
Technology Acceptance Model and Risk Benefit Perception on Food Online Purchase in SMEs

Kurnia Hardi¹, Burhan², Muhammad Ridhwan³

¹Pakuan University

^{2,3}Syarif Hidayatullah State Islamic University Jakarta, Indonesia

Email Correspondence: kurnia.hardi@unpak.ac.id

Keywords:

SMEs; Online Purchase;
Technology Acceptance Model;
Risk-Benefit Perception

Abstract

The disruption of information technology has increasingly influenced how consumers transact. This research aims to examine the impact of technology acceptance levels and perceived risk-benefit on food product purchases in SMEs through online transactions. The survey was conducted with respondents by distributing questionnaires in the Jabodetabek area, with 200 questionnaires collected for further processing. The analysis method used is SEM-PLS. The results indicate indirect effect of technology acceptance and perceived benefits on food product purchases in SMEs through the adoption of online transactions. The direct effect of perceived benefits of digital technology on food product purchases in SMEs shows that the adoption of online transactions has a partially complementary mediating effect. Consumers are partially adopting alternatives such as social media applications for actual purchases, in line with the fact that most SMEs have yet to go digital. This research recommends that the government and relevant institutions enhance the acceleration of digitalization in SMEs through training and mentoring programs. SME players need to focus on efficient business strategies by shifting resources to more essential types of businesses and improving digital literacy while adopting online transactions for business expansion.

INTRODUCTION

Small and Medium Enterprises (SMEs) are a crucial part of the national economic system to accelerate equitable growth through the availability of business opportunities and job creation, increasing people's income, earning foreign exchange, and strengthening the national economic structure (Hubeis, 2009). SMEs play an important role in development (Hafni & Rozali, 2017). SMEs can reduce unemployment and poverty rates (Supriyanto, 2019). There are over 64 million SME units that contribute 97 percent to the total workforce and 60 percent of national GDP (depkop.go.id, 2019). SMEs have proven to be resilient against economic crises and were not affected by the monetary crisis that occurred in 1997 - 1998 (Muheramtohad, 2017). After the 2008 financial crisis, the number of SMEs did not decrease; on the contrary, it increased and managed to absorb 85 million to 107 million workers by 2012 (BI & LPPI, 2016). Attention to this sector has become crucial because, unlike previous crises, the crisis caused by the Covid-19 pandemic has had widespread impacts on all aspects of SMEs' operations and financing. According to the OECD (Organization for Economic Cooperation and Development) at the end of 2020, half of SMEs were forced to stop operating due to increasingly severe business obstacles. These obstacles include: (a) production being hampered by 18.87%; (b) sales dropping by 23.1%; (c)

difficulties in raw materials at 19.08%; (d) distribution being hindered by 19.5%; and (e) challenges in accessing financing amounting to 19.45%. On top of that, the level of digital technology adoption among most micro and small enterprises is still lagging, with only 13% of SMEs having adopted digital technology, while the remaining 87% are trailing behind. The success rate of government support programs is also low, ranging from only 4-10%. The main challenge for SMEs' sustainability in adopting digital technology, such as marketplaces, is that their products are not yet ready for online sale (Kemenkopukm.go.id, 2020). Based on business development data in each year before the crisis due to the pandemic, SMEs have proven capable of surviving and even becoming key drivers of the national economy (Hikhman, 2017).

