APPLICATION OF THE ANALYTIC HIERARCHY PROCESS METHOD IN DETERMINING A CREATIVE INDUSTRY STRATEGY: EVIDENCE FROM CREATIVE INDUSTRY IN SOUTH TANGERANG

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Abstract

Indonesia has natural resources that can be processed into creative industries. Each region has diverse creative industry and describes the characteristics of each region. The purpose of this research is to determine the priority strategies that need to be improved for the continuity of the creative industries in South Tangerang. Samples of research done on the sector craft industry with the number of 20 craftsmen (SMEs) by purposive sampling. Primary and secondary collection using questionnaire techniques, interviews, and observations at the selected SMEs as the sample. Furthermore, determining the priority strategies for SMEs that need to be improved in developing businesses such as improving infrastructure, product quality, product innovation, product design, product packaging, markets, and others which refers to the results of previous research (2019). Analytical techniques used were an Analytical Hierarchy Process (AHP). The results of the study show that of the 15 strategies (SO, WO, ST, and WT) the highest weight resulting from the pairwise comparison is WT. The second rank is the ST strategy. The third rank is the WO strategy. Thus, the most superior priority scale needs to be carried out by the South Tangerang handicraft SMEs sector is the WT strategy with the more important sub-criteria is to increase capital with loans to the government.

Keyword: SMEs, handicraft, strategies, AHP models

INTRODUCTION

The role of the creative industry sector is a very important part because it can increase economic growth. John Howkins (2013) introduces that economic growth depends on new creative and innovative ideas. Desrochers & Leppälä, (2011). Anne (2011), White (2010) explain the importance of strategy in the development of the creative sector in increasing economic growth. In general, the development of the creative sector still faces many obstacles, especially in terms of a proper and correct strategy for competitive advantage. This is the cause of not optimal management and development of the creative sector. To create a creative industry that can gain a sustainable competitive advantage in Tangsel is not an easy thing, there are many challenges and obstacles, besides that not all problems from the types of creative industries are the same. From the results of previous research (Nur Hidayah and Rodhiah, 2019) in the Tangsel handicraft sector, there are many factors that Tangsel SMEs must pay attention to to excel in competition. Based on the results of the SWOT analysis, the internal factors in the form of the **strengths** of SMEs are having expertise as craftsmen, availability of raw materials, creativity

in developing motives, availability of community craftsmen groups, support from local government, traditionally raw materials, having skilled Human Resources (HR) and experts, production processes carried out traditionally, varying price levels, creative product diversity, availability of creative community groups, and a small number of competitors because between communities has different varieties. While the main **weaknesses** are lack of business capital, lack of participation of local communities to join, lack of awareness of local communities to try to be creative, product packaging is still simple, availability of labor is still lacking, limited production results, production processes that are still traditional take longer, material resources it is quite expensive to use, the purchasing power of creative products is still lacking, the price is difficult to compete, the place of production is combined with a residence so that it becomes less flexible, and there are no handicraft product centers that can accommodate the products. For **opportunities** that are a source for SMEs in developing a business, handicraft products have a wide product market, local government policies that promote handicraft products, government support from coaching and training, homemade handicraft products have begun to be known abroad, information technology increasingly advanced, use of electronic promotional media, and exhibitions are often held by the government with exhibition sponsors from the local government. Meanwhile, the **threats** that must be paid attention to by craftsmen are the entry of new competitors in the handicraft industry, the weakening of raw material suppliers, the existence of substitute goods (more varied substitute products), the increasing number of Chinese products with lower prices, the threat of decorative items from outside, the price raw materials continue to soar, it is difficult to find the next generation of craftsmen who are mostly elderly. Based on these factors, 15 strategies need to be carried out by the Tangsel SMEs (Nur Hidayah, 2019). The existing strategies need to be grouped which are the priority so that decisions can be made in increasing the excellence of South Tangerang SME handicraft products. By using the AHP model, first is to determine the priority scale that must be improved in the development of the creative industry in the Tangsel handicraft sector, then take decisions that become a priority in increasing competitive advantage.

