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ABSTRACT

During the pandemic, airline businesses have a problem in terms of financial performance due to a fall in the number of flight passengers. One of the initiatives performed is cost efficiency, which has an indirect impact on the IT service. On the other side, it has to focus more on developing digital sales channels to boost pre-flight service quality and make the digital purchasing process easier for customers during the pandemic. The purpose of the case study is to analyze the capability gap between actual and target evaluations and make recommendations for improving IT capability level. It focuses on measuring the competency level of Align, Plan, and Organise (APO) 06 Managed Budget and Costs using Control Objectives for Information and Related Technologies (COBIT) 2019 as a framework for IT governance. The qualitative data for the study was gathered through interviews based on COBIT Guidance. The assessment results show that the capability of APO06 has achieved at level 4, which exceeds its internal target at level 3. Its capability process achieved its aim, was well-defined, and could be measured in terms of performance. It is interesting that budget and cost management continue to be emphasized in the face of declining financial performance while attempting to develop the quality of digital sales channel. However, it is necessary to have continuous improvement plan and innovation for digital sales channels that consider return on investment.

Keywords: Airlines Digital Sales Channel, APO06 Managed Budget and Costs, COBIT, IT Capability Level, IT Governance

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1. INTRODUCTION

The Coronavirus Disease 2019 (COVID-19) pandemic has significantly changed consumer behavior. Consumers are more often at home that influences the purchase process becoming more digital. Company also needs to make adjustments to the needs of more digitized sales channels (Das et al., 2021).

Companies are increasingly encouraging the development of digital sales channels for the improvement of digital customer experience (Klaus, 2014). The goal is to be able to compete and survive in an increasingly competitive business environment. Thus, the role of information technology (IT) becomes very crucial in the framework of the creation of services for consumers (Anand et al., 2013).

Investment in IT-related resources will increase in line with the company's dependence on IT. Company needs to better consider strategy management and decision-making that supports IT implementation. Thus, effective IT governance is needed to support an effective control environment as well (Weill & Ross, 2004).

Efforts to digitize sales channels are also happening to airlines. Flight ticket sales are now widely carried out online through sites and applications on mobile phones. These sales channels can be managed directly by the company or third parties (*online travel agents/OTAs*). The quality of these sales channels has a significant impact on consumer satisfaction as one of the services before the flight (Namukasa, 2013).

However, during the pandemic, airlines around the world experienced losses due to a decrease in the number of passengers (Wood, 2021). The airline seeks to survive by maintaining its financial liquidity through the reconstruction of operating budgets. Thus, it is a challenge to improve the quality of digital sales channels in airlines as a result of cost efficiency efforts (Vinod, 2021).

It is necessary to assess the level of capability of the IT planning management process in terms of budget and costs. This study used a case study on one of the airlines in Indonesia, namely XYZ Airlines, and specifically on the digital sales channel that spearheaded the pandemic.

Other XYZ Airlines' distribution channels, such as agents and outlets, are replaced by this digital channel. Consequently, development is required to improve the digital customer experience. The annual report includes a roadmap for IT services for the airline. However, due to worsening financial conditions, IT investment has been limited. Based on the explanation above, the research question is how to assess the capability level and gap analysis of budget and cost management in the digital sales channel project of XYZ Airlines.

Control Objectives for Information Technologies (COBIT) 2019 from The Information Systems Audit and Control Association (ISACA) is a work tool in this study because it is aimed at IT governance and management issues. More than 25 years of development in the IT industry are included in COBIT 2019. It accommodates not only the most recent scientific insights, but also approaches to put those insights towards implementation. It defines all the elements that specify when, how, and by whom decisions should be done, including which decisions should be made (ISACA, 2019).

The scope of research focuses on Domain Align, Plan, and Organize (APO) which is one of four domains in management objectives COBIT 2019. It is related to the overall organization, strategy, and IT support activities. Considering the importance of effective and efficient use of IT resources transparently, and accountably in the company, the specific process capability assessment is APO06 Managed Budget and Costs. It is related to improving the quality of digital sales channels in the midst of cost-efficiency efforts during the pandemic (ISACA, 2018). Excellent IT budget and cost management will be able to acquire more optimal benefits from IT services.

