

# Teak Roots Craftsmen's Adaptation to Market Anticipation in Margomulyo, Bojonegoro, East Java

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**Abstract**—This research aims at analyzing (1) the teak roots craftsmen's adaptation based on experiences, knowledge, and education; and (2) craftsmen's adaptation to the market anticipation. This study employs descriptive method using qualitative study in the form of case study. In-depth interviews were conducted to ten informants of craftsmen and one key informant as the Leader of organization. The data processing used is descriptive analytical using the principle of triangulation. The research results show that the choice of the adaptation to the environment, in the market anticipation, are very much determined by experiences, knowledge, and education. Craftsmen with limited capital ownership are generally incapable in conducting market anticipation, and the choices are (1) anticipating the market to the buyers with small scale, by higher prices without any long-term relationship so that capital can turn over, (2) anticipating the market to the mid-scale buyers with long-term relationship without seeking the high prices of social relationship that serves as trade partners, and (3) craftsmen that are conduct transaction with big-scale buyers are considered in conducting market anticipation in Bojonegoro regency and its surrounding areas.

**Index Terms**—Adaptation, craftsmen, teak roots, market anticipation.

## I. INTRODUCTION

The relationship between external factors and the limited internal factors of the teak roots craftsmen influences certain decision and choice making in conducting the adaptation to the biophysical environment, social environment, and market environment based on the concept of adaptive dynamics approach [1]. The concept of adaptive dynamics approach is a model of a system with its subsystems. The relationship among its parts can be asymmetric, and generally, it has a reciprocal relationship, through a give and take or feedback, at least. The decision and the choice are the expression of the adaptation to the life environment and its changing process. The existence of human beings as social beings, who live in restricted time and space, makes all their lives inseparable from the nature and the social environment and they are in their position as non-passive human beings who obtain the influence of the environment actively [2].

In his study about market in Java, Dewey states that market in the community of Java is a community of traders with competitive characteristics [3]. Market as a community is also

a social network for its members by forming an effectivity-based relationship in a local cultural setting. As stated in [4] and [5], market is a social institution or a series of social relationships that is organized in the process of buying and selling something valuable. Davis adds that the activities of the market are social and personal signs with personal interests and subjectivity of the doers [3]. In the market, there is also market economy power, obtained from the various and numerous goods that are bought and sold in large number as well as the specialization and the job division that operate efficiently and quickly.

The mechanism of self-adaptation is called as adaptation mechanism [6]. This mechanism explains that the community has the ability of social system in socio-ecological ways to always be ready and tough in facing and responding the changes of the internal factors and external factors.

The problems of the behavior of the teak roots craftsmen in making the decision and the choice of technology implementation, the quantity and quality of the production results, and the organization in the market anticipation are really determined by the knowledge, experiences, and education of the teak root craftsmen in conducting the adaptation process while facing the real situation changes of the physical environment and social environment.

Related to the problems, this research aims at answering the questions of (1) how is the adaptation of the teak root craftsmen to the environment, based on the experiences, knowledge, and education of the craftsmen, and (2) how is the adaptation of the teak roots craftsmen in conducting market anticipation, based on technology and organization related to the quantity and the quality of the production results..

## II. MATERIAL

### A. Social Action

An approach on social action on individuals is developed by Max Weber. Weber suggests that social reality that becomes the object of sociology study is the meaning of social action, comprehension (*verstehen*) on the meaning enables causal explanation about motives and effects of actions that can be made, and with that, causal explanation the pattern of social interactions can be understood [7].

In daily life these days, rationalization turns into actions that are based on the considerations of profit and loss in the interactions. Craftsmen in all over the world are human beings who act based on economy aspect, "in which in their own individual's space they conduct business actions that are suitable to their allocation." This is seen in the way the craftsmen use their opportunity and make rational decisions in

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allocating their resources.

#### *1) Experience, knowledge, and education*

Experience is the accumulation and learning process that people experience, and it gives contribution to their interest and their hope to learn more since that experience determined the interest and the need that people perceive [8]. It is asserted that experience is an interaction between environment and biological organisms and that it forms activities to get knowledge. Experience is something that someone has been through so that it forms knowledge, and knowledge is something dynamic and it always develops in line with the need of people.

Knowledge is a social process, since knowledge is given as a product of continuous interaction and dialogues of different actors and a number of actors of different power and resources [8].

Education is a growth and development process and as a result of interaction between individuals and social and physical environment that lasts since human beings were born [8]. It is stated that education is an organized development and the package of all potentials in people including: moral, intellectual, physical from and for each individual that are useful for the society as their life destiny.