The SMEs sector comprises several main business sectors, namely (a) Agriculture, forestry, and fisheries at 5.6 percent; (b) Logistics transportation at 1.56 percent; (c) Food and beverage accommodation at 35.88 percent; (d) Wholesale and retail trade at 5.3 percent; (e) Processing industry at 17.8 percent; and (f) Service activities at 11.7 percent (Kemenkopukm.go.id, 2020). The number of SMEs continues to grow and increase every year (Suci, 2017). SMEs dominate the types of business units and absorb more labour compared to large enterprises (Sedyastuti, 2018). On the other hand, the performance of SMEs in non-oil and gas export shares is still relatively low and has tended to decline from 14.55 percent in 2017 to 14.37 percent in 2018, resulting in a decrease in transaction value of up to 7.8 billion rupiah over one year. This indicates that SMEs are in a position of lower product competitiveness, marked by weakened export performance (Kemenkop, 2019). SMEs contribute significantly to GDP, employment absorption, and non-oil and gas exports. SMEs in Indonesia contribute the most to GDP compared to other countries like China, India, and Japan (OECD, 2017). The contribution of SMEs to GDP is quite substantial; however, financial support for SMEs is still inadequate, being the lowest compared to other ASEAN countries, at only 6.7 percent of GDP in 2018 (BPS RI, 2018). Economic growth in 2018 reached 5.17 percent (BPS, 2019). The main driver of this growth is the manufacturing industry. The processing industry is the highest source of growth, accounting for up to 0.91 percent with a contribution of 2,947.3 trillion rupiah. The manufacturing sector, which includes SMEs, operates mainly in the food and beverage industry, making up 70 percent (presidenri.go.id, 2019). The growth of the processing industry reached an aggregate of 4.87 percent from 2015 to 2018. Among the sub- sectors of the processing industry, the food and beverage products sector showed the highest growth rate at 8.71 percent. The food and beverage industry contributed 34.95 percent to the non-oil and gas industrial GDP in the third quarter of 2017, the highest among other sectors, such as the metal goods, computer, electronic goods, optics, and electrical equipment industry with a contribution of 10.46 percent, as well as the transport equipment industry at 10.11 percent. The contribution of labor in the industrial sector is dominated by the food and beverage industry, employing 3.3 million people or 21.34

percent. Meanwhile, from January to September 2017, the value of investment reached 27.9 trillion rupiah from Domestic Investment (PMDN), while the investment value from Foreign Investment (PMA) was 1.4 billion dollars for the food and beverage industry (kemenperin.go.id, 2018). Indonesia's food and beverage industry competitiveness position for 2017-2018, based on the Global Competitiveness Index (GCI), improved to position 36 from 41 in 2016-2017 (GAPMMI, 2018). The food industry sourced from the sea is considered to have promising prospects (Yaskun & Sugiarto, 2017). This is due to the increase in the volume of marine catches. The volume of marine catches in the first half of 2017 reached 3.35 million tons, an 11.3 percent increase compared to the same period the previous year of 3.01 million tons. The types of marine catches include shrimp, fish, crabs, and squid, which are raw materials for processed food products (kontan.co.id, 2019).

From a consumption perspective, the growth of the food and beverage processing industry is driven by the lifestyle of urban or middle-class people (Hartari, 2017). Generally, they are individuals who have a lot of activities outside the home and are quite busy with work, so they tend to choose food and beverage items that are easy and quick to prepare (Warta Ekspor, 2015). Regarding credit access, out of 56.4 million SMEs in Indonesia, only 30 percent can access financing. Of that percentage, 76.1 percent obtain credit from banks, while 23.9 percent access funds from non-bank sources, including savings and loan businesses like cooperatives. In other words, about 60-70 percent of all SMEs still lack access to financing through banks and other financial institutions (BI, 2015). Overall, Indonesia has the highest percentage of its population in the world categorized as lacking access to the financial and banking industry, reaching up to 64 percent (OJK, 2018). In addition to facing challenges in access to capital, SME empowerment also contends with other issues, such as low quality of human resources and a lack of mastery in science and technology (Hanim & Sudaryanto, 2003). Another obstacle includes limited access to information regarding market networks, guidance, and inadequate information technology capacity (Ragimun et al., 2015). The use of digital technology is considered crucial for creating financing for micro, small, and medium enterprises that aren't served by banks (Miller, 2017). Digital technology positively impacts SMEs by enabling faster communication, boosting productivity, creating new business opportunities, and connecting them to a global network (Basry & Sari, 2018). Digital technology helps SMEs in Indonesia grow faster and become more competitive. There's a positive correlation between improved digital technology usage and increased income, job creation, product innovation, and an expanded export share (Mumtahana et al., 2017).