In addition, the assessment of the level of process capability is carried out as an effort to monitor the performance of management. This is the function of the internal auditors in the company as the third line in the Three Lines Model. Thus, the involvement of these internal auditors can provide an increase in operational efficiency and effectiveness (Colbert & Jahera, 1988), especially related to IT governance.

The purpose of this study is to determine the level of IT capabilities of managed budget and costs, namely how well the process has been implemented to achieve the objectives. The study presents an analysis of the gap between the actual capability level and the target, along with the recommendations. The company has also conducted an assessment of this capability level, including APO06, using the previous version of the framework, COBIT 5, in 2020. Thus, the management is aware and familiar with the self-assessment process.

2. LITERATURE REVIEW

2.1. IT GOVERNANCE

Organizational governance is a process and structure organized for the management and monitoring of activities in order to achieve organizational goals (The Institute of Internal Auditors, 2018). IT governance is one of its subdisciplines. This subdiscipline is related to IT decision-making so that it

favors its implementation in an organizational environment (Weill & Ross, 2004).

Effectively implemented IT governance has a positive impact on the organization. Related activities are the implementation of strategies, identification and management of risks, optimization of investments, the effectiveness of performance and management of resources over IT. All of these activities are carried out by IT management (The Institute of Internal Auditors, 2020).

2.2. COBIT 2019

COBIT is a product of ISACA which outlines the essential requirements to develop and maintain a governance system, as well as the processes, organizational structures, policies and procedures, information flows, culture and behaviors, skills, and infrastructure. In order to address governance issues, COBIT groups essential governance components into governance and management objectives which could be managed to the acceptable capability levels (ISACA, 2019).

It has evolved 6 times since 1996. In November 2019, COBIT 2019 was published (Kulkarni, 2019). COBIT 2019 consists of 5 core models: Evaluate, Direct, and Monitor (EDM); APO; Build, Acquire and Implement (BAI); Deliver, Service, and Support (DSS); and Monitor, Evaluate and Assess (MEA).

Each core model has objectives that are derived in the form of practice. The lowest level is activities with their own capability level. These activities are related to the capability level. It differs from the maturity level associated with the focus area. Maturity can be attained when all needed capability levels have met certain targets.

One example is objective APO06 Managed Budget and Costs. This objective consists of IT-related financial management activities, such as budgets, costs, profits, and priority expenses. In addition, there is also the identification and control of the costs and benefits of IT plans to be strategic and tactical (ISACA, 2018).

The assessment of COBIT 2019 capability levels can be carried out in stages on the scope of activities, practices, objectives, and domains. Through this assessment, it can be known how well the company has implemented the IT-related process. The grading scale is 0 to 5, the higher the better. The following figure is a description of each level of capability of the COBIT 2019 process.