RESEARCH METHODS

The research is conducted on the industry creative sector of crafts which are in Tangerang southern province of Banten, which covers several regions, namely Pamulang, Ciputat, Serpong, Bintaro, and others. The samples were selected by convenience sampling at SMEs (Small and medium-sized enterprises), as many as 20 craftsmen. Various sources that can assist in obtaining data are primary data sources which came from individual or individuals, to conduct deep interviews, observation, and questionnaires directly at SMEs Crafts South Tangerang. Source of data secondary obtained the data comes from sources that are not directly or through the media, intermediaries (obtained and recorded by other parties). The data used in this study are data from literature studies, South Tangerang Cooperative and Trade Agency, and from associations or creative industry communities in South Tangerang. Measurements carried out referring to the results of the grant of an internal period of 2 years, 2019. Retrieved Strategy **S-O** there are six strategies: empower groups of artisans are optimal, increasing pattern of coaching the artisans associated with sponsor exhibits, showroom house creative, application of IT, bringing craftsmen closer to the CSR program, using modern technology to increase production, maintain the quality of products, and improve guidance in terms of the design and packaging of products. **W-O** Strategy: there are two strategies: get closer to the banking and local government assistance programs to strengthen capital venture, improving skills and training for personnel employment, and developing a program promotion of both offline and online. **S-T** Strategy, there are three strategies: developing cooperation with the Government of South Tangerang in policies Houses creative, provide protection creativity of

the products, and provide information about the standard of quality for the products handicraft. The **W-T** strategy consists of 3 strategies: improving local infrastructure, formulating policies for procurement / soft loan machines, and increasing capital by making loans to the government through BUMN. The analysis technique uses the Analytical Hierarchy Process method (AHP) which is applied to help make decisions in choosing the most appropriate strategy to help SMEs in increasing sustainable development.

The AHP method is widely used to assist in various matters of the Jain election process (2018). AHP is developed and used for multi-criteria decision making. The basic principle of the AHP method is to create hierarchies, criteria, and alternative assessments, determine priorities, and pay attention to consistency (Andri, 2015). Analytical Hierarchy Process (AHP) is a method of practical and effective which is used to solve a variety of problems making decisions Multi-criteria. AHP was introduced by Thomas L. Saaty in 1980 (2012), AHP set rationality base to solve the problem into the smaller part. By solving decision problems, AHP allows decision-makers to focus on several criteria at a time. AHP also allows decision-makers to compare qualitative and quantitative criteria. There are three phases in AHP: defining a decision problem, establishing a hierarchy, and finally evaluating the components in the hierarchy. AHP is a multi-level hierarchical model with a system objective at the top, criteria, and sub-criteria in the middle and alternatives at the bottom of the hierarchy. AHP considers a set of evaluation criteria and a set of options from some of the best decision alternatives. Important to be prioritized from the multiple criteria that must be selected. Of the several options or criteria need to look for the best, by optimizing each criterion are Saaty (2012) and Brunnelli's (2015). That model can explain the various options with criteria such as image 1.

Verbal judgment	Numeric value
Extremely important	9
	8
Very Strongly more important	7
	6
Strongly more important	5
	4
Moderately more important	3
	2
Equally important	1

Figure 1. Variable Judgment **Analytic Hierarchy Process (AHP)**

Nowadays, the company is interested in being sustainable in all three aspects, economic, social, and environmental. For this reason, a sustainable AHP production model through different creative industry practices can be prioritized. At this research stage, the AHP model is developed for creative SMEs products that need to be a priority to be developed to achieve business sustainability in the global market.