The Business Competition Supervisory Commission (KPPU) explains that Indonesia, with its rapidly growing digital transactions, could drive an 80 percent increase in SME income while also contributing an additional 2 percent per year to GDP. This additional 2 percent annual

contribution is necessary to meet the target of 7 percent economic growth to achieve the goal of becoming a middle-income country by 2025 (AIPEG & KPPU, 2017). Based on a survey of SME operators in Yogyakarta, the level of digital technology usage among SMEs is quite good. Over 69 percent of SME operators already have one to three computers for marketing and operational purposes (Basry & Sari, 2018b). Adopting digital technology is crucial for consumer convenience and enhancing business competitiveness (Meuter et al., 2003; Chin & Ahmad, 2015; Lai, 2018). The shift from staff-assisted to self-assisted channels using mobile internet creates operational cost efficiencies and increases customer loyalty (Nam et al., 2016).

The ability of the Indonesian people to adopt digital technology continues to improve (Setiawan, 2017). The connectivity of the population increased from 132.7 million people in 2016 to 143.26 million people connected to the internet in 2017. This number represents 54.68 percent of the total population. All of this happened thanks to the development of infrastructure and the ease of accessing digital devices, especially smartphones. Based on regions, the penetration of internet connectivity using smartphones in urban areas reached 70.96 percent, in urban-rural areas reached 42.06 percent, and in rural areas reached 31.55 percent (APJII, 2018). The adoption of Information and Communication Technology (ICT) through smartphone usage has been steadily increasing. This has pushed the use of the internet to expand and become increasingly influential in transforming economic and social activities today (Aslaksen, 2020). The increasing frequency of transactions on smartphones has provided a new experience for users in conducting buying and selling activities via social media, particularly through electronic commerce, commonly known as e-commerce (Guyen, 2020). The uniqueness of the e-commerce experience is the key to its success, as it can provide reliable services that are usable on all types of digital devices (Fang et al., 2019). E-commerce can bring numerous advantages, including ease of transaction for both consumers and producers, such as increased sales volume, ease of marketing products, along with conveniences like free shipping and guarantees against loss or damage of goods (Wang et al., 2020). In Indonesia, based on the percentage of e-commerce by sector, that e-commerce in wholesale and retail trade; repair and maintenance of cars and motorcycles is the largest, with a volume of 48.42 percent, followed by food and beverage providers at 17.55 percent (BPS, 2020).

In Southeast Asia, e-commerce has become an increasingly dynamic business, with transaction values reaching 5.5 billion dollars in 2015 and growing to over 23.2 billion dollars by 2018. This growth is expected to continue rising to 102 billion dollars by 2025. In Indonesia, the rapid development of e-commerce has taken off since 2015, valued at 1.7 billion dollars and rising to 12.2 billion dollars in 2018, with projections of 53 billion dollars by 2025 (Google Temasek, 2018). The Financial Services Authority (OJK) explains in the National Strategy for Inclusive Finance (SNKI) that digital technology is one of the pillars of inclusive finance. Digital technology is expected to bring various financial products and services that are easy and