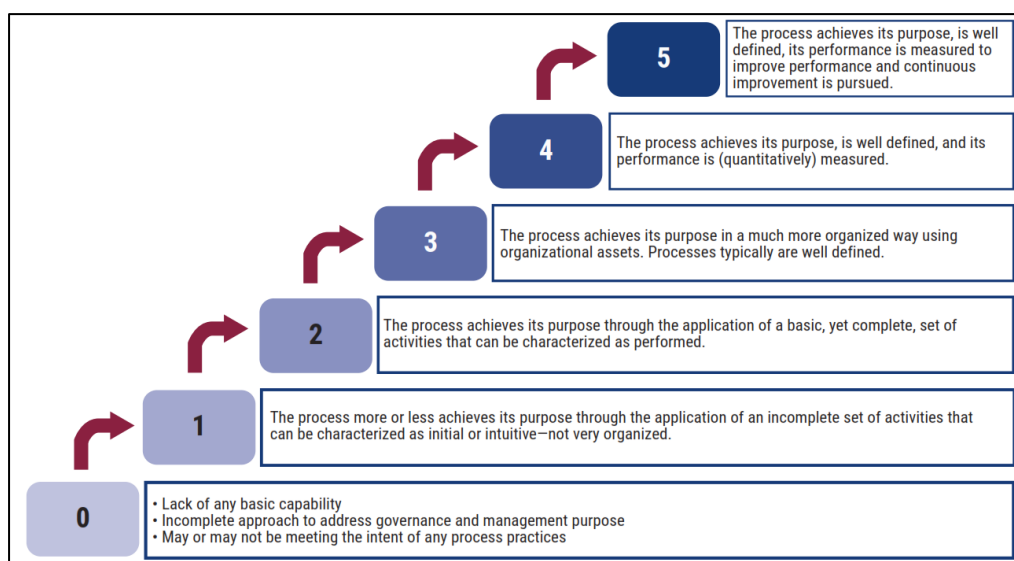


Figure 1. Capability Level for Processes

Source: ISACA, 2018

3. RESEARCH METHODS

3.1. OBTAINING DATA

The research methods were descriptive and qualitative. It was appropriate for a detailed explanation of the case study of a particular research object (Bogdan & Biklen, 2007). The implementation and gaps of IT capabilities are analyzed using a variety of company supporting documents, including annual reports, IT roadmaps, and IT manuals.

In addition, data collection was carried out through interviews. The selected interviewees came from units related to IT services, especially the management and supervision of budgets and costs. It takes place in early 2022 with a duration of about 1 hour for each session. The type of interview question was an open-ended interview. This question was based on the details of APO06's activities in the COBIT 2019 Detailed Guidance.

The interviewees were (1) IT Performance & Compliance Manager in the Information Technology Management Unit under the Directorate of Services, Business Development, and Technology; (2) Digital Business Sales Senior Manager in the Digital Business Unit under the Directorate of Commerce and Cargo; and (3) IT Audit Senior Manager in the Internal Audit Unit who reports directly to the President Director and audit committee.

5.2. RESEARCH PROCESS

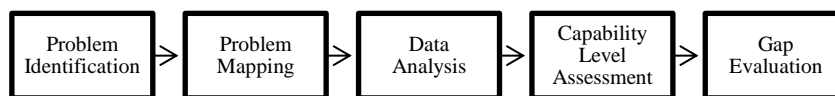


Figure 2. Research Process

1. Problem identification

This research began with identifying IT problems that occurred in the aviation industry during the pandemic. Then the author further focused on increasing the role of digital sales channels in the eyes of consumers.

2. Problem mapping

The problems that have been identified were mapped based on the IT governance framework, namely COBIT 2019. The research focused on the level of IT budget and cost management capabilities that were included in the planning domain, precisely objective APO06.

3. Data analysis

The authors conducted data collection and analysis related to 6 practices of APO06 which were reduced to 32 activities. Data were obtained through (1) the company's document, such as annual report, IT Roadmap, IT Governance Manual, including standards, procedures and form, and (2) interviews. Furthermore, the data was analyzed to be able to be assessed the level of capability quantitatively.

4. Capability level assessment

First, each activity was assessed according to the criteria, such as implementation and the adequacy of the written provisions contained in Table 2 (Dewi et al., 2021). It is based on COBIT 2019 Detailed Guidance. Second, the achievement score of the activity at each level was calculated as the percentage of achievement according to the ISO/IEC 15504 Standard contained in Table 3 (ISACA, 2013). Third, the percentage of capability achievement of each activity was viewed from the lowest to the highest level. If level 2 was fully achieved, it would be continued to check the achievement of level 3. Furthermore, if level 3 was fully achieved, it would be continued to check the achievement of level 4, and so on. Conversely, if level 2 had not been fully achieved, it would not be continued to check the achievement of level 3. This capability level was determined from the last level that had been fully achieved sequentially from level 2 to 5.

Table 1. Assessment Criteria for COBIT Core Model Activity

Score	Description
1	It is in the procedure and has been implemented.
0,5	(1) It is in the procedure, but it has not been implemented, or (2) it has been implemented, but it has not been contained in the procedure.
0	It has not been planned and has not been implemented.

Source: ISACA, 2018.

Table 2. Achievement Criteria of Capability Level

Achievement	Percentage	Description
Not achieved (N)	0-15%	There is little or no evidence of the achievement of the process
Partially achieved (P)	16-50%	There is some evidence of achievement in several aspects of the process
Largely achieved (L)	51-85%	There is evidence of systematic and significant process achievement, but there are still weaknesses
Fully achieved (F)	86-100%	There is evidence of complete, systematic achievement of the overall process, and no significant flaws

Source: ISACA, 2013.

