









Note:

Total of strength and weakness factor weight = 100%

Rating score, scale 1 from lowest score to 5 highest score

1 = very low

4 = high

2 = low

5 = very high

3 = medium

Table 3 is an external SWOT calculation obtained from the multiplication of the weight of each parameter with the performance value of each parameter, the data obtained from the interviews with association board or existing institutional.

Table 3. Calculation of Opportunities and Threats (External)

No.	<i>Opportunities</i>	Weight	Rating	Score
1	Rise of potential demand of local and world market	0.20	4	0.80
2	Economical openness of AFTA and MEA	0.15	4	0.60
<i>Subtotal opportunities</i>				1.40
No.	<i>Threat</i>	Weight	Rating	Score
1	The existence of imported knitwear from China which cheap and has good quality	0.20	4	0.80
2	Raw material is still imported, so it is influenced by dollar exchange rate which inclined increase	0.15	4	0.60
3	There is no coordination between government in developing knitting center	0.15	3	0.45
4	There are a lot of competitor of clothing substitution product	0.15	4	0.60
<i>Subtotal threat</i>				2.45

Source: The Result of Data Processing, 2017

Note:

Total of opportunities and threat factor weight = 100%

Rating score, scale 1 from lowest score to 5 highest score

1 = very low

4 = high

2 = low

5 = very high

## 4. Result and Analysis

### Result

The SWOT method is an analytical tool used to identify internal and external factors in order to formulate an appropriate development strategy for business actors in knitting center. This analysis is based on effort to maximize the power to seize the available opportunities, and to cover up the weaknesses and avoid the threats. Based on the weighting table and rating value performed above on internal and external factors, it was obtained the following scores: strength factor = 1.66; weakness factor = 1.92; opportunity factor = 1.40; threat factor = 2.45. From the calculation results of the scores, it is further plotted on the figure of SWOT analysis diagram consist with 4 quadrants as in the figure. From the intersection of the four lines of strength, weakness, opportunities and threat factors, then it is obtained the coordinates, that is:

Strength score - weakness score; scores of opportunities - threat scores  
1.66 - 1.92; 1.40 - 2.45  
-0.26; -1.05

Based on the result of SWOT quantitative calculation above, it can be formed a graph with coordinate point which shows the position of business performer in knitting center in SWOT quantitative analysis. The graph of the results of calculations of quantitative analysis with the SWOT method of all of entrepreneurs in knitting center is as follow:

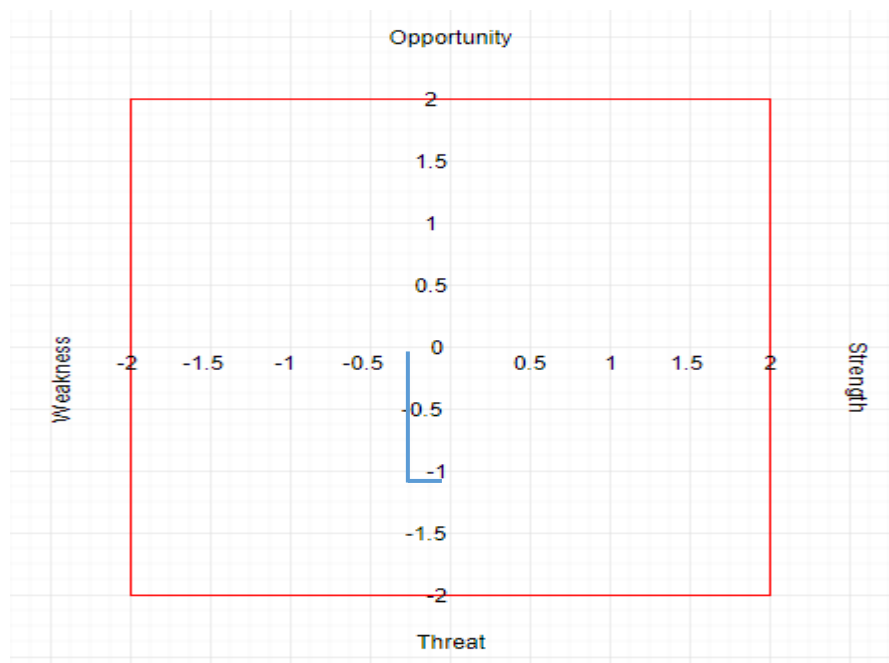


Figure 4 Matrix SWOT

Note:

- X = strength aspect of business actors in knitting center
- X = weakness aspect of business actors in knitting center
- Y = opportunities aspect of business actors in knitting center
- Y = threat aspect of business actors in knitting center

From the SWOT matrix graph above, it can be detected that the position of business person in knitting center in general is in quadrant 3 which is the lowest quadrant, that is WT (weakness-threat).

### Validation

The validated model can be expected from the consistency value CI/RI. Thus the validation of it's condition, we can compare the swot analysis output with the real condition. As describe in the introduction of this paper that the data indicating a decrease in the number of business actors and workers absorbed from year to year. The decline in the number of craftsmen due to industry dominated by weakness and threat, it validate output of the SWOT matrix.

