



EFFECT OF ORGANIZATIONAL CULTURE AND INSTITUTIONAL ASPECTS ON SAFETY BEHAVIOR IN SHIPBUILDING INDUSTRIES

Nanta Sigt¹, Sri Gunani Partiwi , Imam Baihaqi

*Master's Program in Ergonomics and Safety Industrial of Technology, Sepuluh-Nopember
Institute of Technology
Jl. Cokroaminoto 12A, Surabaya, 60264, Indonesia
e-mail: ¹⁾ sigitnanta@gmail.com*

ABSTRACTS

Safety in the construction industry is an important issue and has become the most dangerous industries, especially in developing countries. Indonesia is a developing country where there are a lot of construction activity. 32% of the total work accidents happened in Indonesia is the construction field. The high figures that put the construction industry as the type of industry that has a high risk of lead is very important to investigate the factors that influence the accident in order to protect workers. Prevention of occupational accidents is very important, one of the causes of accidents are the safety leadership. This leadership approach shows specific behaviors of leaders who should be able to stimulate safe behavior of subordinates. Meanwhile, the organizational culture is also an important and necessary to get the attention of corporate leaders due to its very strong influence on occupational accidents and worker productivity. Organizational culture is the work rules that exist in the organization that would become the handle of human resources in carrying out its obligations and values to behave in organizations, and institutional aspects of an approach designed to improve the safety performance of work directly so as to prevent accidents.

Keywords: *Safety leadership, organizational culture, institutional, safety behavior, Structural Equation Model (SEM).*

INTRODUCTION

Competition increasingly competitive industry requires companies to further optimize all resources it has. Therefore, a reliable workforce and resilient needed to support the company's business in order to compete. In addition to labor (TK), companies typically use high-tech machines to support the production process, with the aim of increasing the productivity of the company, achieving effectiveness and efficiency. The use of high-tech equipment causing health and safety risks for workers. This risk can override the workforce anytime and anywhere, thus requiring special attention from various parties, such as labor, business, government, and management. This risk makes workers aware of the importance of a healthy work environment, safe, and comfortable. On the other hand, safety in the construction industry is an important issue and has become the most dangerous industries, especially in developing countries. Indonesia is a developing country where there are a lot of construction activity. (Social Security, 2010) states that 32% of the total work accidents happened in Indonesia is in the construction field. The high number of statistics that put the construction industry as the type of industry that has a high risk of lead is very important to investigate the factors that influence the accident in order to protect workers (Abbe et al.,



2011). Early countermeasures against occupational accidents is very important, one of the causes of accidents are the safety leadership. In previous research, leadership approach shows specific behaviors of a leader who is supposed to stimulate safe behavior of subordinates. Meanwhile, the organizational culture is also an important and necessary to get the attention of corporate leaders due is a very strong influence on work safety and productivity of workers, where the culture of the organization is working rules that exist in the organization that would become the handle of human resources in the running obligations and values to behave within the organization. Likewise institutional aspect is an approach designed to improve the safety performance of work directly so as to prevent accidents. In this study, researchers wanted to contribute to the institutional aspects and relationships influence of organizational culture on safety behavior at the shipyard.

LITERATURE REVIEW, CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This section describes the Safety Leadership, Organizational Culture, Institutional Aspects, Behavioral Safety, and describes the techniques of analysis Structural equation modeling (SEM).

2.1 Organizational Culture, Institutional Aspects and Safety Leadership

(Lu, 2010; Bass & Avolio, 1990) in stating that the leadership as the ability to influence these organizations towards achieving the vision or designing success is believed to have an impact on productivity. Where the dimensions of transformational leadership consists of safety motivation and safety concern. While the dimensions of transactional leadership consists of a safety policy. In addition to the above definition, (Lu, 2010; Wu et al., 2007) in stating that the leadership of a process by which a leader influences subordinates to behave according to what he wanted. While (Xuengsheng, 2012) states that leadership is the directing and coordinating the workers of the group members. Thus, in this study had the following hypotheses:

Hypothesis 1: There is positive relationship between Organization Culture and Safety Leadership.

