey method, namely verification. The unit of analysis is the Public and Private Vocational High Schools in the Greater Bandung area, West Java Province. The observation unit is the leadership of public and private vocational schools. The research sample was 280 vocational high schools in 3 (three) areas of the City of Bandung Raya, West Java Province. The sampling technique used proportional allocation stratified random sampling. The analytical tool used to test the hypothesis is Structural Equation Modeling (SEM) through the Lisrel software. The results of this study indicate that the importance of developing organizational culture as a pillar of improving the quality of graduates is supported by partnerships.

1. Introduction

The importance of building an organizational culture in schools, especially with regard to efforts to achieve school education goals and improve school performance. Aabout School Culture published in ERIC Digest, several studies show that organizational culture in schools is correlated with increased motivation and student achievement as well as job satisfaction and teacher productivity [1]. Organizational culture in schools also has a correlation with teacher attitudes at work. A study proved that "Stronger school cultures had better motivated teachers [2]. In an environment with strong organizational ideology, shared participation, charismatic leadership, and intimacy, teachers experienced higher job satisfaction and increased productivity ". The test results are in accordance with empirical conditions as the results of interviews with vocational schools which state that school is a place for cultural creation, from something that is not yet on the track industrially. So, school is a place to shift from outside to on the track. If the culture has been formed in the school, including being touched with industrial practices, it will produce graduates who are easy to work and show good quality graduates. This applies to both State and Private Vocational High Schools. Currently the industry is looking for quality outputs or graduates, in terms of attitude, skills and character that are in accordance with the demands of the industrial world so that they do not seek public or private schools, the important thing is that the quality of graduates is in accordance with what is needed.

Organizational culture in schools is a reflection of the framework for achieving the quality of education in schools. The value and belief in achieving the quality of education in schools is the main thing for all school members in producing graduates who are of high quality and noble character. Organizational culture is a pattern of mutually agreed upon values and beliefs that give meaning to members of the organization and the rules of behavior. Organizational culture describes how the

quality of the organization. The quality of organization in vocational schools has a special purpose, one of which is to produce the workforce needed by the community.

2. Method

The basic partnership can be defined in two ways, namely; First, through the attributes that are very attached to the partnership such as; trust, mutual visions and long-term commitment. Second, through processes such as; building a mission statement, agreeing on common goals and objectives and organizing partnership workshops [3]. The results of testing the hypothesis are also stated that who add both ways of defining partnership as a path to the awakening of a new organizational structure [4]. A collaborative partnership model that develops and implements community education programs on a universal design, with the development of this partnership model leading to sustainable outreach [5]. It is emphasized by the fact that the school's partnership with external parties according to research entitled "Public-Private Partnership for Skill Acquisition and Vocational Technical Education Development in Nigeria". The existence of good partnerships in organizations certainly improves the performance of organizational members [6]. Partnerships between the business world or the industrial world and vocational schools have a positive effect on the quality of graduates, due to the existence of a fundamental structural relationship that supports the learning process in the workplace (business / industrial world) [7]. This fundamental relationship determines the various opportunities for learning, the knowledge available to study, the support available for learning and ultimately the successful reward, which will add value (increase) to the quality of vocational school graduates. In line with the results of hypothesis testing the findings of [8] which states that the concrete results of this partnership are expected to provide benefits, especially in supporting the implementation of academic and professional education programs. Efforts to establish cooperative relationships between schools and the business / industry world are needed to support the implementation of vocational school programs ". With the existence of partners, it is expected that schools can find out and meet the needs of the business / industry world [9] .

The research method used is a survey method, namely verification to test the hypothesis about the influence between research variables. The unit of analysis in this study is Public and Private Vocational Schools (SMK) located in the Greater Bandung Region, West Java Province. The study was conducted using a cross sectional time horizon, information from a portion of the population (random sample). The object of the research is as a whole Public and Private Vocational High Schools (SMK) in the Greater Bandung Region, amounting to 343 schools. Data on the number of Public and Private Vocational Schools in the City of Greater Bandung, West Java Province are presented in Table 1.

