

ANALYSIS OF FACTORS INFLUENCING CORPORATE DECISIONS IN USING THE ONLINE PSYCHOTEST SERVICES OF PT ENGINEERING CAREER CENTER

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Abstract

This study examines the factors influencing corporate decisions in adopting PT Engineering Career Center's (PT ECC) online psychometric testing services, addressing the research problem of declining client numbers and revenue despite the growing demand for digital recruitment tools in Indonesia. The objectives are threefold: (1) to identify key decision-making factors, (2) to evaluate user perceptions of service quality, and (3) to formulate strategic recommendations for PT ECC. Using a mixed-method approach, the research combines qualitative interviews with six HR practitioners and quantitative data analysis of PT ECC's sales performance (2020–2023). The findings reveal that pricing, service quality, technological adaptability, and customization are critical factors for corporate adoption. While respondents praised the platform's accuracy and accessibility, they highlighted gaps in promotional efforts and question diversity for niche roles. The results also indicate that economic pressures and competition have contributed to PT ECC's recent revenue decline. Strategic implications suggest that PT ECC should enhance product customization, target SMEs with adjusted pricing, and leverage AI-driven features to regain market share. This study contributes to the literature on digital HR solutions in emerging markets and offers actionable insights for service providers navigating competitive and cost-sensitive environments.

Keywords: Online Psychometric Testing; Decision Making; Customer Satisfaction; Digital Recruitment; Brand Image; Service Quality; Price

INTRODUCTION

Psychological tests are a series of tests used to measure the psychological aspects of an individual, such as cognitive ability, personality, and talent. Psychological tests are commonly used in a variety of contexts, including employee recruitment and selection, career development, and clinical diagnosis. These tests are designed to provide an idea of how a person thinks, feels, and behaves in a particular situation. According to Anastasi and Urbina (1997), psychological tests are scientific tools used to measure important psychological variables.

Psychological tests have an important role in employee recruitment and development. Around the world, including in *Indonesia*, companies use psychological tests to assess the suitability of prospective employees for the position they are applying for as well as to plan for the career development of existing employees. Psychological tests assist HR in identifying talents,

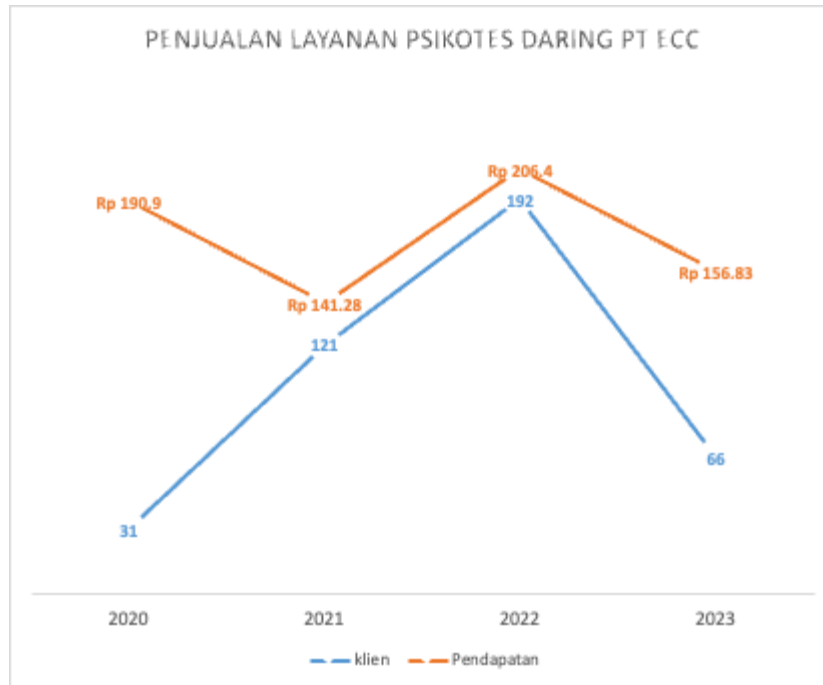
measuring cognitive abilities, and assessing personality aspects relevant to the culture and needs of the organization. According to Schmidt and Hunter (1998), the use of psychological tests in employee selection can increase the validity of job performance predictions by 0.51, which shows its effectiveness in the context of recruitment. In fact, according to a LinkedIn Learning survey in 2018, 57% of company leaders considered *Soft Skills* competencies more important than technical skills (<https://www.linkedin.com/pulse/skills-companies-need-most-2018-courses-get-them-paul-petrone/> Paul Petrone, 2018). In the context of work, a person who understands technical problems also needs good communication or presentation skills in order to be able to explain the problem to others. Most positions also require employees to coordinate with superiors and co-workers, so soft collaboration skills are needed.