In addition to safety leadership and organizational culture, which is an important contributor in improving safety in the workplace is the Institutional Aspects. Institutional aspects of its core idea is the establishment of an organization by the pressure of the institutional environment that leads to institutionalization. (JL Glover et al., 2014, Baumol et al, 2009; Brunton et al, 2010; Hirsch, 1975; Lai et al, 2006; Roy, 1997) suggest that the idea or ideas on the institutional environment that shape the language and symbols are explained the organization exists and is accepted (taken for granted) as norms in the concept of the organization. The existence of the organization occurs in a broad organizational scope in which each organization affect each other organizational forms through the process of adoption or institutionalization. Based on the literature review has not been any research on the relationship with the Institutional Aspects of Leadership in the context of the construction industry shipbuilding. Thus, researchers want to know the relationship, researchers have hypothesized as follows:

Hypothesis 2: There is positive relationship between Institutional Aspects and Safety Leadership.



2.2 Organizational Culture and Safety Behavior

(Martinez-Corcoles, Gracia, Thomas & Piero, 2011; Schein, 1985) argues that when the organizational culture has existed and has been attached, then it will determine the perceptions, feelings, ideas and behavior of organization members. (Clarke, 2003), the behavior patterns of workers affected by the perception of workers who focus on safety, safety culture currently existing in the enterprise strong (Martinez-Corcoles, Gracia, Tomas & Piero, 2011). Thus, in this study had the following hypotheses:

Hypothesis 3: There is positive relationship between Organization Culture and Safety Behavior.

Then (Changiz, 2015; Cameron & Quinn, 2005) developed a model of measurement and diagnosis of organizational culture based on the Competing Values Framework. This model divides organizational culture into four types of culture, namely:

1. Clan Culture

The corporate culture that has the character of family, where there is an environment that can be set up with either company through teamwork, development of human resources and treating customers as partners. The main task of management is to control and nurture employees making it easier for them to participate.

2. Adhocracy Culture

The corporate culture that demands innovation and initiative as well as creating new products and services for the preparation of the need in the future. The main task of management is to support and encourage the creation of a spirit of entrepreneurship, and creativity.

3. Market Culture

The corporate culture that have cultural assumptions that are not market friendly, competitive and consumer behavior are likely to choose and are interested in the values that put the organization on the business that is always trying to improve competition. The main task is to control the management of the organization to achieve productivity, results and objectives and advantages.

4. Hierarchy Culture

The corporate culture is characterized by the shape of the company official and structured. The main task of management is to produce goods and services efficiently in order to achieve the welfare of the company. Grouping the above type of culture is based on four variables are competitive with each other (competing values), namely stability versus flexibility, internal versus external control discretion. Briefly illustrated in Figure 1 below:



	Flexibility and Discretion		
Internal Focus and Integration	Culture Type:	CLAN	Culture Type: ADHOCRACY
	Orientation:	Collaborative	Orientation: Creative
	Leader Type:	Facilitator Mentor Team builder	Leader Type: Innovator Entrepreneur Visionary
	Value Drivers:	Commitment Communication Development	Value Drivers: Innovative outputs Transformation Agility
	Theory of Effectiveness:	Human development and participation produce effectiveness.	Theory of Effectiveness: Innovativeness, vision, and new resources produce effectiveness.
	Quality Strategies:	Empowerment Team building Employee involvement Human resource development Open communication	Quality Strategies: Surprise and delight Creating new standards Anticipating needs Continuous improvement Finding creative solutions
	Culture Type:	HIERARCHY	Culture Type: MARKET
	Orientation:	Controlling	Orientation: Competing
	Leader Type:	Coordinator Monitor Organizer	Leader Type: Hard driver Competitor Producer
	Value Drivers:	Efficiency Timeliness Consistency and uniformity	Value Drivers: Market share Goal achievement Profitability
Theory of Effectiveness:	Control and efficiency with capable processes produce effectiveness.	Theory of Effectiveness: Aggressively competing and customer focus produce effectiveness.	
Quality Strategies:	Error detection Measurement Process control Systematic problem solving Quality tools (fishbone diagrams, Pareto charting, affinity graphing, variance plotting)	Quality Strategies: Measuring customer preferences Improving productivity Creating external partnerships Enhancing competitiveness Involving customers and suppliers	
	Stability and Control		
			External Focus and Differentiation

