

## The effect of work environment and individual characteristics on pilot performance with professionalism as an intervening variable

I Wayan Majuarsa<sup>a\*</sup>

<sup>a</sup>Mahendradatta University, Denpasar, Bali, Indonesia

### CHRONICLE

#### Article history:

Received: November 18, 2020

Received in revised format:

December 28 2020

Accepted: January 20, 2021

Available online:

January 20, 2021

#### Keywords:

Work Environment

Individual Characteristics

Professionalism

Pilot Performance

### ABSTRACT

This study aims to analyze the influence of the work environment on professionalism, analyzing the effect of individual characteristics on professionalism, analyzing the effect of professionalism on pilot performance, analyzing the influence of the work environment on pilot performance with professionalism as an intervening variable and analyzing the influence of individual characteristics on pilot performance in Lion Air with professionalism as an intervening variable. The number of samples in this study were 165 respondents. The data analysis technique used path analysis. The results of the analysis show that the work environment has an effect on professionalism. Individual characteristics affect professionalism. The work environment affects pilot performance. Individual characteristics have an effect on pilot performance. The work environment affects the pilot's performance with professionalism as an intervening variable. Individual characteristics affect pilot performance with professionalism as an intervening variable.

© 2021 by the authors; licensee Growing Science, Canada

## 1. Introduction

Air transportation is the most important part of the modern world. Air transportation is becoming important in line with the rapidly developing technological developments. Airline performance can be measured by several indicators, one of which is On Time Performance (OTP). OTP (On Time Performance) is a measure of the effectiveness of a system that regulates the on-time performance of a transportation tool. The problem with Lion Air, besides not being included in the top 3 OTPs, is the delay time which causes delays because the plane experiences delays. This problem becomes serious considering that the Ministry of Transportation has given time for Lion Air management to fix it so that there are no more delays in aircraft. If there is damage, hopefully there will be an aircraft on standby so that it is not detrimental to the passengers. Considering that Lion Air has not been included in the top three in the OTP assessment in 2016, management must make improvements to the quality of pilots and improve passenger services, so it is hoped that Lion Air will be included in the top three categories with the highest OTP. Lion Air's management strives to meet the growing demand, namely having the highest OTP, so the airline must be efficient and effective and be able to provide the services that passengers expect. One way to achieve this goal is to improve pilot performance. Performance problems are of course inseparable from the process of results and efficiency, in this case performance or work performance is the quality and quantity of work achieved by a pilot in carrying out his duties in accordance with the responsibilities given to him. Apart from pilots, the management is also demanded to provide satisfying services to passengers so that in general Lion Air can be accepted by Lion Air passengers. The work environment is a factor that influences pilot performance. A conducive working environment that tends to be dynamic will improve pilot performance and vice versa. If the pilot in carrying out the task of flying the aircraft feels disturbed, the pilot's performance will be low, on the other hand, if the pilot feels calm and comfortable in carrying out the task, the performance will increase. The factors that also influence pilot performance are individual characteristics. Individual characteristics are characteristics that indicate a

\* Corresponding author.

E-mail address: [diah\\_lwg@yahoo.com](mailto:diah_lwg@yahoo.com) (I W. Majuarsa)

person's differences regarding motivation, initiative, the ability to remain strong in facing the task of being a pilot, namely flying an airplane to a certain destination. Professionalism also affects pilot performance.

## **2. Literature review**

### *2.1. Work environment*

Sofyandi (2008: 38) defines "the work environment as a series of factors that affect the performance of the functions / activities of human resource management which consists of internal factors that come from within the organization". Sunyoto (2012: 43) states that "The work environment is everything that is around the workers and which can influence them in carrying out their assigned tasks, for example cleaning, music, lighting and others". According to Basuki and Susilowati (2005: 40) the work environment is anything in the environment that can affect either directly or indirectly a person or group of people in carrying out their activities.