Interaction among experience, knowledge, and education will encourage the action of individuals to fulfill their need in line with the objectives that they want to achieve. Needs consists of Need for Achievement, often stated as *nAch*, Need for Power or *nPo*, Need for Affiliation or *nAff* [9]. Mc Clelland suggests that Need for Achievement is a strong motivation of someone and as a result of experiences that people have done and knowledge and education that they have got [10].

The craftsmen make use of the result of interaction to make an adaptation to their social and physical environment so that they get the products that they expect rationally. Bennet [8, p.9] states that the relationship between human and environment is done by a process of adaptation, in which in the adaptation, people cannot be separated from their experience that they have.

#### *2) Market*

Market is a place where sellers and buyers meet and it is a social institution or a series of social relationships that are organized in the process of buying or selling something precious so that it is a place of social interaction [5].

Market asks the producers to always be able to serve the demands accurately, efficiently, and quickly, in terms of the type of the commodity, quantity, quality, time, place, and the price. The teak roots crafts that are marketed domestically can be sent to numerous markets since the craftsmen have already had their own network of small, middle, and big scale-buyers.

### III. RESEARCH METHOD

This research employs descriptive method using qualitative approach that is useful in describing a reality and a social condition of a community and understanding the certain signs at the best so that quantification is unnecessary.

In-depth interviews are conducted to the informants, which

are used to give further explanation about another individual that can give more information about the needed explanation [11], [12].

The informants of the teak roots craftsmen are determined purposively with the consideration that those informants have general knowledge about the teak roots craftsmen and all aspects related to them and that they also know much about the individuals selected.

The principle of triangulation in data gathering is also conducted in this study. It means that the answers of the questions are not simply relied on one source, but the truth of the information is also addressed to some other informants. The source and the number of the informants used in this research are ten informants of the teak roots craftsmen and one Leader of Jati Aji organization. The data gathering of this research employs two techniques, which are observation and interview. Observation is conducted to obtain the real condition of the teak roots craftsmen in conducting market anticipation. Participative observation is employed to summarize all of those data.

### IV. RESULT AND DISCUSSION

Weber states that in the daily life of the teak roots craftsmen, [7] turns into actions done based on the consideration of advantage and disadvantage in the interactions. Teak roots craftsmen are human beings that act in economy aspect, who conduct their business in their own individual space. This is seen from the use of the opportunity that the teak roots craftsmen have in allocating their resources.

#### *A. Experience, Knowledge, and Education of the Teak Roots Craftsmen*

The characteristic of the teak roots craftsmen between 50-55 years old (71,43%) apparently dominate the age range of the teak roots craftsmen. Generally, the teak roots craftsmen in Margomulyo district conduct their job based on the experience of their parents and friends who have succeeded in doing their business. The average length of experience that the informants have in conducting teak roots crafts business ranges from 10-20 years of 57,14%, and 25-27 years of 42,86%.

The knowledge of the teak roots craftsmen in understanding market is as a place to sell their products of the teak roots crafts in the form of tables, chairs, vases, ashtrays, and many others, as a place to make a good cooperation between the craftsmen and the traders, as a trade network, and as an information centre for the prices and the needs of the craftsmen, and the importance of capital to maintain the continuity of the trading activities. For the teak roots craftsmen, market is not only a place to trade (geographic aspect), but also as a market organization (economic aspect).

Teak roots craftsmen who sell their products to small-scale buyers understand that market is a place to sell their products, as a cooperation network among the traders. Small-scale buyers are a seller or trader who buy the teak roots crafts, such as tables, chairs, vases, ashtrays, and many others from the craftsmen and resell them to local market or to other villages.

Based on their experiences, the teak roots craftsmen sold

tables with the price ranging from Rp 250.000-Rp.1.000.000, chairs of around Rp 250.000-Rp 1.000.000, vases of around Rp 50.000-Rp 200.000, and ashtrays of around Rp 10.000-Rp 50.000. Based on the experiences, they generate a new knowledge that to sell the products directly to market, there is an institutional business network between the sellers and the business agents as well as sellers (double roles) with certain delivery number based on market demand. The action of the craftsmen who sell their products to small-scale buyers makes them get better price and can get cash quickly or in other word their capital can serve well in working capital turnover.

