

# Application of Corespondence Analysis Method to Competition in Photocopy Amore Jember

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**Abstract:** The purpose of this study is to analyze the competition in the Amore Jember photocopying business and to analyze the efforts that can be made to increase competitiveness in Amore Jember photocopying. The theory used in this study is the theory of business competition. The method used is a quantitative method using the SPSS version 26 program. The research technique used is corespondence analysis with 120 respondents using a purposive sampling technique who are consumers of photocopies of Amore Jember and its competitors. For the results of the corespondence analysis method, it can be seen that respondents chose photocopies of amore jember with the best or superior scores in 13 attributes, besides that there were also 7 attributes that were included in the competition, and there were also 4 attributes that were left out.

**Keywords:** *Business Competition, Marketing Mix 7P, Correspondence Analysis.*

## INTRODUCTION

The progress of globalization today, to be able to survive product or service companies must develop products, determine strategic locations, carry out sales promotion activities, add service facilities, set competitive prices, and provide excellent service (Santoso & Alawiyah, 2021). Companies generally try to maintain their survival by forming business strategies, creating new opportunities, innovating, and growing optimal profits in order to strengthen the company's position in business competition (Ulfa et al., 2019) (Nursaid et al., 2021). Corespondence Analysis is a research technique developed to pay attention to competitors in terms of company strengths and weaknesses and use them as input for strategic planning (Qomariah et al., 2022; Santoso & Aprillianto, 2019).

Currently there are many photocopies in the city of Jember, one of which is Photocopy Amore Jember which was established in 2008. Address Jl. Mastrip No. 22, Krajan Timur, Summersari, Kec. Summersari, Kabupaten Jember, Jawa Timur 68124. Amore Jember's photocopying business is very competitive, making it difficult to expand its customer base. Business competition not only motivates every company, but can also lead to positivity in the face of other forms of competition (Pratama et al., 2017). The presence of a photocopier is a part based on technological developments that are very beneficial to the benefits. The competition of Amore Jember photocopy business is very tight, making it difficult for the company to increase the number of customers because there are too many competitors with advantages (Agustin Hari et al., 2021) and added value offered by competitors, making it difficult for Amore Jember Photocopy to seize competitors' market share (Sanosra et al., 2022). Therefore, this study intends to analyze the competition in Amore Jember photocopies with its competitors.

The competition of Amore Jember photocopy business is very tight, making it difficult for the company to increase the number of customers because there are too many competitors with advantages and added value offered by competitors, making it difficult for Amore Jember Photocopy to seize competitors' market share. The analysis of Amore Jember photocopy competition in terms of facilities, address, year of establishment, and space of the place of business as in table 1.1 below :

Table 1.1  
 Competitor Analysis Photocopy Amore Jember

No	Name	Name	Address	Stand	Facilities	Room
	Photocopy	Owner		Year		
1.	Corner	Bebun Naim	Jl. Mastrib No.22 Jember	2008	2 Komputer, 2 Copiers, 1 Laminator, dan 1 Printing	Quite Spacious
2.	Mentari	Moh.Hanto	Jl. Mastrib No.15 Jember	2007	4.Komputer, 4. Copiers, 1 Laminator, dan 2 Printing	Very spacious
3.	SEP 1	Moh. Khairul Dan Suwardi	Jl. Mastrib No. 22 Jember	2005	4 Komputer, 2 Copiers, 1Laminator, dan 1 Printer	Very spacious

Based on Table 1.1 above, the strongest and closest competitors photocopy Amore Jember, including photocopy Mentari, Corner, and photocopy SEP (Half Six Morning). These three photocopiers are the strongest and toughest competitors of Amore Jember photocopies. The purpose of this study is to analyze the level of business competition in Amore Jember Photocopy and to analyze efforts that can be made to increase competitiveness in Amore Jember Photocopy.

## METHOD

### Research design

The research design used in this study is quantitative research, in this quantitative descriptive approach has the aim of explaining a type of research that produces new findings that can be obtained using statistical procedures or by calculating numbers.