### *2.2. Individual Characteristics*

According to Stoner (1989: 431) individual characteristics are interests, attitudes and needs that a person brings to a work situation. Sujak, (1990: 249-250) argues that different individual characteristics include their needs, attitudes and interests. These differences are brought into the world of work so that the motivation of each individual is different. Meanwhile, according to Nimran (Sopiah, 2008: 13) that individual characteristics are biographical traits, personality, perceptions and attitudes.

### *2.3. Professionalism*

Harefa (2004: 137) states that professionalism is first of all a matter of attitude. Then he said there were several things that could be considered to represent an attitude of professionalism, namely, high skills, service provision which was oriented towards the public interest, strict supervision of work behavior and a remuneration system which was a symbol of work performance. Professionalism according to Sedarmayanti (2010: 96) is a pillar that will place the bureaucracy as an effective machine for the government and as a parameter of the apparatus' ability to work well. The measure of professionalism is competence, effectiveness, and efficiency as well as being responsible.

### *2.4. Pilot Performance*

Performance is the results of the work function of a person or group in an organization in a certain period of time that reflects how well a person or group meets the requirements of a job in an effort to achieve organizational goals (Bernardin and Russel, 2002). According to Gibson et al. (1996) employee performance is the desired outcome of the perpetrator. Employee performance is the level at which employees achieve job requirements (Simamora, 2004).

### *2.5. Hypothesis*

$H_1$  : *The work environment has a significant effect on the professionalism in Indonesian airlines.*

$H_2$  : *Individual characteristics have a significant effect on professionalism in Indonesian airlines.*

$H_3$  : *Professionalism has a significant effect on the performance of pilots in Indonesian airlines*

$H_4$  : *The work environment has a significant effect on the performance of pilots in Indonesian airlines with professionalism as an intervening variable.*

$H_5$  : *Individual characteristics have a significant effect on pilot performance in Indonesian airlines with professionalism as an intervening variable.*

## **3. Methodology**

### *3.1. Research design*

This research is a type of hypothesis research with a research design in the form of causal research. Causal research is used to analyze the relationships between one variable and another or how a variable affects other variables. The hypothesis in this study aims to determine the effect of the work environment, individual characteristics and professionalism on the performance of pilots in Indonesian airlines.

### *3.2. Population, Samples and Sampling Techniques*

The population in this study were 280 pilots who were printed by Lion Air Group through education and training at the Angkasa Training Center (ATC). The sample in this study amounted to 165 respondents. The sampling technique used was probability sampling using a simple random sampling type.

### *3.3 Operational definition of variables*

#### *3.3.1 Work environment*

The work environment is a set of attributes that give the colour or character, spirit, ethos, inner atmosphere of each office. In general, the work environment itself makes a person find intrinsic satisfaction which is more motivating than if these characteristics are not present in the job.

### 3.3.2 Individual characteristics

Individual characteristics are differentiators between individuals on a person's ability to do a task in a job.

### 3.3.3 Pilot professionalism

Professionalism of a pilot is a term that refers to a mental attitude in the form of a commitment from members of a profession (pilot) to always create and improve their professional quality.

### 3.3.4 Pilot Performance

Pilot performance is the quality and quantity of work achieved by a pilot in carrying out his duties in accordance with the responsibilities given to him.

### 3.4. Data analysis method

In achieving the research objectives and hypothesis testing, the data obtained are then processed according to the needs of the analysis. For the purposes of discussion, the data is processed and presented based on the principles of descriptive statistics, analysis and hypothesis purposes, using an inferential statistical approach. The path analysis stages are:

1. Determine the path diagram model based on the paradigm of the relationship between variables.
2. Make a path diagram of the structural equation.
3. Analyse using SPSS, namely the analysis for substructure equation 1 to substructure analysis 4.

## 4. Analysis and discussion

### 4.1 Path Analysis Results

#### 4.1.1 Path Coefficient of Work Environment and Individual Characteristics to Professionalism

Estimation of the path coefficient that shows the effect of the work environment and individual characteristics on professionalism is carried out using regression analysis. The path coefficient is obtained from the standardized regression coefficient (beta). For more details, a description of the results of the regression analysis obtained is presented in Table 1.