5. Gap evaluation

Based on the assessment of the capability level of APO06, it could be seen the gap between the actual value and the target. The internal target set by the company was at least level 3 in accordance with the Implementation Guidelines from the Minister of State-Owned Enterprises number S-122/MBU/DSI/05/2021 of 2021 on the Regulation of the Minister of SOEs number Per-02/MBU/2018 of 2018. In addition, it could be seen the gap between the maximum level of each APO06 practice in the COBIT 2019 Detailed Guidance and its actuality. These gaps are evaluated based on data from interviews and provide recommendations for improving the level of IT capabilities.

4. ORGANIZATION PROFILE

XYZ airline is one of the full-service carriers in Indonesia with a strong brand image. The services provided are flights for passengers and cargo. Based on its financial statements, the airline has suffered losses over the past 4 years.

However, this condition was exacerbated by travel restrictions during the pandemic which had an impact on reducing passengers and revenue. Efforts have been made to survive by focusing on domestic route flights and cargo services. In addition, the airline also has to compete with low-cost carriers with more efficient operating costs.

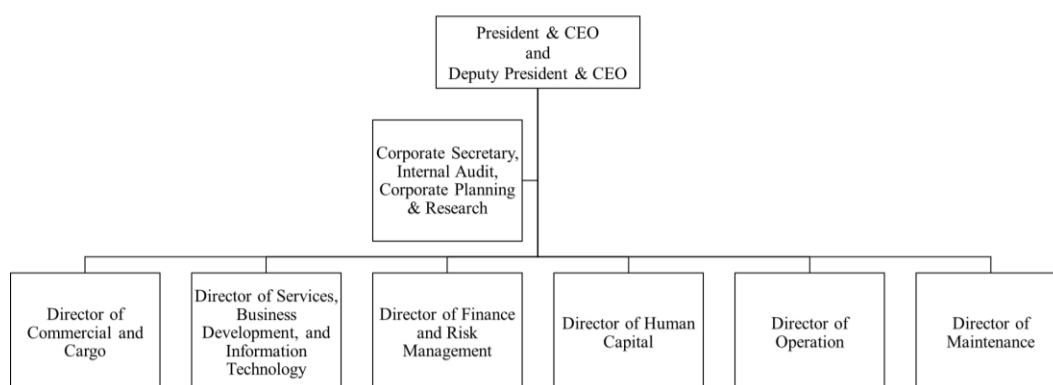


Figure 3. Organization Structure of XYZ Airline

XYZ is led by the President Director and Deputy President Director and has 5 directorates. In relation to digital sales channel project, there are 3 units related to their management and supervision: (1) IT Management Unit under the Directorate of Services, Business Development, and Technology; (2) The Digital Business Unit under the Directorate of Commerce and Cargo; and (3) the Internal Audit Unit reports directly to the President Director.

5. RESULTS AND DISCUSSION

5.1. IT CAPABILITY LEVEL ASSESSMENT

APO06 has 32 actions for which the execution and adequacy of written policies have been determined. This identification was done using information from interviews as the primary data source and from the company's supporting documents as a secondary data source. Based on the identification process, the results of the assessment of 32 activities of APO06 are contained in Table 4.

There was 1 activity with a score of 0,5 which means that (1) it has been contained in the procedure, but has not been implemented; or (2) it has been carried out, but has not been contained in the procedure. There was also 1 activity with a score of 0 which means that it has not been implemented and there was no written procedure that regulates it.

