



# Triple Helix Development Model in Improving Marketing of The Arrow Industry in Krandegan Village, Purworejo Regency

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## ABSTRACT

Purworejo Regency has a very strategic location among national strategic projects, including being close to Yogyakarta International Airport (YIA), Bener Dam Project and Borobudur Authority Agency. In accordance with the Purworejo district's vision to reach Purworejo which is competitive in 2025, MSME competitiveness is the third point in the mission to achieve this vision. In line with this, it is necessary to explore the economic potential and new tourism potential in Purworejo Regency. The current condition of the Archery Industry in Krandegan Village has a producer cluster of 10 people in 1 area. The Krandegan Village Government also strongly supports the advancement of tourism and industry with plans to develop an archery tourism area on an area of 4000 meters. The still weak marketing of the archery industry, not optimal promotion strategies and not optimal quality of the archery products produced are still a problem in Krandegan Village. From these problems, the roles of the three Triple Helix actors namely the roles of Academics, Core Business and Government to overcome existing problems. Academics play a role in conducting research studies and assistance activities for online and offline promotions. Business actors play a role in investing and innovating in the areas of improving product qualifications, packaging, and online marketing. The government plays a role in prepare infrastructure, capacity building and regulations on the archery market. So that the final results can increase sales turnover and increase access to the archery market in Krandegan Village as well as increase cooperation networks.

**Keywords:** *Triple Helix; Archery Industry; Competitiveness; ABG Concept*

## 1. INTRODUCTION

Purworejo Regency has a very strategic location among national projects, including being close to the Yogyakarta International Airport (YIA), the construction of the Bener Dam, and also the existence of the Borobudur Authority Agency (BOB) which will certainly have a huge impact on the economy of the people of Purworejo Regency when able to seize market opportunities. Opportunities for Purworejo Regency to continue to increase competitiveness and explore the potential of both the economic and tourism sectors to increase the Regional Original Income of Purworejo Regency.

According to the results of data obtained from a survey conducted by the KUKMP office of Purworejo Regency, at the end of 2020, it showed that there were more than 57 thousand MSMEs spread across 16 sub-

districts throughout Purworejo Regency, but not all of them are recorded in the database at this time. To realize a competitive Purworejo as one of the Visions of Purworejo Regency, improving the welfare of MSMEs which are the backbone of the economy needs to be further improved, explored and supported together, both in terms of providing regulations from the local government, hard work from entrepreneurs/ business actors as well as intervention from the local government. university/academic [1].

Krandegan Village is one of the villages in the Purworejo Regency which has become an independent and brilliant village because of its high creativity among hundreds of villages spread over 16 sub-districts in Purworejo Regency. Many achievements are carried by the village with a population of 900 families. Of the many existing villagers, there are several MSMEs that have been established. According to the survey, it is known

that the number of MSMEs in Krandegan village is 50-60 MSMEs. In Krandegan, Bayan Currently, the archery production unit is divided into 5 groups of workers. These groups have their respective duties in terms of archery production so that archery is made into one complete package. Production carried out between one person and another is still within the scope of the village so that the coordination is not so difficult. On a daily basis, archery production can produce 20-30 sets of archery and the number of archery packages sold per day is 5-10 sets [2].

The Archery Industry in Krandegan Village, Bayan is one of the local potentials and mainstays for tourism and the potential for increasing the economy is very good, because in Purworejo Regency it has only become the only area for Archery Industry craftsmen. There are many opportunities that can be taken from the sale of archery equipment because the number of competitors is not yet large. However, there are several obstacles that make the sales of archery products less than optimal in the international market. Where the main problems faced are the weakness of marketing strategies and the less than optimal network of cooperation. One approach that can be taken to answer the above problems is the Triple Helix Development Model for the involvement of the Government, academics and entrepreneurs/MSME actors to increase marketing and of course increase income in the field of archery in Krandegan Village, Bayan. It is hoped that this collaboration will make the Archery Industry in Krandegan Village, Bayan one of the potential areas in Purworejo Regency to become a "*Specialized Industrial District*" in Archery which currently does not exist. And there is an integrated concept between policies from the government, the role of academics and businesses that must be carried out by business actors in the field of archery to achieve these goals gradually and together. This research presents a novelty in the field of modeling the cooperation of the three actors in the triple helix, namely business owners, government and academics for the archery industry, which will be initiated by Krandegan Village. This research is also an initiative of the government of Purworejo Regency to build an input for the Archery Industry Center Village as a new economic attraction and tourism sector. The need for government innovation in increasing economic competitiveness by involving other pillars so that it will be more easily mapped and applied in the field. So that the responsibility for advancing the economy is not only on the shoulders of the government but also in the academic sector and the core of the business [3].

In the triple helix, the research results of university academics are expected not only to serve the needs of science, but also as a solution to government problems in determining policies and regulations related to the business community. The three elements in the triple helix, namely Academics (A), Business (B) and

Government (G) need to work together to achieve the goals that have been set together [4][5].