RESEARCH RESULTS AND DISCUSSION

Overview of Geographical Conditions and SMEs Conditions in its South Tangerang

South Tangerang City is one of the capital city buffer cities, which has the closest distance, which is 25km from the capital city of Jakarta. As one of the supporting cities for the capital city, South Tangerang has a very rapid development with very high utilization. It was recorded that there were 50,210 urban areas of the population from 2015 to 2016, with a population growth rate of 4.24%, (BPS, 2016). Such high development has also occurred in the business and creative industries. As many as 20.671 SMEs in 2015 were registered in South Tangerang City, which Serpong subdistrict has the highest number of SMEs that are 5.222 (Cooperatioon Agency & MSMEs, 2016). Development in the field of Creative Industries by the South Tangerang City Government is carried out by the formation of a creative industry intelligence team, and the holder of the Creative Industry Festival in November 2016. Besides, the South Tangerang City Government also sent superior SMEs products to be exhibited at creative economy product exhibitions in China, for the intertwining of establishing relationships between foreign investors and local SMEs, (Triana, 2014). Also, based on the statistics of UKM South Tangerang City, Culinary, Fashion, and Service fields are the fields with the highest development, namely with the number of each SMEs are 7.547, 750, 2231 (Cooperatioon Agency & MSMEs, 2016).

South Tangerang City has all kinds of potentials and opportunities that can be developed. Including Micro, Small, and Medium Enterprises (MSMEs) is a business that is widely spread in Indonesia. In South Tangerang City, there are about five types of SMEs or handicraft industries which include 165 units of wood crafts, 28 units of a plait, 1 unit of pottery, 293 units of cloth and 164 units of food. Also, there are 7 factory units in one industrial area (data from the Cooperatives Agency and SMES South Tangerang City). The existence of these MSMEs has the potential to increase economic growth in 2013 in South Tangerang City. In 2012, data from the Central Statistics Agency (BPS) recorded that the rate of economic growth in South Tangerang City reached 8.7%. With the economic growth rate above the average national economic growth rate (6%), this city with a smart, modern, and religious motto can increase the growth of SMEs for the better. As well as being able to contribute to the expansion of small and medium enterprises in the ASEAN region.

Based on the overall number of SMEs from the creative industry in South Tangerang, with each South Tangerang area being:

Table 1   Distribution of UKM for South Tangerang Region

No.	Territory	Number of SMEs
1.	North Serpong	3275 SMEs
2.	Pondok Aren	4680 SMEs
3.	East Ciputat	2990 SMEs
4.	Ciputat	3303 SMEs
5.	Serpong	5222 SMEs
6.	Pamulang	3058 SMEs
7.	Setu	1253 SMEs

Based on the name of the SMEs and type of craft artisans which are used as a research sample are:

Table 2. Business Name and Owner

No.	Business Name	Name of the owner	Production Address

1	Momade Craft	Dessy Mulyanita	Kenari Raya Pondok Aren Tangsel
2	Wid's Handcraft	Theresia Setyo Widyastuti	Serpong Green park Serua, Tangsel
3	Setu Batik House	Setu Business Cooperative	Muncul Serpong, Tangsel
4	Ondel-Ondel Betawi	Annisa Ulfa	Perum Pamulang Tangsel
5	Batik Datik	Datik Daryanti	Setiabudi Pamulang Tangsel
6	Vintage	Donie Bono	Ciputat Tangsel
7	Ladifa Collection	Goddess Keisliawati	Amarapura Housing Block E4, Setu Tangsel
8.	Wooden Batik, interior accessories, and Indonesia *exclusive souvenirs*	Ade Kresna Suwandi	Rempoa Hijau Complex, Tangsel,
9	TongKu Furniture	Syahrul	Setu Village, Setu District, South Tangerang City
10	Lantern Craftsman		Jombang Ciputat, South Tangerang
11	Handicraft products made from shells	Sri Sulastri,	Pondok Benda, Pamulang, Tangsel,
12	Leather jacket	Bob Sou vvan	Cirendeu, South Tangerang
13	Embroidery handmade Batik bags	Irma Afriani	Pondok Aren Tangsel
14	Naomi Handmade	Asih Naomi	Reni Jaya Pamulang complex
15	IS'B Craft	Isnaniar	Perum Bumi Sentosa Setu Tangsel
16	Kayana Creative	Feryandi	Jelupang, North Serpong
17	MiniCutee	Fiona Aryani	BSD Tangsel
18	Decoupage	Tyas Rols	BSD Tangsel
19	Deco Painting	Siti Intan Artini	Rawa Buntu Serpong Tangsel
20	Cika-Cika Handmade	Sitarami Hatmosroyo	Bintaro Jaya Tangsel

Source: results of research grant 2019

SWOT Results

Through the development of strategies that need to be carried out by SMEs, there are 15 strategies, table 3.