Figure 1. The Competing Values Framework (Changiz, 2015; Cameron & Quinn, 2005)

2.3 Safety Leadership, and Safety Behavior

(Lu, 2010; Wu et al, 2007) stated that the leadership of a process by which a leader influences subordinates to behave according to what he wanted. While (Xuengsheng, 2012) states that leadership is the directing and coordinating the workers of the group members. (Neal & Griffin, 2006; Borman & Motowidlo, 1993), distinguishes the two types of behavioral safety, the safety compliance (compliance) and safety participation (participation). Safety compliance (compliance) refers to the core activities that should be shown by individuals to improve safety in the workplace. These behaviors are following the standard procedures of work and use of PPE (personal protective equipment). Thus, in this study had the following hypotheses:

Hypothesis 4: There is positive relationship between Safety Leadership and Safety Behavior.

2.4 Institutional Aspects, Organizational Culture, and Safety Behavior

(Virutama Sen, 2015), focuses on the institutional aspects of social values and norms that correspond to the organizational structure, operations, behaviors, and practices. In accordance with these expectations and norms are very important for an organization to maintain its legitimacy in the field of business. In particular, (Virutamasen, 2015; DiMaggio & Powell, 1987) to categorize institutional pressures become normative pressure, pressure mimetic and coercive pressure. Thus, in this study had the following hypotheses:

Hypothesis 5: There is positive relationship between Institutional Aspects and Safety Behavior.



Hypothesis 6: There is positive relationship between Institutional Aspects and Organizational Culture.

Based on the research hypothesis above description, it can be made a research framework, as illustrated in Figure 2.

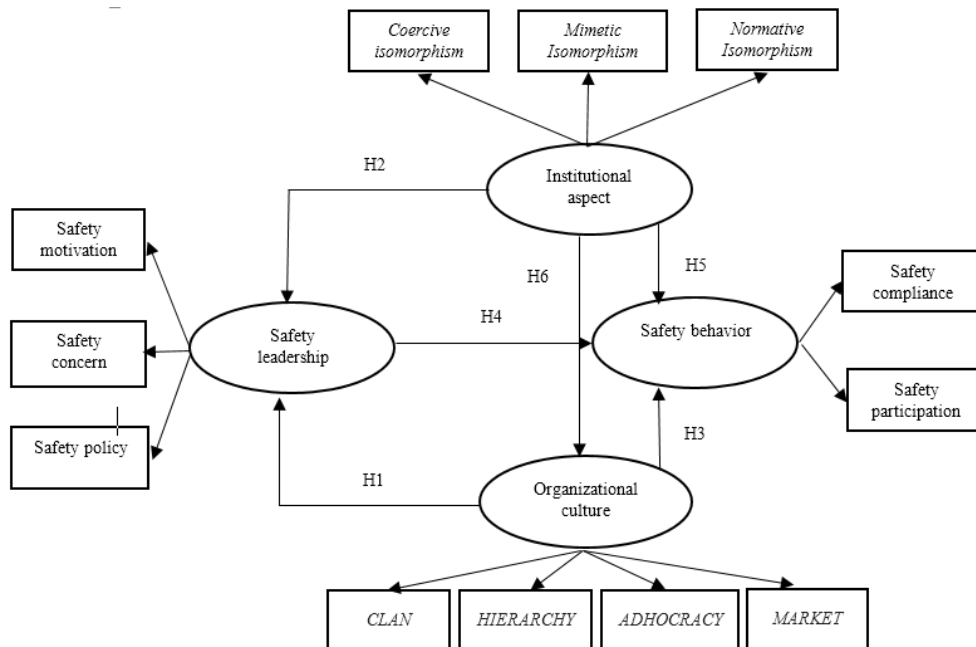


Figure 2. Research framework

2.5 Structural Equation Modeling (SEM)

Structural Equation Modeling (SEM) is a set of statistical techniques that enable testing a relatively complex set of relationships simultaneously. Such complex relationships can be established between one or several types of endogenous construct with one exogenous construct (Hair et al, 1998). There are several steps in creating a complete modeling, following the steps of Structural Equation Modeling (SEM).