convenient for people across Indonesia to use (SNKI, 2019). Digital technology has a high level of penetration in reaching various segments of society, especially those without broad access to finance (Rusdianasari, 2018). The convergence between information technology and financial activities is unavoidable and has the potential to dominate most business transactions, including in the inclusive finance sector (Werthamer & Raymond, 2003) (Lee & Lee, 2015) (Jang, 2015) (Ranade, 2017). Enhancing the role of digital transactions is necessary for empowering SMEs to expand marketing reach through technology and information media (Pujiono, Setyawati & Idris, 2018). In addition to the profit factors obtained, consumers also face potential risks of loss due to adopting digital finance (Widyaningsih, 2018). The initial risks that consumers may bear include data security, privacy, and data ownership risks, as well as governance issues. These risks can arise from vulnerabilities in computer-based systems and processes and may be exploited by hackers for pleasure or criminal activities (Nizar, 2017). From a financial risk perspective, the development of digital financial services in Indonesia still presents its own challenges, such as high interest rates exceeding twenty percent and a significant risk of defaults (Rahadiyan, 2019). On the legal side, there are violations involving the dissemination of customers' personal data by digital financial services companies (Lei, 2016). These companies collect credit payments by misusing the contact lists on consumers' phones. People who are contacted are unaware of the loan in question. This action violates the Information and Electronic Transactions (ITE) Law, Article 26 concerning personal data. The Financial Services Authority (OJK) has warned the public to avoid using financial services that are not registered with OJK (kontan.co.id, 2019).

The study of the impact of financial risks on the adoption of digital finance has been prominently found in previous research literature (Abramova & Böhme, 2016); (Liu et al., 2013); (Benlian & Hess, 2011). Financial losses experienced by consumers result from several factors, including transaction system failures, fraud factors, and extra costs for transaction fees. All these risk factors have a negative correlation with the adoption of digital financial transactions (Zavolokina et al., 2017). Research conducted in South Korea on the sustainability of financial technology usage by examining operational, legal, security, and financial risk factors has proven that legal risk has the most significant negative impact on consumer sustainability when adopting digital technology. Meanwhile, the factor of convenience has the most positive impact on the sustainability of digital technology usage (Ryu, 2018). Consumer perceptions and views are key to the success or failure of the process of adopting a technology (Venkatesh et al., 2002). The indication of positive or negative perceptions in accepting a technology is a determining factor in how consumers adopt a technology (Cocosila, 2013). Although it has advantages, technological innovation comes with risks (Schierz et al., 2010). Consumers adopt technology products when the benefits outweigh the risks (ASBA, 2018).

This study aims to enrich the literature regarding the role of consumer decisions to

engage in online transactions on the purchasing decisions of food products from small and medium-sized enterprises (SMEs), influenced by technology acceptance and the perception of risk-benefit factors in adopting digital technology. The research problem that this study seeks to answer is:

1. How does technology acceptance influence online transaction adoption?
2. How does risk perception affect online transaction adoption?
3. How does perceived benefit impact online transaction adoption?
4. What role does online transaction adoption play as a mediating variable in purchasing food products from SMEs?

METHODS

Sampling and Data Collection Techniques This research uses a quantitative approach with purposive sampling technique and employs a survey to meet the study's objectives. The research population consists of consumers of food and beverage products in the Jabodetabek area. The survey was conducted distributing questionnaires both online and in person to 200 respondents' responses were successfully collected. The measurement scale used is a 5-point Likert scale with parameters ranging from "strongly disagree" to "strongly agree." **Operationalization Variable and Data Analysis** This research aims to test the relationship between technology acceptance, risk-benefit perception, and the actual purchase of food products in SMEs through the adoption of online transactions as a mediating variable.

