

Organizational Agility Maturity Level Of An Airport Operator In Indonesia

Pina Panduwinarsih¹, Vivi Gusrini Rahmadani Pohan² and Rahmi Putri Rangkuti³

^{1, 2, 3}Departement of Industrial & Organizational Psychology,

Faculty of Psychology University of Sumatera Utara

Medan, Indonesia



Abstract – Changes are currently happening more quickly and the flow of information is increasingly unstoppable so that organizations must have capabilities that are built on an ongoing basis in order to respond to changes in an agile, effective, timely and sustainable manner or known as agility. This research was conducted on companies engaged in the aviation industry, especially airport operator. Airport is the main economic driver for the economy in a country that offers speed, connectivity and agility. This study aimed to determine the maturity level of organizational agility at an airport operator in Indonesia. This study shared questionnaires to 440 staff at an airport operator in Indonesia and was selected using simple random sampling. This study used One-Way ANOVA analysis and statistic descriptive. The result obtained is that the maturity level at the airport operator studied is included in level 2: agility transition. Organizations at the second maturity level manage to disseminate the values of agility and build a suitable technology base in most parts of the organization. This study can be used as a guideline for the aviation industry and airport operators to see the maturity level of organizational agility and invest in improving organizational agility in their respective organizations.

Keywords – Organizational agility.

I. INTRODUCTION

Changes in an organization are the transformation of the organization from the initial state of an organization into a state that is expected to come in a better condition (Kasali, 2014). What needs to be acknowledged is that the changes that have occurred have actually been going on for a long time, but in the current conditions where changes are accelerating, and the flow of information is unstoppable, the intensity is getting higher. To respond to environmental changes, it is necessary to find creative ways and the importance of new methods and approaches [11].

According to the International Civil Aviation Organization [4], which is actively monitoring the impact of COVID-19 on civil aviation, said that air passenger traffic experienced a total decline of 60% in 2020 and by 44% - 47% in 2021 compared to 2019. Airports in Indonesia also experienced losses in both aeronautical and non-aeronautical revenues. This was influenced by the existence of Large-Scale Social Restrictions (PSBB) and several countries that canceled flights from other countries/lockdown. Quoting Financial Statements of PT Angkasa Pura II in 2020, the airport operator recorded the growth of aircraft movements decreased by 44%, passenger movements decreased by 60.48%, and cargo movements decreased by 6.18%.

According to Rhenald Kasali [5] in his book, which discusses how airport management respond to changes, he explained that there are three types of companies in dealing with the phenomenon of disruption, type 1, namely companies that do not transform and do not disrupt themselves to the point of collapse, type 2, namely companies that transform to direct their business, and type 3 is companies that perform vertical integration to survive. Companies must have capabilities built on an ongoing basis to respond to changes in an agile, effective, timely, and sustainable manner or known as agility, and companies with high agility can see opportunities against existing threats [6].

Organizational agility is a new paradigm that illustrates changes as an opportunity to respond, exploit, and benefit from the changes and turn them into an opportunity [11]. Organizational agility is considered a key competency in creating competitive advantage and being a differentiator in creating strategic thinking, innovative thinking, and exploiting change, and the need for continuous adaptability and proactivity. Agility is thus not an option but an organizational obligation in running a business [3].

Wendler [14] divided the factors affecting organizational agility into three broad categories: agility prerequisites, people agility, and structures enhancing agility. Agility prerequisites are the values, beliefs, and principles shared by people in the organization, people agility refers to the ability of the workforce, and organizational strategies to manage change and structures enhancing agility is the organization's ability to flexibly and quickly adapt to change and make the necessary changes to the organizational structure [2]. These factors are expected by the company to create an agile organization.

Airports are no longer places where planes take off and land. Various industries congregate in and around airports to take advantage of accessibility, speed, and mobility [9]. Supported by air cargo flows and business flows, these industries have formed a unique economic development model dominated by aviation-oriented industries and organically linked to several other industries that support production and lifestyle [12]. The Aerotropolis model at the airport offers speed, connectivity, and agility [7],[8]. So that airport operators must be able to create organizational agility to survive in the face of change. Based on the explanation above, researchers are interested in determining the maturity level of organizational agility at an airport operator in Indonesia.

