

# Implementation Knowledge Management for Knowing the Factors That Have Influenced Income for Traditional Retail

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**Abstract**— The massive expansion of modern retail such as minimarkets in Palembang City has recently been rampant. The existence of modern retail is now having an impact on traditional retail that has existed before. Many traditional retailers cannot compete with the modern retailers that have grown up around them. From these facts, various studies have been carried out and various solutions have been provided so that the existence of traditional retailers cannot be replaced by modern retailers. There are still many traditional retailers that still survive in this condition. This is interesting to research, especially regarding the factors that affect the income of traditional retailers so that they can survive in selling goods that are actually the same as goods sold in the nearest minimarket. In this study, the concept of knowledge management is used in identifying, creating, explaining, and distributing knowledge for use and re-study by traditional retailers to be able to compete. In this concept, the Nonaka and Takeuchi model of the externalization dimension of knowledge is used, namely the transformation of knowledge from a tacit form to an explicit form. With externalization, tacit knowledge is obtained directly from 32 traditional retailers in Palembang, namely the factors that affect income. The results showed that the dominant factors were two factors, namely the length of the business opening hour and the percentage of product availability desired by the customer. The coefficient of determination is 81.95%, this factor contributes to the income of traditional retail businesses. These results can be disseminated and communicated to other retail business owners so that it becomes a concern in formulating future business strategies.

**Keywords**—traditional retail, income, competitive, knowledge management, strategy

## I. INTRODUCTION

The high competition in the retail business today requires business people to think smartly to survive. Ensuring sustainability in running a retail business is a priority for retailers to survive. Define of sustainability as a set of ideas, attitudes, intentions, and behaviors that involve the strategic consideration of economic, environmental, and social resources for the success of current and future generations [1]. A good strategy is if it involves knowledge in developing the strategy. The current business development is marked by a fairly tight competition between traditional retail and modern retail businesses. The growth of the modern retail business, of course, begins with the traditional retail concept. With the development of science and technology, changing patterns that previously developed in the traditional retail business is becoming modern. The increasing number of modern retailers will gradually shift the existence of traditional retail businesses. Many traditional retail businesses that have gone

out of business are unable to compete due to a lack of strategy in dealing with competitors. However, some traditional retail business actors are still able to survive and continue their business without changing transaction and sales patterns. Of course, this needs to be studied and developed on how they can stay afloat and increase their income to remain able to compete in facing the expansion of the modern retail business. Retail can be defined as a business organization. Business organizations face many competitive global environments caused by micro and macro factors, to overcome this competition the importance of human resources in the organization needs to be considered this is because human resources are one of the main capital in the organization [2]. Because human resources are a source of tacit knowledge.

Nowadays, traditional retail business competition is not only with modern retail but also with online businesses. Due to technological innovation, traditional purchasing methods have become inadequate for some individuals. People now prefer a simpler mode of acquiring brands and reaching stores, and it can be said that the internet has it fundamentally change consumers' ideas about convenience, speed, price, and product and service information [3]. This is not a problem, because each has its own advantages. Online sellers offer a price advantage because consumers don't have to take a trip to the shop; offline sellers have an advantage in making merchandise is available for inspection and dispatch immediately delivery [4].

## II. LITERATURE REVIEW

### A. Knowledge Management

To determine the factors that affect the income of traditional retailers, this research applies knowledge management methods. Knowledge management is how the business is for improve and collect knowledge that is owned by every individual in an organization to be useful for the organization and work in the organization [5]. The two major types of knowledge, namely [6]:

- Tacit knowledge is difficult to articulate and also difficult to put into words, text, or drawings.
- Explicit knowledge represents content that has been captured in some tangible form such as words, audio recordings, or images.
- Tacit knowledge and explicit knowledge can be converted into four processes in the Nonaka Takeuchi models [5]:
- Socialization sharing process is carried out by interacting with each other directly from tacit knowledge to tacit knowledge.

- Externalization is the process of transferring knowledge using dialogue so that causes the transfer from tacit knowledge to explicit knowledge Example: writing books, magazines, journals.
- Combination of knowledge transfer processes based on the transfer of explicit knowledge become explicit new knowledge through changes to explicit knowledge and information. Example: summarizing articles, stories, books.
- Internalization of knowledge transfer process based on learning and capturing knowledge made by members of the organization against explicit knowledge that is disseminated throughout the organization through one's own experience so that it becomes the tacit knowledge of members of the organization. Example: speaker to audience.

B. Traditional Retail

The word retail comes from French, "ritellier", which means cutting or breaking something [7]. Related to the activities that are carried out, then retail describes the activities to break down the goods or products produced and distributed in large quantities and in bulk to be consumed by the end consumer in the small amount according to his needs [8]. Classification of retail business in Indonesia can be categorized based on their nature, namely retail ones are traditional (conventional) and which are modern. The main characteristic of traditional retail is management is not yet professional; small scale; capital small; bargain price; cash transactions, rarely there is a promotion program; managed by the Government; scattered in cities and villages; general building conditions poorly maintained; and lower-middle-class consumers. Meanwhile, the main characteristic of modern retail is modern management; modern technology; have strong capital; the price is certain; advanced facilities; payment can use a credit card, debit card, or e-money; the principle of self-service; many promotional activities, discounts, and gifts; generally managed by parties private; mostly in urban areas; the condition of the building is generally clean and well maintained good; and upper-middle-class consumers [9].

