

Strategies for Strengthening the Purun Handicraft Creative Industry in Banjarbaru City South Kalimantan

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Abstract

Some research and development results that have been funded, the largest portion is Technology Readiness Level of 3-5. Very few researchers entered in 6,7, or 8 levels. In effort to bridge the results of research and implementation in society, the technology transfer program needs a strategy to strengthen human resources in the creative industry, especially purun crafts. The application of the Analytic Network Process method in selecting strategies was based on weighting of each criterion and alternative. The results of analysis gave priority weights for product performance and market performance sub-criteria which affect the choice of strategy, namely motive and product type sub-criteria of 0.48715, while customer satisfaction was 0.42224. In the alternative cluster, there were two strategies that became the best priority, namely development of creative products of 0.44857 and strengthening of purun handicraft brands in the Galoeh Banjar and Al-Firdaus groups of 0.28947. Strategies to strengthen human resources in terms of creative product development and brand strengthening were done through education, training, and coaching based on the principles of Competitive Advantage.

Keywords: Analytic Network Process, creative industry, purun craft, Technology Readiness Level, cluster

I. INTRODUCTION

Handicraft products are the pride of society and the country because they are traces of culture, intellectuality, wisdom and aesthetics [1]. Global competition requires regions to be able to produce output efficiently so that they can survive. Efficiency triggers creative thinking, which in turn can lead to creative ideas. Multicriteria analysis using the Analytic Network Process method has been used by several researchers to combine several criteria relationships into a comprehensive decision making on alternative selection. Researchers have previously conducted the assessment and determination of the potential for sustainable biomass waste using the Analytic Network Process method which shows that the waste of orange peels, pineapple leaves, and palm skin can be applied as a source of heterogeneous catalysts [2]. Based on the results of the characterization test for heterogeneous catalyst synthesis from the biomass waste studied, it was known that the synthesis of silica-based catalysts from waste sugar palm husks, pineapple leaves, and orange peels had met the characteristics of standard silica catalysts [3].

Various changes have occurred including shifting business patterns, shifting people's behavior, resilience and efficiency, shifting industrial structures, industrial revolution 4.0, and a digital ecosystem that is connected between sectors [4]. The Smart City concept is an innovative research framework to increase the Technology Readiness Level of a research product [5]. Some research and development results that have been funded, the largest portion is at the technology readiness level 3-5. Very few enter 6, 7, or 8 levels. In an effort to bridge the results of research and implementation in society, then the technology transfer program needs a strategy to strengthen human resources in the creative industry, especially purun crafts.

II. METHODS

The method used for strategy selection was the Analytic Network Process using Super Decision Software version 2.10.0 based on the weighting of each criterion and alternatives from the pairwise comparison for each interaction in the network. This research began by identifying with the purun craftsmen group and stakeholders referring to conditions in the field. Furthermore, the network model construction was made consisting of goal clusters, criteria clusters containing sub-criteria nodes, and alternative clusters. Then each cluster was assessed in pairs by the expert based on the pairwise comparison rating scale of Saaty 1-9 used in the model [6]. In the final stage, the highest priority value would be obtained for the chosen strategy alternative.

III. RESULTS AND FINDINGS

3.1 Criteria and Alternative Strategies for Strengthening the Purun Handicraft Creative Industry

The criteria used in the strategy to strengthen the purun craft creative industry were product performance criteria and market performance criteria based on observation, secondary data collection, and interviews with groups of purun craftsmen and related stakeholders. Furthermore, the alternative cluster consisted of developing creative products, mapping marketing areas, strengthening the purun craft brand, and developing educational tourism. The network model of Criteria and Alternative Strategies for Strengthening the Purun Handicraft Creative Industry can be seen in Figure 1.

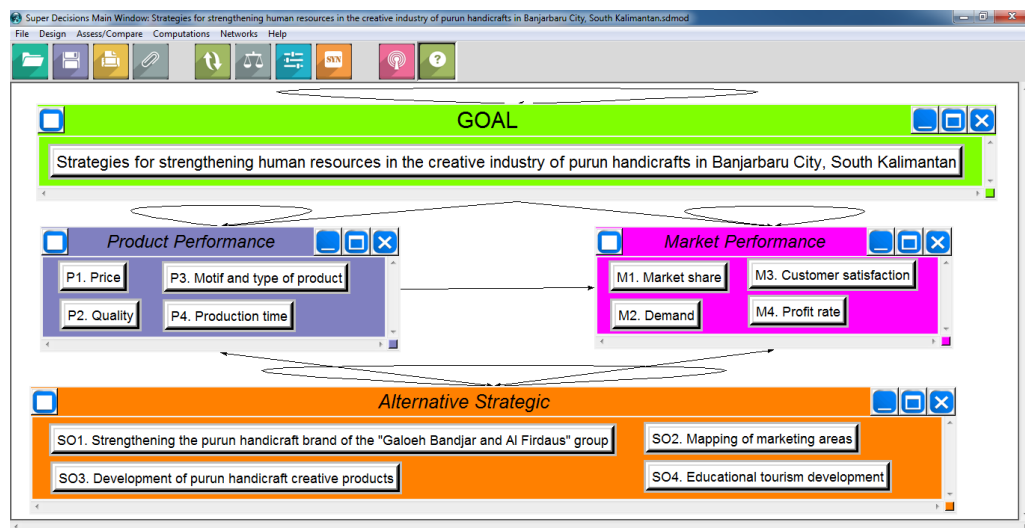


Fig. 1. The strategic network model for strengthening the purun craft creative industry

Based on the construction of the network model processed using the Super Decision software version 2.10.0, a summary of the results of the pairwise comparison was obtained. There was an inner dependence relationship that occurred at the nodes in a cluster that affects other nodes in the same cluster, which showed the results of the analysis giving priority weights for product performance and market performance sub-criteria that affected strategy selection. In addition to the inner dependence relationship in the network model, there was also an outer dependence relationship that occurred at nodes in other clusters.