Table I. Population of Public and Private Vocational Schools in Bandung Raya of West Java Province

| No. | District/City | Status | | Amount |
		Public	Privat	
1.	District Bandung	9	86	95
2.	District Sumedang	6	47	53
3.	Bandung City	15	116	131
4.	Cimahi City	3	18	21
5.	District Bandung Barat	3	40	43
	Amount	**36**	**307**	**343**

The minimum sample size for analysis designs using structural equation models (SEM) is 100-200 [10]. Assuming the low response of respondents to the survey conducted, the researchers took samples and distributed 300 questionnaires, but 280 respondents that is successfully collected and could be processed. The sampling technique used in this research is stratified random sampling with proportional allocation. Allocation is proportionally used so that each Public and Private Vocational

High School (SMK) in each district / city is represented in the collected sample. Proportional allocation is based on population size in each city / district so that the sample size is 280 Public and Private Vocational Schools in Bandung Raya of West Java Province, as can be seen in the Table 2.

The sampling technique used in this study was stratified random sampling with proportional allocation. Allocation is used proportionally so that every State and Private SMK in each district / city is represented in the sample collected. Formula 1 proportional allocation is used as.

$$n_i = \frac{N_i}{N} x \ n$$

Which are :

ni = The amount of sample in the district/city i
Ni = The amount of the population in the district/city i
N = The amount of the overall population
n = sample size

The aspect that will be controlled in this study is to use proportional allocation obtained a minimum sample size for each district / city as in Table 2.

Table 2. Data Samples of Public and Private Vocational Schools (SMK)
in Bandung Raya Region of West Java Province

No.	District/City	Status				Amount	
		Public	(%)	Private	(%)	Sample	
1.	District Bandung	7	2.5	70	25.0	77	27.5
2.	District Sumedang	5	1.8	39	13.9	44	15.7
3.	City Bandung	14	5.0	93	33.2	107	38.2
4.	City Cimahi	3	1.1	14	5.0	17	6.1
5.	District Bandung Barat	3	1.1	32	11.4	35	12.5
	Total	32	11.4	248	88.6	280	100

3. Results and Discussion

Before describing the verification analysis, the results of the identification of the research model are presented first. Based on the results of data processing, degrees of freedom were obtained so that it can be concluded that the model is identified with the over identified category. The research path diagram as a model of the estimation results is shown in Figure 1.
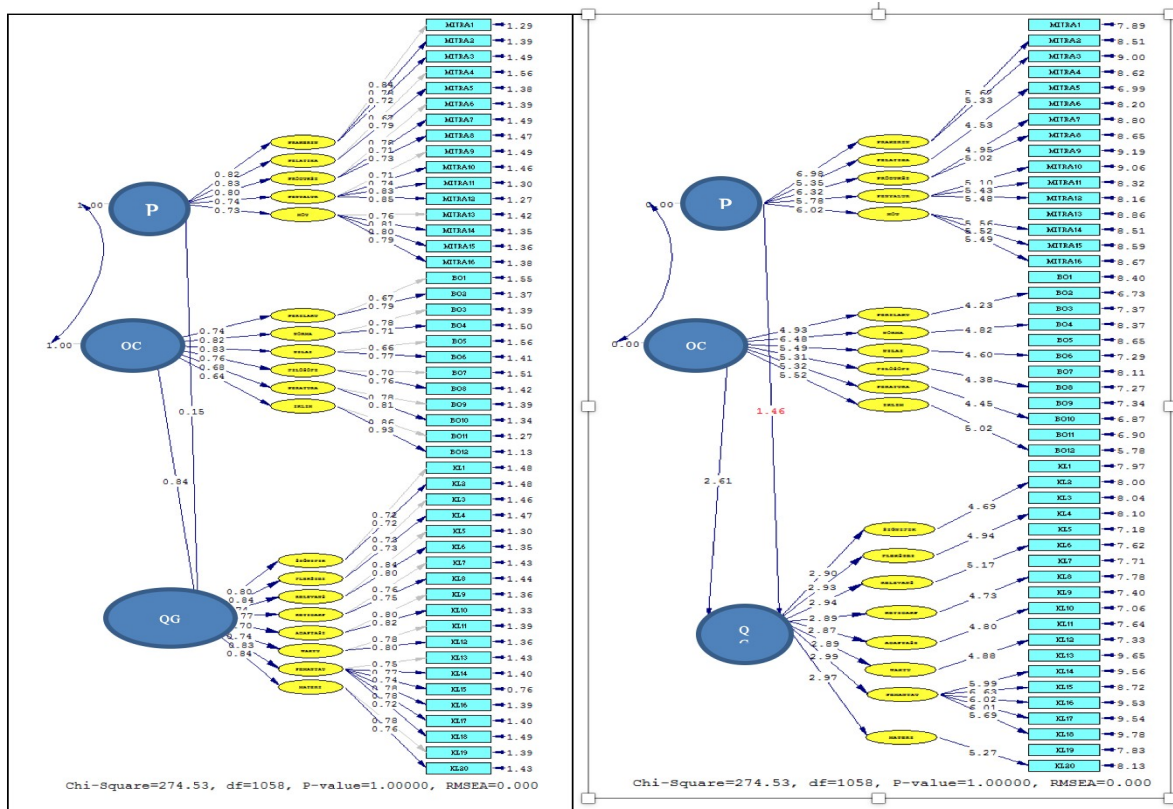
Figure 1. Diagram of research path as standardized etimation result model