### Population, Sample, Sampling

In this study, researchers obtained data from questionnaires and interviews which then the data will be calculated statistically. The population in this study is all customers or consumers of photocopies of Amore Jember with its competitors using the opinion of (Ferdinan, n.d. 2014) that the number of indicators multiplied by 5-10 in this study there are 24 indicators, then determined by calculating the number of indicators  $24 \times 5$  which is = 120 repondents. The sampling technique in this study, Purposive Sampling, is a sampling technique with certain considerations. As already stated that, purposive sampling is a sampling technique of data sources with certain considerations, then the sampling criteria:

1. The age of respondents who are more than 17 years because at that age they are mature enough and have a rational mind.
2. Is a consumer of Photocopy Amore Jember and its competitors.

This study used data analysis techniques using the Correspondence Analysis test with the help of SPSS Version 26.

### Instrument

The instrument tests used in this study are validity tests and reliability tests. The validity test is used to determine the extent of validity obtained from the distribution of questionnaires. The significance test on the validity test is carried out by comparing the calculated r value with the table r value. In determining whether or not an item is feasible or not to be used, a correlation coefficient significance test is usually carried out at a significance level of 0.05, which means that an item is considered valid if it correlates significantly with the total score. If r count is greater than r table and the value is positive then the item or statement or variable is declared valid. Conversely, if r count is smaller than r table, then the item or question or variable is declared invalid.

Reliability test Reliability test to measure variables used through statements used. Reliability tests are performed by comparing Cronbach's Alpha values with the significant levels used. Reliability tests can be performed by calculating the cronbach alpha of each item with the help of IBM SPSS version 26.0. In presenting data, if the alpha value  $> 0.6$ , it means that the data can be declared reliable.

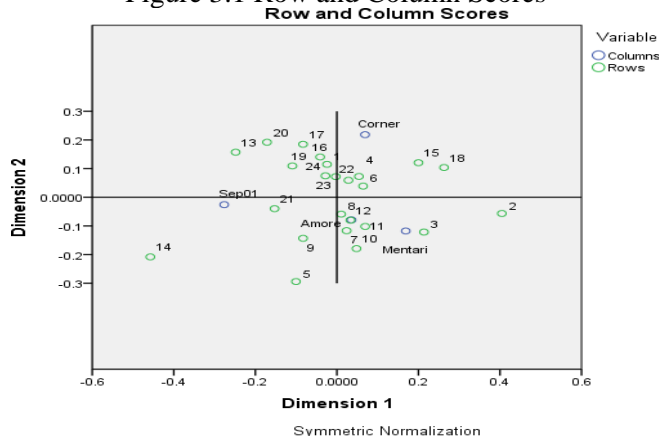
## RESULTS AND DISCUSSION

### Correspondence Analysis

Correspondence Analysis is used to describe the position of an object of research against other objects in this case is a photocopy of Amore Jember (as an object of research), a photocopy of Corner (as a competitor 1), a photocopy of Mentari (as a competitor 2), a photocopy of SEP 1 (as a competitor 3) in the form of making graphics along with the attributes of the object. Based on these attributes, a weighting or comparison will be made between Amore photocopies and their competitors. From the results of data analysis using validity and reliability tests, valid and reliable results were obtained.

Data processing with the Correspondence Analysis method is carried out with the help of SPSS Version 26. The tabulation results of the distribution of questionnaires related to weighting or ranking the performance of Amore Jember photocopies against competitors that have been obtained through the distribution of questionnaires to 120 respondents, can be seen in the following table:

Figure 3.1 Row and Column Scores



Based on Figure 3.1 above, visually it can be explained that the trend pattern in the photocopy of Amore and Mentari tends to be assessed on attributes X1.2, X1.3, X2.3, X3.1, X3.3, X4.1, and X4.2. In the photocopy of Corner, namely the attributes X1.4, X2.2, X5.3, X6.1, and X7.1. While the photocopy of Sep-01 is on the attributes X2.1, X3.2, X5.2, and X6.4. In the response data, respondents can compare or rank photocopies in the Jember area through the results of selecting the following attributes:

