

# APPLICATION OF AHP TO DETERMINE CRITICAL SUCCESS FACTOR FOR OUTSOURCING AUDIO PROJECT BASED SERVICE: A CASE STUDY OF PT. SHEFAI INDONESIA

Muhammad Faishal<sup>1</sup>, Dina Dellyana<sup>2</sup>

<sup>1,2</sup> School of Business and Management Institut Teknologi Bandung, Indonesia

E-mail: [muhammad\\_faishal@sbm-itb.ac.id](mailto:muhammad_faishal@sbm-itb.ac.id)<sup>1</sup>

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## Abstract

This Research provides business process model for an organization that attempts to improve outsourcing strategy in the audio services sector. This research uses the case study approach by applying the Analytical Hierarchy Process (AHP) as a means to define critical success factors in outsourcing project-based audio services at PT. Shefai Indonesia. The research identifies the following as the seven most important criteria that are likely to determine the success of outsourcing: Adequate Communication Channels, Effective Feedback, Skilled Engineers, Skilled Voice Actor Pool, Skilled Project Manager, Turnaround Time Delivery, and Information Security. The study further combines internal (SWOT) and external (PESTEL) analyses to design a complete outsourcing workflow and business structure. To solve the problem, the business process incorporates five key stages, which are supported with CSFs at critical points to enhance efficiency, vendor collaboration, and service quality

**Keywords:** *Outsourcing, Analytical Hierarchy Process (AHP), Critical Success Factors, Audio Services, Dubbing Industry, Vendor Management, Localization*

## INTRODUCTION

The gradual increase in demand for dubbing services can be attributed to the fact that people are watching films and TV shows from other countries. This phenomenon is most common in countries that do not speak English since they understand dubbed versions of movies and television shows better. In 2021, the global market for dubbing services was valued at 117.41 million and is expected to reach USD 189.80 million by 2030, growing at a CAGR of 5.69% between 2022 and 2030. The Asia Pacific region has a significant share of the global market for automated dubbing services and is projected to grow at the highest rate, with a CAGR of 6.24% (Astuteanalytica, 2021). The rapidly increasing use of OTT streaming for audiovisual content is benefitting the entire media and entertainment industry in the Asia Pacific region.

In particular, the Asia-Pacific region is becoming one of the key regions for all dubbing services because of their low prices combined with qualified personnel and developed technology. Media localization services offered by Malaysia and Indonesia are gaining more attention from foreign customers. Allied Market Research (2023) contends that the media localization market in the Asia-Pacific region is expected to grow to \$5 billion by 2030 with substantial share coming from dubbing services as well. The AI-powered automation investments further emphasize the increase in efficiency and quality of dubbing workflows.

To improve operational efficiency while lowering overhead costs as well as dedicating more resources towards core competencies, outsourcing has become a critical tactic for businesses. In Malaysia, the growth of Business Process Outsourcing (BPO) is notable and the volume is expected to increase to nearly \$1.44 billion by 2024 with a compound annual growth rate of 6.328% from 2024 until 2029. This is a result of globalization and the new demands for more refined products and services.

Project-based outsourcing services offer flexibility and scalability, enabling companies to manage temporary or specialized tasks effectively. Nevertheless, identifying and addressing critical success factors for organizational objectives is crucial in ensuring success for such initiatives. AHP can be applied for this goal because it enables organizational decision makers to assess and set priorities for outsourcing factors that impact goals and actions.

## **LITERATURE REVIEW**

### **Internal & External Analysis**

By implementing both PESTEL and VRIO analyses, these businesses can build on their strengths and address weak spots. General insights about the external environment can be captured using a PESTEL analysis while the firm-specific resources and the effectiveness of the VRIO analysis ensure that the firm makes proper use of its resources. When these two frameworks are combined, a firm is able to formulate precise strategic initiatives that allow the firm to respond to market changes, enhance competitiveness, and achieve efficiency in a dynamic business environment (Sari & Prasetyo, 2023; Putra, 2022).

Achieving greatest competitive advantage in the outsourcing of audio-tailored services is PT Shefai Indonesia's internal analysis (VRIO) focus. The company's skilled workforce, advanced technology, and localization expertise add value, while its rare multilingual talent and established client trust provide a market advantage. Use of technology can always be achieved, but specialization skill sets such as organized workflows and complex processes makes duplication of business difficult.