Evaluation of the overall model criteria (goodness-of-fit index) is carried out to determine whether the model obtained has been appropriate in describing the relationship between the variables being studied so that it can be categorized into good models.

The following Table 1 presents the comparison of the resulting hypothesis test index with the goodness-of-f suitability criteria index. Table 3. presents a comparison of the hypothesis test indexes produced with the goodness-of-f fit index criteria.

Table 3. Evaluation of Goodness-Of-Fit Criteria

No.	Goodness-of-fit	Value	Accepted Goodness-of-fit	Conclusion
1.	Normed Chi Square (x2/df) Proility	274.53 P -value = 1.000	P -value>0.05	Close Fit
2.	Root Mean Square Error of Approximation (RMSEA)	0.000	RMSEA≤ 0.08 (good fit) RMSEA< 0.05 (close-fit)	Close fit
3.	Goodness of Fit Index (GFI)	0.95	>0.8	Close fit
4.	Adjusted Goodness of Fit Ind ex (AGFI)	0.95	> 0.8	Close fit

Source: SEM [11]

Based on Table 3. it can be seen that the overall model shows a good level of conformity. Goodness of fit in the model shows that the data being observed is appropriate or consistent with the theory or model to be tested. GFI> 0.8 and AGFI> 0.8 are considered to be able to meet the requirements, so the proposed model is considered good and can be accepted as an appropriate model in this study.

The following is for evaluating the suitability of the research model which includes: 1) Evaluation of the overall model; 2) Evaluation of measurement models; and 3) Evaluation of structural models.

3.1 Evaluasi of Measurement Model

3.1.1 Evaluation of the First Order of Measurement Model

First order evaluation of organizational culture latent variables is used to test the validity and reliability of each indicator of each dimension that forms the organizational culture latent variable. Based on the weight of the factors contained in the figure 1 above obtained the results of testing of each indicator on the latent variable of organizational culture as presented in the following Table 4.

Table 4. Summary of First Order Test Results of Measurement Model of Organizational Culture

Dimension	Validity			Reliability		
	Indicator	Standardize loading (λ)	t value	Indicator	Construct Reliability (CR)	AVE
Behavior	OC1	0.,67		0.551	0.792	0.560
	OC 2	0.79	4.23	0.376		
Norms	OC 3	0.78		0.392	0.761	0.516
	OC 4	0.71	4.82	0.496		
Values	OC 5	0.66		0.564	0.754	0.506
	OC 6	0.77	4.6	0.407		
Philosophies	OC 7	0.7		0.510	0.791	0.559
	OC 8	0.76	4.38	0.422		
Rules	OC 9	0.78		0.392	0.858	0.668
	OC 10	0.81	4.45	0.344		
Climate	OC 11	0.86		0.260	0.890	0.802
	OC 12	0.93	5.02	0.135		