An effective recruitment process plays a crucial role in the success of an organization. Good recruitment not only ensures that companies get the candidates who best suit their needs, but also contributes to the creation of a strong and productive company culture (Breaugh, 2008). With the advancement of technology, online psychological tests have become an efficient and effective solution for many organizations. Online psychological tests offer various advantages compared to traditional psychological tests, such as flexibility of time and place, cost savings, and speed in getting results. During the COVID-19 pandemic, the need for online psychological tests is increasing due to limited mobility and health protocols that must be followed. According to a study by Ryan et al. (2015), online psychological tests have the same validity and reliability as traditional tests, but with additional advantages in terms of convenience and efficiency.

Digital transformation in the field of HR, especially in developed countries, has prompted many companies to adopt online psychological test technology as part of talent management. These services offer the advantages of efficiency, accuracy, and flexibility, which conventional paper-based testing methods do not have. According to Chamorro-Premuzic and Steinmetz (2013), the use of online psychological tests allows companies to reduce costs, increase accuracy in the selection process, and tailor tests to the specific needs of the company. This growth is also supported by an increased understanding of the importance of psychological assessment in identifying potential employees who are in line with the company's values and culture.

In *Indonesia*, companies are also starting to adapt to these changes. Competition between online psychological test service providers is also getting tighter. Various new companies are entering the market by offering innovative features, more competitive prices, or more advanced technology support. Therefore, understanding the factors that most influence a company's decision in choosing an online psychological test service is increasingly crucial to maintain competitiveness. This research will provide insight into how companies assess online psychological test services in the midst of increasingly fierce industry competition.

PT ECC, as one of the companies that provides recruitment services, has fully moved psychological test services from "*paper and pen*" to online platforms since 2020. This step was taken to answer the need for a more efficient recruitment process that can be carried out in conditions of social restrictions.



Graph 1. Graph of Sales Achievement of PT ECC Online Psychological Test Services
(Revenue in units x 10,000,000)

From the sales data of PT ECC's online psychological test services, it can be concluded that the development of online psychological test service products was successfully accepted by the company. From 2020 to 2021, there was a significant increase in the number of clients, from 31 to 121. However, despite the increase in the number of clients, revenue actually decreased from IDR 1.909 billion to IDR 1.41 billion. This is because the average volume of services per client decreased. From 2021 to 2022, this year showed a significant increase. The number of clients reached a peak of 192, and revenue also peaked at IDR 2.064 billion. This shows that the strategies implemented succeeded in increasing both the number of clients and revenue. From 2022 to 2023, there was a significant decrease in both the number of clients and revenue. The number of clients decreased from 192 to 66, and revenue decreased from IDR 2.064 billion to IDR 1.568 billion. This decline can be attributed to various factors such as changes in market conditions, increased competition, or less effective company strategies.

This phenomenon raises questions about the factors that affect a company's decision to use PT ECC's online psychological test services. Are price, service quality, and product quality the main factors in the decision? How did the recruitment team assess PT ECC's online psychological test services compared to other service providers? The study will also explore additional factors that might influence a company's decision based on interviews with service users. This research is expected to provide more in-depth insights for PT ECC in maintaining client loyalty and increasing competitiveness in the online psychological test service industry.

Along with the complexity and dynamics of the increasingly competitive online psychological test service market, as well as the ever-evolving needs and behaviors of users, PT

ECC faces strategic challenges in maintaining and increasing its competitiveness. Therefore, to gain a comprehensive understanding of the factors that influence a company's decision to use this service, as well as to formulate an effective development strategy, a thorough analytical approach is required. This approach includes external environmental analysis through *PESTLE*, evaluation of internal resources with *VRIO*, identification of strategic factors using *SWOT*, and an in-depth understanding of marketing elements through the *Marketing Mix*. Thus, PT ECC can anticipate existing opportunities and challenges and optimize internal strengths to achieve sustainable competitive advantage. *PESTLE* analysis is important to understand the external factors that affect a company's operations and business strategy. By analyzing political, economic, social, technological, environmental, and legal aspects, organizations can anticipate environmental changes and adjust strategies to remain relevant and competitive (Johnson, Scholes, & Whittington, 2011). *VRIO* analysis is a framework for assessing internal resources and capabilities that can provide a sustainable competitive advantage. By understanding the aspects of value, scarcity, imitability, and organization, companies can maximize the potential of their resources in the face of competition (Barney, 1991). A *SWOT* analysis combines an evaluation of internal and external factors to identify an organization's strengths, weaknesses, opportunities, and threats. This approach is effective in helping companies formulate strategies that are appropriate to market conditions and internal capabilities (Gürel & Tat, 2017). *Marketing Mix* analysis, specifically the 4P model, provides a comprehensive understanding of how product elements, prices, venues, promotions, people, processes, and physical evidence influence consumer decisions. This analysis is particularly relevant in the context of services such as online psychological tests to increase customer satisfaction and loyalty (Kotler & Keller, 2016).

Despite the growing body of research on online psychological tests, few studies have examined the specific factors influencing corporate decisions in emerging markets like *Indonesia*. Existing literature primarily focuses on developed economies, leaving a gap in understanding how pricing, service quality, and technological adaptability impact service adoption in regions with distinct economic and cultural dynamics. Additionally, while the *SERVQUAL* model has been applied to various digital services, its adaptation to online psychometric testing remains underexplored.