The analysis of key factors external to the organization (PESTEL) provides a mix of opportunities and threats. The government's encouragement of local content policies increases the demand for these services, while the economic growth along with the new streaming services adds to the market's potential. Changing expectations from audiences and the perils of social media do require some level of flexibility however. AI-driven dubbing creates efficiency, but also poses competition. Decreasing negative impact on the environment is necessary by law, as is the legal curb on the foreign dubbing of films, which lower the scope of business growth.

### **Analytical Hierarchy Process**

Analytic Hierarchy Process (AHP), developed by Thomas L. Saaty in the 1970s, is one of the most widely-used multi-criteria decision analysis techniques, enabling the decision maker to analyze a complex problem logically and systematically. Because AHP incorporates both quality and quantity, it is extensively used in many domains. One of the advantages is the use of paired comparisons that make judgments simpler and improve the accuracy of ranking them. It also allows sensitivity analysis, which assists decision makers evaluate the weight of different criteria and obtain the best possible solutions in complex decisions (Lee, 2007).

AHP has been successfully implemented across different areas of practice to determine Critical Success Factors (CSFs). For example, in the education sector, it was employed in the examination of student admission by combining the Porter's five forces model for strategic services provision (Haryanti & Widjaja, 2023). In the health sector, however, AHP was applied to evaluate the rank of CSFs of hospital information systems with high implementation bases, focusing on reliability, ease of use, and organizational fit (Arpaci et al, 2023). Furthermore, AHP was found to be helpful in enterprise resource planning (ERP) systems where it selected Critical Success Factors for effective system adoption that provided the opportunity to use the limited resources (Panji et al., 2022). The steps to prioritize alternatives and criteria based on AHP are as follows:

1. Develop a multi-level hierarchy
  1. Establish primary goals
  2. Establish the criteria
  3. Identify the actors involved
  4. Identify the actor objectives
  5. Identify the actor's strategy/policy
  6. Identify the output (Saaty 2001).
2. Identify the priorities  
In this stage, alternatives are evaluated against given criteria using pairwise comparisons and they are placed in a matrix. This matrix serves the purpose of systematically trying to obtain and analyze the results from all the possible comparisons in order to assess the possibility of the ranking of priorities to change.
3. Conduct the matrix calculations  
This step aims to get the score of the criterion and alternative. The calculation is based on the eigenvector/eigenvalue principle (Strang 2016).
4. Calculating the consistency ratio (CR) value using the formula shown in equation below. The CR score must be equal to or less than 10% (Saaty 2001). Otherwise, there is an error in the process, which needs correction. The consistency ratio close to zero shows that the comparison matrix is consistent. The formula for the consistency test (Saaty 2001) are :

$$CR = \frac{CI (Consistency Index)}{RI (Random Index)} \quad [1]$$

$$CI = \frac{\lambda_{max} - n}{n-1} \quad [2]$$

$$\lambda_{max} = \frac{\sum VB}{n} \quad [3]$$

$$VB (Eigenvalue) = \frac{VA}{VP} \quad [4]$$

$$VA (Intermediate vector) = a_{ij} \times VP \quad [5]$$

$$VP (priority vector) = \frac{VE}{n} \quad [6]$$

$$VE (Eigen Vector) = \sqrt{\prod_{i=1}^n a_{ij}} \quad [7]$$

Note:  $\lambda_{max}$  is the maximum eigenvalue and n is the number of compared alternatives

$a_{ij}$ : matrix of pairwise comparisons

### 2.3 Critical Success Factor

Critical Success Factors (CSFs) are crucial elements that greatly impact an organization's or a particular project's overall success. In business, as well as other professional fields, CSFs are considered to be a very flexible term, which can be utilized within several domains from a management information system to project strategic management. First identified by Rockart (1979), CSFs are perceived as the number of aspects which, when performed well, would provide a company with a competitive edge over its rivals. Chan et al. (2001) and McIvor et al. (2010) argue that in outsourcing environment, CSFs usually comprise of cost effectiveness, service quality, communication efficiency, technology level, or client-vendor relations. Understanding these factors helps an organization to manage outsourcing in a manner that strategically aligns with the organization's goals and helps achieve the desired outcome in the projects.

The influence of CSFs on outsourcing is dependent on the particular characteristics of the industry. Budget sufficiency and expense management is a central consideration for cost effectiveness in outsourcing projects, including financial sustainability (Chan et al., 2001). In contrast, service quality and punctuality, are critical CSFs for industries which depend on specialized skills like voice-over dubbing (Enshassi et al., 2009). These studies demonstrate the changing nature of CSFs, underlining their importance in decision-making and outsourcing success in various fields.