The technology acceptance and risk-benefit perception variables are latent variables that cannot be directly observed, so there are manifest variables as indicators to measure the latent variables. In this study, there are 7 indicators for the technology acceptance variable, taken from previous research references, Chuang et al. (2017); Eltayeb and Dawson (2016); Cheung and Vogel (2013), which consist of 4 indicators for perceived usefulness and 3 indicators for perceived ease of use of technology. The risk perception uses references from previous studies, Kim et al. (2008); Featherman and Pavlou (2003); Lee (2009); Benlian and Hess (2011). Risk perception comprises 4 indicators, namely 2 indicators for operational risk and 2 indicators for financial risk. The benefit perception uses relevant sources from previous research, Cristi (2016); Kim et al. (2008); Featherman and Pavlou (2003); Lee (2009); Benlian and Hess (2011). Benefit perception indicators consist of 5 indicators, including 2 indicators for economic gains and 3 indicators for transaction smoothness. The adoption of online transactions consists of 2 indicators using relevant references from previous studies, Gupta et al. (2019). The actual purchase of food products in SMEs consists of 2 manifest variables referencing previous studies, namely, Omar et al. (2012); Banna (2019). The model construction has two stages of discussion, namely, the measurement model analysis or outer model and the structural model analysis or inner model (Hair et al. 2006). The measurement analysis stage is carried out by evaluating the convergent validity values.

Individual indicators are considered reliable if they have a correlation value above 0.6, especially for exploratory research (Chin, 1999; Hair et al. 2011). The analysis continues with a discriminant validity test by looking at the cross-loading factor. It is said to be reliable if the correlation result of a variable's construct is higher than the correlation of the indicators in other variables. The evaluation continues with tests from the output of composite reliability and Cronbach's alpha. A construct is said to have good reliability if the output results are above 0.7. Next, the measurement proceeds to the second stage, which is the structural model testing (Inner Model). In evaluating the structural model, a goodness of fit test is performed by measuring R-square. The second test is to look at significance by considering the parameter coefficient and the t-statistic value through the output path coefficients.

RESULTS AND DISCUSSION

Results

Characteristics of Respondents A total of 200 respondents were surveyed, consisting of 52% women and 48% men. The largest educational background among respondents is a bachelor's degree at 57%, followed by high school/vocational school graduates at 17%, while the rest are diploma and postgraduate holders. The most represented age group is 26-39 years, which accounts for 39% of the respondents, followed by the 40-59 age group at 34%, and the 17-25 age group at 27%, with the remaining 1% being aged 60-74. Within the age groups, most respondents fall within the 26-39 age range, which corresponds to millennials. The dominance of the 26-39 age group in this study is higher compared to other age groups, as supported by a survey on e-commerce users in Indonesia conducted by Statista (2020). Regarding the professional characteristics of respondents, the largest group is made up of private sector employees at 42%, followed by students at 21%, educators at 16%, and homemakers at 14%, while the remainder consists of consultants.

Measurement Model

The evaluation of the measurement model or outer model is conducted to test the validity and reliability of the model. A measurement model with reflective indicators is assessed through convergent and discriminant validity of the indicators forming the latent construct, as well as composite reliability and Cronbach's alpha for the indicator block. The evaluation of the structural model or inner model aims to predict relationships among latent variables. Latent variables are tested by examining the percentage of variance explained through the R-square of the endogenous latent variables. A test is also performed to check for predictive relevance and average variance extracted to achieve stabilization of the estimates. In the first stage, the evaluation of the measurement or outer model is carried out by conducting a convergent validity analysis by examining the outer loading results as follows.