Teak roots craftsmen also sell their products to mid-scale buyers based on social and economic relationship with the value of trust and openness of the valid price at that time in terms of prices in the market, transportation expenses, and other expenses. In selling the products to mid-scale buyers, the craftsmen do not get higher price, compared to the standard price in the market, but the good side is that there is a guarantee that the products will be paid back after 2-3 weeks, and also due to the social relationship network that reciprocally advantageous. The teak roots craftsmen who sell their products to big-scale buyers with their own stores in Bojonegoro regency and its surrounding area, such as Yogyakarta, Solo, Jepara, Bali, East Java, Central Java, and West Java. This signifies that the craftsmen have already had wider knowledge about market.

Based on their educational background 42,85% of the craftsmen graduated and did not graduate from Elementary School. This low formal educational background is supported by the high informal educational background of 57,14%, who have ever joined courses, for example internship and assistance or guidance about teak roots crafts, such as tables, chairs, vases, ashtrays, and so on.

For the craftsmen, education is used to get new knowledge that is useful to expand their way of thinking so that they will understand easily about the various changes of the environment situations both in non-physical environment (social environment, cultural environment, market environment) and consumers' environment that are all related to the activities of the teak roots craftsmen in making the products of tables, chairs, vases, ashtrays, and so on, as well as to understand the dynamics of the local community life.

Through education, the craftsmen can improve their intellectual and moral thinking potential that they have and make them easy to do interactions (business investments, social, cultural, and economic interactions) with other craftsmen and the community. Education will help the craftsmen to master the thinking concept and to apply the great ways to solve problems that they face [13]. In addition, education enables the craftsmen to create atmosphere, condition, environment, and opportunity that enable them to develop independently as the managers of the craftsmen or the leaders in business community. According to the respondents, the training for the craftsmen, especially about the marketing material is still insufficient.

All of the descriptions about experience, knowledge, and education of the teak roots craftsmen in Margomulyo district support them to try to do adaptation in implementing the processing skill technique of the teak roots and the marketing of the products. The craftsmen always consider each change

of the biophysical environment, social environment, and market environment that are directly related to the market anticipation. All of them are inseparable from the knowledge system that they have as the heritage from their ancestors and as their own knowledge that is obtained from experience, education, training, or social interactions.

It is stated that relationship between human and environment through a process called adaptation, which is inseparable from the experience that human have [1]. It can be seen that the adaptation ability of a person encourages the person to develop the behavior including knowledge, skills, and attitude in conducting anticipation in the environment. Therefore, adaptation is a reality as a result of the relationship among people in fulfilling their needs, and in this case the actions of the teak roots craftsmen that look for optimum profit by selling their products to small, mid, and big-scale buyers. According to Weber, adaptation is an instrumental rational action since it takes into account on the suitability between the goals to be achieved and the facilities to achieve [7].

From all of those descriptions, it can be concluded that experience, knowledge, and education drive people to act based on the resources that they have, as mentioned in [9, p. 31] that inside every person there is a need or drive to reach an achievement, and as a result from the observations conducted, knowledge and education also influence the action that the craftsmen do. According to Weber, the actions of the teak roots craftsmen based on their experience and habit in turning teak roots into crafts like tables, chairs, vases, ashtrays, and many others is a tradition-oriented action, in which it is used as an action merely due to habit that has been successfully done.

#### *B. Adaptation of the Teak Roots Craftsmen*

The activities of teak roots craftsmen in Margomulyo district always adapt to: (1) physical environment, including: area and raw material of teak roots as available resources to support their life continuity, and (2) social environment, which is life environment, in humanity aspect, including the activities of the teak roots craftsmen in interacting with others (buyers). The physical and social environment directly influence the technology and organization of the teak roots craftsmen that are related to the quantity and quality of the products of the teak roots crafts including tables, chairs, vases, ashtrays, and so on in conducting market anticipation actions.

Adaptation is a behavioral system that is formed as a result of adjustment of the human to the changes of the surrounding environment, in terms of maintaining the balanced reciprocal relationship in getting inputs from the ecosystem to survive. Indirectly, adaptation is a high dynamic since the environment and the people always change and each individual always tries to optimize their life chance [2].

Principally, the behavior of the craftsmen in adapting to the biophysical factors is supporting the production system because the craftsmen conduct a conservation action shown by planting the teak plants.

For the craftsmen (informants), changes in using technology in their skill in processing the teak roots crafts, including tables, chairs, vases, ashtrays, and so on, reflect the need of the craftsmen to improve the productivity based on

the result of social interaction in the buyers' community. The actions of using technique in their skill of processing the teak roots starts from: (1) thinking of the profit and loss, (2) avoiding risks, (3) thinking of the lengthy time needed to renew the technology, which usually takes a long time.