**Table 1**

The Path Coefficient Test Results from the Work Environment and Individual Characteristics to Professionalism

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Constant	0.729	0.269		2.717	0.007
1	Work environment	0.380	0.073	0.326	5.194	0.000
	Individual Characteristics	0.429	0.061	0.439	6.994	0.000

Dependent variable: Professionalism

Source: Primary data is processed.

From Table 1, the following equation can be obtained:

$$Y1 = 0.326X1 + 0.439X2$$

Based on this equation, it can be explained that the work environment has a significant effect on professionalism, as evidenced by the significance value of t of 0.000, which is smaller than  $\alpha = 0.05$ , with a path coefficient of 0.326. Individual characteristics have a significant effect on professionalism, as evidenced by the significance value of t of 0.000 smaller than  $\alpha = 0.05$ , with a path coefficient of 0.439.

#### 4.1.2 Work Environment Path Coefficient, Individual Characteristics and Professionalism on Performance

Estimation of the path coefficient that shows the effect of the work environment, individual characteristics and professionalism on performance is carried out using regression analysis. The path coefficient is obtained from the standardized regression coefficient (beta). For more details, a description of the results of the regression analysis obtained is presented in Table 2.

**Table 2**

Result of Path Coefficient Test of Work Environment, Individual Characteristics and Professionalism to Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Constant	0.637	0.300		2.124	0.035
1	Work environment	0.284	0.086	0.229	3.316	0.001
	Individual Characteristics	0.314	0.076	0.3010.238	4.154	0.000
	Professionalism	0.253	0.080		3.170	0.002

Dependent Variable: Performance

Source: Primary data is processed.

From Table 2, the following equation can be obtained:

$$Y_2 = 0.229X_1 + 0.301X_2 + 0.238Y_1$$

Based on this equation, it can be explained that the work environment has a significant effect on performance, as evidenced by the significance value of  $t$  of 0.001 which is smaller than  $\alpha = 0.05$ , with a path coefficient of 0.229. Individual characteristics have a significant effect on performance, as evidenced by the significance value of  $t$  of 0.000 smaller than  $\alpha = 0.05$ , with a path coefficient of 0.301. Professionalism has a significant effect on performance, as evidenced by the  $t$  significance value of 0.002 smaller than  $\alpha = 0.05$ , with a path coefficient of 0.238.

#### 4.1.3 Direct Influence, Indirect Influence of the Work Environment and Individual Characteristics on Performance through Professionalism

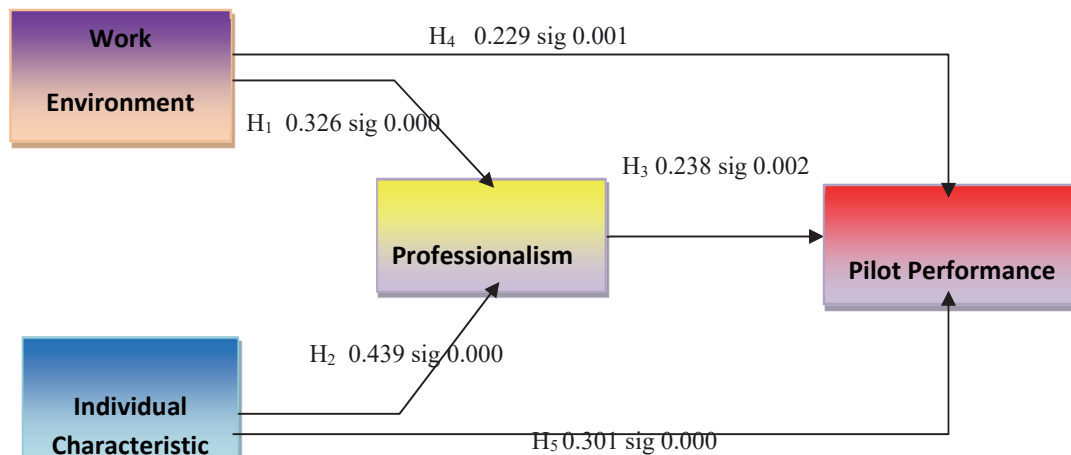
Based on the results of the analysis of sub-structure 1, and sub-structure 2, an indirect effect can be arranged, the analysis results are presented in Table 3.