Table 3. Development of Competitive Strategy for Craft Business Unit

S-O	W-O
1. Empowering a group of craftsmen optimally 2. Improve coaching patterns to craftsmen associated with exhibition sponsor, showroom Home creative, IT applications 3. Bring the craftsmen closer to CSR program 4. Using modern technology to increase production 5. Maintain product quality 6. Increasing guidance in product design and packaging	1. Get closer to banking and programs local government assistance for strengthening of business capital 2. Improve skills & training for the workforce 3. Developing promotional programs both online and online
S-T	W-T
1. Develop cooperation with Tangsel local government in a policy of Creative house 2. Protect creativity product 3. Provide information on quality standards for craft products	1. Improve infrastructure area 2. Develop policies for Procurement / soft loan machines 3. Increase capital with making a loan to the government through BUMN

Strategy Decision Analysis

Creating a Hierarchy Tree
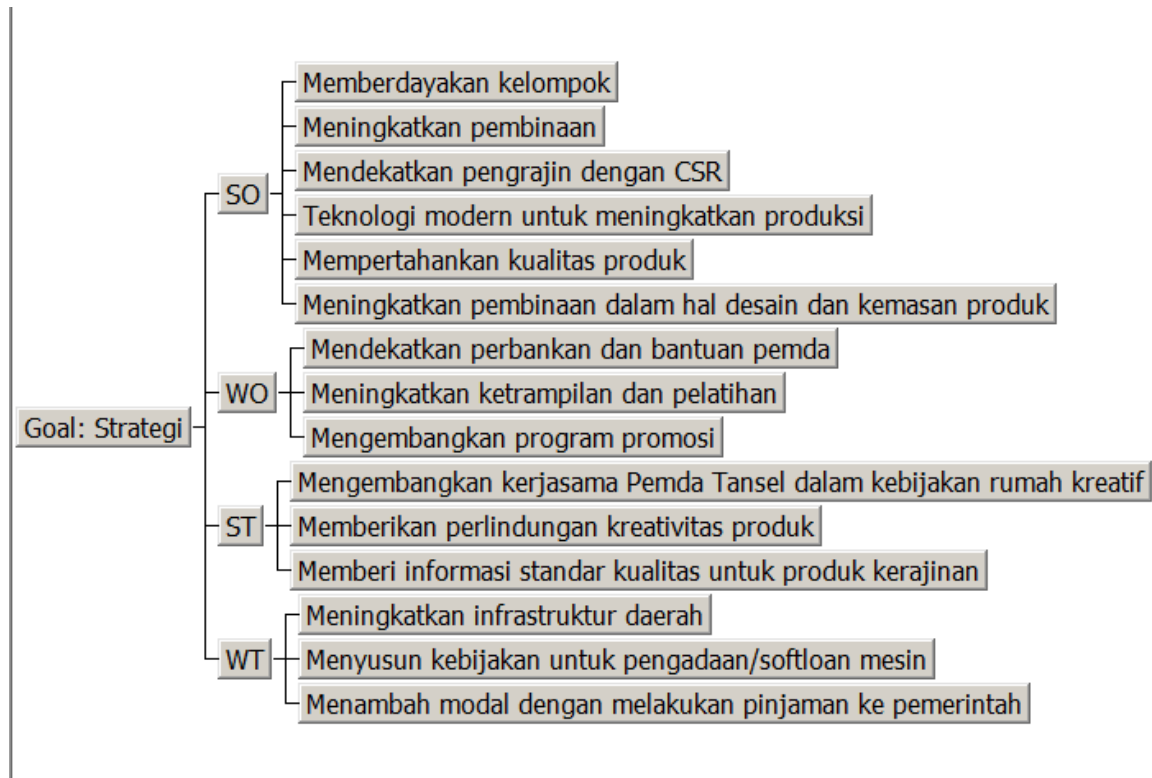
Figure 2. Hierarchy Tree