The determination of the craftsmen and the implementation of the technology are taught hereditary by the local indigenous technology that fit both to the environment in the form of skills in processing the teak roots and to the marketing. It means that the type of the craftsmen, the number (quantity), the quality, and the marketing organization have considered the price fluctuation and the market demand. The implementation of the skills in processing the teak roots is realized by making various designs of tables, chairs, vases, ashtrays, and so on. For the craftsmen, this adaptive action is the system of their survival in their life that is used to support their life and their family for years.

Generally the teak roots craftsmen sell their products in the form of tables, chairs, vases, ashtrays, and so on to the buyers (small, mid, and big scale), and they have not been able to use high skills due to the limitation of the skills and capital. As a result, they need to have a quick working capital turn over, and therefore the craftsmen just sell their products (tables, chairs, vases, ashtrays, and so on) directly and do not really prioritize on the quality.

### *C. Anticipation of Teak Roots Craftsmen*

In reality, the teak roots craftsmen interact with the small, mid, and big scale buyers. In dealing with small-scale buyers, the teak roots craftsmen sell their products of tables, chairs, vases, ashtrays, and so on at their houses functioning as outlets. Since the transaction is personal with short-term relationship (only on the transaction time), then each party tries hard to reach optimum profit in that transaction. Transaction is called impersonal transaction. Impersonal transaction is relationship between sellers (teak roots craftsmen) and small-scale buyers that are not bind by personal relations in long-term dimension [14]. It means that the social relationship between the sellers and the buyers is limited only when transaction occurs, and it also serves as reciprocity behavior since there is a reciprocal action among the groups.

Craftsmen that have transaction with mid-scale buyers are able to make long-term relationship and do not look for the highest price, but create trading network in the form of social relationship of patron-clients that serves as trading partners.

Craftsmen sell their products to the big-scale buyers based on the social and economic relationship of the feeling of trust and openness of the valid price at that time in the market. The craftsmen that are able to do transaction with the big-scale buyers are considered to be able to conduct market anticipation in Bojonegoro regency and its surrounding area, such as Yogyakarta, Solo, Jepara, Bali, East Java, Central Java, and West Java, and they are able to fulfill the requirements of both physical and social environment by implementing technology and forming a quality and quantity-oriented organization.

The reasons why the craftsmen choose to sell the products to big-scale buyers are: (1) the products are relatively sold out quickly, and (2) the price of the teak roots crafts such as tables,

chairs, vases, ashtrays, and so on is stable, whether when the production high or low. The transaction system or the exchange relationship between the teak roots craftsmen and the big-scale buyers is social cooperation relationship with long-term dimension. This transaction relationship is called personal transaction since social consideration is more in charge of taking the decision of the transaction so that both parties get the profit [14]. The relationship between the teak roots craftsmen and the big-scale buyers turns into patron-client relationship. Generally, the big-scale buyers serve as patrons or the protectors, while the teak roots craftsmen serves as the clients. Therefore, it can be stated that the relationship of patron-client that occurs in the relationship between craftsmen and buyers leads to the balance in the form of cooperation[15], as well as conducts adaptation as one of a more holistic adaptive concept adjustments [16].

## V. CONCLUSION AND SUGGESTION

### *A. Conclusion*

The decision and choice of the adaptation to the environment both biophysical environment and social environment in market anticipation are really determined by experiences, knowledge, and education of each teak roots craftsman.

Anticipating the market to the buyers with small scale, by prioritizing higher prices without any long-term relationship so that the limited money capital can serve well in working capital turn over

Anticipating the market to the mid-scale buyers with long-term relationship without seeking the high prices to enable market network in the form of social relationship of patron-client that serves as trade partners

Teak roots craftsmen that are able to conduct transaction with big-scale buyers are considered having the capability in conducting market anticipation in Bojonegoro regency and its surrounding areas, such as Yogyakarta, Solo, Jepara, Bali, East Java, Central Java, and West Java, and are able to fulfill the requirements of physical and social environment by implementing technology and forming organization that focuses on quantity as well as quality.

### *B. Suggestion*

It is considered that further research about the adaptation of the teak roots craftsmen involving other cultural aspects is needed, to sharpen other factors influencing the adaptation process of the teak roots craftsmen in conducting market anticipation.

It is necessary to maintain the cooperation model between the teak roots craftsmen with double roles and some professions in one organization management in conducting market anticipation. The crafts of the teak roots are in the form of tables, chairs, vases, ashtrays, and many others, based on the specialization of the craftsmen and certain market selection by developing other professions.

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