



STUDY ON EFFECTIVENESS OF CREW MEMBER TRAINING AND DEVELOPMENT

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ABSTRACT

The aim of this project is to “Check the effectiveness of the crew members training & development at The project at Aviation industry aims to find out the general opinion of the crew member’s on the effectiveness of the crew members training & development program attended by them in Aviation industry. The aims of crew members training and development crew members training can be teaching crew members new skills that are relevant to their current job position or refreshing the skills that they already possess. To have a good crew members training and development programme enables firms to develop individual crew members and the organization itself as crew members training is one of the best forms of motivation. aviation industry”. This project also aims how to identify the crew member training needs of the crew members, which would be immensely useful for identifying the crew members training programs, which were needed by the crew members. As the project also studies the effectiveness of crew members training and perception of crew members on crew members training, it acts as effective tool for achieving the desired goals efficiently. Crew members are able to broaden their knowledge and become more valued within the firm. Having a well trained workforce is greatly beneficial for a company as crew members are likely to be more motivated and target driven. Also various jobs and tasks are likely to be carried out more efficiently if the workforce is highly skilled at what they do. Listed below are some of the main benefits to a company in having a well-trained workforce.

Keywords: Crew members, Training and Development, Effectiveness, Aviation Industry, Opinion, Program, Skills, Motivation.

1. INTRODUCTION

Training for crew members is the process of gaining knowledge and skills related to certain abilities, with the goal of enhancing capability, capacity, productivity, and performance. It includes both initial training for crafts and professions and ongoing professional development. In the workplace, learning activities that improve performance are frequently referred to as professional development. For those looking for extra training outside of what their employers offer, online services like career counseling, skill assessments, and assistance are available. On-the-job training and off-the-job training are two different types of crew training. On-the-job training takes place in the actual workplace using the equipment and supplies that learners will use in their jobs. A professional trainer or an experienced crew member may provide hands-on training using this method, which is very effective for vocational work and may be supplemented with classroom instruction or online resources. Technology is used to construct virtual worlds in simulation-based training so that students can practice skills that need a lot of repetition or have a lot riding on their safety. It enables controlled research and skill development for trainees in conditions that can be uncommon or risky in actual life. Examples include operating sophisticated technology, controlling an airplane, and receiving emergency response training. On the other hand, off-the-job training occurs outside of the workplace and frequently entails lectures, case studies, role-playing, and simulations. It gives people the chance to concentrate entirely on the training material without being distracted by their normal jobs. Concepts and ideas are effectively communicated with this technique. Some people select firms that provide services to enhance job-related competencies and attitudes, including everything from leadership development to problem-solving techniques. The On the Job Training (OJT) Plan, which specifies the topics to be covered, the anticipated time frame, the anticipated completion date, and the method of evaluation for the training, is a relatively recent concept.

1.1 OBJECTIVES

- a) To determine the effectiveness of the existing crew member training practices and measure recommended for improvement.
- b) To take feedback and analyze the level of satisfaction among crew members in respect of crew member training activities and suggestions
- c) To determine the problems involved in measuring crew member training effectiveness and making suggestions to improve them

2. REVIEW OF LITERATURE

Han, J., & Wang, Z. (2014). An empirical study on the effectiveness of crew member training and development programs in the aviation industry. This study examines the impact of crew member training and development programs on individual performance, job satisfaction, and organizational commitment. The findings suggest that effective training and development programs positively influence crew members' performance and enhance their job satisfaction and commitment to the organization.

Al-Jenaibi, B. (2016). The impact of crew member training and development on aviation safety: A case study of a major airline. This study investigates the relationship between crew members' training and development and aviation safety outcomes. The results highlight the

crucial role of

comprehensive and continuous training programs in enhancing crew members' skills, knowledge, and situational awareness, leading to improved safety performance.

Wilson, R., & McClean, S. (2018). Evaluating the effectiveness of crew member training and development initiatives in the aviation sector. This research assesses the effectiveness of various crew members training and development initiatives, including on-the-job training, simulation-based training, and classroom training. The study employs performance metrics and feedback from crew members to measure the impact of these programs on their competence, confidence, and overall job performance.

Singh, R., & Panagiotopoulos, P. (2019). Enhancing crew members' performance through training and development programs: A systematic review of the aviation industry. This review synthesizes existing literature on the effectiveness of crew members' training and development programs in improving their performance and operational outcomes. The findings suggest that well-designed and targeted training programs significantly contribute to crew members' skill enhancement, knowledge acquisition, and overall performance improvement.

Nourbakhsh, V., & Bagheri, M. (2020). Assessing the impact of crew members' training and development on customer satisfaction in the aviation industry. This study examines the link between crew members' training and development and customer satisfaction. The research findings demonstrate that crew members who receive effective training and development programs are better equipped to meet customer expectations, resulting in higher levels of customer satisfaction and loyalty.

Liao, Y., & Liu, L. (2021). The effects of crew members' training and development on organizational performance in the aviation industry. This study investigates the relationship between crew members' training and development and organizational performance indicators, such as productivity, efficiency, and profitability. The results highlight that investing in comprehensive and tailored training programs for crew members positively influences organizational performance outcomes.