Table 4. shows that organizational culture has valid indicators with a standardized loading value (λ) >0.50 with t value > 1.96 (t table at α=0.05. The reliability value shows that these indicators have a high degree of suitability in forming latent variables with an acceptable value (CR> 0.5). Likewise the AVE value is still greater than 0.5, which shows that on average more than 50% of the information contained in each indicator can be reflected through their respective dimensions that are able to reflect all organizational culture variables. This means that all dimensions are valid in forming the latent variables of organizational culture. Which is the school organizational climate is the most powerful factor in reflecting organizational culture, followed by indicators of rules and regulations that bind all members of the organization. Augusty defines organizational climate as "*the human environment in which organizational employees do their work*". This definition refers to the work atmosphere felt by personnel based on their interactions when interacting with other personnel in their work environment [12]. In line with [13] states that organizational climate is the overall "*feeling*" which includes physical things, how members interact and how organizational members control themselves in dealing with customers or parties outside the organization. The following is Table 5. summary of first order test results partnership measurement model.

Table 5. Summary of First Order Test Results of Measurement Model of Partnership

Dimension	Validity				Reliability	
	Indicator	**Standardize loading (λ)**	**t value**	**Varians Error (e)**	**Construct Reliability (CR)**	**AVE**
Apprenticeship/ Industrial work practices	P1	0.84	-	0.294	0.824	0.611
	P2	0.78	5.62	0.392		
	P3	0.72	5.33	0.482		
Training	P4	0.67	-	0.551	0.697	0.537
	P5	0.79	4.53	0.376		
Production	P6	0.78	-	0.392	0.784	0.548
	P7	0.71	4.95	0.496		
	P8	0.73	5.02	0.467		
Distribution	P9	0.71	-	0.496	0.864	0.616
	P10	0.74	5,10	0.452		
	P11	0.83	5.43	0.311		
	P12	0.85	5.48	0.278		
MoU	P13	0.76	-	0.422	0.869	0.624
	P14	0.81	5.56	0.344		
	P15	0.80	5.52	0.360		
	P16	0.79	5.49	0.376		

Table 5. shows that partnership has valid indicators with a standardized loading value (λ) >0.50 with t value > 1.96 (t table at α=0.05. The reliability value shows that these indicators have a high degree of suitability in forming latent variables with an acceptable value (CR> 0.5). Likewise the AVE value is still greater than 0.5, which shows that on average more than 50% of the information contained in each indicator can be reflected through their respective dimensions that are able to reflect all partnership variables. This means that all dimensions are valid in forming the latent variable of the partnership. This shows that the MoU dimension is the strongest factor in reflecting the partnership, followed by the cooperation dimension in distributing graduates. On the other hand, the training program cooperation dimension is the weakest in reflecting the latent variable of partnership. Following Table 6. summary of first order test results of measurement model of quality graduate.

Tabel 6. Summary of First Order Test Results of Measurement Model of Quality Graduate

Dimension	Validity				Reliability	
	Indikator	**Standardize Loading (λ)**	**t Hitung**	**Varians Error (e)**	**Construct Reliability (CR)**	**AVE**
Significance	QoG 1	0.72		0.482	0.767	0.523
	QoG 2	0.72	4.69	0.482		
Flexibility	QoG 3	0.73		0.467	0.812	0.590
	QoG 4	0.73	4.94	0.467		
Relevance	QoG 5	0.84		0.294	0.842	0.641
	QoG 6	0.80	5.17	0.360		
Definitively	QoG 7	0.76		0.422	0.814	0.593
	QoG 8	0.75	4.73	0.438		

Dimension	Validity				Reliability	
	Indikator	Standardize Loading (λ)	t Hitung	Varians Error (e)	Construct Reliability (CR)	AVE
Adaptability	QoG 9	0.8		0.360	0.842	0.640
	QoG 10	0.82	4.8	0.328		
Time	QoG 11	0.78		0.392	0.820	0.604
	QoG 12	0.80	4.88	0.360		
Monitoring	QoG 13	0.75		0.438	0.889	0.573
	QoG 14	0.77	5.99	0.407		
Learning material	QoG 15	0.74	6.63	0.452		
	QoG 16	0.78	6.01	0.392		
	QoG 17	0.78	6.01	0.392		
	QoG 18	0.72	5.69	0.482		
	QoG 19	0.78		0.392	0.744	0.593
	QoG 20	0.76	5.27	0.422		