2.5.1 Development of Model-Based Theory of SEM

The first step in the development model SEM is the establishment or development of models have strong theoretical justification. In addition, the model is validated empirically via SEM computing program, which the SEM is not used to generate a model, but used to theoretical models through the data empirically.

2.5.2 Diagram Path development

The theoretical models that have been built in the first step will be illustrated in a diagram so that the path can be estimated using LISREL and AMOS program, which is a computer program of the method of SEM. The path diagram makes it easier to see the relationships of causality that has been tested. Construct-construct was built in the path diagram are divided into two groups construct, which construct exogenous and endogenous construct.



2.5.3 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was used to test whether these indicators is a valid indicator as a measure of latent constructs. The construct is said to be valid when the value of the loading factor ≥ 0.5 (Hair, 2006). At this stage also tested the reliability of the construct using a reliability test by looking at the value of the Construct Reability.

2.5.4 Goodness-of-fit (GFI) test

Goodness-of-fit (GFI) on models measure how theoretical models can be supported by the sample data. In this study the indications that can be used to measure how the model was fit to the observed data are: chi-square (χ^2 / df), goodness-of-fit index (GFI), the comparative fit index (CFI), and root mean square error of approximation (RMSEA), the comparative fit index (CFI) and others. The Table cut of value can be seen in Table 1 below.

Table 1. Cut of Value

Kriteria	Cut of Value
Chi-Square/df	≤ 3
Probability	≥ 0.05
NFI	0.90 – 0.95
TLI	≥ 0.95
CFI	≥ 0.90
CMIN/DF	≤ 2.00
RMSEA	≤ 0.08
RFI	≥ 0.95
GFI	≥ 0.90
AGFI	≥ 0.90

2.6 SEM excellence.

SEM is an evolution of multiple equation model (regression) developed from the principles of econometrics and coupled with regulatory principles (factor analysis) of psychology and sociology. (Hair et.al, 2006) explained the reasons underlying the use of SEM is.

1. SEM has the ability to estimate the relationship between the variables that are multiple relationships. This relationship formed in the structural model (the relationship between exogenous and endogenous latent construct).
2. SEM has the ability to describe the pattern of the relationship between the latent construct (unobserved) and manifest variables (manifest variables or variable indicator).
3. SEM has the ability to quantify the size of the direct, indirect influence, and the total effect of the latent construct.

Research Methodology

3.1 Data collection

In this study, the research is to use five response categories score of 1-5 votes representing strongly disagree, disagree, disagree, agree and strongly agree. On the other hand, the minimum amount of data required 510 respondent data from the three shipbuilding companies, it is based on a number of indicators that as many as 51 valid indicator multiplied by 10, so that the data of 510 respondents.



3.2 Data analysis

3.2.1 Validity and Reliability Test

Validity test used to measure whether the measuring instrument (questionnaire) is correct frame concept. Of the 51 items the original question then chosen questions that have value P-value (Sign.) Smaller than the value of α (0:05), so the question remains item 51 item questions that represent each indicator. The construct of safety leadership, institutional, and behavioral safety item no questions were omitted because the entire item in question is worth significantly ($p < 0.01$) and valid. Whereas the construct of organizational culture there is one item in question is removed and is not valid.