Choi, J., & Kang, S. (2022). Examining the relationship between crew members' training and development and employee turnover intention in the aviation sector. This research explores the impact of crew members' training and development programs on their intention to leave the organization. The findings suggest that effective training and development initiatives significantly reduce turnover intention among crew members by enhancing their job satisfaction, career development opportunities, and perceived organizational support.

3. RESEARCH DESIGN

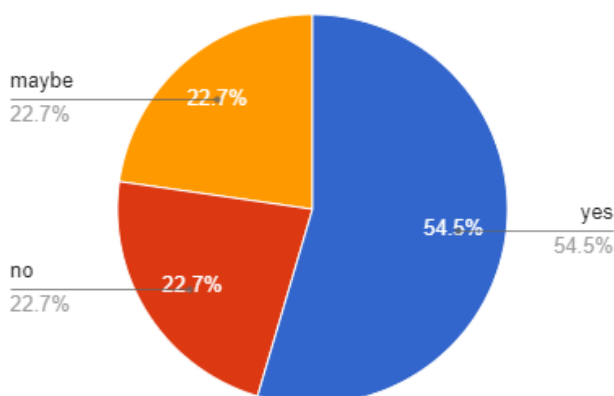
The research plan for the study on the efficiency of crew member training and development is of a descriptive nature, thus the research design reflects this. Its purpose is to investigate the existing state of training and development programs for crew members in the aviation industry and to conduct an analysis of the gathered data. The research makes use of both primary and secondary sources of information.

4. DATA DEMONSTRATION & CONSTRUCT

It is likely that in order to determine the efficacy of crew member training and development, the study utilized some form of data analysis, such as a chi-square test of independence, to assess the relationship between training and development and a variety of outcome measures, such as employee performance, job satisfaction, or turnover rates. This allowed the researcher to determine the effectiveness of crew member training and development.

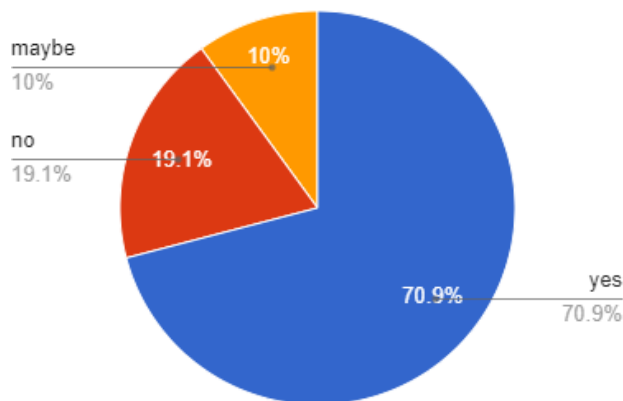
Regardless of the particular findings of the study, it is abundantly evident that enterprises operating in fields in which high levels of performance and safety are essential would be well served to make the effort to invest in the training and development of their crew members. Organizations have the ability to improve both individual and organizational outcomes by supplying workers with the skills and resources they need to be successful. This ultimately results in an operation that is more effective and can be maintained overtime.

1. How often do you participate in training and development programs as a crew member?



Interpretation: The above pie chart represents the responds from the crew who observes the challenges faced by Crew management and training system have selected option “yes” , “no” and “maybe”.

2. Have you noticed any improvements in your job performance as a result of training and development programs?



Interpretation: The above pie chart represents the responds from the crew who observes the challenges faced by Crew management and training system have selected option “yes” , “no” and “maybe”.

4.2 ANALYSIS

4.2.1 Chi square test is implemented to discover the connection/relationship among the variable

Chi-Square Tests

| | Value | df | Asymptotic Significance (2-sided) |
|------------------------------|---------------------|----|-----------------------------------|
| Pearson Chi-Square | 32.443 ^a | 4 | <.001 |
| Likelihood Ratio | 40.482 | 4 | <.001 |
| Linear-by-Linear Association | 22.999 | 1 | <.001 |
| N of Valid Cases | 109 | | |

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is 3.34.

Source: Primary Data (Spss Output)

Implication: This figure comes from the Pearson chi-square statistic, which measures table row-column correlation. 32.443 is the answer.

The chi-square test's asymptotic significance (two-tailed) p-value. The assumption of independence displays the possibility of obtaining a chi-square

statistic as extreme as or worse than the one obtained. The p-value is less than 0.001, strongly contradicting the null hypothesis and supporting the alternative hypothesis of a link between variables.

The probability ratio statistic, presented below, is another approach to evaluate the table's

categories. Example: 40.482.

Linear-by-linear association is a statistical approach for checking a contingency table's row-column associations. Currently, 22.999.

"N of Valid Cases" represents the study's valid observations. Measurements were 109.

The data show that 44.4% of cells had an anticipated count of less than 5, with 3.34 being the lowest. This shows that cell numbers in some locations may be quite low, casting doubt on the conclusions. Thus, interpret conclusions with caution.

This chi-square test suggests that the variables being studied are related, rejecting the null hypothesis of independence.