In the product performance criteria, the motive and product type sub-criteria (P3) had the highest priority value of 0.48715 which can be seen in Figure 2. This showed that the motive and type of product became a strong consumer attraction for handicraft products. The second place was the quality sub-criteria (P2) of 0.20855, then the price sub-criteria (P1) of 0.16094, and finally the production time sub-criteria (P4) of 0.14336. Meanwhile, on the

market performance criteria, customer satisfaction sub-criteria (M3) had the highest priority value of 0.42224. This was due to the unique motifs and appearance of handicraft products when wearing them. According to [7] the motifs and shapes of handicraft products reflected the culture, skills inherited, knowledge, and the beauty of the heritage. Thus, skills, techniques and knowledge were essential for sustainable production from one generation to the next. Furthermore, sequentially, the sub-criteria for market share (M1) was 0.25014, Demand (M2) was 0.24903, and the profit level (M4) was 0.07859. According to [8] there were varieties of handmade products based on natural resources. Also, the skills for the particular craft differed due to different cultures, traditions, and customs. For this variety of handicrafts product form worldwide, people had different attitude and intentions, so the factors that effecting buyers to buy the product was an important issue to become successful in the market.

Icon	Name	Normalized by Cluster	Limiting
No Icon	M1. Market share	0.25014	0.101570
No Icon	M2. Demand	0.24903	0.101117
No Icon	M3. Customer satisfaction	0.42224	0.171451
No Icon	M4. Profit rate	0.07859	0.031910
No Icon	P1. Price	0.16094	0.030241
No Icon	P2. Quality	0.20855	0.039187
No Icon	P3. Motif and type of product	0.48715	0.091538
No Icon	P4. Production time	0.14336	0.026939

Fig. 2. The priority weight of the cluster criteria for strengthening the purun creative industry

In the alternative cluster, synthesis was carried out so that two strategies were obtained as the best priority, namely the development of creative products of 0.44857 and strengthening of purun handicraft brands in the Galoeh Bandjar and Al-Firdaus groups of 0.28947 which can be seen in **Figure 3**.

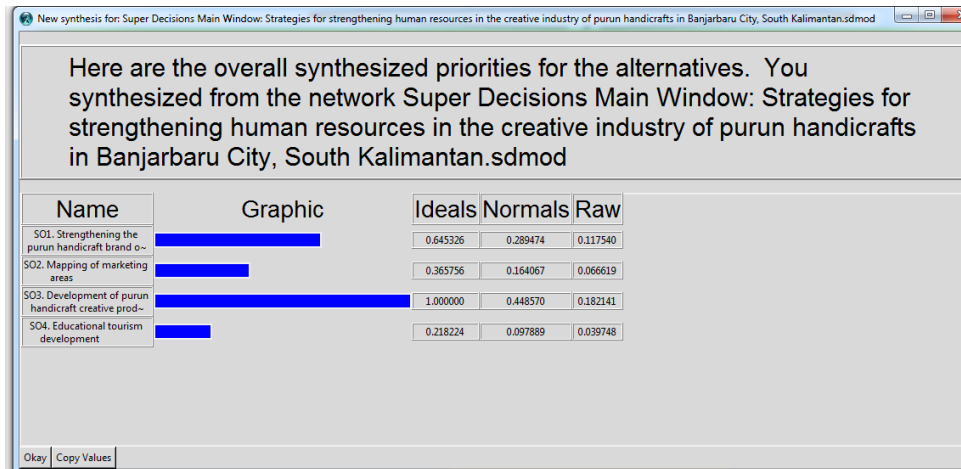


Fig. 3. Priority ranking in alternative strategy for strengthening the purun creative industry

Strategies to strengthen human resources in terms of creative product development and brand strengthening were carried out through education, training, and coaching based on the principles of Competitive Advantage. Crafts were created because of the demands of the need for function [9], so in the manufacture or creation of the crafts must be good by meeting the criteria for form of use, aesthetics, and also economical.

IV. CONCLUSIONS, IMPLICATIONS AND SIGNIFICANCE

Based on the pairwise comparison value in the network model, it was known that the highest priority weight for product performance criteria was the motive and product type sub-criteria (P3) of 0.48715. Meanwhile, the market performance criteria were customer satisfaction (M3) sub-criteria of 0.42224 which affected the choice of strategy. So we got two strategies that became the best priority, namely the development of creative products of 0.44857 and strengthening of purun handicraft brands in the Galoeh Bandar and Al-Firdaus groups of 0.28947. Strategies to strengthen human resources in terms of creative product development and brand strengthening were carried out through education, training, and coaching based on the principles of Competitive Advantage.

V. ACKNOWLEDGMENTS

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