**Table 3**  
Direct Effect, Indirect Effect and Total Effect

Variable	Direct Influence	Indirect Influence	Total Effect
Work environment → Professionalism	0.326	-	0.326
Individual characteristics → Professionalism	0.439	-	0.439
Professionalism → Performance	0.238	-	0.238
Work environment → Professionalism → Performance	0.229	$0.326 \times 0.238 = 0.078$	0.307
Individual characteristics → Professionalism → Performance	0.301	$0.439 \times 0.238 = 0.104$	0.405

Source: Primary data processed

Based on Table 3, it appears that the total effect of work environment variables on performance (0.307) is greater than the direct effect (0.229). Likewise, for the individual characteristics' variable on performance, where the total effect is greater (0.405) than the direct effect (0.301). These results indicate that professionalism status as an intervening variable in the influence of the work environment and individual characteristics on performance, because the total value is greater than the direct effect. Based on the five paths, the overall results of the path analysis can be presented in Fig. 1.



**Fig. 1.** Path Analysis Results

#### 4.2 Discussion

##### 4.2.1 The Influence of the Work Environment on Professionalism

Based on the results of the path analysis test, the work environment is proven to have an influence on pilot professionalism. The work environment is an environment where pilots do their daily work. A conducive work environment provides a sense of security and allows pilots to perform optimally. If pilots enjoy the work environment where the pilot works, then the pilots will feel at home in their work places to carry out activities so that their working time is used effectively and optimistic that their work performance is also high. The work environment includes continuous supervision using a strict supervision system; work atmosphere can provide encouragement and high morale; the system and the amount of remuneration (both salary and other incentives) is very attractive; pilots are treated well, humane, and given the opportunity to develop a career as much as possible according to the limits of their respective abilities; there is a sense of security from members, both inside and outside the service; Relationships take place harmoniously, are more informal and full of kinship and members receive fair and objective treatment. As Wursanto (2009) argues, the task of organizational leadership is to create a harmonious working atmosphere by creating the best possible human relations. This will have the impact of creating a conducive work environment so as to be able to provide working comfort that can give pilots professionalism. Both inside and outside the service; Relationships take place harmoniously, are more informal and full of kinship and members receive fair and objective treatment.

#### 4.2.2 *The Influence of Individual Characteristics on Professionalism*

Based on the results of the path analysis test, it is evident that individual characteristics have an influence on pilot professionalism. The individual characteristics in this study are reflected in that the pilot must know the limits of the aircraft's capabilities, his own expertise, and also his experience; pilots need high concentration to fly the plane, see danger signs, and not be caught off guard for a second; The pilot must be careful when taking risks because the lives of many people are in the hands of the Pilot; The pilot can assess the situation and make the best decisions, based on a high degree of discipline about the rules; and Pilots are leaders in aircraft so they must be able to create a comfortable working atmosphere and prioritize flight safety. Therefore, the professionalism of pilots is very much determined by the level of the pilot's ability which is reflected in his daily behavior in the organization. A high level of employee capability will more quickly lead to the achievement of previously planned organizational goals, on the other hand, if the pilot ability level is low, the tendency for organizational goals to be achieved will be slow and even deviate from the original plan.

#### 4.2.3 *Effect of Professionalism on Pilot Performance*

Based on the results of the path analysis test, it is proven that professionalism has an influence on pilot performance. Professionalism is the ability of the pilot to achieve an achievement, so that the pilot will work as closely as possible so that the desired goals can be successful. Professionalism is very important for everyone to have, in addition to its enormous benefits for others, professionalism can also help pilots to become better individuals. Being a professional is not an easy job. To achieve this, it takes a lot of effort because the measure of a person's professionalism will be seen from two sides. Namely, technical skills or expertise possessed, as well as matters relating to the nature, character and personality. With high professionalism, each pilot will be better able to complete the tasks that are his / her responsibility as well as possible without leaving any wrong or incomplete work, which has an impact on pilot performance. Professionalism is the quality of quality and behavior which is characteristic of a profession or a professional person. The characteristics of a professional pilot are marked by their expertise in carrying out their professional duties, because they are supported by their educational background, interests, talents, ability to carry out tasks that are full of dynamics and challenges. As Sedarmayanti (2010: 96) argues that professionalism is a pillar that will place the bureaucracy as an effective machine for the government and as a parameter of the apparatus' ability to work well. The measure of professionalism is competence, effectiveness, and efficiency as well as being responsible. The results of this study support Lee and Choi (2009) who state that professionalism has an effect on performance.