Table 3.1 Respondent Response Data

Atribut	Amore	Corner	Mentari	Sep-01
<b>Product</b>				
<b>X1.1</b>	83	85	79	81
<b>X1.2</b>	84	86	90	74
<b>X1.3</b>	<b>95</b>	89	90	82
<b>X1.4</b>	78	79	75	74
<b>Price</b>				
<b>X2.1</b>	84	75	79	81
<b>X2.2</b>	94	92	87	86
<b>X2.3</b>	89	84	84	83
<b>Place</b>				
<b>X3.1</b>	<b>95</b>	91	89	89
<b>X3.2</b>	84	80	81	83
<b>X3.3</b>	89	84	87	84
<b>Promotion</b>				
<b>X4.1</b>	<b>90</b>	84	83	81
<b>X4.2</b>	86	82	81	80
<b>People</b>				
<b>X5.1</b>	77	78	69	79

Atribut	Amore	Corner	Mentari	Sep-01
X5.2	71	64	63	76
X5.3	77	76	70	66
X5.4	91	91	82	86
X5.5	81	83	74	79
<b>Physical Evidence</b>				
X6.1	71	73	70	63
X6.2	74	77	72	76
X6.3	78	83	75	82
X6.4	82	81	79	84
<b>Process</b>				
X7.1	93	93	88	88
X7.2	89	90	85	86
X7.3	76	76	71	73

From Table 3.1 above, it can be seen that the types of attributes that have the highest value include product, price, place, promotion. people, and process respondents prefer the best photocopy of Amore compared to photocopy of Mentari, Corner, and Sep-01. As for the physical environment, the photocopy of Sep-01 is better than the photocopy of Amore, Corner, and Mentari.

The results of the competition analysis on the photocopy of Amore Jember with its competitors, namely the photocopy of Corner, Mentari, and SEP 1 using the Correspondence Analysis method with the help of SPSS Version 26 stated that the comparison between the photocopy of Amore Jember and its competitors had a difference in an attribute selection using the results of respondents' responses to determine the pattern of attribute tendencies in the photocopy of Amore Jember with its competitors. It can be known that the various attributes that have the highest or superior value are in the photocopy of Amore Jember with 13 superior attributes, besides that Amore Jember also has several attributes that are fairly competitive, namely there are 7 competing, and the last photocopy of Amore Jember has priority lagging behind with 4 attributes. The Correspondence Analysis method is to determine the company's position compared to its competitors according to (Pratama et al., 2017) .From the results of this study, it is proven that the correspondence analysis method to find out the position of its competitors using SPSS Version 26 with the most superior assessment is a photocopy of Amore Jember compared to its competitors. This is received from research (Ulfa et al., 2019).

### Prioritization of Improvements

The company will improve the quality of its excellent service in various ways to increase competitiveness and of course satisfy consumers according to(Ulfa et al., 2019 ). The following is a form to increase competitiveness, namely by prioritizing improvements made, namely by looking at the results of the Correspondence Analysis method, this is done in order to win competition from its competitors. Priority improvements based on the results of data processing obtained are contained in the following table:

Table 3.2 Priority of Improvement

Attributes	Proposed Attributes	CA	Priority
X5.1	Training employees in service to consumers, making standard operating procedures so that employees have standards in service.	Left behind	1
X6.2	Need to provide more waiting places or seats such as in the shop or in-store	Left behind	2
X6.3	Providing service and atmosphere in the store is more comfortable such as giving fans to make it more comfortable in the store.	Left behind	3