II. PURPOSE AND METHODS

This study aimed to examine the maturity level of organizational agility at an airport operator in Indonesia. The subjects in this study were 440 subjects selected using simple random sampling. Organizational agility was measured using the organizational agility maturity model proposed by Wendler [13], which includes: agility prerequisites, consisting of (1) agile values and technology, (2) agility of people, consisting of workforce and management of change, and (3) structures enhancing agility, consisting of collaboration and cooperation and flexible structures. The scale method used was the Likert [1]. The scale consists of favorable items (support). Each item includes five answer choices consisting of Strongly Agree (SS), Agree (S), Neutral (N), Disagree (TS), and Strongly Disagree (STS) with a score of 1 to 5. The score obtained from the scale will show the maturity level of organizational agility, which is divided into four parts:

Table 1. Determination of Agility Maturity stage based on the average value

Average Score	Maturity Stage
(1, 2.5)	0: Non-agile
(2.5, 3.5)	1: Agility Basics
(3.5, 4.5)	2: Agility Transition
(4.5, 50	3: Organizational Agility

To determine the maturity stage of an organization, the average score was calculated for each sub-dimensions. Then the organization is categorized into one maturity stage per sub-dimension according to their respective average scores as described in table 1.

The process of adapting the instruments used from English to Indonesian was carried out with back translation by two bilingual translators to ensure the translated questionnaire has the same meaning. Furthermore, the validity test was carried out using content validity obtained from opinions of professionals in the field of the scale (using professional judgment). The validity test was continued with the item discriminating power, Confirmatory Factor Analysis (CFA), and Reliability tests. The total item before being tested was 45 items and 22 items after validity and reliability tests. Data analysis was carried out with descriptive

statistics and One-Way ANOVA.

III. RESULTS AND DISCUSSION

Furthermore, in determining the organizational agility maturity stage, the following steps were carried out: data obtained from scale filling with the total number of each Likert value. This raw data was then entered into a Microsoft Word spreadsheet, then the Likert number was converted into an average, and the variances were grouped per variable. This data was then used to generate output that shows the level of organizational agility maturity model across the organization.

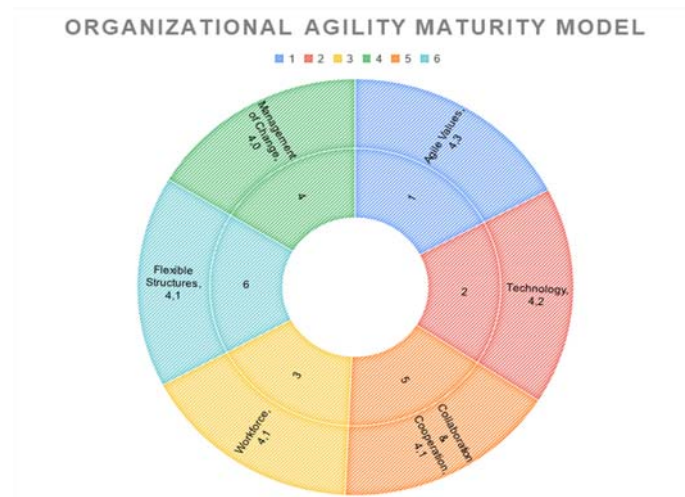


Figure 1. Graph of Organizational Agility Maturity Model Analysis Results

Based on the picture above, it can be seen that the variables are grouped into six indicators with the following explanation: agile values obtained an average score of 4.3, technology obtained an average score of 4.2, workforce obtained an average score of 4.1, management of change obtained an average score of 4.0, collaboration and cooperation obtained an average score of 4.1, and flexible structures obtained an average score of 4.1. Based on the score in each indicator, it can be concluded that the maturity stage is at level 2: Agility Transition (3.5 - 4.5), with agile values having the highest score and management of change having the lowest.

Furthermore, to determine the organizational agility maturity model based on function, the following results are obtained:

Table 2. Results of the Organizational Agility Maturity Model Analysis Based on Function

No	Function	Average Score	Information
1	Managerial	4.2	2: Agility Transition
2	Administration	4.0	2: Agility Transition
3	Operational	4.1	2: Agility Transition

Based on the table above, it can be concluded that based on the demographics of the work functions of the subjects, the average function has met the maturity level of *organizational agility*, which is at level 2: *Agility Transition*, with managerial function having the highest average score of 4.2 and administrative function having the lowest score of 4.0.