E-commerce is growing at a surging rate across the globe and overturning our lifestyle and way of shopping in the recent years [10]. Traditional retailers as originally established modern retailers are not easily displaced for several reasons. They must realize that a physical store provides it with unique opportunities that most of their online competitors can't leverage: provide customers with a unique in-store customer experience [11].

III. METHODOLOGY

Fig. 1 shows the research methodology to know the factors that have influenced income for traditional retail. The first stage of this research is to identify the problems that exist in the traditional retail business in Palembang City. The second step is to analyze the problem and carry out literacy. The third step is to collect data related to tacit knowledge about the factors that affect retail income. Data collection was carried out by surveying 32 traditional retail businesses in Palembang. Furthermore, the data is processed and analyzed using statistical methods to obtain the determination value of the factors obtained. The last step is to conclude.

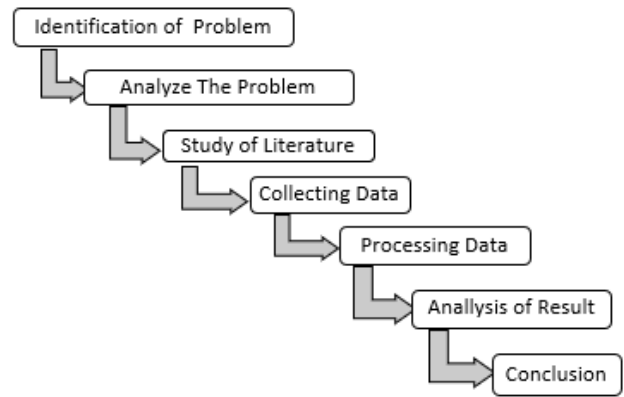


Fig. 1. Research Methodology

IV. RESULT

Collecting Data

The author surveyed 32 traditional retail businesses by interviewing business owners about the factors that affect income. From the questions posed, various answers were obtained and they were grouped as in Table 1.

TABLE I. FACTORS OF INCOME

No.	Factor of Income	Symbol
1	Capital	A
2	Long time running business	B
3	Sales price	C
4	Length of the business opening hour	D
5	Seller	E
6	The percentage of product availability	F
7	Location	G
8	Profit percentage	H

There are eight tacit knowledge about the factors that influence retail business income.

- Capital, related to the amount of initial money prepared by retail in running its business.
- Long time running business, related to how many years the business has been run, in this study the retail business survey that has been established for more than one year.
- Sales price, related to the average price of goods sold in a retail business.
- Length of the business opening hour, related to how many hours a day the average retail standby.
- Seller, related to who usually looks after the business and age data is taken.
- The percentage of product availability, related to the comparison of the number of goods available, the buyer asked and the quantity asked.
- Location, related to how far traditional retail is from the modern retail business.
- Profit percentage, related to what percentage of the average profit the retailer takes.

C. Classification of Factors Affecting Income

The classification of responses given by retailers in answering the author's questions in terms of determining the

factors that influence the determinants of business income, such as grouping in Table 1, can be seen in Table 2.

TABLE II. THE CLASSIFICATION OF INCOME FACTORS

Factor Retailer	A	B	C	D	E	F	G	H
1	√		√	√		√	√	
2	√		√	√		√	√	
3	√			√		√		√
4	√	√		√	√	√		√
5				√		√	√	√
6	√	√		√		√	√	
7	√	√		√		√	√	
8	√			√	√	√		√
9	√	√	√	√		√	√	√
10	√	√	√	√		√		√
11	√		√	√		√		√
12		√		√		√		√
13	√	√	√	√		√	√	√
14	√	√	√	√		√	√	
15	√	√	√	√	√	√		
16	√	√		√		√		
17			√	√		√		√
18		√	√	√		√		√
19		√		√		√	√	√
20	√	√	√	√	√	√	√	
21	√		√	√		√	√	
22	√			√		√	√	
23	√		√	√	√	√		√
24	√		√	√	√	√	√	
25	√		√	√		√		√
26	√	√		√		√	√	√
27	√	√		√		√		√
28				√		√	√	
29	√		√	√		√	√	
30	√	√	√	√	√	√		
31		√		√	√	√		
32	√	√	√	√	√	√		

Checklist “√” means that it fulfills the answer according to the factor grouping in Table 1. From the results of the grouping, it is determined the factors that intersect from the eight factors obtained from the retailer's answer in Table 1. From grouping the factors and looking at their intersection, it is obtained 2 factors that affect retailer's income, namely: “D” for “length of the business opening hour” and “F” for “The percentage of product availability”.