Table 3. Scoring Result of APO06 Activities

Activity	Capability Level	Score
APO06.01 Manage finance and accounting.		
1. Define processes, inputs, outputs and responsibilities for the financial management and accounting of I&T in alignment with the enterprise budgeting and cost accounting policies and approach. Define how to analyze and report (to whom and how) on the I&T budget control process.	2	1
2. Define a classification scheme to identify all I&T-related cost elements (capital expenditures [capex] vs. operational expenses [opex], hardware, software, people, etc.). Identify how they are captured.	2	1
3. Use financial information to provide input to business cases for new investments in I&T assets and services.	3	1
4. Ensure that costs are maintained in the I&T assets and services portfolios.	3	1
5. Establish and maintain practices for financial planning and the optimization of recurring operational costs to deliver maximum value to the enterprise for the least expenditure.	4	1
APO06.02 Prioritize resource allocation.		
1. Rank all I&T initiatives and budget requests based on business cases and strategic and tactical priorities. Establish procedures to determine budget allocations and cutoff.	2	1
2. Allocate business and IT resources (including external service providers) within the high-level budget allocations for I&T-enabled programs, services and assets. Consider the options for buying or developing capitalized assets and services vs. externally utilized assets and services on a pay-for-use basis.	2	1
3. Establish a procedure to communicate budget decisions and review them with the business unit budget holders.	2	1
4. Identify, communicate and resolve significant impacts of budget decisions on business cases, portfolios, and strategy plans. For example, this may include when budgets require revision due to changing enterprise circumstances or when they are not sufficient to support strategic objectives or business case objectives).	2	1
5. Obtain ratification from the executive committee for the I&T budget implications that negatively impact the entity's strategic or tactical plans. Suggest actions to resolve these impacts.	3	1
APO06.03 Create and maintain budgets.		
1. Implement a formal I&T budget, including all expected I&T costs of I&T-enabled programs, services and assets.	2	1
2. When creating the budget, consider the following components: alignment with the business; alignment with the sourcing strategy; authorized sources of funding; internal resource costs, including personnel, information assets and accommodations; third-party costs, including outsourcing contracts, consultants and service providers; capital and operational expenses; and cost elements that depend on the workload.	2	1
3. Document the rationale to justify contingencies and review them regularly.	2	1
4. Instruct process, service and program owners, as well as project and asset managers, to plan budgets.	2	1
5. Review the budget plans and make decisions about budget allocations. Compile and adjust the budget based on changing enterprise needs and financial considerations.	3	1
6. Record, maintain and communicate the current I&T budget, including committed expenditures and current expenditures, considering I&T projects recorded in the I&T-enabled investment portfolios and operation and maintenance of assets and service portfolios.	3	1
7. Monitor the effectiveness of the different aspects of budgeting.	4	1
8. Use the monitoring results to implement improvements and ensure that future budgets are more accurate, reliable and cost-effective.	5	0,5
APO06.04 Model and allocate costs.		
1. Decide on a cost allocation model that enables fair, transparent, repeatable and comparable allocation of I&T-related costs to users. A basic allocation model example is the even spread of shared I&T-related costs. This is a very simple allocation model that is easy to apply; however, depending on the context of the enterprise, it is often viewed as unfair and it does not encourage responsible use of resources. An activity-	3	1

Activity	Capability Level	Score
based costing scheme, in which costs are allocated to IT services and charged to users of these services, enables a more transparent and comparable allocation of cost.		
2. Inspect service definition catalogs to identify services subject to user chargeback and those that are shared services.	3	1
3. Design the cost model to be transparent enough to allow users to identify their actual usage and charges by using categories and cost drivers that make sense for the user (e.g., cost per help desk call, cost per software license) and to better enable predictability of I&T costs and efficient and effective utilization of I&T resources. Analyze cost drivers (time spent per activity, expenses, portion of fixed vs. variable costs, etc.). Decide on appropriate differentiation (e.g., different categories of users with different weights) and use cost approximations or averages when actual costs are highly variable in nature.	3	1
4. Explain the cost model principles and outcome to key stakeholders. Obtain their feedback for further fine-tuning toward a transparent and comprehensive model.	3	1
5. Obtain approval of key stakeholders and communicate the I&T costing model to the management of user departments.	3	1
6. Communicate important changes in the cost/chargeback model principles to key stakeholders and management of user departments.	3	1
APO06.05 Manage costs.		
1. Obtain approval of key stakeholders and communicate the I&T costing model to the management of user departments.	2	1
2. Establish time scales for the operation of the cost management process in line with budgeting and accounting requirements and timeline.	2	1
3. Define a method for the collection of relevant data to identify deviations in budget vs. actuals, investment ROI, service cost trends, etc.	2	1
4. Define how costs are consolidated for the appropriate levels in the enterprise (central IT vs. IT budget within business departments) and how they will be presented to the stakeholders. The reports provide information on costs per cost category, budget vs. actual status, top spending, etc., to enable the timely identification of required corrective actions.	3	1
5. Instruct those responsible for cost management to capture, collect and consolidate the data, and present and report the data to the appropriate budget owners. Budget analysts and owners jointly analyze deviations and compare performance to internal and industry benchmarks. They should establish and maintain the overhead allocation method. The result of the analysis provides an explanation of significant deviations and the suggested corrective actions.	3	1
6. Ensure that the appropriate levels of management review the results of the analysis and approve suggested corrective actions.	3	1
7. Ensure that changes in cost structures and enterprise needs are identified and budgets and forecasts are revised as required.	4	1
8. At regular intervals, and especially when budgets are cut due to financial constraints, identify ways to optimize costs and introduce efficiencies without jeopardizing services.	5	0

