Determinants of Increasing Batik Business Income in Pekalongan

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ABSTRACT: It is undeniable that the Covid-19 pandemic which has lasted for more than a year in Indonesia has had an impact on the national economy. The current economic crisis is different from the economic crisis that was experienced in 1998 and 2008. At that time, businesses run by local entrepreneurs actually became the supporter of the national economy. However, it is different now where the pandemic has almost paralyzed all local businesses, including the batik industry. Batik as a cultural heritage that has been recognized by the world has good export potential for the country. It was proven that when the pandemic hit, batik entrepreneurs in Pekalongan City still persisted and even claimed to have increased their income. It is interesting to examine the reasons for the increase in the income of the batik industry. The results of the study support the notion that entrepreneurial skills, usefulness of accounting information, and marketing methods through e-commerce have a significant effect on the income earned by the Pekalongan batik industry. Meanwhile, the assumption that the level of financial literacy has a significant effect on increasing income is not supported. The research findings show that the increase in income of the Pekalongan batik industry during the pandemic is because the actors already have a good understanding of the usefulness of accounting information and maximize the use of e-commerce. The development of this research is expected to be carried out considering that there are still wide opportunities for exploration of research variables.

KEYWORDS: entrepreneurial ability; financial literacy level; increased revenue; usefulness of accounting information; utilization of e-commerce

JEL Classification: G53 (Financial literacy); M31 (marketing); M41 (accounting); Z11 (Cultural Economics: Economics of the Arts and Literature)

1. INTRODUCTION

It is undeniable that the Covid-19 pandemic which has lasted for more than a year in Indonesia has had an impact on the national economy. The current economic crisis is different from the economic crisis that was experienced in 1998 and 2008. At that time, businesses run by local entrepreneurs actually became the supporter of the national economy. The crisis that occurred at that time was due to monetary economic reasons, while the current crisis was due to a virus that forced all kinds of activities, especially mobility and distance, to be limited.

The pandemic has almost paralyzed all existing industrial sectors, but this is not the case in the creative industry sector. Batik is one of the results of creativity into a commodity that has the potential to provide income for the country. As something that has received international recognition from UNESCO, the batik industry deserves special attention. It is evident that the value of batik exports during 2020 was able to grow, reaching US$21.54 million in the first quarter of the year, while in 2019 the first quarter was only US$17.99 million.

The Ministry of Industry (2020) revealed that various comparative and competitive advantages have made Indonesian batik successful in becoming a market leader in the world batik market. One area that has been recognized as potential for the development of the batik industry is Pekalongan. Since 1850 Pekalongan has been synonymous with batik-producing areas and it is from selling batik that the people there can fulfill their daily needs.

In the era of globalization and increasingly sophisticated information technology, the batik industry inevitably has to adapt. Business actors must always improve their ability in entrepreneurship so as not to stutter in the face of all changes that occur in the era of modernization. Today's business actors should understand business management as a whole, not only in terms of producing and selling, but also understanding accounting information in the business they run. Business actors who do not understand how to manage finances will be able to take wrong steps in making decisions that can lead to business losses and even bankruptcy. The emerging digitalization is both an opportunity and a challenge for the batik industry. The correct use of e-commerce is certainly a hope for the batik industry players to further develop their business, because online transactions allow a wider range of business

transactions and are not limited by space and time. Thus, the income received by batik industry players has the potential to increase from time to time.

Increasing income is something that every business actor wants. Research that examines increasing income has indeed been carried out by several researchers, for example Mandasari and Pratama (2020), Tiandra et al. (2019), and Putra et al. (2018). The sample of previous research by Mandasari and Pratama (2020) is micro, small and medium enterprises in Denpasar, Bali. The research sample of Tiandra et al. (2019) is a micro, small and medium enterprise in Sumbawa Regency. While Putra et al. (2018) the research sample is the tofu industry in Banyumas Regency.

Previous research by Mandasari and Pratama (2020) and Putra et al. (2018) shows that operating income increases because it is influenced by e-commerce, but this is not the case with the findings of Tiandra et al. (2019). Furthermore, the increase in income is also influenced by financial literacy and managerial skills (Putra et al., 2018). The diversity of the results of previous studies is the motivation for this research, not only for reasons of different research samples, but also because of the current situation, where the covid-19 pandemic is hitting. Furthermore, the potential of the batik industry for the country's economy is another important reason that causes research on increasing income to be important to do.

2. HYPOTHESES DEVELOPMENT

There are four hypotheses proposed in this study. The theoretical basis used to build all research hypotheses is the theory of planned behavior (TPB). TPB gives the idea that the behavior carried out by an individual is due to the intention in the individual. The intention that arises is triggered by the functions of attitude toward the behavior, subjective norm, and perceived behavioral control (Ajzen, 2012).