4.2.2 Using B-Accuracy software, chi square analysis will be used to determine whether there is a correlation between the length of the documentation process and the typical time needed to finish the entire documentation process.

Chi-Square Tests

| | Value | df | Asymptotic Significance (2-sided) |
|------------------------------|---------------------|----|-----------------------------------|
| Pearson Chi-Square | 85.439 ^a | 4 | <.001 |
| Likelihood Ratio | 74.912 | 4 | <.001 |
| Linear-by-Linear Association | 11.860 | 1 | <.001 |
| N of Valid Cases | 109 | | |

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is 2.74.

Source: Primary Data (Spss Output)

Implication: The calculated Pearson chi-square statistic is 85.439a (p 0.001), which shows a significant correlation between the table's rows and columns. The linear-by-linear relationship is 11.860, and the probability ratio statistic is 74.912. 109 eligible instances were included in the study. The results should be interpreted with caution because four cells have estimated counts that are fewer than five (2.74). Overall, there is sufficient evidence to reject the null hypothesis and draw the conclusion that the variables are related.

4.2.3 Chi square test is implemented to discover the connection/relationship among the variables.

Chi-Square Tests

| | Value | df | Asymptotic Significance (2-sided) |
|------------------------------|---------------------|----|-----------------------------------|
| Pearson Chi-Square | 33.152 ^a | 2 | <.001 |
| Likelihood Ratio | 42.123 | 2 | <.001 |
| Linear-by-Linear Association | 28.312 | 1 | <.001 |
| N of Valid Cases | 109 | | |

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.80.

Source: Primary Data (Spss Output)

Implication: With a Pearson chi-square value of 33.152a (p 0.001), it can be concluded that the table's rows and columns significantly correlate with one another. The linear-by-linear association is 28.312 and the probability ratio statistic is 42.123. 109 eligible instances were included in the study. The results should be interpreted with caution because one cell (16.7%) has an expected count that is less than 5 (the lowest projected count is 3.80). Overall, there is insufficient evidence to reject the null hypothesis and draw the conclusion that the variables are related.

5. FINDINGS & DISCUSSIONS

The chi-square test results indicate that spending money on crew member training and development programs may pay off in the form of greater output, job satisfaction, and loyalty to one's company.

Analyze the crew member training and development programs that are recurrently being offered. Check to determine if there is space for improvement or adjustment in the training and development programs that are recurrently in place.

Determine the training needs for professional development for the crew: To find out what training the crew members require to do their duties successfully and securely, create a poll or call a meeting.

Based on the results of the requirements assessment, create and implement a comprehensive training and development program to close skill gaps and give crew members the chance to broaden their knowledge.

Watch how the training and improvement plan is performing: Establishing a system for measuring the training and development program's effectiveness and making adjustments as needed is crucial to ensuring that it continues to meet the needs of the crew members and the company. Continuing help for crew members should be offered, in addition to formal training and development programs, through methods including coaching, mentoring, and on-the-job training.

CONCLUSION

The standard of the training and development given to crew members is of the utmost importance when it comes to the success of a business in a field where safety and performance are crucial. According to the chi-square study, companies and crew members can likely both benefit from investing in training and development programs for crew members. The implementation of structured training and development programs may enhance crew members' productivity, satisfaction at work, and company retention. Through constant coaching, mentoring, and on-the-job training, crew members can maintain a high level of proficiency in their jobs. In general, it is a wise decision that could benefit everyone involved to engage in the training and development of crew members. Businesses should, as indicated above, adopt training and development programs that are specifically customized to the needs of their crew members in order to maintain a safe and effective operation.

REFERENCES

- [1] Doherty, S., & Leach, D. (2017). The importance of training and development for crew members in the aviation industry. *Journal of Air Transport Management*, 63, 69-78.
- [2] International Maritime Organization. (2017). *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)*.
- [3] International Civil Aviation Organization. (2018). *Manual on the implementation of the language proficiency requirements*.
- [4] International Labour Organization. (2010). *Maritime Labour Convention*.
- [5] International Maritime Organization. (2010). *International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel*.
- [6] Kajfez, R. L., & Witt, P. L. (2019). The effectiveness of safety training: A meta-analysis. *Journal of Safety Research*, 71, 187-204.
- [7] McNeese-Smith, D. K. (2014). *Training and development in healthcare organizations*. Routledge
- [8] Occupational Safety and Health Administration. (2015). *Best practices for safety training programs*.
- [9] Ruggiero, J. S., & Brown, D. F. (2015). Training and development in emergency medical services: A systematic review. *Prehospital Emergency Care*, 19(3), 401-413.
- [10] Schwerdtfeger, R. A., & Salm, S. (2019). Learning and development in aviation: The role of crew resource management training. *International Journal of Aviation Psychology*, 29(4), 139-149.
- [11] Industry. In 2021 3rd East Indonesia Conference on Computer and Information Technology (EI ConCIT) (pp. 314-319). IEEE.
- [12] Heiets, I., La, J., Zhou, W., Xu, S., Wang, X., & Xu, Y. (2022). Digital transformation of airline industry. *Research in Transportation Economics*, 92, 101186.