1. Weakness
  - a. The limited supplies of raw materials
  - b. Rising of raw material prices
  - c. Inadequate production facilities and infrastructure
2. Threat
  - a. Overwhelmed by imported knitwear products with cheaper price which become threat to Binong Jati knitting industrial center. It have become obstacles in development of this small industry.

## **Recommendation**

This means that the necessary business development strategy is to cover the weakness and avoid the threat. Covering the weaknesses means by increasing the resources and capabilities so that weaknesses can be covered. Avoiding the threat is done in order to save business person in knitting center by involving various parties. The recommendation strategies to cover the weaknesses and avoid the threat with priority given to factors that have a high score are as follow:

1. Continuity in the supply of knitting raw materials, which consist of acrylic and spandex yarn, is done by breaking the chain supply of yarn as short as possible from the yarn factory so that the price of raw materials to the business person in knitting center is not too expensive. The committed strategies by involving the government through the relevant department to overcome these obstacles by:
  - a. Cooperating with yarn industry to supply specific stock of acrylic and spandex yarn for business actors in knitting center.
  - b. Initiate the existence of development partner programs from the yarn factory to business actors in knitting centers mutually and exclusively.
  - c. Coordinate and ensure the needs of raw materials of yarns in each period, e.g. weekly and sustainable through associations or cooperatives in the knitting center.
  - d. Establish a yarn distribution network as short as possible from the yarn factory so the price can be cheaper.
2. Knitting machine used for production is still manual and semi-automatic so the quality of knit which is produced is still relatively low. Thus, the business development strategy of knitting center is done by involving the alignment from the government through the related department, by:
  - a. Make a program plan review of replacement with automatic machine in phase.
  - b. Conducting data collection of condition and feasibility of machine of business actors in knitting center.
  - c. Determine the criteria of business actors who can participate in the automatic knitting machine replacement program.
  - d. Determine the financing scheme that suitable with the ability of the business actors.
  - e. Train workers to operate automatic machines.
3. Skills of human resources is still relatively low, both skill in knitting production and in business management. Improvement of human resource capability requires the involvement of government and universities such as College of Textile Technology. Strategy of human resource development is done by:
  - a. Plan a training program for production workers and business managers.
  - b. Collect the data of training that is needed and update the skill of knitting worker, such as operating the knitting machines correctly, operating the automatic knitting machines, and so on.
  - c. Provide skills training to create a creative and innovative design of knitwear.
  - d. Plan funding sources from skills training program of workers in knitting center.
  - e. Improve positive mental and motivation, both workers and knitting business owners.
4. Improving product quality is a way to compete with imported knit products from China and Korea. Quality improvement is done by:
  - a. Replacement of old (manual) knitting machine to automatic knitting machine.
  - b. Increase skill of the workers in producing the current knitwear product design.
  - c. Improve production methods and production quality control.
  - d. Make a well-known knit product brand.
5. Improving road access, that is currently narrow and slum, is done by involving relevant agencies such as department of spatial planning. Improving road access is done by:
  - a. Conduct a spatial restructuring plan in knitting center area and its access.
  - b. Review and improve existing urban planning.
  - c. Make road access for visitors and business partners.
6. By improving the quality of knits from various aspects as described above, it will prevent the business actors from threat of the widespread imported knit products, intense competition among business person, and the threat of increasing of clothing substitution product.
7. The need of coordination as support from various parties, especially between government, universities, and the yarn industry. This is done as follows:
  - a. Government support for the stability of raw material price by stabilizing Rupiah exchange rate against US dollar, price protection with tax incentives and other relief.

- b. Make coordination between government agencies in developing the knitting center business to avoid duplication of the program as it often happens today.
- c. The intervention of government and agency done by individual is proved ineffective in developing knitting centers.
- d. Create an integrated and sustainable business development assistance program plan.

## **5. Conclusion**

The SWOT matrix position of the knitting industry is on the position of weakness-threat (WT) which means that the business person is currently in conditions which has internal weakness and face an external threat. So the strategy needed to be applied is the effort to immediately cover the weaknesses and avoid the various threats that exist. Weaknesses are covered by designing an efficient and effective yarn supply chain system. Then create a replacement program strategy from manual machine to automatic knitting machine to improve the quality of knitted products. It is needed to improve the skills of the workers, especially in using automatic machines and better production methods. Conducting the planning of facilities and infrastructure industrial centers, especially the ease of access to the location of industrial centers located in a densely populated area with narrowed road access. Furthermore, it is needed the coordinated and programed advisory strategies from various parties, especially the government, academia, yarn industry, and other parties so it can provide comprehensive solutions.

For further research, it is necessary to examine the capability of each business actors in accordance with group or business size clusters in small, medium, and large categories so that the offered solution is more representative and accordance with the problems and business scale on each cluster and also need a further study on external factors so that the problem can be mapped thoroughly.

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