#### Critical Success Factor of Outsourcing Audio Project Based Service

This study focuses on successful outsourcing of dubbing in four fundamental aspect: costs, communication, service quality, and technology. Each of them also has specific sub-criteria. For example, within **Cost**, the sub-criteria include an acceptable company budget, project cost, and payment terms. The sub-criteria for **Quality of Service** are skilled project managers, skilled engineers, turnaround time delivery, and a skilled voice actor pool. Under **Technology**, the sub-criteria consist of vocal studio quantity, technological infrastructure, and information security. Lastly, the sub-criteria for **Communication** are support from management, adequate communication channels, and effective feedback. All main criteria and all sub-criteria are integrated based on relevant literature, specifically aimed for the objectives of the research. The summary is presented in Table 1.

**Table 1. The Extraction of CSFs of Outsourcing Audio Project Based Service from Literature**

Main Criteria	Definition	Reference	Sub Criteria	Definition	Reference
<b>Cost</b>	financial considerations significantly influence the selection of outsourcing vendors	(Chan et al. 2001 ; Enshassi et al. 2009)	Acceptable Company Budget	Budget adequacy in project-based outsourcing often the determining factor for the feasibility of outsourcing initiatives	(Chan et al. 2001 ; . McIvor et al. 2010)
			Project Cost	Organizations prioritize	(Chan et al. 2001 ; . McIvor et al. 2010)

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				vendors who can deliver within specified budgets while meeting project objectives	
			Payment Terms	Flexible payment terms are a key determinant of vendor-client relationships	(Oza and Hall. 2005)
<b>Quality of Service</b>	High-quality outputs are essential in creative industries	(Çavuşoğlu. 2024 ; Chua et al. 1999 ; Parasuraman et al. 1985)	Skilled Project Manager	Projects led by competent managers are more likely to meet quality standards	(Chua et al. 1999);White and Fortune. 2002)
			Skilled Engineer	Expertise of technical personnel, such as sound engineers, directly correlates with client satisfaction and project success	(Çavuşoğlu. 2024 ; White and Fortune. 2002)
			Skilled Voice Actor	Voice actors are at the heart of the dubbing process, serving as the medium through which content is localized for new audiences.	(Çavuşoğlu. 2024; Chung. 2019; to Enshassi et al. 2009)
			Turnaround Time Delivery	Timely project delivery is one of the most important indicators of outsourcing success	(Enshassi et al. 2009; White and Fortune 2002)
<b>Technology</b>	Technological capabilities are fundamental in outsourcing as they determine a	(Çavuşoğlu. 2024; Kerzner 2017; Paudel and Kumar	Vocal Studio Quantity	The availability of multiple vocal studios provides	(Enshassi et al. 2009 ; McIvor et al. 2010)

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	vendor's ability to handle complex projects with precision and speed	2021)		flexibility and scalability, enabling vendors to meet tight deadlines and accommodate fluctuating workloads	
			Technology Infrastructure	Technology infrastructure forms the backbone of dubbing outsourcing operations, supporting every stage of the production process, from script translation to recording, mixing, and mastering	(Çavuşoğlu. 2024; McIvor et al. 2010; Paudel and Kumar 2021)
			Information Security	Information security plays a strategic role in fostering long-term client-vendor relationships	(Çavuşoğlu. 2024; McIvor et al. 2010; Paudel and Kumar 2021)
<b>Communication</b>	Clear and consistent communication is critical for avoiding misunderstandings and ensuring that all stakeholders are on the same page	(Enshassi et al. 2009 ; McIvor et al. 2010; White and Fortune 2002)	Support From Management	For dubbing projects, which often involve international collaboration and complex workflows, this leadership support ensures that teams remain focused and motivated.	(McIvor et al. 2010; White and Fortune 2002)
			Adequate Communication Channel	Adequate communication channels significantly enhance the success of dubbing outsourcing projects by	(Kerzner. 2017 ; McIvor et al. 2010; White and Fortune 2002)

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				ensuring alignment between clients and vendors	
			Effective Feedback	Effective feedback has a direct impact on the quality and success of dubbing projects. By identifying and addressing issues early in the process	(Çavuşoğlu. 2024 ;Kerzner. 2017 ; White and Fortune 2002)