First, attitudes toward behavior are behavioral beliefs that explain the relationship between behavior and the consequences of that behavior. Second, subjective norms or normative beliefs are individual perceptions as a result of social urges to do or not to take an action. Third, perceived behavior control is also known as control beliefs, related to individual perceptions about the existence of things that can support or hinder the behavior that will or must be carried out by the individual.

Entrepreneurial ability to batik industry income

Entrepreneurial skills are important for business people. Without having competence in this field, it is certain that the business will not last long. From the perspective of TPB, entrepreneurial abilities can be categorized as behavioral beliefs, where business actors will bear the consequences if they decide to own or not to do a behavior.

Previous research by Ariayani & Fauzan (2020) showed that business performance was influenced by entrepreneurial ability, as did Barazandeh et al. (2015). Meanwhile, the opposite direction of the relationship between entrepreneurial ability and performance is described by Sari, Suwarsinah, & Baga (2016).

The existing batik industry continues to grow and its potential continues to be boosted, therefore strong batik business actors are needed. Just as an entrepreneur should equip himself with an independent spirit, capable of being a leader as well as taking risks, so in the context of this research, the abilities of the entrepreneur will affect the income generation of the batik industry.

H1: The ability to be entrepreneurial has an effect on increasing the income of the batik industry

The usefulness of accounting information to increase the income of the batik industry

Accounting information is important for business people. Not only does accounting information provide numbers in financial statements, but more than that, from these numbers business actors can assess the success of their business. From the perspective of TPB, the usefulness of accounting information represents normative beliefs, where business actors will be motivated to use accounting information as a tool in achieving the expected income, mainly with the ease of obtaining credit to assist business operations.

Susanto & Meiryani (2019) stated that the revenue cycle is important for a business. In the revenue cycle implied the relationship between the various parties, how the sale of goods that occur in the business that is run.

The life and death of a business cannot be separated from how business actors use accounting information that represents their business operations. When a business actor is able to interpret accounting information correctly, of course he will use that information to make his business income better.

H2: The usefulness of accounting information has an effect on increasing the income of the batik industry

The level of financial literacy on the improvement of the batik industry

Financial literacy is important for business people. Financial literacy is needed to plan, implement, and control business financial management. From the perspective of TPB, financial literacy represents behavioral beliefs where business actors will be motivated to have a good level of financial literacy so that later they can be used to help increase their business income.

Putera et al. (2018) found that financial literacy has a positive effect on increasing the income of tofu craftsmen. Herwiyanti and Sugiarto (2019) explained that financial literacy is needed to help facilitate access to bank credit. Tuffour, Amoako, & Amartey (2020) explain that a manager with good financial knowledge will produce good performance.

Good financial literacy skills are certainly needed for every business actor. The high level of financial literacy possessed by batik entrepreneurs should make them understand how to manage business finances well. Thus the income of the batik industry will increase if business actors have good accounting literacy.

H3: The level of financial literacy has an effect on increasing the income of the batik industry.

Utilization of e-commerce to increase batik industry income

E-commerce is important for business people. From the perspective of TPB, e-commerce represents control beliefs where business actors who apply e-commerce have confidence that their business will get better.

Previous research supports that e-commerce has an effect on increasing income (Putera et al., 2018; Alderete, 2019). Although Tiandra et al. (2019), stated that e-commerce does not have a significant effect on business performance, but it is said that e-commerce is one of the marketing alternatives used so that businesses can attract more customers.

In the era of digitalization, all business actors should think about utilizing information technology to make their business better. The presence of e-commerce is an alternative and even a marketing solution in this day and age, especially during a pandemic. Thus, the use of e-commerce is expected to have an effect on increasing business income.

H4: The use of e-commerce has an effect on increasing the income of the batik industry

3. METHOD, DATA, AND ANALYSIS

Population, sample, data collection

The research population is the batik industry registered in the Pekalongan City Trade, Cooperative and SME Office data in 2020. The research sample was selected with the criteria that the batik industry did not experience a decrease in income due to the pandemic and had utilized information technology in carrying out its operations.

The data for this study were obtained by distributing questionnaires containing questions related to the variables studied. Each respondent's answer is measured using a Likert scale with a range of 1 to 5 points, where point 1 indicates the perception of strongly disagree, point 2 indicates the perception of disagree, point 3 indicates a neutral perception, point 4 indicates agrees perception, and point 5 indicates a very strong agree perception.

Variables measurement

The income variable is measured by 3 indicators, each of which consists of 2 statement items. The entrepreneurial ability variable is measured by 3 indicators, each of which consists of 2 statement items, which were adapted from Putera et al. (2018). The variable of usefulness of accounting information is measured by 3 indicators, each of which consists of 2 statement items, referring to Hasan's (2010) research. The financial literacy variable is measured by 2 indicators, each of which consists of 3 statement items, adapted from Putera et al. (2018). Finally, the e-commerce variable is measured by 3 indicators, each of which consists of 2 statement items, referring to the research of Davis et al. (1986).