Table 6. shows that graduate quality has valid indicators with a standardized loading value (λ) >0.50 with t value > 1.96 (t table at α=0.05. The reliability value shows that these indicators have a high degree of suitability in forming latent variables with an acceptable value (CR> 0.5). Likewise the AVE value is still greater than 0.5, which shows that on average more than 50% of the information contained in each indicator can be reflected through their respective dimensions that are able to reflect all graduate quality variables. These results indicate that the ability of vocational schools to adapt is the strongest factor in reflecting the quality of graduates, followed by relevance and time indicators. On the other hand, the indicator of flexibility in educational activities is the weakest indicator in reflecting the latent variables of graduate quality. The test results that show the dominance of partnerships in building organizational culture at SMK are strengthened by the results of in-depth interviews that partnerships are a bridge to develop human resources (HR) in SMK, and to improve organizational culture, as well as graduate marketing, so that partnerships can be said to be the heart or the main bridge of various things if the school wants to survive in the future. So without a partnership, the school will be stagnant, static, and will not progress.

3.1.2 Evaluation of the Second Order of Measurement Model

The second order evaluation on latent variables is used to test the validity and reliability of each dimension. Based on the results of data processing using LISREL 8.7 software, the results of testing of each dimension in the latent variables are as shown in the following Table 7.

Table 7. Summary of The Second Order Measurement Model

Variable	Validity				Reliability	
	Dimensi	Standardize loading (λ)	t hitung	Varians Error (e)	*Construct Reliability (CR)*	AVE
Organizational Culture	Behavior	0.74	4.93	0.452	0.883	0.560
	Norms	0.82	6.48	0.328		
	Values	0.83	5.49	0.311		
	Philosophies	0.76	5.31	0.422		
	Rules	0.68	5.32	0.538		

Variable	Validity				Reliability	
	Dimensi	Standardize loading (λ)	t hitung	Varians Error (e)	*Construct Reliability (CR)*	AVE
Partnership	Climate	0.64	5.52	0.590	0.890	0.620
	Apprentices hip/ Industrial work practices	0.82	6.98	0.328		
	Training	0.83	5.35	0.311		
	Production	0.81	6.32	0.344		
	Distribution	0.74	5.78	0.452		
	MOU	0.73	6.02	0.467		
Graduate quality	Significance	0.80	2.9	0.360	0.927	0.615
	Flexibility	0.84	2.94	0.294		
	Relevance	0.74	2.89	0.452		
	Definitively	0.77	2.89	0.407		
	Adaptability	0.7	2.87	0.510		
	Time	0.74	2.89	0.452		
	Monitoring	0.83	2.99	0.311		
	Learning material	0.84	2.97	0.294		

Based on the results of the second order on the latent variable, can be seen the value of the factor weights of each dimension is greater than 0.50. This means that all dimensions are valid in forming latent variables. The value of construct reliability (CR) of 0.889 is greater than 0.70 and AVE> 0.5 which indicates that all have consistency in measuring the latent variables.

3.1.3 Evaluation of Structural Model
Formula 2. The mathematical model equation in the form of a Structural Equation Model (SEM) is as.

$$\text{KL} = 0.84 \text{ BO} + 0.15 \text{ MTR} + \zeta_1 \qquad R^2 = 0.88$$

The coefficient of determination (R^2) is generated from the structural equation model to express the amount of influence given to the endogenous variable from the exogenous variable.

3.1.4 Hypothesis Testing
Based on data processing, verification of influence between variables is obtained as shown in the following Table 8.