This study addresses the gap by investigating the decision-making factors for online psychometric services in *Indonesia*, a rapidly digitalizing market with unique challenges. It integrates the *SERVQUAL* model with *PESTLE* and *VRIO* analyses to provide a holistic view of service quality, external environmental factors, and competitive advantages. The study also offers actionable insights tailored to PT ECC, a local service provider, to enhance its market positioning and competitiveness.

This study aims to identify the main factors that influence a company's decision to use PT ECC's online psychological test services, analyze the perception of the recruitment team on the quality of PT ECC's online psychological test services, and develop a strategy for PT ECC. This research is expected to provide the following benefits: enriching the academic literature in the field of service marketing, particularly regarding the influence of price, service quality, product quality,

and brand image on customer satisfaction in the context of online psychological test services; serving as a reference for future research on similar topics in the field of digital services; adding insight into the study of factors that influence companies' decisions in choosing online psychological test services; contributing to the literature on the evaluation of technology-based services in digital recruitment; providing insight for online psychological test service providers regarding the factors considered by users; and assisting companies in choosing online psychological test services that suit their needs.

RESEARCH METHODS

The object of this study is companies that use online psychological test services as part of their employee recruitment and selection process. This research will focus on an in-depth understanding of the factors that influence companies' decisions in choosing online psychological test services. In this study, interviews will be conducted with *Human Resource (HR)* practitioners who are responsible for the selection and recruitment process in companies that use PT ECC's online psychological test services. With this approach, this study will explore their experiences, challenges, and expectations in the use of online psychological test services.

This study uses a qualitative approach with a *case study* method. The *case study* was chosen to gain a deeper understanding of the factors that affect the company in deciding to use PT ECC's online psychological test services. The qualitative approach allows for an in-depth exploration of respondents' perspectives through semi-structured interviews. Thus, this research can capture the nuances of strategic decisions, factors considered, and challenges faced by companies in choosing online psychological test services. This research method will use in-depth interviews as the main data collection technique. Respondents in this study consisted of a recruitment team or *HR* from a company that uses PT ECC's online psychological test services who have direct experience in choosing and using the service.

RESULT AND DISCUSSION

Qualitative Data: Interview Results

Resource Person 1: Nurdin Tri Wibowo, Senior Manager of Organization Capability, PT Kilang Pertamina Internasional

Interview Findings:

Table 1. Resource Person 1 Marketing Mix (4P)

| Points | Findings | Quotation |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | The interviewee praised the accuracy of the test kit but hoped there would be more variety of questions for specific positions within the company. | "Accurate and varied, but it may need more questions tailored to different levels of positions in our company." |
| Price | Service prices are considered competitive and affordable, but there is hope for price adjustments for SMEs and reduced costs. | "The prices offered are a bit high compared to traditional methods, but with fast results and real-time accessibility, it really helped us in the recruitment process." |

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|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Venue (Distribution) | There is no significant discussion about distribution or channels, but ease of access and speed of service are important points. | "This online service makes the process faster and more accessible, without having to wait for a long time." |
| Promotion | Speakers felt that promotions were still limited, and more marketing about new features that needed to be introduced to a wider market segment. | "We feel that PT ECC's promotion is still limited, and we feel we are underinformed about the latest features or special offers." |

Source: Field research results (2025)

Table 2. Resource Person 1 PESTLE (External Factors)

| Points | Findings | Quotation |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Politics | There was no significant discussion of regulations or political factors affecting the use of the service. | None. |
| Economics | Economic factors greatly affect spending on psychological test services, with pressure on companies to choose more affordable services. | "In the midst of economic conditions like this, we must be more selective in spending on additional services." |
| Social | The resource person mentioned that the younger generation, especially Gen Z, prioritizes speed in the recruitment process and can't wait to wait. | "The current generation can't wait for the long process, we need speed in the recruitment process." |
| Technology | Technology factors are very important in the decision to choose an online psychological test service provider, with speed and ease of access being the main factors. | "We chose ECC because of its ease of access and integration with our HR system ." |
| Milieu | There is no discussion related to environmental or sustainability factors in this interview. | None. |
| Regulation | Regulations related to psychological test standards are an obstacle to the adoption of new services, especially in the education sector. | "The technology sector, especially those engaged in psychological testing, is largely limited by regulations. This often prevents us from adopting new services." |

Source: Field research results (2025)

Table 3. Resource Person 1 VRIO (Competitive Advantage)

| Points | Findings | Quotation |
|--------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Value | The resource person assessed that the speed of service and accountable results provide more value than competitors. | "We chose ECC because the process is fast and the results are accountable." |

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| Rarity (Kelangkaan) | The resource person felt that the accuracy and speed of the online psychological test service was an advantage that was difficult for competitors to replicate. | "The main advantage is the accuracy of the test and the speed, which is difficult for competitors to replicate." |
| Imitability (Imitable) | The interviewees considered that SCC's technological advantages and reliability were difficult for other competitors to replicate. | "SCC has an advantage in speed and reliability, and this is difficult for other providers to replicate." |
| Organization | There is no in-depth discussion of PT ECC's ability to organize or manage their resources in this interview. | None. |