## 2. METHOD

This research is action research. This research uses qualitative methods by interviewing predetermined respondents. Action research according to Noeng Muhajir is a model for conducting continuous object recognition and reflection studies through research. Action research is intended to close the distance between the concept and its operations [1].

Shani and Pasmore say that action research is a process of change based on systematic data collection and then selecting an action based on what is stated by the analyzed data, in the context of this research what is meant by change is a change in marketing strategy in the Archery Industry in Krandegan Village as well as the process starting from raw materials, technology and management. Action research consists of five steps; diagnosis, analysis, discovery learning, action, and evaluation. The research location is in the village of Krandegan, Bayan, Purworejo [6].

The sample in this study were informants who were chosen unilaterally on the grounds that they knew the required information correctly. The informant selection technique used the snow rolling method with key informants as the main informants, namely archery figures or craftsmen, followed by other craftsmen and archery entrepreneurs, raw material entrepreneurs, personnel from the Industry Service, Tourism Office, Krandegan Village government personnel. Academics from Universities [4].

A retrospective approach is used to describe the condition of the craftsmen in terms of the existence of products, models, motifs and problems they face, as well as the challenges and strengths of the Archery Industry in Krandegan Village in the market [7]. While the prospective approach is used to predict and anticipate the challenges and strengths that may arise if the Archery Industry in Krandegan Village is innovated, and products are developed according to market demands [1]. The next stage is discovery learning, namely learning about the problems that are being faced and those that will be faced from product development strategy innovations to find the most possible and profitable patterns. Discovery Learning and development models are carried out through interviews with research informants [8].

## 3. RESULT AND DISCUSSION

### 3.1. Mapping of Archery Industry Conditions

Archery Industry SWOT Analysis Results in Krandegan, Bayan

**Table 1** Archery Industry SWOT Analysis Results

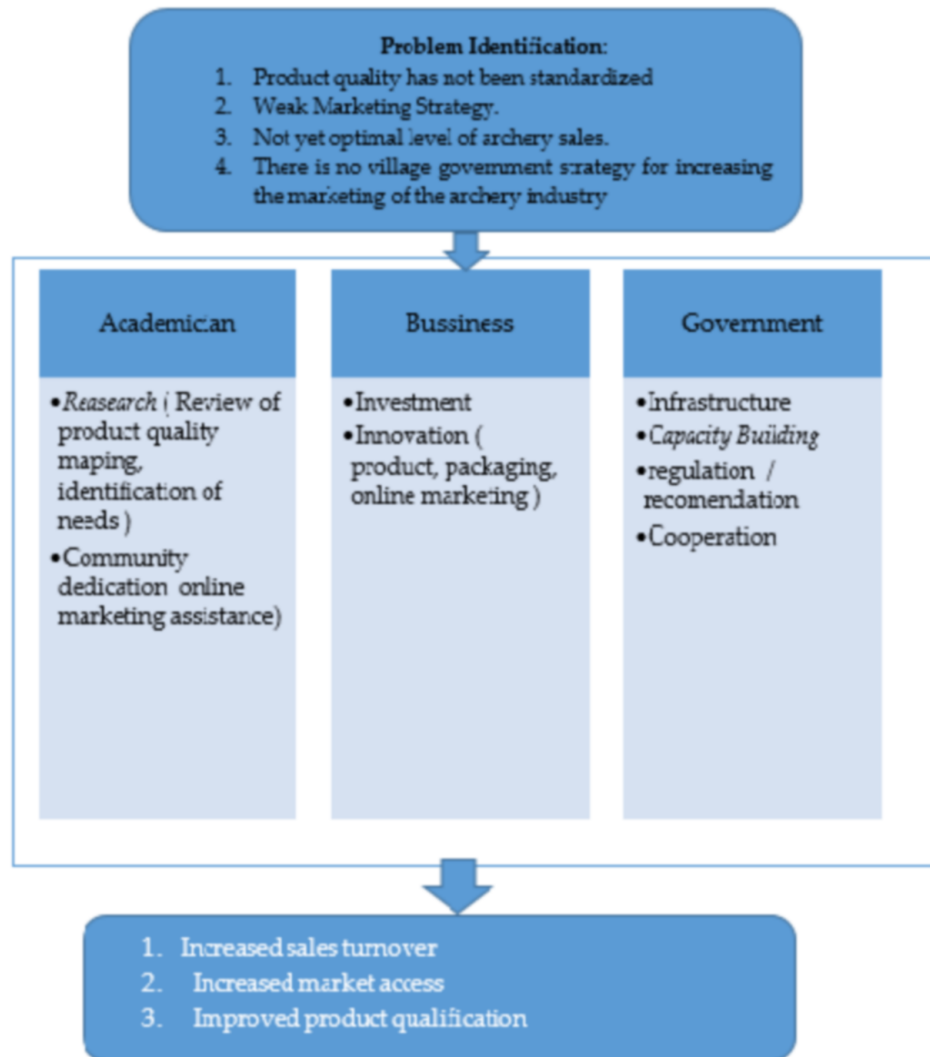
Strength	Weakness
<ol style="list-style-type: none"> <li>1. Great Village Government Support to advance the archery industry</li> <li>2. Availability of raw materials from local. Purworejo Regency</li> <li>3. Support from academics for good mentoring</li> <li>4. The demographic/location is supportive and strategic</li> <li>5. Availability of Supporting Funds from village original income</li> </ol>	<ol style="list-style-type: none"> <li>1. Uneven human resource capabilities in archery production</li> <li>2. Product qualification has not been able to compete</li> <li>3. Production Cluster Management does not yet exist</li> <li>4. Production infrastructure is still simple</li> <li>5. Product packaging is still simple, there is no special packaging</li> </ol>
Chance	Threats
<ol style="list-style-type: none"> <li>1. To be the only archery industry in the district. Purworejo</li> <li>2. Broad market share</li> <li>3. Archery tour packages are available that support the marketing of the archery industry / children's <i>dolanan</i> village</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of commitment of marketers / resellers to market products together</li> <li>2. Fulfilment of qualifications Quality raw materials, there are some parts that must be imported</li> </ol>