Table 8. Hypothesis testing

Hypothesis	Coefficient of Estimation	t values	R^2	Conclusion
Organization Culture ➜graduate quality	0.84	2.61*	0.78	Hypothesis supported
Partnership➜ graduate quality	0.15	1.46	0.10	Hypothesis not supported

*Significant at $\alpha=0.05$

Through R^2, it can be seen that organizational culture and partnership together give an effect of 0.88 or 88% on the quality of graduates, and the remaining 12% is the influence of other factors does not examined. Partially, the partnership has no significant effect on graduates, and organizational culture has a significant and greater influence ($R^2 = 0.78$) on the quality of graduates. The recapitulation of the results of the hypothesis test can be explained in the following construct Figure 2.
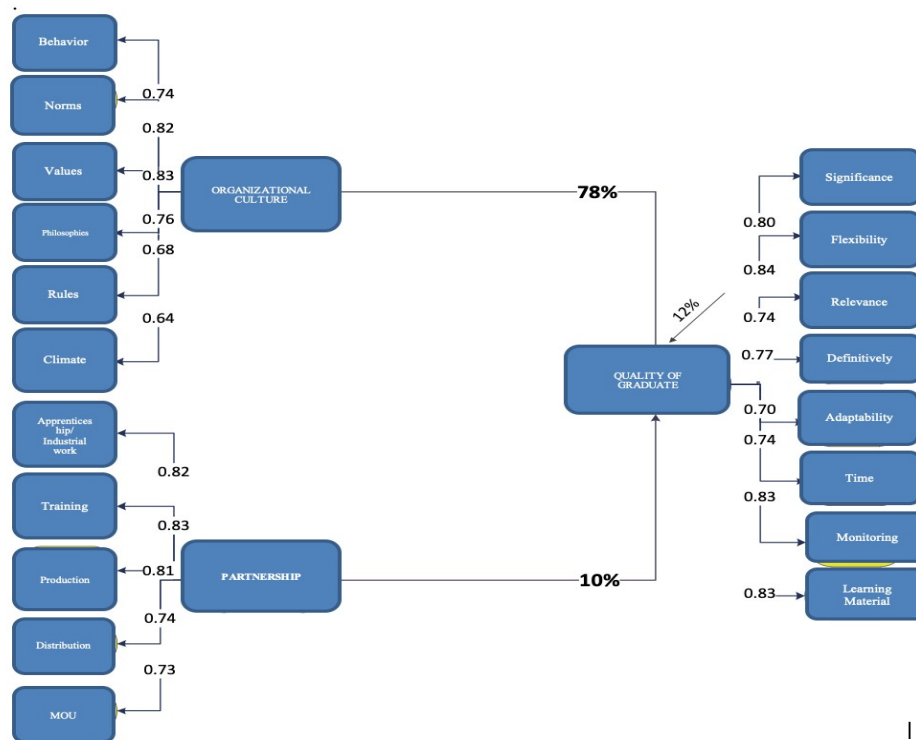

Figure 2. Hypothesis Testing Result

The findings show that organizational culture and partnership simultaneously influence the quality of graduates. But partially, only organizational culture that has a significant influence on the quality of graduates (78%), while the effect of partnerships is only 10%. In terms of organizational culture, the aspect that gives the highest influence is the dominant value (0.83), followed by the norms (0.82), philosophies (0.76), behavior (0.74), rules (0.68) and organizational climate (0.64). The dominant value is assessed from indicators of educational quality achievement, as measured by the level of student achievement in the academic field and the level of student achievement in the non-academic field. Based on the results of hypothesis testing, the findings model is obtained as shown in Figure 3 below .
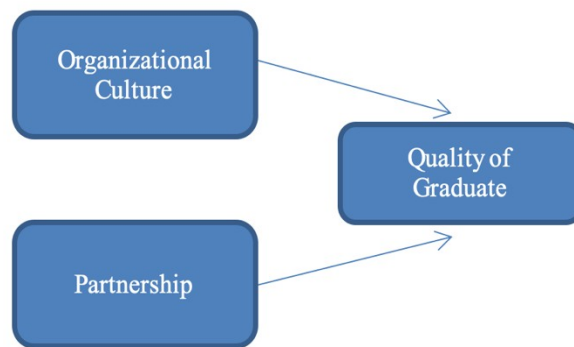
Figure 3. Model in Improving the Quality of Graduates Based on Organizational Culture and Partnership

The model shows that the quality of vocational school graduates in Bandung Raya is greater built by organizational culture than by partnership. In relation to partnership, if it is carried out without being accompanied by the development of organizational culture, then it will not have a significant impact in improving the quality of vocational school graduates.