Source: Field research results (2025)

Based on the interview with Resource Person 1, we can draw some key conclusions:

1. Marketing Mix: The perception of prices is very positive, but there is a desire to adjust prices for SMEs and add a variety of questions to better suit a more technical position. More intensive promotions are also needed to introduce new features offered by PT ECC.
2. PESTLE: Economic and technological factors have a great influence on the decision to use PT ECC's services, while regulations are a barrier to the adoption of new psychological test services, especially in the education sector.
3. VRIO: PT ECC's competitive advantage lies in the speed of service and test accuracy, but it needs to emphasize more marketing and product customization to remain relevant to the needs of a more diverse market.

Resource person 2: Donny Marliansyah, Pelita Air

Interview Findings:

Table 4. Resource Person 2 Marketing Mix (4P)

| Points | Findings | Quotation |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | The interviewee praised the accuracy of the test kit but hoped there would be more variety of questions for specific positions within the company. | "Accurate and varied, but it may need more questions tailored to different levels of positions in our company." |
| Price | Service prices are considered competitive and affordable, but there is hope for price adjustments for SMEs and reduced costs. | "The prices offered are a bit high compared to traditional methods, but with fast results and real-time accessibility, it really helped us in the recruitment process." |
| Place | There is no significant discussion about distribution or channels, but ease of access and speed of service are important points. | "This online service makes the process faster and more accessible, without having to wait for a long time." |
| Promotion | Speakers felt that promotions were still limited, and more marketing about new | "We feel that PT ECC's promotion is still limited, and we feel we are underinformed about the latest features or special offers." |

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| | features that needed to be introduced to a wider market segment. | |
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Source: Field research results (2025)

Table 5. Resource Person 2 PESTLE (External Factors)

| Points | Findings | Quotation |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Politics | There was no significant discussion of regulations or political factors affecting the use of the service. | None. |
| Economics | Economic factors greatly affect spending on psychological test services, with pressure on companies to choose more affordable services. | "In the midst of economic conditions like this, we must be more selective in spending on additional services." |
| Social | The resource person mentioned that the younger generation, especially Gen Z, prioritizes speed in the recruitment process and can't wait to wait. | "The current generation can't wait for the long process, we need speed in the recruitment process." |
| Technology | Technology factors are very important in the decision to choose an online psychological test service provider, with speed and ease of access being the main factors. | "We chose ECC because of its ease of access and integration with our <i>HR</i> system ." |
| Milieu | There is no discussion related to environmental or sustainability factors in this interview. | None. |
| Regulation | Regulations related to psychological test standards are an obstacle to the adoption of new services, especially in the education sector. | "The technology sector, especially those engaged in psychological testing, is largely limited by regulations. This often prevents us from adopting new services." |

Source: Field research results (2025)

Table 4. Resource Person 2 VRIO (Competitive Advantage)

| Points | Findings | Quotation |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Value | The resource person assessed that the speed of service and accountable results provide more value than competitors. | "We chose ECC because the process is fast and the results are accountable." |
| Rarity (Kelangkaan) | The resource person felt that the accuracy and speed of the online psychological test service was an advantage that was difficult for competitors to replicate. | "The main advantage is the accuracy of the test and the speed, which is difficult for competitors to replicate." |

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Imitability (Imitable) | The interviewees considered that SCC's technological advantages and reliability were difficult for other competitors to replicate. | "ECC has an advantage in speed and reliability, and this is difficult for other providers to replicate." |
| Organization | There is no discussion of PT ECC's ability to organize or manage their resources in this interview. | None. |

Source: Field research results (2025)

Based on the interview with Resource Person 2, the following conclusions can be drawn:

1. **Marketing Mix:** The perception of prices is very positive, but there is a desire to adjust prices for SMEs and add a variety of questions to better suit a more technical position. More intensive promotion is also needed.
2. **PESTLE:** Economic and technological factors have a great influence on the decision to use PT ECC's services, while regulations are a barrier to the adoption of new psychological test services, especially in the education sector.
3. **VRIO:** PT ECC's competitive advantage lies in the speed of service and test accuracy, but it needs to emphasize more marketing and product customization to remain relevant to the needs of a more diverse market.