D. The Data of Dominant Factors from Retailers

The data obtained from retailer's answers relate to the dominant factor, namely *the length of the business opening hour* and *the percentage of product availability* are shown Table 3.

E. The Coefficient of Determination of The Income Factor

The coefficient of determination in linear regression is often defined as how much the ability of all independent variables to explain the variance of the dependent variable. In simple terms, the coefficient of determination is calculated by squaring the correlation coefficient (R). The coefficient of determination as explained earlier is identical to the calculation with the statistical analysis method used to see the effect between two or more variables such as regression.

The results of the calculation of the coefficient of determination in this research shown in Table 4

TABLE III. THE INCOME AND THE CLASSIFICATION OF INCOME FACTORS

Retailer	the length of the business opening hour /day (hour)	the percentage of product availability (%)	income/day (rupiah)
1	12.5	97.5	4,050,000
2	11.7	85.2	3,750,000
3	11.8	86.5	3,800,000
4	13.1	99.5	4,235,000
5	12.4	97.6	4,025,000
6	11.9	87.5	3,960,000
7	13.4	95.2	4,135,000
8	11.5	73.5	3,560,000
9	11.2	68.5	3,250,000
10	14.5	99.8	4,320,000
11	14.1	95.2	4,123,000
12	10.9	69.5	3,267,000
13	14.1	100	4,500,000
14	13.0	97.5	4,235,000
15	12.9	95.2	4,132,000
16	11.5	87.5	3,960,000
17	11.5	85.2	3,960,000
18	14.4	93.5	4,135,000
19	13.4	73.5	3,560,000
20	12.5	76.5	3,960,000
21	12.4	95.2	4,135,000
22	13.4	73.5	3,560,000
23	9.8	71.5	3,250,000
24	13.5	97.5	4,320,000
25	13.5	95.2	4,123,000
26	12.1	95.2	4,500,000
27	13.0	93.5	4,235,000
28	12.5	93.5	4,132,000
29	12.5	77.5	3,960,000
30	12.5	75.2	3,960,000
31	13.4	92.5	4,135,000
32	11.4	72.1	3,560,000

TABLE IV. COEFFICIENT OF DETERMINATION R SQUARE

Regression Statistics	
Multiple R	0,905248363
R Square	0,819474598
Adjusted R Square	0,80702457
Standard Error	0,147909703
Observations	32

R Square (R<sup>2</sup>) of 0.819474598 means that 81.95% of the variation in income (Y) can be explained by the variability in the length of the business opening hour (X<sub>1</sub>) and the percentage of product availability (X<sub>2</sub>). This shows a strong positive linear relationship between the three variables because based on this regression model it shows that income variability can be predicted using the length of the business opening hour and the percentage of product availability of 81.95%. Only 18.05% of the variability of income can be explained by factors other than variables in the regression model. Translation in social research the coefficient of determination is often called the coefficient of influence. Where in this example variable X affects variable Y by 81.95% while the rest is influenced by other variables.

The results obtained show that the externalization process in the SECI The Nonaka Takeuchi model has been applied and produces new documented knowledge (explicit knowledge). The process of capturing this knowledge will be useful if it is continued to the next process in knowledge

management. The next process, namely knowledge sharing, can be carried out from the results of this study to retailers in order to pay attention to important factors in increasing income. This is of course not the only way to strategize retailers to be able to survive in the competition.

#### F. Regression Analysis

From the results of the regression analysis, it can be written regression equation in the form the standardized coefficient is as follows:

TABLE V. REGRESSION ANALYSIS

	Coefficients	Standard Error	t Stat	P-value
Intercept	1,0343762	0,312165	3,3135	0,002478617
X Variable 1	0,0646860	0,0311183	2,078	0,046597443
X Variable 2	2,4190318	0,3169260	7,6327	2,04631E-08

From the results of the calculation Table 4 the regression equation can be displayed as below:

$$Y = 1.03 + 0.06 X_1 + 2.42 X_2 \quad (1)$$

The variable has a long time running a business and the percentage of product availability a positive relationship to variable income means that the better a long time running a business and the percentage of product availability will be the higher the retailer's income. Variable the percentage of product availability has the greatest influence on variables income with a regression coefficient of 2.42.

#### V. CONCLUSION

Based on the results of research on the factors that affect the level of income retailers in Palembang, the writer can note conclusions following:

1. There are many factors that affect retail business income, namely capital, long time running business, sales price, length of the business opening hour, seller, the percentage of product availability, and location.
2. From the factors obtained in the externalization process, two dominant factors were obtained, namely: long time running business and the percentage of product availability.
3. The coefficient of determination of the dominant factor is obtained at 81.95%. Only 18.05% of the variability of income can be explained by factors other than variables in the regression model.

4. The dominant factor of a long time running a business shows the importance of attention for retailers to maintain consistency with their business operating hours. So that there is no customer disappointment in fulfilling their needs in the traditional retail business.
5. The dominant factor, the percentage of product availability, shows the importance of attention for retailers to maintain the availability of goods needed by customers. So that there is no customer disappointment in fulfilling their needs in the traditional retail business.

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