Attributes	Proposed Attributes	CA	Priority
X6.4	Provide a wider parking space and provide cctv in the parking area to make it safer	Left behind	4
X1.1	Cooperate with paper suppliers and ATK by ordering better and more famous products.	Compete	5
X1.3	Working with paper suppliers and ATK to provide good quality paper and ATK.	Compete	6
X1.4	The photocopy party of Amore Jember must arrange the storefront every day according to their respective types so that the arrangement of paper and ATK is neatly arranged in place.	Compete	7
X5.2	Amore Jember photocopy employees must be able to communicate better so that what consumers want is in accordance with what they receive, not just quickly but not in accordance with what consumers mean.	Compete	8
X5.5	Training employees to have good skills or service quality so that employees have fast service	Compete	9
X6.1	It is necessary to clean the shop every day so that it looks good from the outside and inside the store	Compete	10
X7.2	Training employees to be able to carry out a neat binding process.	Compete	11

In Table 3.2 there are priority improvements to attributes that need to be improved are as follows :

- a. The first priority proposal is to conduct employee training in service to consumers, make standard operating procedures so that employees have standards in service.
- b. The second priority proposal is to provide more waiting places or seats such as in front of the store or inside the store.
- c. The third priority proposal is to provide service and the atmosphere in the store is more comfortable such as giving fans to make it more comfortable in the store.
- d. The fourth priority proposal is to provide a wider parking space and provide CCTV in the parking area to make it safer.
- e. The fifth priority proposal is to cooperate with paper suppliers and ATK by ordering better and better known products.
- f. The sixth priority proposal is to work with paper suppliers and ATK to provide good quality paper and ATK.
- g. The seventh priority proposal is that the photocopy party of Amore Jember must arrange the storefront every day according to their respective types so that the arrangement of paper and ATK is neatly arranged in place.
- h. The eighth priority proposal is that Amore Jember photocopy employees must be able to communicate better so that what consumers want is in accordance with what they receive, not just quickly but not in accordance with what consumers intend.
- i. The ninth priority proposal is to train employees to have good skills or service quality so that employees have speed of service.
- j. The tenth priority proposal is the need to clean the store space every day so that it looks clean from the outside and from inside the store.
- k. The eleventh priority proposal is to conduct employee training so that they can carry out a neat binding process.

## CONCLUSION

Based on the data that has been obtained and analyzed in this study, researchers can conclude:

1. The results of the competition analysis on the photocopy of Amore Jember and its competitors using the Correspondence Analysis method stated that the photocopy of Amore Jember had the

- highest value from the respondent's answer to the photocopy of Amore Jember it can be seen that the photocopy of Amore Jember with the best value or superior in 13 attributes, besides that there are also 7 attributes included in the competition, and there are also 4 attributes left behind.
2. Prioritization of improvements made by looking at the results of the Correspondence Analysis method. The priority of improvement can be known attributes that need to be improved are as follows:
    - a. The first priority proposal is to conduct employee training in service to consumers, make standard operating procedures so that employees have standards in service.
    - b. The second priority proposal is to provide more waiting places or seats such as in front of the store or inside the store.
    - c. The third priority proposal is to provide service and the atmosphere in the store is more comfortable such as giving fans to make it more comfortable in the store.
    - d. The fourth priority proposal is to provide a wider parking space and provide CCTV in the parking area to make it safer.
    - e. The fifth priority proposal is to cooperate with paper suppliers and ATK by ordering better and better known products.
    - f. The sixth priority proposal is to work with paper suppliers and ATK to provide good quality paper and ATK.
    - g. The seventh priority proposal is that the photocopy party of Amore Jember must arrange the storefront every day according to their respective types so that the arrangement of paper and ATK is neatly arranged in place.
    - h. The eighth priority proposal is that Amore Jember photocopy employees must be able to communicate better so that what consumers want is in accordance with what they receive, not just quickly but not in accordance with what consumers intend.
    - i. The ninth priority proposal is to train employees to have good skills or service quality so that employees have speed of service.
    - j. The tenth priority proposal is the need to clean the store space every day so that it looks clean from the outside and from inside the store.
    - k. The eleventh priority proposal is to conduct employee training so that they can carry out a neat binding process.

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