Resource Person 3: Pak Agung, SMK Gema

Interview Findings:

Table 7. Resource Person 3 Marketing Mix (4P)

| Points | Findings | Quotation |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | The resource person felt that the online psychological test service from SCC was very helpful for student and teacher assessment. However, there is hope for the addition of a variety of questions for the needs of students and teachers. | "ECC is very helpful for student and teacher assessments, but I wish there was more variety of questions, especially for more experienced teachers." |
| Price | The interviewees considered SCC's prices competitive and affordable. They feel that the price paid is proportional to the results obtained. | "The price of ECC's services is relatively cheap, and I feel it's worth the results we're receiving." |
| Place | There is no in-depth discussion of distribution channels, but the ease of access and speed of service are greatly appreciated. | "ECC has easy access, especially when it comes to sending test results that can be accessed directly by us." |
| Promotion | Promotions are still limited, but the speakers feel that SCC can introduce their new features more intensively to make them more widely used. | "We feel that the promotion from ECC is not too intensive. Maybe it can be introduced to a wider segment, like other schools." |

Source: Field research results (2025)

Table 8. Resource Person 3 PESTLE (External Factors)

| Points | Findings | Quotation |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Politics | There was no significant discussion of regulations or political factors affecting the use of services in schools. | None. |
| Economics | The resource person said that despite the economic downturn, they were not directly affected because SMK Gema still had stable funding. | "Although the current economy is not good, we are not too affected. We can still implement this program with the available funds." |
| Social | The younger generation, especially vocational school students, need speed in the assessment process, which makes online psychological test services more efficient and in accordance with their needs. | "Students now need a quick process, especially as it relates to their academic assessments." |
| Technology | The technology factor is a very important aspect, and SCC is considered to have easily accessible technology and high reliability. | "We chose ECC because of its accessible technology and excellent reliability of test results." |
| Milieu | There is no discussion related to environmental or sustainability factors in this interview. | None. |
| Regulation | There is no significant discussion of government regulations influencing decisions in using SCC services. | None. |

Source: Field research results (2025)

Table 9. Resource Person 3 VRIO (Competitive Advantage)

| Points | Findings | Quotation |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Value | The resource person assessed that the speed and quality of service provided more value than competitors. | "We chose the ECC because of the fast process and accountable results." |
| Rarity (Kelangkaan) | The resource person considered the speed and reliability of SCC test results difficult to replicate by other competitors. | "The main advantage of ECC is the speed and reliability of test results, which are difficult for other providers to replicate." |
| Imitability (Imitable) | The resource person felt that SCC's technology and ease of access were advantages that were difficult for other providers to replicate. | "ECC has a technological advantage that is difficult for other competitors to replicate." |
| Organization | There is no discussion of the organization's ability to manage services and optimize resources internally. | None. |

Based on the interview with Resource Person 3 (Mr. Agung), the following conclusions can be drawn:

1. Marketing Mix: Pricing and products are considered very positive, but there is hope for price adjustments for SMEs and more customization of questions to meet the needs of students and teachers. Promotions also need to be further improved so that more schools are aware of the new features.
2. PESTLE: Economic factors do not affect the decision to use services at SMK Gema, because this school still has fairly stable funding. Technology factors are crucial in the decision to use ECC, and the speed of service is a major need for students and teachers.
3. VRIO: ECC's competitive advantage lies in the speed of the services and technologies used, but it needs to improve the promotion and customization of the questions to meet the needs of more specific markets.

Resource Person 4: Muhammad Arif Rahman, Yayasan Hasnur Center

Interview Findings:

Table 10. Resource Person 4 Marketing Mix (4P)

| Points | Findings | Quotation |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | The resource person considered that the online psychological test service from SCC was very helpful for student and teacher assessment. However, there is hope for the addition of a variety of questions for the needs of students and teachers. | "ECC is very helpful for student and teacher assessments, but I wish there was more variety of questions, especially for more experienced teachers." |
| Price | The interviewees considered SCC's prices competitive and affordable. They feel that the price paid is proportional to the results obtained. | "The price of ECC's services is relatively cheap, and I feel it's worth the results we're receiving." |
| Venue (Distribution) | There is no in-depth discussion of distribution or service channels, but ease of access and speed of service are greatly appreciated. | "The process is very accessible, especially since the results can be obtained immediately." |
| Promotion | Promotions are still limited, but the speakers feel that SCC can introduce their new features more intensively to make them more widely used. | "We feel that the promotion from ECC is not too intensive. Maybe it can be introduced to a wider segment, like other schools." |

Source: Field research results (2025)

Table 11. Resource Person 4 PESTLE (External Factors)

| Points | Findings | Quotation |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Politics | There was no significant discussion related to regulations or political factors that affect the use of services in schools. | None. |
| Economics | The resource person admitted that despite the economic downturn, they were not directly affected because SMK Gema still had stable funding. | "The global economy is indeed a little disruptive, but the education sector, especially in our region, continues to run normally." |

| | | |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Social | There is no direct discussion of the social factors that influence the decision to use the service. | None. |
| Technology | The technology factor is a very important aspect, and SCC is considered to have easily accessible technology and high reliability. | "ECC offers ease of access and efficient technology, which is very helpful in speeding up the recruitment and evaluation process." |
| Milieu | There is no significant discussion of environmental or sustainability aspects that influence the decision to use the service. | None. |
| Regulation | Government policies and internship programs are considered to support the use of online psychological test services, although there are obstacles in their implementation. | "The internship program from the government does support the use of psychological test services, but some things related to internal regulations are still a challenge." |