## Hypothesis Development

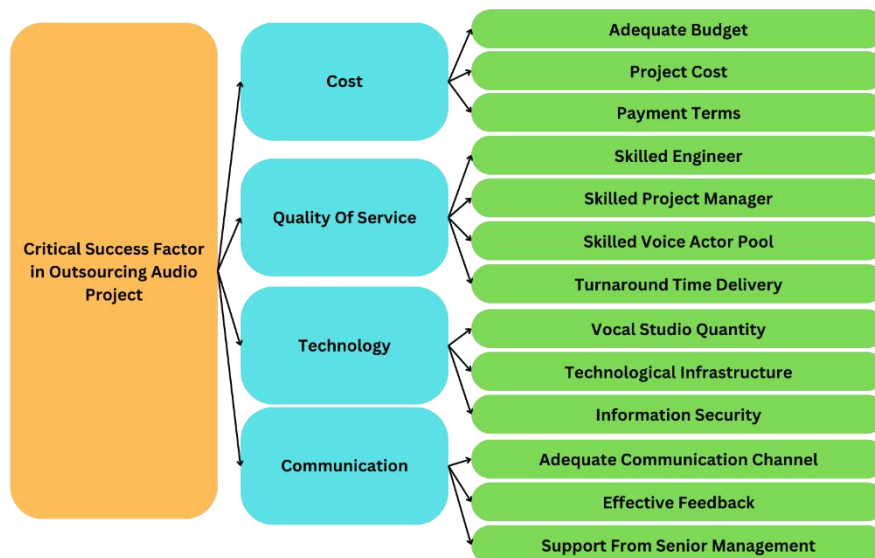


Figure 1. Conceptual Framework

## METHOD

After the critical success factor is determined using AHP, audio-based service business outsourcing processes will be formulated consisting of ideas from the 7 highest-ranking variables that are used in the AHP method, interviews, and internal and external analysis. These variables will serve as the foundation for designing a comprehensive framework to optimize the outsourcing process, addressing the most critical aspects that influence project success.

## Data Collection

This research uses both primary and secondary informations to analyze the outsourcing industry's Critical Success Factors (CSFs). Primary data was acquired through pre arranged interviews with professionals, including managers and decision makers from dubbing, animation and localization companies. These interviews, necessary for the pairwise comparisons in AHP, provided expert knowledge on the workflows and the decision making process in outsourcing (Bryman, 2016; Saaty, 1980). The survey conducted in this research followed the pairwise



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comparison approach they recommended (Saaty, 2001). First, each criterion was measured against others for importance. Likewise, each sub-criterion per criterion was compared with other sub-criterion. A test on the questionnaire was done prior to the distribution to check the level of comprehension and completion of the provided questionnaire by respondents. The respondents' answers assisted in allocating weights with respect to the criteria and ensured realistic practices were followed. In attempts to measure the level of importance of the criteria, the respondents compared one criterion against another and an importance value between 1-9 as illustrated in table 2 was allocated.

**Table 2. AHP questionnaire scoring scale**

Scale	Interpretation
1	Both criteria are equally important.
3	One criteria is <b>slightly more important</b> than the other.
5	One criteria is <b>moderately more important</b> than the other.
7	One criteria is <b>strongly more important</b> than the other.
9	One criteria is <b>extremely more important</b> than the other.
2,4,6,8	Intermediate values between the levels of importance.

The secondary data was obtained from the journals, market analysis, and verifiable articles to test the relevancy of the AHP model. Astuteanalytica reports (2021) and Allied Market Research (2023) reports focus on the essential factors influencing outsourcing like cost, quality, and technology. Moreover, McIvor et al. (2010) And Çavuşoğlu (2024) discusses the relevance of skilled people along with the necessary technology infrastructure. This approach makes the study more reliable, enabling an effective outsourcing framework for PT. Shefai Indonesia.

## Data Analysis

The data analysis process involves several steps. First, the pairwise comparison matrix which is matrix A is extracted from the data collected via interviews. The principal right eigenvector of the matrix A is computed as 'w'. If  $a_{ik} \cdot a_{kj} = a_{ij}$  is not confirmed for all k, j, and i the Eigenvector method is selected (Jalaliyoon, et al., 2012). If the matrix is incompatible and in case of incomplete consistency, the pair comparisons matrix can't be used for normalizing column to get the  $W_i$ .