Table 1. Output of Convergent Validity

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values |
|-----------------|---------------------|-----------------|----------------------------|--------------------------|----------|
| PBE1 <- Benefit | 0.779 | 0.782 | 0.047 | 16.649 | 0.000 |
| PBE2 <- Benefit | 0.758 | 0.755 | 0.061 | 12.330 | 0.000 |
| PBS1 <- Benefit | 0.750 | 0.749 | 0.038 | 19.931 | 0.000 |
| PBS2 <- Benefit | 0.855 | 0.854 | 0.028 | 30.522 | 0.000 |
| PBS3 <- Benefit | 0.770 | 0.771 | 0.043 | 17.989 | 0.000 |
| PM1 <- ActPurch | 0.902 | 0.902 | 0.021 | 42.389 | 0.000 |
| PM2 <- ActPurch | 0.928 | 0.928 | 0.014 | 67.462 | 0.000 |
| PRF1 <- Risk | 0.863 | 0.854 | 0.090 | 9.538 | 0.000 |
| PRF2 <- Risk | 0.736 | 0.720 | 0.106 | 6.916 | 0.000 |
| PRO1 <- Risk | 0.602 | 0.559 | 0.185 | 3.265 | 0.001 |
| PRO2 <- Risk | 0.630 | 0.586 | 0.158 | 3.974 | 0.000 |
| PTE1 <- TechAcc | 0.652 | 0.648 | 0.078 | 8.305 | 0.000 |
| PTE2 <- TechAcc | 0.736 | 0.731 | 0.062 | 11.794 | 0.000 |
| PTE3 <- TechAcc | 0.612 | 0.610 | 0.090 | 6.804 | 0.000 |
| PTU1 <- TechAcc | 0.731 | 0.727 | 0.052 | 14.027 | 0.000 |
| PTU2 <- TechAcc | 0.786 | 0.789 | 0.046 | 17.194 | 0.000 |
| PTU3 <- TechAcc | 0.697 | 0.701 | 0.051 | 13.568 | 0.000 |
| PTU4 <- TechAcc | 0.680 | 0.680 | 0.052 | 13.180 | 0.000 |
| TO1 <- TraOnli | 0.859 | 0.852 | 0.043 | 20.104 | 0.000 |
| TO2 <- TraOnli | 0.907 | 0.908 | 0.017 | 53.389 | 0.000 |

All indicators have a correlation output of > 0.6 and are considered reliable with a P value of 0.000 in this exploratory study. Thus, the measurement evaluation can proceed with the analysis of discriminant validity. Below are the results of the cross-loading measurements for the assessment of discriminant validity.

Table 2. Cross Loading of Discriminant validity Test

| | ActPurch | Benefit | Risk | TechAcc | TraOnli |
|------|--------------|--------------|--------------|--------------|--------------|
| PBE1 | 0.405 | 0.779 | -0.121 | 0.503 | 0.333 |
| PBE2 | 0.350 | 0.758 | -0.166 | 0.487 | 0.427 |
| PBS1 | 0.446 | 0.750 | -0.119 | 0.578 | 0.393 |
| PBS2 | 0.508 | 0.855 | -0.140 | 0.521 | 0.359 |
| PBS3 | 0.430 | 0.770 | -0.183 | 0.471 | 0.364 |
| PM1 | 0.902 | 0.448 | -0.209 | 0.427 | 0.481 |
| PM2 | 0.928 | 0.549 | -0.198 | 0.457 | 0.537 |
| PRF1 | -0.269 | -0.205 | 0.863 | -0.277 | -0.208 |
| PRF2 | -0.128 | -0.150 | 0.736 | -0.172 | -0.089 |
| PRO1 | -0.078 | -0.047 | 0.602 | -0.046 | -0.197 |
| PRO2 | -0.048 | -0.052 | 0.630 | -0.115 | -0.127 |
| PTE1 | 0.256 | 0.397 | -0.139 | 0.652 | 0.228 |
| PTE2 | 0.287 | 0.464 | -0.165 | 0.736 | 0.287 |
| PTE3 | 0.244 | 0.358 | -0.202 | 0.612 | 0.185 |
| PTU1 | 0.301 | 0.437 | -0.245 | 0.731 | 0.391 |
| PTU2 | 0.410 | 0.529 | -0.190 | 0.786 | 0.436 |
| PTU3 | 0.451 | 0.490 | -0.144 | 0.697 | 0.305 |
| PTU4 | 0.384 | 0.514 | -0.132 | 0.680 | 0.330 |
| TO1 | 0.444 | 0.359 | -0.202 | 0.367 | 0.859 |
| TO2 | 0.535 | 0.477 | -0.192 | 0.431 | 0.907 |