Source: Field research results (2025)

Table 12. Resource Person 4 VRIO (Competitive Advantage)

| Points | Findings | Quotation |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value | The resource person assessed that more accurate and useful psychological test results provide great added value to the recruitment process. | "The results of the psychological test from the ECC provide more value in the recruitment process because it is more accurate and helps in better decision-making." |
| Rarity (Kelangkaan) | The resource person considered the accuracy of the psychological test results and the ease of access offered by ECC difficult to be replicated by other providers. | "The main advantages of ECC are the accuracy of psychological test results and ease of access, which are difficult to replicate by other competitors." |
| Imitability (Imitable) | The source believes that ECC services are difficult for competitors to replicate because they involve more in-depth psychological data and high standards. | "Because the results are more in-depth and more accurate, I think this service is hard to replicate by other competitors who rely solely on basic tests." |
| Organization | There was no in-depth discussion of PT ECC's organizational ability to manage resources or maximize their capacity. | None. |

Source: Field research results (2025)

Based on the interview with Resource Person 4 (Mr. Muhammad Arif Rahman), the following conclusions can be drawn:

1. Marketing Mix: Pricing and products are considered very positive, but there is hope for price adjustments for SMEs and more customization of questions to meet the needs of students and teachers. Promotions also need to be further improved so that more schools are aware of the new features.

2. PESTLE: Economic factors do not affect the decision to use services at SMK Gema, because this school still has fairly stable funding. Technology factors are crucial in the decision to use ECC, and the speed of service is a major need for students and teachers.
3. VRIO: ECC's competitive advantage lies in the speed of service and accuracy of tests, but it needs to put more emphasis on marketing and product customization to stay relevant to the needs of a more diverse market.

Resource person 5: Esra Paska, PT Merdeka Battery

Interview Findings:

Table 13. Resource Person 5 Marketing Mix (4P)

| Points | Findings | Quotation |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | The resource person felt that the online psychological test service from ECC provided more accurate and challenging results, suitable for middle level positions. However, there is hope for an increase in the variety of questions. | "SCC is very helpful for employee assessments, the results are more accurate and challenging. However, I hope there will be an increase in the variety of questions for more technical positions." |
| Price | Service prices are considered to be in accordance with needs, but the interviewees suggested that a more flexible pricing strategy can be implemented for certain sectors. | "The price of SCC's services is relatively cheap, and I feel it is worth the results we received." |
| Venue (Distribution) | There was no in-depth discussion about distribution, but the ease of access and speed of service were highly appreciated by the speakers. | "The process is very accessible, especially since the results can be obtained immediately." |
| Promotion | The resource person felt that the promotion of the new features of the SCC needed to be increased to introduce the service to more schools and companies. | "We feel that the promotion from SCC is not too intensive. Maybe it can be introduced to a wider segment, like other schools." |

Source: Field research results (2025)

Table 14. Resource Person 5 PESTLE (External Factors)

| Points | Findings | Quotation |
|------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Politics | There was no significant discussion of regulations or political factors affecting the use of services in schools. | None. |
| Economics | Economic factors do affect spending, but SMK Gema feels less affected, thanks to the support of government policies. | "The global economy is indeed a little disruptive, but the education sector, especially in our region, continues to run normally." |
| Social | There is no direct discussion of the social factors that influence the decision to use the service. | None. |
| Technology | The technology factor is a very important aspect, and SCC is considered to have easily accessible technology and high reliability. | "SCC offers ease of access and efficient technology, which is very helpful in speeding up the recruitment and evaluation process." |

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|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Milieu | There is no significant discussion of environmental or sustainability aspects that influence the decision to use the service. | None. |
| Regulation | Government policies and internship programs are considered to support the use of online psychological test services, although there are obstacles in their implementation. | "The internship program from the government does support the use of psychological test services, but some things related to internal regulations are still a challenge." |

Source: Field research results (2025)

Table 15. Resource Person 5 VRIO (Competitive Advantage)

| Points | Findings | Quotation |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value | The resource person assessed that more accurate and useful psychological test results provide great added value to the recruitment process. | "The results of the psychological test from the ECC provide more value in the recruitment process because it is more accurate and helps in better decision-making." |
| Rarity (Kelangkaan) | The resource person considered the accuracy of the psychological test results and the ease of access offered by ECC difficult to be replicated by other providers. | "The main advantage of SCC is the accuracy of psychological test results and ease of access, which is difficult for other competitors to replicate." |
| Imitability (Imitable) | The source believes that ECC services are difficult for competitors to replicate because they involve more in-depth psychological data and high standards. | "Because the results are more in-depth and more accurate, I think this service is hard to replicate by other competitors who rely solely on basic tests." |
| Organization | There was no in-depth discussion of PT ECC's organizational ability to manage resources or maximize their capacity. | None. |

Source: Field research results (2025)

Based on the interview with Resource Person 5 (Esra Paska), the following conclusions can be drawn:

1. **Marketing Mix:** Pricing and products are considered very positive, but there is hope for price adjustments for SMEs and more customization of questions to meet the needs of students and teachers. Promotions also need to be further improved so that more schools are aware of the new features.
2. **PESTLE:** Economic factors do not affect the decision to use services at SMK Gema, because this school still has fairly stable funding. Technology factors are crucial in the decision to use SCC, and the speed of service is a major need for students and teachers.
3. **VRIO:** SCC's competitive advantage lies in the speed of service and accuracy of the test, but it needs to be more prominent in marketing and product customization to stay relevant to the needs of a more diverse market.