For a positive and reversed matrix, Eigenvector technique can be used with the following formula:

$$e^T = (1, 1, K, 1) A^k \cdot e$$

$$W = \lim_{k \rightarrow \infty} \frac{e^T \cdot A^k \cdot e}{e^T \cdot A^k \cdot e}$$

To reach a solution among the answers, calculation should be done several times in order to take a decision when meeting an incompatible matrix. Then, the following formula is used to transform raw data into meaningful values and normalized weight  $w = (w_1, w_2, w_3 \dots w_n)$ :

$$Aw = \lambda_{max} \cdot w, \lambda_{max} \geq n$$

$$\lambda_{max} = (\sum a_{ij} w_j - n) / w_i$$

$$A = \{a_{ij}\} \text{ with } a_{ij} = 1 / a_{ji}$$

A: pair wise comparison, w: normalized weight vector

$\lambda_{max}$  : maximum eigen value of matrix A

$a_{ij}$ : numerical comparison between the values i and j

Next, in order to validate the results, consistency ratio (CR) is calculated using this formula,  $CR = CI/RI$  in which the consistency index (CI) is measured through this formula:

$$CI = \frac{\lambda_{max} - n}{n - 1}$$

The score of RI is related to the dimension of the matrix and will be extracted. If the consistency ratio is below 0.10, the results of the comparison are acceptable.

## RESULTS AND DISCUSSION

### Analytical Hierarchy Process Main Criteria Analysis

After interviewing 10 respondents in the audio-based service field, here are the consolidated AHP Result.

Decision Hierarchy			
Level 0	Level 1	Level 2	Glb Prio.
Critical Success Factor	Cost 0.093	Adequate Budget 0.307	2.9%
		Project Cost 0.221	2.1%
		Payment Terms 0.472	4.4%
	Quality of Service 0.377	Skilled Project Manager 0.227	8.6%
		Skilled Engineer 0.305	11.5%
		Turnaround Time Delivery 0.209	7.9%
		Voice Actor Pool 0.259	9.8%
	Technology 0.142	Vocal Studio Quantity 0.154	2.2%
		Technological Infrastructure 0.407	5.8%
		Information Security 0.439	6.2%
	Communication 0.387	Support from Management 0.143	5.5%
		Adequate Communication Channel 0.439	17.0%
		Effective Feedback 0.418	16.2%
			1.0

**Figure 2. Conceptual Framework**

The Consistency Ratio (CR) of the Analytical Hierarchy Process yielded a 2.9% result. For this case, a CR of 2.9 percent represents a very consistent evaluation because it is less than the accepted level of 10%. That means there was coherence in the responses received and therefore little confusion in the respondents' decision-making. Such results improve the credibility of the AHP analysis because they represent a strong and logical evaluation of the critical success factors (CSFs) for outsourcing audio-based projects.

Also, the AHP analysis reached 87.3% for the group consensus, which means there is a high degree of agreement from the ten respondents. This proves how, in spite of their different backgrounds and roles within the industry, the respondents were able to come to an agreement concerning the prioritization of criteria and sub-criteria. This agreement provides further credibility to their findings, since the more participants in the study are in agreement, the more meaningful and useful the identified factors are. Taken together, the low CR and high group consensus quantitatively verifies the reliability and credibility of the AHP results, enabling robust conclusions to be drawn and actionable recommendations to be made concerning the outsourcing business framework that was designed.

**Table 3. AHP Main Criteria Consolidated Result Ranking**

	Category	Eigenvalue	Rank
1	Cost	9.3%	4
2	Quality of Service	37.7%	2



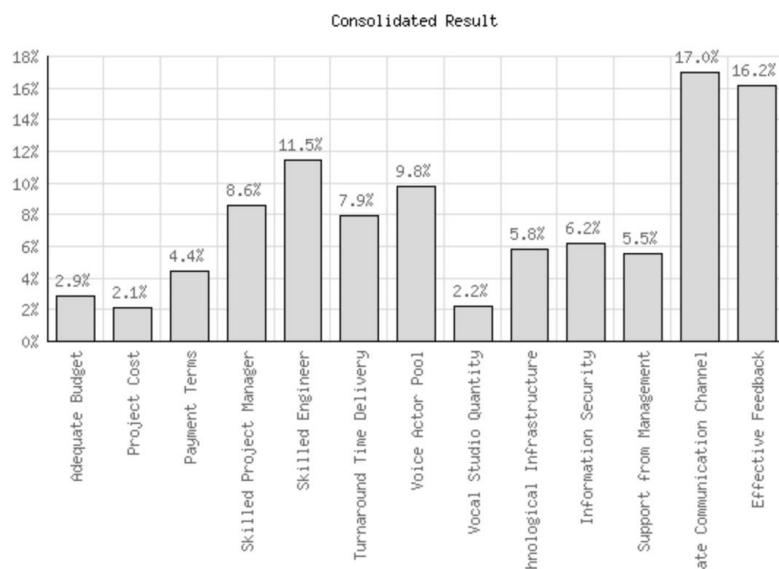
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3	Technology	14.2%	3
4	Communication	38.7%	1