Overall the average value of *organizational agility maturity stage* is as follows:

Table 3. Frequency of Organizational Agility Maturity Model

Average Score	Maturity Stage	Frequency	Percentage (%)
(1, 2.5)	0: Non-agile	0	0
(2.5, 3.5)	1: Agility Basics	63	14.3
(3.5, 4.5)	2: Agility Transition	280	63.6
(4.5, 50	3: Organizational Agility	97	22.1
Total		440	100

Based on the table, it can be seen that there are 63 subjects with a percentage of 14.3% valued their organization to be at level 1: agility basics, there are 280 subjects with a percentage of 63.6% valued their organization to be at level 2: agility transition and as many as 97 subjects with a percentage of 22.1% valued their organization to be at level 3: organizational agility. It can be concluded that the organizations studied have a maturity level of organizational agility at level 2: agility transition.

Based on the results of the organizational agility maturity model, it can be seen that the organization studied in this study has reached the maturity level of organizational agility at level 2: Agility Transition, where at this level, the organization is managing to disseminate the values of agility to build a suitable technology base in most parts of the organization. Changes in business are mostly welcomed and handled appropriately. In many cases, organizations undertake activities to support and promote teamwork and establish an organizational structure that is flexible enough to deal with upcoming changes. However, organizations at this maturity stage are characterized by weakness in one or two sub-dimensional models, while others are already at a relatively high agility level [13]. Therefore, the organizational agility maturity model of airport operators in Indonesia is still in the transition stage towards complete organizational agility.

IV. CONCLUSIONS

This study describes the maturity level of organizational agility at an airport operator in Indonesia. The maturity level of organizational agility obtained is as follows: 14.3% valued their organization to be at level 1: agility basics, 280 subjects with a percentage of 63.6% valued their organization to be at level 2: agility transition, and 22.1% valued their organization to be at level 3: organizational agility. Thus, the level of organizational agility of the airport operator studied is at level 2: agility transition. This research can be used as a guideline for the aviation industry and airport operators to see the maturity level of organizational agility and invest in improving organizational agility in their respective organizations.

REFERENCES

- [1] Azwar, S. (2012). Reliabilitas dan Validitas. Yogyakarta. Pustaka Pelajar
- [2] Crocitto, M. and Youssef, M. (2003), "The human side of organizational agility", *Industrial Management and Data Systems*, Vol. 103 No. 6, pp. 388-397.
- [3] Harraf, A., Wanasika, I., Tate, K., & Talbott, K. (2015). Organizational agility. *Journal of Applied Business Research*, 31(2), 675–686.
- [4] International Civil Aviation Organization. (2021). Retrieved from <https://www.icao.int/sustainability/Pages/Economic-Impacts-of-COVID-19.aspx>
- [5] Kasali, R. (2018). Self disruption: Bagaimana Perusahaan Keluar dari Perangkap Masa Lalu dan Mendisrupsi Dirinya Menjadi Perusahaan yang Sehat. Mizan Pustaka.
- [6] Kasali, R. (2014). Agility: Bukan Singa yang Mengembik. PT Gramedia Pustaka Utama.
- [7] Kasarda, J.D. (2000a). Aerotropolis: airport-driven urban development. *Urban Land* 59 (9; Suppl. P/1), 32–41.
- [8] Kasarda, J.D. (2000b). Logistics & the rise of aerotropolis. *R. Estate Issues* 25 (4), 43-43.

- [9] Reiss, B., (2007). Maximising non-aviation revenue for airports: developing airport cities to optimise real estate and capitalise on land development opportunities. *J. Airt. Manag.* 1 (3), 284–293.
- [10] Sharifi, H. and Zhang, Z. (1999). A methodology for achieving agility in manufacturing organization. *International Journal of Production Economics*, 62, pp. 7-22
- [11] Sharifi, H. and Zhang, Z. (2001). Agile manufacturing practice: application of a methodology. *International Journal of Operations & Production Management*, 21(5/6), pp. 772-794
- [12] Wang, D., Xu Z., Lixin S. & Zhongzhen Y. (2020). Industry choice for an airport economic zone by multi-objective optimization. *Journal of Air Transport Management*. 88. 101872.
- [13] Wendler, R. (2014). Development of the Organizational Agility Maturity Model. *Computer Science and Information Systems* pp. 1197–1206
- [14] Wendler, R. (2016). Dimensions of organizational agility in the software and it service industry: Insights from an empirical investigation. *Communications of the Association for Information Systems*, 39(1), 439–482.