Resource Person 6: Widi Ariyani, Internal Psychologist of PT ECC

Interview Findings:

Table 16. Resource Person 6 Marketing Mix (4P)

| Points | Findings | Quotation |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product | The resource person explained that the online psychological test platform provided by ECC has developed since 2018 and provides valid and accurate results, with psychometrics-based psychological measurement features. | "Our platform provides scientifically validated online psychological tests supported by psychometry-based algorithms, and we are developing AI for career recommendations." |
| Price | The price of the service is proportional to the benefits provided. The interviewees felt that the price was quite competitive considering the quality of the services offered. | "Our prices are still in line with the needs of companies and universities, and the benefits are quite good." |
| Place | The platform is web-based, allowing access from a variety of devices, which makes it very easy for participants and clients to conduct tests and take results. | "Our platform is web-based that makes it easy to access across multiple devices, making it easy for participants to take the test anytime and anywhere." |
| Promotion | The resource person suggested that branding and promotion for this platform be improved, by highlighting the advantages of technology and the reliability of validated psychological test results. | "We hope that the personal branding of the assessor team and existing AI features can be introduced more intensively to increase market confidence." |

Source: Field research results (2025)

Table 17. Resource Person 6 PESTLE (External Factors)

| Points | Findings | Quotation |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Politics | There was no significant discussion related to regulations or political factors that affected the use of online psychological test services. | None. |
| Economics | The resource person admitted that economic conditions slightly affected the use of services, but PT ECC did not feel too affected due to the shift to more efficient digital services. | "We do feel an economic downturn, but with online services, we are more adaptable to the needs of an increasingly digital market." |
| Social | Gen Z as a target user prefers to use online services because of the flexibility of time and place. | "Gen Z prefers online services because of its flexibility and ease of access, they want convenience that can be accessed at any time." |
| Technology | Technology is a key factor in the development of this platform, where psychometrics are integrated to provide more accurate and accountable results. | "We continue to evolve our platform with AI technology to provide more personalized recommendations and higher accuracy." |

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|------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Milieu | There was no discussion related to the environment or sustainability in the use of online psychological test services. | None. |
| Regulation | Personal data protection regulations are a major concern in ensuring the security of user data on the platform. | "We take personal data protection very seriously by ensuring that our systems are compliant with applicable regulations." |

Source: Field research results (2025)

Table 18. Resource Person 6 VRIO (Competitive Advantage)

| Points | Findings | Quotation |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value | The resource person assessed that the advantage of the ECC platform lies in the validity of psychometrics-based tests and career recommendations, which provide more value for companies and universities. | "The results of the psychological test from the ECC provide more value in decision-making because it is supported by tested psychometry." |
| Rarity (Kelangkaan) | The main advantages of ECC are the accuracy of psychological test results and ease of access, which are difficult for other competitors to replicate. | "The main advantage of SCC is the accuracy of psychological test results and ease of access, which is difficult for other competitors to replicate." |
| Imitability (Imitable) | The source believes that ECC services are difficult for competitors to replicate because they involve more in-depth psychological data and high standards. | "Because the results are more in-depth and more accurate, I think this service is hard to replicate by other competitors who rely solely on basic tests." |
| Organization | There is no discussion of how PT ECC manages resources or organizations to support further product development. | None. |

Source: Field research results (2025)

Based on the interview with Resource Person 6 (Widi Ariyani), the following conclusions can be drawn:

1. Marketing Mix: The price and the product as a whole are very positive, but there is a need to highlight the branding and features more. Promotions also need to be introduced more so that more institutions know about the latest services and features on the platform.
2. PESTLE: Economic factors don't have much of an impact on the use of services, while technology factors are key to the development and success of the platform. Regulations related to personal data and security are also very concerned in the management of this platform.

3. VRIO: Competitive advantage lies in test accuracy and reliable speed of service, but product marketing and customization for a more diverse market needs to be improved to remain relevant and competitive.

Quantitative and Qualitative Data Synthesis

Findings from questionnaire and interview data were combined using a SWOT analysis approach to provide a comprehensive overview of internal and external factors influencing the decision to use PT ECC's online psychological test service. Based on the results of the SWOT analysis, we will formulate a strategy based on a combination of two SWOT factors and give weight to determine the best strategy.

1. SWOT Analysis

Based on the results of the SWOT analysis, PT ECC has a strategic advantage in terms of service quality, product quality, and competitive prices. However, external factors such as macroeconomic pressures, including recession and reduced number of employees, led to a decline in demand for online psychological test services from the previous customer base.