The results of the Analytical Hierarchy Process (AHP) stated that Communication is the most important attribute in outsourcing audio oriented activities with a global priority score of 38.7%. Effective communication is essential in achieving transparency, aligning expectations, and fostering collaboration, which is fundamental when working through and resolving issues with clients and vendors. Given the nature of the projects, especially those involving multiple geographies, outsourcing is complex, and effective communication guarantees that problems are solved appropriately during the execution of the project. Quality of Service measures at 37.7%, making it the second most important criterion. This clearly points to the need for skilled personnel, proper time management, and careful attention to client’s instructions. As a measure of high service quality, the final product satisfies both the creative and technical aspects of the service which makes it a core factor for success in outsourcing. Technology, with 14.2% prioritization, is third. For the great majority, it is an important aid but not a principal source of success. Cost is the least prioritized factor at 9.3%, which indicates that the industry still places more importance on achieving value than cutting costs. These findings imply that success in outsourcing audio-based projects is largely determined by communication and service quality rather than financial factors.

## Analytical Hierarchy Process Sub-Criteria Analysis



**Figure 3. Sub-criteria Consolidated Eigenvalue**

As illustrated in Figure 3, the results of AHP at sub-criteria levels helps understand the specific reasons for the success of outsourcing audio-based projects better. From the AHP result in Graph 4.1, Adequate Communication Channel stands out as the most important factor based on its global priority score of 0.439 (17.0%). This is followed by Effective Feedback, which has a score of 0.418 (16.2%). In terms of Quality of Service, the highest ranked Skilled Engineer is 0.305 (11.5%), which shows great importance of technical skill on service delivery. There are also important other sub-criteria as Voice Actor Pool and Turnaround Time Delivery with 0.259 (or 9.8%) and 0.209 (or 7.9%) respectively, which show the importance of human resources’ availability and timely delivery of services in meeting clients’ needs.

It’s clear from the data that the second most important sub-criteria within The Technology criterion, Technological Infrastructure, is ranked highest with 0.407 (5.8%). This further stresses the need for suitable and sophisticated enabling tools and systems for efficient project execution. Likewise, Information Security with the priority score of 0.439 (6.2%) signifies growing attention in the industry for safeguarding delicate information during the process of outsourcing. Finally, Payment Terms, the most important spending sub-criterion, scores

0.472 (4.4%) which indicates the value of financial terms to both vendors and clients.

**7 Highest Sub-Criteria**

**Table 4. AHP Sub-criteria Consolidated Result Ranking**

	Category	Priority	Rank
1	Adequate Com. Channel	17%	1
2	Effective Feedback	16%	2
3	Skilled Engineer	12%	3
4	Skilled Voice Actor Pool	10%	4
5	Skilled Project Manager	9%	5
6	Turnaround Time Delivery	8%	6
7	Information Security	6%	7
8	Technological Infrastructure	6%	8
9	Support From Management	6%	9
10	Payment Terms	4%	10
11	Adequate Budget	3%	11
12	Vocal Studio Quantity	2%	12
13	Project Cost	2%	13

Adequate communication channels emerged as the most critical sub-criterion, with a priority score of 17%, emphasizing their role in ensuring seamless collaboration between clients and vendors. Effective communication minimizes misunderstandings, enables real-time updates, and ensures all project stakeholders stay aligned throughout the outsourcing process. In the same manner, effective feedback systems which were ranked second with 16.2%, remarket a crucial part for improvement on project deliverables. Improvement loops offer feedback on the softer and harder creative elements like tone, pacing, and synchronized mastering, guaranteeing a stronger client-vendor relationship over time.

Skilled engineers ranked third (9.8%) out of all respondents, demonstrating their relative importance for the technical quality of the end product. Engineers’ activities include critical processes like synchronizing, de/noising, and mastering the outputs to ensure these meet the industry standards. The need to use culturally speaking and linguistically skilled voice actors to produce high-quality localized content demonstrated by a diverse and skilled voice actors pool ranked fourth at 9.8%. Skilled project managers ranked fifth (8.6%), a clear indicator that they are responsible for team coordination, workflow management, and ensuring the delivery of the project on time. Turnaround time delivery ranked 6th (7.9%), an indication of its importance for meeting deadlines in the competitive nature of the media world. Next is information security at a low priority score of 6.2%, provides some context to the delicate nature of client data in providing trust and industry regulation compliance. These findings emphasize that communication, expertise, and efficiency of the processes are important determinants in the success of outsourcing audio-based services.