Tabel 2. Reliability Test Results

Reliability Statistics	Cronbach's Alpha	Decision
Safety leadership	0,922	Reliability
Organizational culture	0,951	Reliability
Institutional aspects	0,941	Reliability
Safety Behavior	0,712	Reliability

Table 2 shows that all the indicators on the latent constructs have been reliable to be used as a gauge to see cronbach's alpha values. Based on the results of validity and reliability testing that has been done above, it can be concluded that the indicators are used as indicators for each latent variable has qualified validity and reliability, and questionnaires that have been made can be directly analyzed.

3.2.2 Constructs SEM

Indicators used in the construct is an indicator that already have a strong theoretical basis and has been tested. Based on the theoretical framework development and reliability testing with a total of 51 indicators, Table 3 and Table 4 is an explanation of the latent variable exogenous and endogenous latent variables.

Table 3. Latent Variables Exogenous

Constructs	Code	Indicator
Institutional aspects	CI	Coercive Isomorphism
	MI	Mimetic Isomorphism
	NI	Normative Isomorphism

Table 4. Latent Variables Endogenous

Constructs	Code	Indicator
Safety leadership	MKS	Safety motivation
	PKS	safety concern
	KKS	Safety Policy
Organizational culture	CC	Clan culture
	AC	Adhocracy culture
	MC	Market culture
	HC	Hierarchy culture
Safety Behavior	KK	Safety compliance
	PK	Safety participation



3.2.2 Multivariate Normality Test

Multivariate normality test is to see the value of skewness and kurtosis. (Prajogo, 2002; Kendall and Stuart, 1969), less than 2 skewness and kurtosis value of not more than 5 indicates that the data meet the normal criteria.

Table 5. Normality Test Results

Variable	min	Max	skew	c.r.	kurtosis	c.r.
PK	1.000	5.000	-1.591	-14.786	2.099	9.752
KK	1.670	5.000	-.858	-7.976	.674	3.131
CC	1.330	5.000	-1.468	-13.639	1.620	7.526
AC	1.400	5.000	-1.279	-11.885	1.129	5.243
MC	1.200	5.000	-1.368	-12.710	1.584	7.359
HC	1.400	5.000	-1.297	-12.053	1.425	6.621
NI	1.000	5.000	-1.353	-12.567	1.793	8.328
MI	1.000	5.000	-1.166	-10.833	1.370	6.364
CI	1.000	5.000	-1.273	-11.828	1.808	8.398
MKS	1.750	5.000	-1.029	-9.558	.549	2.551
PKS	1.400	5.000	.202	1.881	.261	1.214
KKS	1.000	5.000	-.747	-6.938	.515	2.392
Multivariate					62.918	39.061

From Table 5 it was known that the data has a value of less than 2 skewness and kurtosis value of not more than 5 indicates that the data meet the normal criteria. Thus the data is normal and can be continued on the next assumption test.

3.2.3 Correlation between Variables

In addition to the assumption of data must be distributed Multivariate Normal, further assumptions that must be met and that there is a correlation between variables in the formation of factors which are, therefore, conducted a factor analysis to examine the correlations between variables and the KMO test and Bartlett's test.