Then the achievement of the level of each practice was assessed based on the ISO/IEC 15504 Standard. The result of the practice assessment in Table 5 shows a comparison between the maximum level in the COBIT 2019 Detailed Guidance and the actual capability value in APO06. Although the internal target is level 3, the company can further improve its capabilities to the maximum level in each practice. The result was that APO06.03 and APO06.05 had a gap of -1.

Table 4. Capability Level of APO06 Practice

Practice	Capability Level		
	Maximum	Assessment	Gap
APO06.01 Manage finance and accounting.	4	4	0
APO06.02 Prioritize resource allocation.	3	3	0
APO06.03 Create and maintain budgets.	5	4	-1
APO06.04 Model and allocate costs.	3	3	0
APO06.05 Manage costs.	5	4	-1

The financial condition that is getting worse during the pandemic has made the company more strictly supervise and evaluate budget realization. The goal is to find operational costs that can be more efficient. It is prioritized over improving the effectiveness, accuracy, and reliability of the budget in the coming period. This prioritization has an indirect impact on the company, for example, the increased risk of IT service quality and security.

Improving the quality of IT services is only carried out through the optimization of existing features. The company has not been able to provide quality service transformation to facilitate digitalization needs during the pandemic. Thus, this cost efficiency leads to changes that require adjustment efforts in a short time and have the potential to interfere with the quality of IT services to consumers.

The company can increase its IT capability to the highest level, which is level 5. Table 4 shows that there are two tasks that still need to be planned and conducted optimally using formal processes. The Company may optimize the use of monitoring findings for more accurate, dependable, and successful budget preparation when it comes to budget formation and maintenance. In terms of cost management, the company must make attempts to optimize cost efficiency without sacrificing the quality of IT services, especially when financial performance is declining.

Table 5. Assessment Result of APO06 Capability Level

Capability Level	Count of Activity (a)	Sum of Activity Score (b)	% Achievement (c=b/a)	Status	Assessment	Target	Gap
2	13	13	100%	Fully Achieved	4	3	1
3	14	14	100%	Fully Achieved			
4	3	3	100%	Fully Achieved			
5	2	0,5	25%	Partially Achieved			

Table 6 shows the average results of assessments of a total of 32 activities in APO06 practices, namely level 4, which exceeded the internal target. The company has become stricter in financial management, including funding the implementation of IT strategies. This is related to the decrease in revenue, which has an impact on limited funds for operational activities during the pandemic.

Managing and monitoring budgets and costs are carried out on a regular basis. This is done according to the direction of the management and reported as well. Efforts made related to IT are reanalysis of the costs and benefits of ongoing projects, formulating spending efficiency targets that are less related to key operations, re-negotiating service costs from third parties, re-assessing termination of services, and in-house development of IT projects.

The above efforts are intensively discussed by the IT Unit, the Board of Directors, and related units. Discussions with stakeholders were also carried out at the General Meeting of Shareholders (*Rapat Umum Pemegang Saham/RUPS*) in an effort to transparency and accountability. Through this discussion, the company can get an evaluation of the effectiveness and cost-efficiency of IT services.

There has been a written policy governing the management of budgets and costs on XYZ Airlines. The policy is contained in the company's IT Manual which consists of (1) IT Initiative Plan Procedures and Compiling IT Workbooks, (2) IT Initiative Analysis and Implementation Procedures, (3) IT Investment Benefit Achievement Management Procedures, (4) IT Budget Plan and Realization Procedures, and (5) IT Budget and Portfolio Management Standards.