**Business Solution**

This form of outsourcing combines findings from the interviews, the top 7 Critical Success Factors (CSFs) from the AHP analysis, as well as the internal and external analyses (PESTEL and SWOT) illustrated in Figure 4. It defines, in a sequential form, how to effectively outsource audio related services.

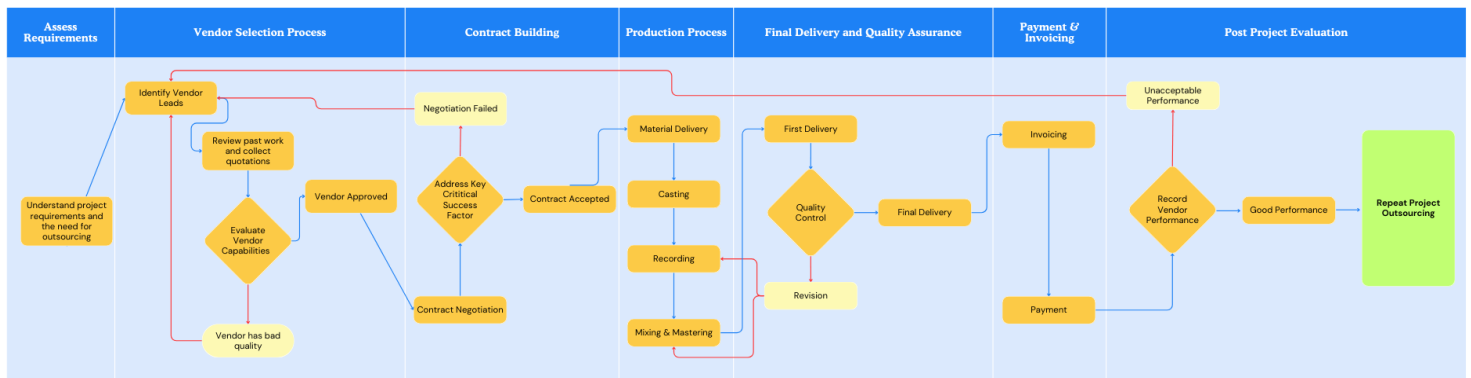


Figure 4. Business Process Workflow

### Assess Requirement

The initial action involves assessing the need for outsourcing audio services. This stage includes defining the scope of the project in relation to the available timeframe, resources, and level of difficulty involved. These considerations help PT. Shefai Indonesia make sure that they strategically positioned themselves. The internal analysis (SWOT) reveals the firm’s strengths, which consist of the human resource capability and regional knowledge, thus justifying outsourcing only when there is resource leakage. The increasing content consumption external variable (PESTEL) provides greater justification for outsourcing to fulfill market demands.

### Vendor Selection Process

Vendor scouting is a critical stage where potential partners are identified and shortlisted. This early stage involves portfolio reviews, past work analysis, and vendor alignment evaluation. **Adequate Communication Channels** allow optimal communication at this stage by facilitating the seamless flow of information between PT. Shefai Indonesia and vendors.

During the vendor evaluation stage, the focus shifts to vendor capabilities. Vendors are evaluated on their Engineer qualifications, so only vendors with experienced audio engineers who are proficient in dubbing, mixing, and mastering are accepted. **Voice Actor Pool** is also will be evaluated because talented voice actors contribute to high-quality, culturally appropriate dubbing outputs. The outputs expected are of high and creative standards. For **Information Security**, this becomes a major issue because vendors need to provide proof that they are able to safeguard intellectual property and client materials to make sure that trust is established in vendor relations. Should the vendor capabilities requirement not met, the process will revert to vendor scouting.

Vendor selection involves comparing shortlisted candidates based on feedback from evaluations, quotations, and project compatibility. **Effective Feedback** from initial interactions is instrumental in determining the vendor’s ability to align with client expectations. For larger projects, senior management is involved to provide strategic oversight, ensuring alignment with broader business goals.

### Contract Building

Contracts set boundaries in terms of expectations, timelines, and confidentiality. Key focus on **Adequate Communication Channels** guarantees that negotiations proceed smoothly while Information Security ensures that sensitive data is secured. The understanding added value to this step reduces the IP and media compliance risks identified in the external analysis (Legal PESTEL) through understanding IP risks and media regulation compliance. The vendor’s **Project Manager** drafts the contract and makes sure it has all the requirements needed for effective collaboration. If the negotiation fails, the process is reverted to vendor scouting.