It was found that the correlation of the benefit construct is greater than the correlation values of the other variable constructs. Similarly, technology acceptance has a higher construct correlation compared to the construct correlations of other indicators. The same goes for other variables such as online transaction adoption, actual purchase, and risk-benefit perception, each having a higher construct correlation than the correlations of other variables. Therefore, the discriminant validity test is satisfied in the measurement analysis. Next, a reliability test for the constructs was conducted using two criteria:

composite reliability and Cronbach's alpha, with the following results:

Table 3. Output Construct Reliability and validity

| | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|----------|------------------|-------|-----------------------|----------------------------------|
| ActPurch | 0.806 | 0.819 | 0.911 | 0.837 |
| Benefit | 0.842 | 0.844 | 0.888 | 0.614 |
| Risk | 0.706 | 0.852 | 0.804 | 0.512 |
| TechAcc | 0.827 | 0.836 | 0.871 | 0.491 |
| TraOnli | 0.720 | 0.739 | 0.876 | 0.780 |

The results of the measurements for both Cronbach's alpha and composite reliability show output > 0.7 , indicating that the model construct is considered reliable.

Structural Model

The analysis continues with the evaluation of the structural model (inner model). Below are the results of the structural model construct regarding technology acceptance, risk-benefit perception towards purchasing food products from SMEs through the adoption of online transactions as a mediating variable.

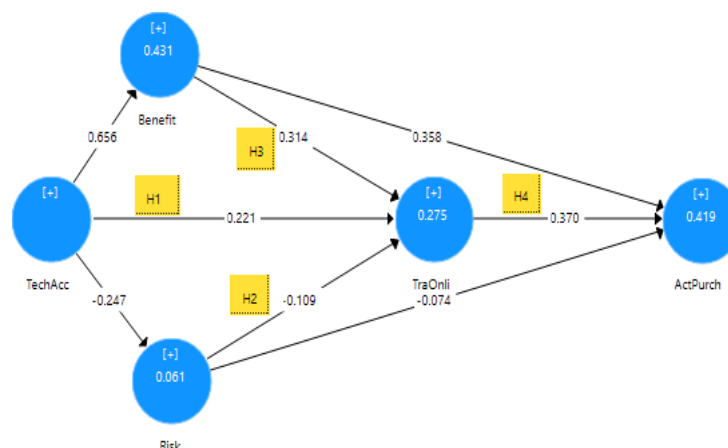


Figure 3. Structural Model of Online Purchasing in SMEs

Inner model testing can be done by looking at the R-square value, which indicates the extent of variability in actual purchase constructs as an endogenous variable that can be explained by exogenous variables. Here are the R-square values.

Table 4. Output R-Square

| | R Square | R Square Adjusted |
|----------|----------|-------------------|
| ActPurch | 0.419 | 0.410 |
| Benefit | 0.431 | 0.428 |
| Risk | 0.061 | 0.056 |
| TraOnli | 0.275 | 0.264 |

The R-square value of 0.419 can be interpreted as the variability in actual food product purchases among SMEs, explained by the variability in technology acceptance, risk-benefit perception, and online transaction adoption, which is 41.9%, while the remaining 58.1% is explained by other variables outside the study. Chin (1998) explains that the R-square criteria consist of three classifications: 0.67 (substantial); 0.33 (moderate); and 0.19 (weak). Therefore, the R-square value in the structural model of technology acceptance, risk-benefit perception regarding actual food purchases among SMEs through online transaction adoption is 0.419, which falls between the moderate and substantial criteria.

Table 5. Coefficient and t-Statistic

| No | Influence Path | Coefficient | t-Value | Remark |
|----|---|-------------|---------|-----------|
| 1 | Digital technology acceptance → Online transaction adoption | 0.221 | 2.527 | Supported |
| 2 | Risk Perception → Adoption of Online Transactions | -0.109 | 1.350 | Rejected |
| 3 | Perception of Benefits → Adoption of Online Transactions | 0.358 | 4.224 | Supported |
| 4 | Online Transactions Adoption → Actual Purchases | 0.370 | 4.799 | Supported |

The results in Table 5 show that not all the proposed hypotheses (H1 – H4) were supported. H1, H3, and H4 are significant at the 0.05 significance level. H2 is rejected at the 0.05 significance level with a t-value < 1.96.