Therefore, based on Figure 1, the capability process of APO06 accomplished its goal, was well-defined, and its performance could be

quantified. It is interesting that budget and cost management continue to be intensified in the midst of declining financial performance while trying to develop the quality of IT services. The company can further improve its capabilities through performance measurements that focus on continuous improvement.

5.2. DIGITAL SALES CHANNEL

The results of the APO06 capability level assessment can be attributed to digital sales channel as an example of IT services at XYZ Airlines. During the pandemic, management strives constantly to compile efficient budget needs. The realization of the cost of services is also sought to be as effective as possible. This is in accordance with the direction of the Board of Directors to reduce the ratio of costs to assets owned.

Monitoring and evaluation of the budget and costs of the digital sales channel project are carried out strictly by the IT Management Unit and the Digital Business Unit. The Internal Audit Unit also conducts periodic supervision and reports to the President Director and the Board of Commissioners. The goal is to optimize existing features to provide service to customers, as well as become a channel to obtain revenue.

Strict management became a double-edged sword. The company needs to be disciplined in terms of budget and costs given the declining financial performance. On the other hand, the company is becoming more difficult to strive for innovations that certainly require a lot of investment. This innovation is needed by airlines so that the company can survive in the midst of a pandemic (Papagiannidis et al., 2020).

With the existing limitations, management certainly has difficulty in developing services. The digital sales channel is not included in aspects directly related to flight operations. Also, the company allocates the use of available funds based on the urgency of payment which is crucial for operations and must be repaid immediately.

Previously, management had proposed a plan to adopt New Distribution Capability (NDC) as a digital sales channel from The International Air Transport Association (IATA). This channel can streamline costs and increase revenue due to in-flight service adjustments based on customer preferences (International Air Transport Association, 2017). However, NDC requires considerable investment, while the availability of funds is quite limited and prioritized for operational needs.

The company must continue to be cost-conscious to maintain its capability level while still supporting IT innovation. XYZ airlines need to pay more attention to the continuous improvement of digital sales channel that focuses on feature development and improving reliability. The development plan is not only seen by the value of the investment, but focuses on the return on investment.

The digital sales channel is the earliest customer touch point in the pre-flight service stage. This channel is also the spearhead considering that direct sales through agents and outlets are no longer popular because it is not possible to do it during the pandemic. Moreover, digital sales channel can be a competitive advantage for the company in the increasingly tight aviation industry.

6. CONCLUSION

Based on the results of the study, the capability of APO06 Managed Budget and Costs on XYZ Airlines during the pandemic was at level 4, exceeding its internal target. Its capability process achieved its aim, was well-defined, and its success was quantifiable. However, there were gap of -1 in the practice: (1) APO06.03 create and maintain budgets; and (2) APO06.05 manage costs.

In a total of 32 activities, there were 1 activity with a score of 0.5 and 1 activity with a score of 0 in the 2 practices. It is vital to plan a formal process and optimal implementation of these two actions to raise the capability level. For future budgeting, the company must optimize the utilization of outcomes. The company must seek cost-efficiency opportunities on a regular basis without sacrificing the quality of IT services.

The company has carried out the management and supervision of budget efficiency and the effectiveness of its cost realization strictly and periodically. Such activities have been set out on sufficient formal policies and are based on management directives. The company strived for this as a strategy to adjust to financial conditions that are declining during the pandemic. Stakeholders were also involved in the context of transparency and accountability of the company.

However, this strict management has an impact on the difficulty of developing digital services to facilitate customer needs during the pandemic. An example is a digital sales channel project that focuses more on optimizing existing features and developing them in-house. Service innovation plans are constrained because they require large investments and the prioritization of expenses based on the urgency of flight operations.

Therefore, in order to demonstrate management's commitment, related units must regularly provide reports to the board of directors that include strategies for innovation and continuous improvement in regard to digital sales channels. The return on investment, rather than the overall value of the investment, is essential and must be specified in the report. The board of directors can decide how to innovate and improve digital channels based on the company's needs during the pandemic.