Table 6. KMO dan Bartlett's Test

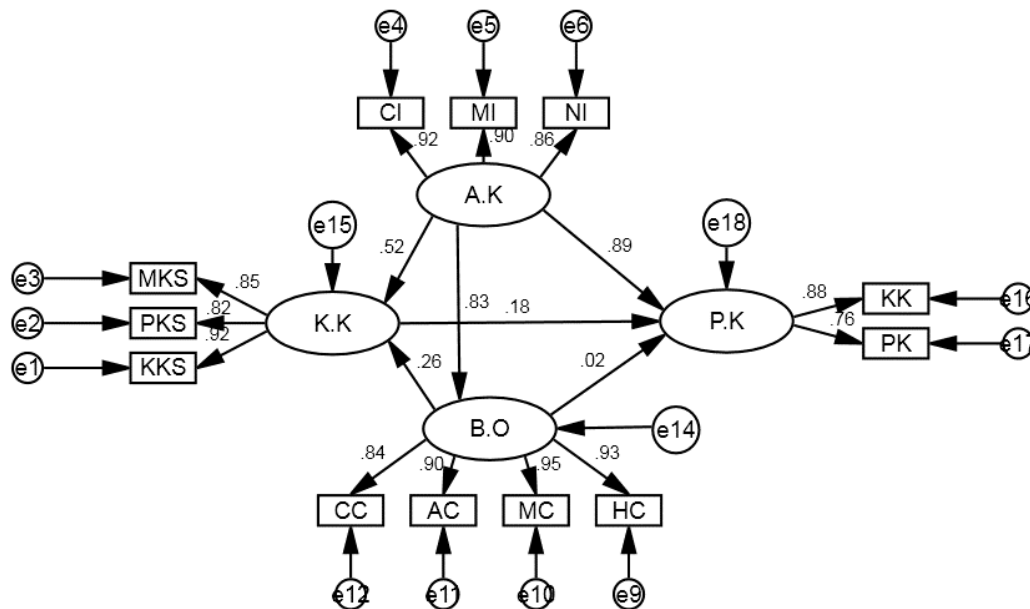
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.924	
Bartlett's Test of Sphericity	Approx. Chi-Square	6971.824
	df	66
	Sig.	0

From the above test result obtained KMO value of 0.924 and significance on Bartlett's test is 0,000. With these results it can be said that the value of KMO gained more than 0.6 (Hair, 2006), the results of these tests indicate that there is sufficient sample. The adequacy of the number of samples associated with significant value obtained, where with a larger sample will be obtained a higher degree of sensitivity. Furthermore, to see whether there is any relationship between variables to test Bartlett's, where in Table 6 above obtained value test Bartlett's significant at $\alpha = 0.05$ ($p\text{-value} < \alpha$) so that it can be concluded that the correlation coefficient of observation with correlation coefficients of the variables have been appropriate or there is a relationship between variables.

3.2.4 Analysis of Structural Equation Model (SEM)



Tests conducted to identify the size of the influence between variables and the level of significance between variables. The size of the effect between variables can be seen in the value of the loading factor on standardized estimates. The greater the value of the relationship between the construct of the influence between variables, the better. Then significance between variables can be seen based on the value χ^2 (chi-square) / df. The overall test results can be seen in the variable construct a visual diagram in Figure 3 below.



Chi-square	df	NFI	TLI	CFI	GFI
619.965	48	0.912	0.887	0.918	0.833

Figure 3. Full Model SEM

Based on Figure 3, Goodness of Fit SEM obtained from the processing AMOS χ^2 value (chi-square) / df amounted to 12.91 large enough (≤ 3) between variables which means that the model is not yet fit. Furthermore, NFI value of 0.912 (0.90-0.95), TLI value of 0.887 (≥ 0.90), CFI value of 0.918 (≥ 0.90), and the value of GFI is quite high at 0.996 (≥ 0.90) hypothesis suggesting that the model was fit / suit. The value of factor loading of each construct is already good (≥ 0.50) and can be seen in Table 7 below.

Table 7. Standardized Factor Loading Model Struktural

Indicator	Construct	Factor Loading SEM
MKS	Safety Leadership (K.K)	0.85
PKS		0.82
KKS		0.92
CI	Institutional Aspects (A.K)	0.92
MI		0.90
NI		0.86
CC	Organizational culture (B.O)	0.84
AC		0.90
MC		0.95
HC		0.93
KK	Safety Behavior (P.K)	0.88



PK _____ 0.76

Factor loading the resulting high enough so it can be said that the establishment of the model was stable and able to support the validity and reliability of measurement. Measurement reliability is by testing construct reliability (CR). The construct reliability calculation results can be seen in Table 8 below.