#### 4.2.4 *Effect of Work Environment on Pilot Performance with Professionalism as an intervening variable*

Professionalism is able to mediate the influence of the work environment on pilot performance. This shows that a pleasant working environment will certainly affect the pilot's performance, if supported by professional pilots. Professional pilots are people who are relied on and trusted because they are expert, skilled, knowledgeable, responsible, diligent, full of discipline, and serious in carrying out their job duties. A good work environment will make the pilot feel comfortable. Feeling comfortable and happy will influence pilots to be more active, diligent and enthusiastic in working and vice versa if the work environment is bad it will result in decreased pilot performance. Thus the leadership is expected to always strive for more adequate facilities and infrastructure in the agency so that pilots will feel comfortable working, besides that the leadership is expected to always create a harmonious relationship with pilots so that pilots always feel treated fairly in the work environment. As Siagian (2002) argues, employee performance is influenced by several factors, including salary, work environment, organizational culture, leadership and work motivation, work discipline, job satisfaction, communication and other factors. The work environment is also able to provide an increase in work performance. This is in accordance with the opinion of Reksোধiprodo (2000: 151) which states that a bad work environment will affect workers because workers feel disturbed in their work. so that they cannot pay attention to their work, resulting in decreased employee performance. The condition of the work environment determines the smooth running of a job. If the work environment allows, the pilots will make the workplace a fun place to carry out their work activities, so as to reduce fatigue which in turn will lead to an increase in pilot performance. The results of Chandrasekar (2011) study found that the work environment has an effect on performance. Professional pilots will consciously be able to work hard in completing their duties and responsibilities. Therefore, pilots must be able to collaborate with various parties. Under any circumstances, a professional must still be passionate about doing what is his responsibility. This means that no matter how bad the conditions and situation are, the pilot must be able to motivate himself to be able to achieve maximum results without ever giving up. The pilot will become a motivator for himself, so that he can generate lethargy caused by the situation and conditions at hand. In addition, pilots must also be able to encourage their environment. Pilots understand, when and at what moments the pilot must provide motivation for himself and his environment. so that it can generate lethargy caused by the situation and conditions at hand. In addition, pilots must also be able to encourage their environment. Pilots understand, when and at what moments the pilot must provide motivation for himself and his environment. so that it can generate lethargy caused by the situation and conditions at hand. In addition, pilots must also be able to encourage their environment. Pilots understand, when and during what times the pilot must provide motivation for himself and his environment.

#### 4.2.5 *The Influence of Individual Characteristics on Pilot Performance with Professionalism as an intervening variable*

Professionalism is able to mediate the influence of individual characteristics on pilot performance, this shows that the better individual pilot characteristics can improve pilot performance, if supported by pilot professionalism.

Professionalism is needed in organizations. Professional human resources are needed, will create good skills and commitment from the people working in the organization as well as fostering the image of the organization. A professional is not only good at playing words theoretically, but also must be able to practice them in real life. He uses clear measurements, whether what he is doing is successful or not. To assess whether a person masters his job, it can be seen from three main things, namely: how he works, how he deals with problems, and how he will achieve the results of his work. That way, a professional will make himself a problem solver (problem solver). A person who has professionalism in his work always encourages himself to create professional work. Someone who has professionalism at work will always try to manifest himself in accordance with the predetermined expertise.