Inconsistency Value Calculation Results and Weighting in Process Hierarchy Analysis

Table 4. Overall Process Analysis Results

The table above is the result of the processing of 20 respondents on the statements related to the strategy they chose. Strategies that are deemed appropriate to the industry being undertaken. Each proposed strategy has a selection indicator that needs to be known in which order the employer feels is putting it first. For more details, each criterion and alternative can be described so that the levels can be seen based on the graph. In the following section, each criterion and sub-criteria assessment is presented to make it easier to read the data.
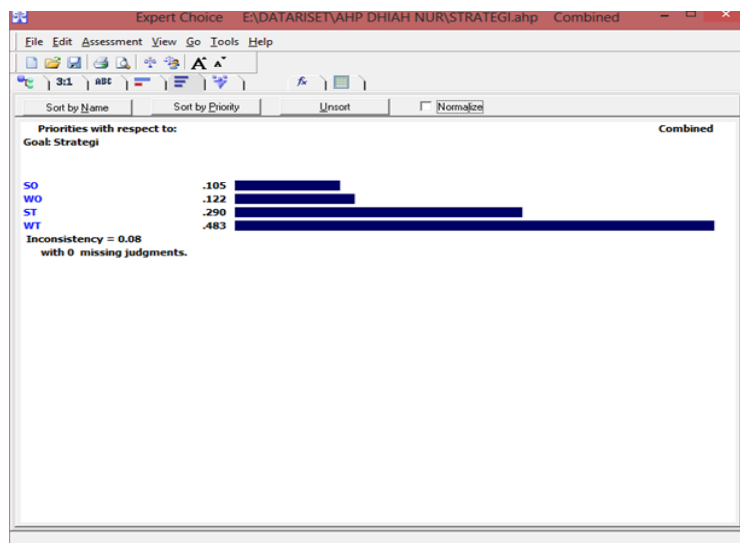
Figure 1. Results of Process Hierarchy Analysis on Criteria

The picture above is a breakdown of the pairwise calculation results between the strategy criteria for SO, WO, ST, and WT. The four are calculated on a Saaty scale of 1-9. The result shows a consistent value of 0.08 which is based on Saaty, that the consistency value set is less than equal to 10%. Because the inconsistency value obtained is 0.08> 0.10, it can be said that the answers to the 20 respondents selected have been consistent and can be used as research materials.

The highest weight resulting from the pairwise comparison is WT which is equal to 0.483. The second rank is the ST strategy with a weight of 0.290. The third rank is the WO strategy with a weight of 0.122 and the final choice is the SO strategy being the last one.

The existence of this sequence can provide input for investors that business actors choose WT strategies in running their business.
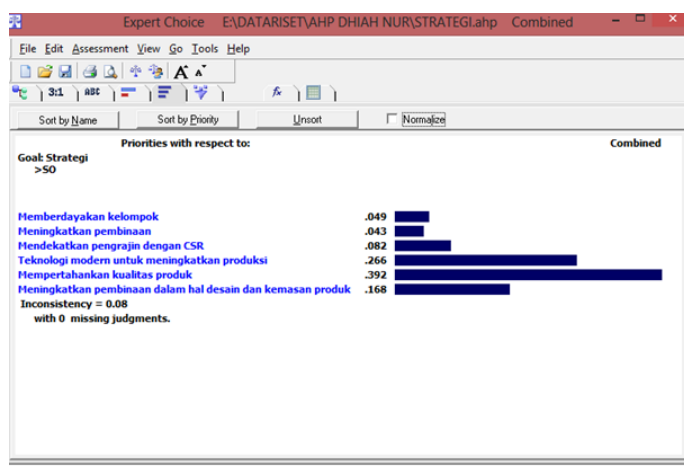