Table 8. Construct Reliability results from SEM

Construct	(Sum of Standardized Loading) ²	Sum of Measurement Error	Construct Reability (CR)
Safety Leadership (K.K)	6.65	0.77	0.90
Institutional Aspects (A.K)	7.17	0.61	0.92
Organizational culture (B.O)	13.16	0.70	0.95
Safety Behavior (P.K)	2.70	0.65	0.81

From Table 8, it is known that the value of CR obtained over 0.7. The limit values are used to assess the level of reliability that is acceptable is 0.70 (Prajogo, 2012; A.T. Ferdinand, 2000). So it can be said that construct the structural model is reliability.

3.2.5 Hypothesis test

Furthermore, the research hypothesis testing are based on the results of the testing of structural models. Table 9 below shows the significant conclusions based on the hypothesis P_value.

Table 9. Results hypothesis

Hypothesis	Statement	Estimates (λ)	P_Value	Decision
H ₁	There is positive relationship between Organization Culture and Safety Leadership.	0.26	***	Significant
H ₂	There is positive relationship between Institutional Aspects and Safety Leadership.	0.52	***	Significant
H ₃	There is positive relationship between Organization Culture and Safety Behavior.	0.2	.550	Not Significant
H ₄	There is positive relationship between Safety Leadership and Safety Behavior.	0.18	***	Significant
H ₅	There is positive relationship between Institutional Aspects and Safety Behavior.	0.89	***	Significant
H ₆	There is positive relationship between Institutional Aspects and Organizational Culture.	0.83	***	Significant

*** significant at $p < 0.05$

CONCLUSIONS AND RECOMMENDATIONS

The influence of cultural relations organization and institutional aspects of the behavior of safety in this research is done by using Structural Equation Model (SEM). Questionnaires were distributed to three construction companies building ships in Surabaya and Bangkalan Madura, with the total number of respondents was 518 workers. The results of the analysis shows that the model fit the model produced in accordance (fit) because it meets the cut of value.

From this research it is known that Organization Culture (B.O) has a relationship with the Safety Leadership (K.K). Institutional Aspects (A.K) has a relationship with the Safety Leadership (K.K), Organization Culture (B.O), and Safety Behavior (P.K). Safety Leadership



(K.K) has a relationship with Behavioral Safety (P.K). While Organization Culture (B.O) have no relationship to Safety Behavior (P.K).

REFERENCES

- Abbe, Omosefe O., Harvey, Craig M., Laura H Ikuma., Fereydoun Aghazeh. (2011). A survey on optimization. *International Journal of Industrial Ergonomic*, 41, 106-117.
- Barlas, Baris. (2012). Shipyard fatalities in Turkey. *safety science*, 1247-1252.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership* (Second ed.). London: Lawrence Erlbaum Associates.
- Bozan, K., Davey, B., & Parker, K. (2015). Social Influence on Health IT Adoption Patterns of the Elderly: An Institutional Theory Based Use Behavior Approach *Procedia Computer Science*, 63 517 – 523
- Bycio, P., Allen, J. S., & Hackett, R. D. (1995). Further Assessments of Bass's (1985) Conceptualization of Transactional and Transformational Leadership. *Journal of Applied Psychology*, 80(4), 468-478.
- Donaldson, L. (1995). *American Anti-Management Theories of Organization: A Critique of Paradigm Proliferation* (First ed.). Cambridge: University Press.
- Flin, R., & Yule, S. (2014). Leadership for safety: industrial experience. *Qual Saf Health Care* 13, ii45–ii51.
- Glover, J. L., Champion, D., Daniels, K. J., & Dainty, A. J. D. (2014). An Institutional Theory perspective on sustainable practices across the dairy supply chain. *Int. J. Production Economics*, 152 102–111.
- Griffin, M. A., & Neal, A. (2000). Perceptions of Safety at Work: A Framework for Linking Safety Climate to Safety Performance, Knowledge, and Motivation. *Journal of Occupational Health Psychology*, 5(3), 347-358.
- Hair, Josep., Black, William., Babin, Barry. Anderson, Rolph. (2010). *in Multivaried Data Analysis. Pearson Education. United States of America ,hal 627-687.*
- JH, Howell., & BJ, A. (1993). Transformational Leadership, Transactional Leadership, Locus of Control, and Support for Innovation : Key Predictors of Consolidated-Business-Unit Performance. *Applied Psychology*, 78(6), 891-902.
- Krause, T. R., & Weekley, T. (November 2005). A New Paradigm for Safety Leadership: Understanding the Role of Leadership in Creating Safety Excellence. *Professional Safety magazine*.
- Lee. T., Harrison. K. (2000). Assesing safety culture in nuclear power station. *Safety Science* 34, 61-97.
- Liu, H., Ke, W., Wei, K. K., Gu, J., & Chen, H. (2010). The role of institutional pressures and organizational culture in the firm's intention to adopt internet-enabled supply chain management systems. *Journal of Operations Management* 13.
- Lu, C.-S., & Yang, C.-S. (2010). Safety leadership and safety behavior in container terminal operations. *Safety Science*, 48, 123–134.
- Martínez-Córcoles, M., Gracia, F., Tomás, I., & Peiró, J. M. (2011). Leadership and employees' perceived safety behaviours in a nuclear power plant: A structural equation model. *Safety Science*, 49, 1118–1129.
- Marchand, A., Simard, M., Carpentier-Roy, M.-C., & Ouellet, F. (1998). From a unidimensional to a bidimensional concept and measurement of workers' safety behavior. *Scandinavian J of Work*, 24(4), 293-299.