The results of this test support [14] that organizational culture in schools is a reflection of the framework of achieving the quality of education in schools. Values and beliefs in achieving the quality of education in schools become the main thing for all school residents in producing high quality and noble graduates. Organizational culture is a pattern of shared values and beliefs that gives meaning to members of the organization and rules of behavior. Organizational culture describes how the quality of the organization. The quality of organizations in vocational schools has a specific purpose, one of which is to produce the labor needed by the community.

In addition, the results of this research have implications for vocational schools in Bandung Raya region, that to improve the quality of graduates, it is necessary to work through the development of organizational culture as a pillar in improving the quality of graduates, accompanied by the development of partnerships. Organizational culture reflects the norms, philosophies, rules of behavior, dominant values, regulations, and organizational climate. All of these aspects maintain and move the members of the organization to build an organizational culture that is capable of delivering quality of graduates. Because culture is a product of human reason and mind both as individual beings and social beings, the organizational culture in vocational school needs to be supported by intensive and effective partnerships with various related parties in order to produce superior quality graduates of vocational school.

4. Conclusion

The results showed that organizational culture and partnerships simultaneously influence the quality of graduates. And partially organizational culture has a significant effect on the quality of graduates while partnerships do not have a significant effect. The test results show that the quality of SMK graduates in Bandung Raya is more built by organizational culture than by partnerships. The results of this study have implications for SMK in Bandung Raya, therefore the need to develop organizational culture as a pillar in improving the quality of graduates, especially in the dominant values to improve student achievement in academic and non-academic fields. In addition, the organizational culture at SMK needs to be supported by intensive and effective partnerships with various related parties in order to produce quality graduates.

References

[1] Stephen Stolp, 1994, Leadership for School Cultur, ERIC Digest, Number 91. Retrieved October 25, from http://www.ed.gov/databases/ERIC_Digests/ ed370198.html

[2]   Cheng, Y. S., Liu, Y. P., & Chien, C. Y. (2009). The association between auditor quality and human capital. *Managerial Auditing Journal*.

[3]   Crowley, L. G., & Karim, M. A. (1995). Conceptual model of partnering. *Journal of management in engineering*, 11(5), 33-39.

[4]   Price, C. A., Zavotka, S. L., & Teaford, M. H. (2004). Implementing a university–community–retail partnership model to facilitate community education on universal design. *The Gerontologist*, 44(5), 697-702.

[5]   Lin, C. S., & Huang, C. P. (2011). Measuring competitive advantage with an asset-light valuation model. *African Journal of Business Management*, *5*(13), 5100-5108.

[6]   Christine A; Zavotka, Susan L; Teaford, Margaret H, 2010, Implementing a University-Community-Retail Partnership Model to Facilitate Community Education on Universal Design. *Scholarly Journals*, 5(44), pp. 697-702.

[7]   Okpor, I., & Najimu, H. (2012). Public-private partnership for skill acquisition and vocational technical education development in Nigeria. *Mediterranean Journal of Social Sciences*, 3(4), 91-94.

[8]   Ashton, R. H., & Kennedy, J. (2002). Eliminating recency with self-review: the case of auditors'‘going concern’judgments. *Journal of Behavioral Decision Making*, 15(3), 221-231..

[9]   Smith, I., Brisard, E., & Menter, I. (2006). Models of partnership developments in initial teacher education in the four components of the United Kingdom: recent trends and current challenges. *Journal of education for teaching*, 32(2), 147-164.

[10] Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis sixth edition pearson education. *New Jersey*, 42-43.

[11] Keith, S., & Girling, R. H. (1991). *Education, management, and participation: New directions in educational administration*. Allyn & Bacon.

[12] Ferdinand, A. (2013). Metode Penelitian Manajemen: Aplikasi Model-Model Rumit Dalam Penelitian Untuk Tesis Dan Disertasi. *Semarang: Badan Penerbit Universitas Diponegoro*.

[13] Keith, D., & Frederick, W. (2011). Perilaku Dalam Organisasi, Edisi ke tujuh, Jilid kedua. *Erlangga, Jakarta*.

[14] Luthans, F. (2011). Organızatıonal Behavıor: An Evidence-Based Approach. *McGraw-Hill/Irwin*.