### Production Process, Delivery, and Quality Assurance

After a successful negotiation, the vendor is provided with raw materials such as scripts, translations, and reference files. Secure transfer systems are defined which meet Information Security standards. **Adequate Communication Channels** help reduce errors by clarifying any ambiguous instructions. The Project Manager ensures that the vendors understand the materials sufficiently at this stage. Production involves casting, recording, mixing, and mastering. Regular monitoring oversees quality standards and timelines (**Turnaround Time Delivery**). Voice Actors and Engineers helps to maintain the required output quality. The **Project Manager**

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supervises the production and ensures that all project objectives are met by actively managing progress, providing feedback, and resolving issues.

Feedback and revisions are integral to refining outputs. Constructive Effective Feedback ensures alignment with client expectations. Multiple rounds of feedback are provided to improve quality. Technical and creative tasks are tackled by Engineers and Voice Actors through the use of the feedback. Feedback loops are coordinated by the **Project Manager** who makes sure that efficient revisions are done and feedback is understood and acted upon. Final quality control includes reviewing the output to ensure proper dubbing, lip-sync, mixing, and mastering is done. Projects are completed on schedule due to the **Turnaround Time Delivery**. Before the final product is delivered, the Project Manager ensures that all steps in the quality assurance process have been completed.

### **Payment and Post-Project Evaluation**

Invoices will be processed in accordance to the contract after client approval of the final outputs. The payments are made after the Project Manager makes sure that all contractual obligations have been met. The workflow ends with vendor performance evaluation. Effective Feedback from clients and internal teams is analysed to identify lessons learned and areas for improvement and these insights will be documented for future projects. If after the final evaluation shows that the vendor performance is poor, the project will be stopped after it is finished. Additionally, if the vendor performance is good, then it will open opportunities to repeat another project with the same vendor.

### **Discussion**

The findings of this study highlight Communication and Quality of Service as the most critical factors in outsourcing audio-based services, which aligns with existing research on Critical Success Factors (CSFs) in outsourcing. The Analytic Hierarchy Process (AHP) results reinforce the importance of Adequate Communication Channels (17%) and Effective Feedback (16.2%), supporting previous studies that emphasize communication as a key determinant of outsourcing success (Bianchi & Branco Júnior, 2013). This aligns with Smuts et al. (2010), who identify effective communication as essential for managing outsourcing relationships, particularly in information systems and software development, where clear feedback loops minimize errors and enhance service quality. Similarly, McIvor et al. (2010) emphasized that effective feedback mechanisms ensure vendors consistently meet client expectations, making it a crucial factor in outsourcing partnerships.

The importance placed on Skilled Engineers (9.8%), Voice Actor Pool (9.8%), and Skilled Project Managers (8.6%) demonstrates how the industry is dependent on specialized skills for maintaining quality standards. There is ample literature support for the role of technical personnel in outsourcing, as cited by Arpacı et al. (2023) in their analysis of hospital information systems where the involvement of specialized personnel had a major impact on the success of outsourcing strategies. Also, Çavuşoğlu (2024) notes that skilled workers, especially those dealing with dubbing, are pivotal in script adaptation for localization and audio production so that it meets the required standards. These results are important in showing that the successful outsourcing of processes is not only based on how cheap it is, but rather on the presence of competent and skilled people who can deliver the needed technical and artistic input.

The support for previous studies correlating the effectiveness of outsourcing with punctuality and information security is strengthened by the ranking of Turnaround Time Delivery (7.9%) and Information Security (6.2%). According to Panji et al. (2022), AHP ranked the CSFs for ERP implementation, reporting that meeting deadlines and ensuring data security were significant in the outsourcing arrangements. Moreover, in his strategic resource VRIO analysis, Putra (2022) noted that firms with robust information security defenses have a particular competitive edge due to the trust clients bestow on them for long-term engagements. These perspectives highlight the fact that even though cost is a consideration, outsourcing choices made in the audio-based services industry are mainly influenced by the industry's quality, expertise, and security factors as opposed to financial factors unaccompanied by limitations.

### **CONCLUSION**

All in all, these results corroborate the existing literature on PESTEL, VRIO, and AHP methods. The combination of internal and external analysis has provided additional evidence that successful outsourcing models integrate operational effectiveness, human capital management, and risk management. This study integrates AHP outcomes with the existing outsourcing models and proposes a comprehensive and evidence-based approach for improving outsourcing decisions within the audio services sector. The result of this research stated that 7 most

important sub-criteria for outsourcing are adequate communication channel, effective feedback, skilled engineer, skilled voice actor pool, skilled project manager, turnaround time delivery, and information security. Lastly, communication and quality of service are the top two priorities in terms of the main criteria which shown that industry still prioritize on achieving value than cutting costs.

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