- Neal, A., & Griffin, M. A. (2002). Safety Climate and Safety Behaviour *Australian Journal of Management*, 27, 67.
- Neal, A., & Griffin, M. A. (2006). A Study of the Lagged Relationships Among Safety Climate, Safety Motivation, Safety Behavior, and Accidents at the Individual and Group Levels. *Journal of Applied Psychology* 91(4), 946–953
- Neal, A., Griffin, M. A., & Hart, P. M. (2000). The impact of organizational climate on safety climate and individual behavior. *Safety Science*, 34 99-109.
- Prajogo, Daniel (2002). The relationship between Total Quality Management practice and innovation performance. Monash University. Australia.
- Robbins, S., Judge, T. A., & Bruce. (2013). *Organizational Behavior* (7 ed.). Australia: Pearson Australia Group.
- Schein, E. H. (1984). Coming to a New Awareness of Organizational Culture. *Sloan Management Review*, 25(2), 3.
- Schein, E. H. (1990). Organizational Culture. *Sloan School of Management*, 45(2), 109-119.
- Schein, E. H. (1995). The Role of The Founder in Creating Organizational Culture. *FAMILY BUSINESS REVIEW*, 8(3).
- Schein, E. H. (2004). *Organizational Culture and Leadership* (third ed.). San Francisco: John Wiley and Sons.
- TR, Krause., & Hoboken, H. J. (2009). *Taking the Lead in Patient Safety: How Healthcare Leaders Influence Behavior and Create Culture*. New Jersey: John Wiley & Sons.
- Valmohammadi, C., & Roshanzamir, S. (2015). The guidelines of improvement: Relations among organizational culture, TQM and performance. *Int. J. Production Economics* 164 167–178.
- Virutamasen, P., Wongpreedee, K., & Kumnungwut, W. (2015). Strengthen Brand Association through SE: Institutional Theory Revisited. *Procedia - Social and Behavioral Sciences* 195, 192 – 196.
- Wilderom, C. P. M., Berg, P. T. v. d., & Wiersma, U. J. (2012). A longitudinal study of the effects of charismatic leadership and organizational culture on objective and perceived corporate performance. *The Leadership Quarterly*, 23, 835–848.
- Xuesheng, D., & Wenbiao, S. (2012). 2012 International Symposium on Safety Science and Technology Research on the relationship between safety leadership and safety climate in coalmines *Procedia Engineering* 45, 214 – 219.
- Zehir, C., Ertosun, Ö. G., Zehir, S., & Müceldili, B. (2011). The Effects of Leadership Styles and Organizational Culture over Firm Performance: Multi-National Companies in Istanbul *Procedia Social and Behavioral Sciences* 24 1460–1474.