PT ECC's Internal Strengths

1. Service Quality: PT ECC has a professional team that is able to provide responsive services and effective communication. According to Kotler and Keller (2016), high service quality can increase customer satisfaction and build loyalty, which in turn strengthens a company's competitive position.
2. Product Quality: Scientifically validated online psychological test products provide a clear competitive advantage. Barney (1991) in the Resource-Based View (RBV) theory states that competitive advantage arises from internal resources that are unique and difficult to replicate, such as the scientific validity and accuracy of results that PT ECC's products have.
3. Competitive Pricing: Competitive price perception provides added value for PT ECC, especially in the SME market which is more cost-sensitive. Monroe (1990) in the theory of Perception of Value explains that lower prices are often associated with better value in highly competitive market conditions.

Macroeconomic pressures, such as recession and reduced number of employees, have led to a decline in demand for online psychological test services. According to macroeconomic theory, in recessionary conditions, companies tend to make cost efficiencies, including reducing the number of employees, which has an impact on the need for online psychological test services.

2. SME Market Potential in Indonesia

Facing these challenges, PT ECC needs to develop its customer base to a new market segment, namely SMEs. Data from the Indonesian Chamber of Commerce and Industry (KADIN) shows that in 2023, the number of MSMEs in Indonesia will reach around 66 million, which contributes 61% to the national GDP, equivalent to Rp9,580 trillion. In addition, MSMEs absorb

around 97% of Indonesia's workforce, which shows great market potential for online psychological test services.

To reach the SME market, PT ECC needs to adapt its products to the preferences of the segment, which tends to look for more affordable and practical solutions. Kotler and Armstrong (2018) in market segmentation theory explain that tailoring products to the preferences of a specific market segment is key to increasing the attractiveness of products in the broader market.

In addition, PT ECC needs to develop products with the latest technologies, such as AI and gamification, to improve operational efficiency and user experience. Rogers (2003) in technology adoption theory explains that by adopting new technologies, companies can attract new customers who have a preference for more interactive and efficient technology.

3. Strategy Formulation Based on SWOT Combinations

SWOT analysis is a strategic tool that combines the evaluation of internal and external factors of the organization to formulate an effective strategy. According to Thompson, Peteraf, Gamble, and Strickland (2020), strengths and weaknesses are internal variables that determine an organization's capabilities and resources, while opportunities and threats come from the external environment that affect the dynamics of competition and organizational operations.

The main goal of a SWOT analysis is to design strategies that optimize the utilization of strengths and opportunities, as well as address weaknesses and mitigate threats, so that the organization can survive and develop sustainably.

W2T2 Strengthen market communication to reduce price and quality uncertainty by better highlighting product excellence and explaining its quality. 11

Strategy Mapping Based on Weight and Category

After conducting a SWOT analysis, the next step is to map the strategy that has been formulated into priority quadrants to facilitate the effective implementation and management of resources. Based on a framework commonly used in strategic management practices (Bryson, 2018; McKinsey & Company, 2009), strategies can be categorized into four quadrants based on impact level and ease of implementation, namely:

- a. Quick Wins is a relatively easy strategy to implement and can have a positive impact in a short period of time. This strategy is important to build momentum and get quick results, while increasing stakeholder trust.
- b. Major Projects are strategies with significant impact but require large resources and time. This strategy focuses on complex initiatives and requires a long-term commitment to generate a competitive advantage.
- c. Fill-ins are an easy and inexpensive strategy to implement, but the impact is limited. This strategy usually serves as a complement that supports the success of the main strategy.
- d. Hard Slogs are a difficult strategy that requires a lot of effort and time, with significant challenges, but is essential for solving fundamental problems or building sustainable excellence.

CONCLUSION

Based on the results of the research that has been conducted, the following are conclusions that answer the formulation of problems related to the factors that affect the company's decision to use PT ECC's online psychological test services, the perception of the recruitment team on the quality of service, and the development strategies that can be carried out by PT ECC. The company's decision to use the online psychological test service from PT ECC is influenced by several important factors, including service quality, competitive prices, data security, and technological innovation. The company expects a service that is well-structured, easily accessible, and able to provide accurate results quickly, while maintaining the confidentiality of participants' personal information. Recruitment teams that have used this service generally give positive ratings, considering the online psychological test process to be effective and efficient, although there is a need for personalization of questions that are more appropriate to the company's context. In order to expand market share and improve services, PT ECC can implement various strategies, ranging from *quick wins* such as investing in promotions to reach *SMEs*, improving the user experience on the platform, to staff development in the field of digital marketing and artificial intelligence. In addition, major projects such as the integration of *AI* technology for efficiency, the development of game-based assessments, and the improvement of security features are also important focuses. Smaller but still significant strategies, such as educating *SMEs* on the importance of psychological tests, will support PT ECC's team of experts' personal branding efforts and strengthen their position in the market. With this comprehensive approach, PT ECC is expected to strengthen its services and reach more clients in the future.

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