The mathematical equation model built for this research is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Y	= increased revenue
α	= constant
$\beta 1$	= regression coefficient of X1
$\beta 2$	= regression coefficient of X2
$\beta 3$	= regression coefficient of X3
$\beta 4$	= regression coefficient of X4
X1	= entrepreneurial ability
X2	= usefulness of accounting information
X3	= financial literacy level
X4	= utilization of e-commerce
e	= residue

4. RESULTS

The respondents in this study were the owners of the batik industry in Pekalongan City. In total there are 99 respondents with the following profile:

Table 1. Profile of Research Respondents

Description		Sum	Percentage (%)
Gender	Male	61	61.6
	Female	38	38.4
	Total	**99**	**100.0**

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Age (year)	0-30	9	9.1
	31-40	47	47.4
	41-50	28	28.3
	>50	15	15.1
	Total	**99**	**100.0**
Education level	Under high school	1	1.0
	Senior high school	74	74.8
	Bachelor degree	24	24.2
	Total	**99**	**100.0**

It appears that the respondents of this study were dominated by men with as many as 61 people (61.6%) while women as many as 38 people (38.4%). In terms of age, it is dominated by those aged 31 to 40 years, namely 47 people (47.4%), then followed by those aged 41 to 50 years as many as 28 people (28.3%), then over the age of 50 years as many as 15 people. (15.1%), and the last age was 30 years and under as many as 9 people (9.1%). Based on the level of education, respondents are dominated by those with senior high school education, as many as 74 people (74.8%), then undergraduate education as many as 24 people (24.2%), and below high school there is only 1 person (1%).

The industry profile that is the research sample is explained by obtaining research data on annual gross income, number of workers, and length of business. Industry profiles are shown in the table below.

Table 2. Profile of the Industries Researched

Description		Sum	Percentage (%)
Age of business	≤10 year	71	71.7
	>10 year	28	28.3
	Total	**99**	**100.0**
Gross income (year)	≤Rp100.000.000	59	59.6
	>Rp100.000.000	40	40.4
	Total	**99**	**100.0**
Number of worker	< 5 person	90	90.9
	≥ 5 person	9	9.1
	Total	**99**	**100.0**

It appears that the batik industry in Pekalongan City, which has been operating for more than a decade, has 28 businesses (28.3%) while the other 71 businesses (71.7%) have not operated for more than a decade. One year since the pandemic took place, there are 59 industries (59.6%) in the batik industry that earn gross incomes below 100 million rupiah, and 40 other businesses (40.4%) earn more than 100 million rupiah. Meanwhile, in terms of the workforce, there are 90 industries (90.9%) that employ no more than 5 people, while those that employ more than 5 people are only 9 industries (9.1%).

Table 3. Descriptive Statistics

Variabel	N	Minimum	Maximum	Mean	Std. Deviation
Rev (Y)	99	3.00	4.50	3.5859	.39581
Ent (X_1)	99	1.83	4.50	3.7525	.50416
AIU (X_2)	99	2.00	4.00	3.0825	.44694
FLL (X_3)	99	2.67	4.50	3.5185	.42916
Ecc (X_4)	99	2.00	5.00	3.5926	.65171

The results of the validity test with Pearson Correlations are shown in the table below. It can be seen that all variables have met the valid criteria. The correlation between the research variables shows a value below 1, which means that there is no perfect linear relationship between the variables studied.

Table 4. Pearson Correlation Output Research Variables

Correlations						
		Y	X1	X2	X3	X4
Y	Pearson Correlation	1	-.076	.410**	.172	.346**
	Sig. (2-tailed)		.457	.000	.088	.000

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	N	99	99	99	99	99
X1	Pearson Correlation	-.076	1	.183	.437**	.204*
	Sig. (2-tailed)	.457		.069	.000	.043
	N	99	99	99	99	99
X2	Pearson Correlation	.410**	.183	1	.058	-.057
	Sig. (2-tailed)	.000	.069		.565	.578
	N	99	99	99	99	99
X3	Pearson Correlation	.172	.437**	.058	1	.283**
	Sig. (2-tailed)	.088	.000	.565		.005
	N	99	99	99	99	99
X4	Pearson Correlation	.346**	.204*	-.057	.283**	1
	Sig. (2-tailed)	.000	.043	.578	.005	
	N	99	99	99	99	99

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The reliability test was carried out by looking at the value of Cronbach's Alpha for each research variable. The Cronbach's Alpha value for the Rev (Y) variable is 0.866, the Ent variable (X1) is 0.824, the AIU variable (X2) is 0.876, the FLL variable (X3) is 0.831, and the EC variable (X4) is 0.963.