REFERENCES

- Anand, A., Fosso Wamba, S., & Gnanzou, D. (2013). *A Literature Review on Business Process Management, Business Process Reengineering, and Business Process Innovation* (pp. 1–23). Enterprise and Organizational Modeling and Simulation, Springer. https://doi.org/10.1007/978-3-642-41638-5_1
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: an introduction to theories and methods*.
- Colbert, J. L., & Jahera, J. S. (1988). The Role of Audit and Agency Theory. *The Journal of Applied Business Research*, 4(2), 7–12.
- Das, G., Jain, S. P., Maheswaran, D., Slotegraaf, R. J., & Srinivasan, R. (2021). Pandemics and marketing: insights, impacts, and research opportunities. *Journal of the Academy of Marketing Science*, 49(5), 835–854. <https://doi.org/10.1007/s11747-021-00786-y>
- Dewi, P. M., Fauzi, R., & Mulyana, R. (2021). Perancangan Tata Kelola Teknologi Informasi Untuk Transformasi Digital Di Industri Perbankan Menggunakan Framework Cobit 2019 Domain Build, Acquire, and Implement: Studi Kasus Bank XYZ. *E-Proceeding of Engineering*, 8(5), 9672–9683.
- International Air Transport Association. (2017). *Taking the Reins: The Story of How Passionate Travel Managers Created a Vision of the Future of Business Travel Aviation*. International Air Transport Association. <https://www.iata.org/contentassets/6de4dce5f38b45ce82b0db42acd23d1c/ndc-taking-the-reins.pdf>
- ISACA. (2013). *COBIT® Process Assessment Model (PAM): Using COBIT® 5*.
- ISACA. (2018). COBIT 2019 Framework, Governance and Management Objectives. In *COBIT® 2019 Framework*. <https://www.isaca.org/resources/cobit>
- ISACA. (2019). COBIT 2019 Framework Introduction and Methodology. In www.icasa.org/COBITuse. https://community.mis.temple.edu/mis5203sec001sp2019/files/2019/01/COBIT-2019-Framework-Introduction-and-Methodology_res_eng_1118.pdf
- Klaus, P. (2014). Towards practical relevance — Delivering superior firm performance through digital customer experience strategies. *Journal of Direct, Data and Digital Marketing Practice*, 15(4), 306–316. <https://doi.org/10.1057/ddmp.2014.20>
- Kulkarni, G. (2019). Transitioning an Enterprise From COBIT 5 to COBIT 2019. *COBIT Focus*, 1–9.
- Namukasa, J. (2013). The influence of airline service quality on passenger satisfaction and loyalty. *The TQM Journal*, 25(5), 520–532. <https://doi.org/10.1108/TQM-11-2012-0092>
- Papagiannidis, S., Harris, J., & Morton, D. (2020). WHO led the digital transformation of your company? A reflection of IT related challenges during the pandemic.

- International Journal of Information Management*, 55, 102166.
<https://doi.org/10.1016/j.ijinfomgt.2020.102166>
- Pratiwi, A. N., Suharjito, & Sukmandhani, A. A. (2020). Analysis of capability level in dealing with IT business transformation competition using cobit framework 5 (case study at airasia Indonesia). *Proceedings of 2020 International Conference on Information Management and Technology, ICIMTech 2020*, 5(August), 609–614. <https://doi.org/10.1109/ICIMTech50083.2020.9211116>
- Schmitz, C., Schmid, M., Harborth, D., & Pape, S. (2021). Maturity Level Assessments of Information Security Controls: An Empirical Analysis of Practitioners Assessment Capabilities. *Computers and Security*, 108. <https://doi.org/10.1016/j.cose.2021.102306>
- The Institute of Internal Auditors. (2018). Global Technology Audit Guidance 17, Auditing IT Governance. In *The Institute of Internal Auditors Global*.
- The Institute of Internal Auditors. (2020). *THE IIA ' S THREE LINES MODEL An update of the Three Lines of Defense Table of Contents*.
- Vinod, B. (2021). Airline revenue planning and the COVID-19 pandemic. *Journal of Tourism Futures*. <https://doi.org/10.1108/JTF-02-2021-0055>
- Weill, P., & Ross, J. W. (2004). *IT Governance How Top Performers Manage IT Decision Rights for Superior Results*. Harvard Business School Press.
- Wood, D. (2021, January 28). US Airlines Report Major Financial Losses for 2020. *TravelPulse.Com*.