Figure 2. Results of Process Hierarchy Analysis on SO Strategy Sub Criteria

For each criterion in this study, sub-criteria were made to find out what the business actors prioritized in each strategy. The inconsistency value resulting from the calculation of 20 respondents is 0.08 which is smaller than 0.10 so that it can be said that the data is consistent

and can be used for research. The first thing to be discussed is the sub-criteria in the SO strategy. 6 questions are used as a pairwise comparison and then each one is calculated its weight. The highest weight is "maintaining product quality" with a score of 0.392. The second rank is "modern technology to increase production" with a weight of 0.266. The third rank is "improving guidance in terms of product design and packaging " with a weight of 0.168. The fourth rank is "bringing craftsmen closer to CSR" with a weight of 0.082. The fifth rank is "empowering the group" with a weight of 0.049. The last sequence is "increase coaching" with a score of 0.043.
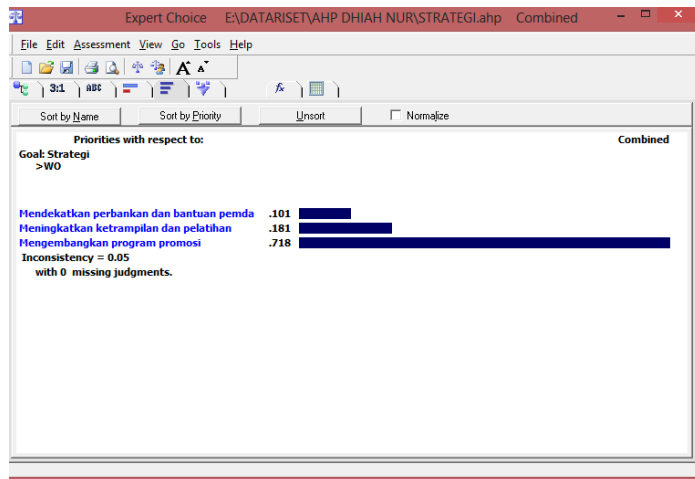

Figure 3. Results of Process Hierarchy Analysis on the Sub Criteria for the WO Strategy

The sub-criteria for the WO strategy have an inconsistency value of 0.05 because this value is smaller than the standard set, which is 10%, it can be said the answers over 20 respondents to the statement submitted is consistent and can be used for research. The sub-criteria WO has three pairwise comparison questions following the order from the highest to the lowest weight. The first line is "developing promotional programs" with a weight of 0.718. The second place is "improving skills and training" with a weighting score of 0.181. The last sequence is "bringing banking closer to local government assistance" with a weighting score of 0.101.
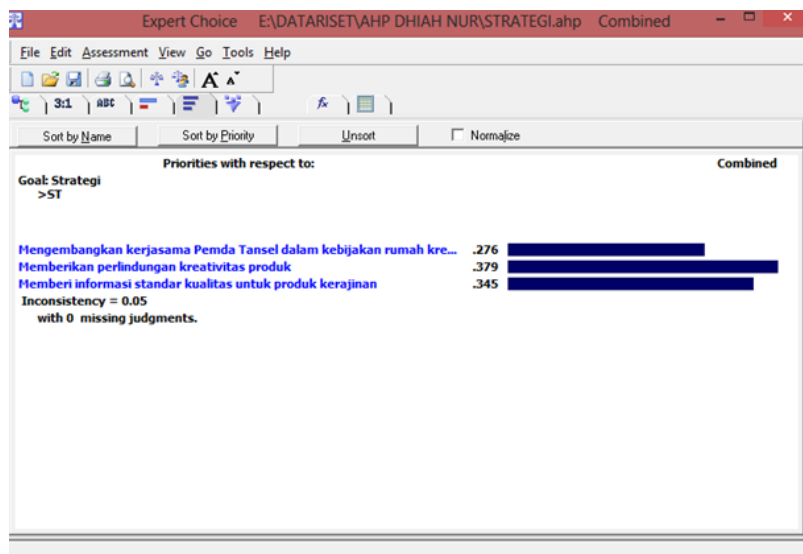