To cover some of the weaknesses listed in table 1, it requires the cooperation of several parties so that the existing archery industry increases its marketing. So a strategy is needed to cover existing weaknesses or threats so that the expected final results can be maximized. Some strategies that can be identified include:

1. The large government support for the archery industry has not been matched by the even distribution of human resource capabilities in the archery producer cluster and the small number of producers in the archery cluster, so a strategy for equitable distribution of human resource capacity is needed. There is a need for training to increase the capacity of producers and the construction of a workshop for an archery production training centre in Krandelan. With this workshop, it will increase the ability of archery producers and open a training centre so that the surrounding community can participate in these activities and will raise production intentions and capabilities to increase the ability of producers. The village government can initiate the opening of an archery workshop and present experts not only from the production field but from other fields to support marketing activities. Experts can be brought in from academics involved for activities. Training activities or the opening of a work training centre workshop can also be used as an agenda for the Purworejo Regency Industry and Manpower Office for a more programmed implementation.
2. There is great support from the Village Government for the archery industry and the opportunity to become the only archery industry and tourist destination in Purworejo Regency, but business actors are not optimal in production so business actors need to increase cooperation and build networks with the government to increase marketing.
3. There is a weakness in the presence of cluster management that does not yet exist, they can use a production cluster assistance strategy to actors. Availability of Raw Materials from local natural resources in Purworejo Regency is high, but not all of them meet the qualifications for production. Therefore, business actors need to determine the standard qualifications required for specifications and cooperate with suppliers of raw materials. Academics can assist in standardizing raw materials or applying appropriate technology, while the government can accommodate for the procurement of the necessary raw materials.
4. Availability of supporting funds from the village which is large but for sales the commitment of marketers / resellers for product marketing is low. The strategy that can be raised can be with the synergy of the village government and business actors through marketing with BUMDES to manage resellers and direct marketing to customers. The government in this case DinKUKMP Purworejo can hold special training for resellers to market online and offline. The development and training for resellers can also be facilitated by academics to assist in improving human resources to market products with training in creating digital marketing content, making flyers, and promotional videos.
5. Availability of a wide market share requires a market access segregation/market segmentation strategy. The strategy for determining market segmentation can be in the form of training from universities for business actors to map market segments. Market access from the wide market share can be in business, assistance can be from the government or academia.
6. Archery product packaging which is still simple, does not have special packaging, needs to be improved by facilitating packaging. Packaging design and packaging printing can be facilitated from the Purworejo Industry and Labour Office and in collaboration with the Central Java Province BIKDK.

7. The absence of NIB/ legality ownership and business legality of industrial players also needs to be addressed with Archery Craftsman Legal

Assistance for NIB ownership and at least IUMK can be carried out by the Office of Cooperatives and SMEs of Purworejo Regency



**Figure 1** ABG Model for Archery Industry Marketing in Krandegan Village

From several explanations of the strategy of the role of Academics, Core Business and Government above to increase the marketing of the archery industry in Krandegan Village, it can be described in the Triple Helix / ABG (Academician-Business-Government) strategy concept map for the improvement of the archery industry.

#### 4. CONCLUSION

The role of academics as actors of change conducts studies, mapping, and research activities related to product quality and mapping needs identification, besides that they also carry out community service related to archery online marketing assistance in Krandegan village. The role of business actors / Core Business in investing, and innovating in the field of product quality improvement, packaging innovation, online marketing innovation. The role of the government with the role of infrastructure improvement, human

resource training, capacity building for archery industry players and recommendations for archery tourism visits for school children. There is a need for a Regency Government Policy in the development of tourism areas and the Archery industry in Krandegan Village in the long term with the legal existence of tourism areas and the archery industry as educational tourism and also one of the contributors to economic resources for the new Purworejo Competitiveness.

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