## 5. Conclusion and recommendations

### 5.1. Conclusion

- 1) The work environment has a positive effect on professionalism on the Lion Air airline, indicated by a significant value of 0.000 ( $<0.05$ ).
- 2) Individual characteristics have a positive effect on professionalism on Lion Air, indicated by a significant value of 0.000 ( $<0.05$ ).
- 3) Professionalism has a positive effect on pilot performance on Lion Air, indicated by a significant value of 0.002 ( $<0.05$ ).
- 4) The work environment affects the pilot's performance with professionalism as an intervening variable on the Lion Air airline, indicated by the total value is greater than the direct effect ( $0.307 > 0.229$ ).
- 5) Individual characteristics have a positive effect on pilot performance with professionalism as an intervening variable on Lion Air, indicated by a total value greater than the direct effect ( $0.405 > 0.301$ ).

### 5.2. Recommendations

- 1) The results of the research can contribute to Lion Air, especially with the existence of a conducive work environment and individual characteristics so as to increase its professionalism.
- 2) Individual characteristic variables have a dominant contribution to the professionalism of pilots of Lion Air airlines, so it is better if pilots recruiting must be selected strictly with various requirements so that they are able to develop strong personal abilities, discipline and hard work.
- 3) The role of intervening professionalism plays a very important role in shaping pilot performance. Because professionalism is a mental attitude in the form of a commitment from the members of a profession (pilot) to always create and improve their professional quality. However, having professionalism has an impact on the seriousness of pilots at work so that it has an impact on improving their performance.
- 4) Individual character is more important than the work environment, because if a pilot has an individual character at work, the pilot will automatically have motivation first.

## References

- Basuki, & Susilowati, I. (2005). Dampak Kepemimpinan, dan Lingkungan Kerja, Terhadap Semangat Kerja. *Jurnal JRBI*, 1(1), 31-47.
- Bernardin, H.J. & Russel, J.E.A (2002). *Human Resource Management an experiential approach*. Singapore: Mc Graw-Hill, Inc.
- Chandrasekar, K. (2011). Workplace environment and its impact on organisational performance in public sector organisations. *International Journal of Enterprise Computing and Business Systems*, 1(1), 1-19.
- Gibson J. H., Ivancevich J. M. & Donnally Jr. J. H. (1996). *Organization: Behaviour, Structure, Processes*, Homeword III: Richard D. Irwin.
- Harefa, A. (2004). *Membangkitkan Etos Profesionalisme*. Jakarta: Gramedia Pustaka Utama.
- Lee, J. W., & Choi, Y. J. (2009). A Study on the Effect of Market Orientation on Customer Orientation, Professionalism, Job satisfaction and Performance in Specialty Hospital. *Korea Journal of Hospital Management*, 14(1), 1-22.
- Reksohadiprodjo. (2000). *Organisasi Perusahaan*. Edisi Kedua. BPFE. Yogyakarta.
- Sedarmayanti. (2010). *Manajemen Perkantoran*, Cetakan Kedua, Mandar Maju, Bandung
- Siagian, S. P. (2002). *Manajemen Sumber Daya Manusia*. Jakarta: Bumi Aksara.
- Simamora, H. (2004). *Manajemen Sumber Daya Manusia*, Edisi Ketiga, Cetakan Pertama. Yogyakarta: STIE YKPN.
- Sofyandi, H. (2008). *Manajemen Sumber Daya Manusia*. Yogyakarta : Graha Ilmu.
- Sopiah. (2008). *Perilaku Organisasional*, Edisi Pertama, Cetakan Pertama, Yogyakarta: Andi.
- Stoner, C.R. (1989). *The foundations of business ethics: Exploring the relationship between organizational culture, moral values and actions*. Advanced
- Sujak, A. (1990). *Kepemimpinan Manajer (Eksistensinya Dalam Perilaku Organisasi)*. Edisi Pertama. Cetakan Pertama. Jakarta: CV. Rajawali.
- Sunyoto, D. (2012). *Manajemen Sumber Daya Manusia*. Yogyakarta : CAPS
- Wursanto, I. (2009). *Dasar – Dasar Ilmu Organisasi*. Edisi Dua. Yogyakarta : Andi.