The test results of the coefficient of determination of the research model show the Adjusted R2 value of 0.359. The F test of the research model shows the F table value of 14,733 significant at p = 0.00. Hypothesis testing in this study was conducted by t-test. The results of the t-test from the regression analysis of the variables studied are shown in the table below.

Table 5. Output of Research Model Regression Analysis

Coefficientsª

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.802	.368		4.899	.000
	X1	-.250	.072	-.319	-3.473	.001
	X2	.425	.073	.480	5.809	.000
	X3	.160	.085	.174	1.885	.062
	X4	.236	.052	.389	4.573	.000

a. Dependent Variable: Y

The output of the t-test results for the regression model is shown in the table below. From the output results displayed, the mathematical equation model can be written as follows:

$$Y = 1.80 - 0{,}25X_1 + 0.42\ X_2 + 0.16\ X_3 + 0.24\ X_4 + e$$

5. DISCUSSION

The X_1 regression coefficient is -0.250 with a significance level of 0.001, indicating that there is support for the hypothesis that entrepreneurial ability has an effect on increasing batik industry income. The influence of the entrepreneurial ability variable shows a negative direction, thus the higher the entrepreneurial ability, the smaller the increase in income. This finding may give an unnatural impression, but this is not the case in the batik industry. However, the results of this study prove the entrepreneurial ability in the batik industry in Pekalongan as behavioral beliefs in TPB, where it turns out that batik entrepreneurs in Pekalongan are still low in knowing the right business strategy to be applied during the pandemic.

The X_2 regression coefficient is 0.425 with a significance level of 0.000, indicating that there is support for the hypothesis that the usefulness of accounting information has an effect on increasing the income of the batik industry. The influence of the usefulness of accounting information variable shows a positive direction, thus the higher the usefulness of accounting information, the higher the increase in income. This finding confirms that the usefulness of accounting information as normative beliefs in TPB, because the batik industry sample in Pekalongan is dominated by small-scale industries with incomes below 100 million rupiah, but admits that there is an increase in income even during a pandemic.

X_3 regression coefficient of 0.160 with a significance level of 0.062, does not show support for the hypothesis that the level of financial literacy has an effect on increasing the income of the batik industry. The influence of the variable level of financial literacy shows a positive direction, thus it means that there is an alignment between the high literacy levels even though it is not statistically significant. This finding, however, confirms the level of financial literacy as behavioral beliefs in the TPB, because there is an alignment between the level of financial literacy and an increase in income. The profile of research respondents who are dominated by young entrepreneurs with relatively low education, namely high school, becomes the argument for the inadmissibility of the third hypothesis in this study.

The X_4 regression coefficient is 0.236 with a significance level of 0.000, indicating support for the hypothesis that the use of e-commerce has an effect on increasing the income of the batik industry. The influence of the variable on the use of e-commerce shows a positive direction, thus meaning that the higher the utilization of e-commerce, the higher the increase in the income of the batik industry. This finding confirms the use of e-commerce as control beliefs in TPB, especially during a pandemic as mobilization activities are limited, of course the use of e-commerce is the best solution for batik entrepreneurs in marketing their products.

6. CONCLUSION, LIMITATIONS, AND SUGGESTIONS
Conclusion

This study provides evidence that during the COVID-19 pandemic the batik industry was able to survive and increase revenue. The increase in income experienced by the batik industry is nothing but influenced by the behavior of the batik entrepreneurs themselves.

From the perspective of TPB, the usefulness of accounting information and entrepreneurial skills represent the behavioral beliefs of batik entrepreneurs in Pekalongan. Pekalongan batik entrepreneurs show that the high usefulness of accounting information can increase business income, because business actors claim to have understood the flow of making financial statements. Meanwhile, high entrepreneurial skills actually reduce operating income, because the strategy applied during the pandemic is a low selling price strategy.

From the perspective of TPB, the use of e-commerce represents the control beliefs of batik entrepreneurs in Pekalongan, where they apply information technology in selling products by utilizing e-commerce, especially e-commerce is not difficult to implement. On the other hand, from the perspective of TPB, the level of financial literacy that represents the normative beliefs of batik entrepreneurs in Pekalongan does not help them in increasing their income. The low ability of entrepreneurs in accessing credit is an obstacle for them to get additional capital to develop their business.

Limitation and suggestions

The low value of adjusted R^2 indicates that this research is still wide open for further investigation. The implementation of research during a pandemic, however, opens space for bias in research results, because there are limitations in mobility and duration to interact with respondents.

Further research is expected to be able to explore other research variables that are thought to be able to contribute to research results. Similar research with different research objects becomes a special attraction for academics who need insight into micro, small, and medium enterprises in Indonesia. Furthermore, the pandemic condition needs to be a record for all researchers who will go directly to look for data in the field.

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