Figure 4. Results of Process Hierarchy Analysis on Sub Criteria for ST Strategy

The sub-criteria for the ST strategy have an inconsistency value of 0.05 because it is smaller than 0.10, it can be said that the respondent's answer is consistent and can be used for research. The first rank is "to protect product creativity" with a weight of 0.379. The second rank is "providing information on quality standards for handicraft products" with a weight of 0.345. The last sequence is "developing cooperation between the local government of Tansel in creative house policy" with a weight of 0.276.
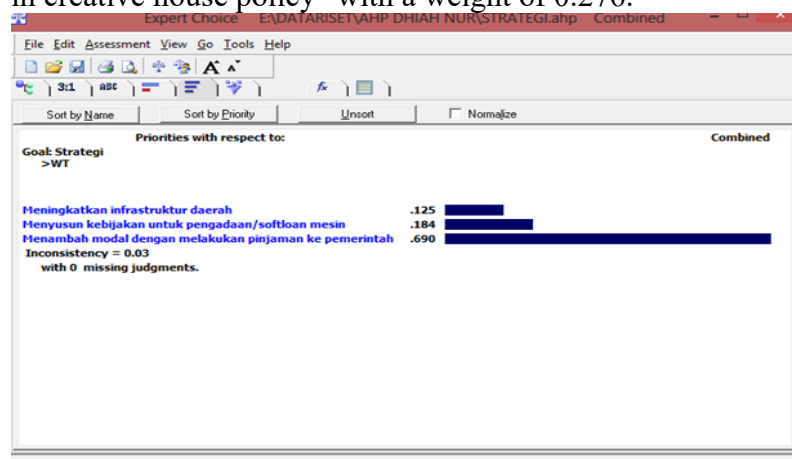

Figure 5. Results of Process Hierarchy Analysis on the Sub Criteria for the WT Strategy

The WT sub-criteria have an inconsistency value of 0.03 which is smaller than 0.10 so that it can be said that the respondent's answer is consistent and research can be carried out. The first sequence has a high weight of 0.690 is "increases capital by making loans to the government ". The second place is "developing policies for procurement / soft loan machines" with a weight of 0.184 and the last ranking is "improving regional infrastructure" with a weight of 0.125.

CONCLUSION

Based on the analysis carried out in the previous chapter, several conclusions can be made, namely:

1. Competitive advantage strategies, which are SO, WO, ST, and WT, the highest weight resulting from the pairwise comparison is WT. The second rank is the ST strategy. The third rank is the WO strategy. So, the priority scale that is most superior for the South Tangerang handicraft SMEs sector that must be done is the ST strategy with a more important sub-criteria, namely increasing capital with loans to the government.

2. On the sub-criteria for the SO strategy. 6 questions are used as pairwise comparisons. The highest weight is "to maintain the quality of products" on SO Strategy, thus the most important priority that needs to be proposed is to improving product quality.

3. The sub-criteria WO has three pairwise comparison questions. The highest weight is "developing a promotional program". Thus, the most important priority that needs to be proposed is developing a promotional program.

4. In the sub-criteria ST strategy, 3 questions are used as pairwise comparisons. The highest weight is "providing information on quality standards for handicraft products". Thus, the most important priority that needs to be proposed is giving information quality standards for handicraft products.

5. On the sub-criteria for the WT strategy. Three questions make pairwise comparisons. The highest weight is to "increase capital by making loans to the government". Thus,

the most important priority that needs to be proposed is to raise capital to make loans to governments.

SUGGESTIONS

Through the research results obtained, several things can be suggested:
1. To develop and improve business, an immediate strategy for the development of creative product SMEs is to increase capital through loans from the government.
2. Do not rule out other strategies such as providing information about product quality. It is important for SMEs to produce good quality products and have standard SOPs. This will make it easier for the product to expand its market internationally.
3. Promotion programs also need to be improved. Through increasingly advanced technology, it is hoped that it will not only rely on offline media but also online media.

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