Table 6. Goodness of Fit Structural Model

| No | Criteria | Standard | Value | Remark |
|----|-----------|-----------------------------|-------|---------------------|
| 1 | SRMR | < 0.08 | 0.07 | <i>Good fit</i> |
| 2 | NFI | the closer to 1, the better | 0.677 | <i>Good fit</i> |
| 3 | RMS theta | < 0.12 | 0.179 | <i>Marginal fit</i> |

The goodness of fit results for the structural model are met by fulfilling the SRMR (standardized root mean square residual) criterion with a value of $0.07 < 0.08$ (Hu & Bentler, 1999) and an NFI of 0.677, fulfilling the condition that a value closer to 1 is better. The RMS theta, which has a value of 0.179, is greater than the standard of < 0.12 (Henseler et al., 2012),

thus the model only meets marginal fit. Nevertheless, the value of 0.179 still complies with the condition of being closer to 0, indicating that the structural model meets the criteria.

The next evaluation of the structural model is to test the value of predictive relevance. The results indicate that the blindfolding Q2 value is 0.340 and the actual purchase is 0.340. A blindfolding value > 0 indicates that the model has predictive relevance (Ghazali, 2021). This test is necessary to obtain stabilization of the estimations. Below, table 7 shows the blindfolding Q2 values.

Table 7. Construct Cross Validated Redundancy

| Total | Case1 | Case2 | Case3 | Case4 | Case5 | Case6 | Case7 |
|----------|----------|-------|----------|-------|-----------------------------|-------|-------|
| | SSO | | SSE | | Q ² (=1-SSE/SSO) | | |
| ActPurch | 394.000 | | 260.052 | | 0.340 | | |
| Benefit | 985.000 | | 735.525 | | 0.253 | | |
| Risk | 788.000 | | 771.782 | | 0.021 | | |
| TechAcc | 1379.000 | | 1379.000 | | | | |
| TraOnli | 394.000 | | 320.965 | | 0.185 | | |

From the results of the specific indirect effect, it is known that there is an indirect influence of technology acceptance, benefit factors through the mediation of adoption on actual purchases, which is positive and significant with a value of $\beta = 0.076$; $t = 2.936$. Is there a mediating effect of online transaction adoption on actual purchases? Due to the direct relationship between the perception of benefits and actual purchases, which is positive and significant with a value of $\beta = 0.358$; $t = 4.543$, the mediating effect of online transaction adoption is a complementary partial mediation with a VAF test result of $(0.314 * 0.358) / (0.314 * 0.358) + 0.370 = 0.233$. A VAF value of 0.233 indicates partial mediation. Ghazali (2021) explains that if $VAF > 0.80$, it indicates full mediation; if $0.20 \leq VAF < 0.80$, it indicates partial mediation; and if $VAF < 0.20$, there is no mediation. Thus, the adoption of online transactions is a partial mediation. Below is table 8, which explains the path coefficient values.

Table 8. Path Coefficient

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values |
|---------------------|---------------------|-----------------|----------------------------|--------------------------|----------|
| Benefit -> ActPurch | 0.358 | 0.360 | 0.079 | 4.543 | 0.000 |
| Benefit -> TraOnli | 0.314 | 0.296 | 0.074 | 4.224 | 0.000 |
| Risk -> ActPurch | -0.074 | -0.082 | 0.051 | 1.434 | 0.152 |
| Risk -> TraOnli | -0.109 | -0.110 | 0.081 | 1.350 | 0.178 |
| TechAcc -> Benefit | 0.656 | 0.668 | 0.047 | 14.091 | 0.000 |
| TechAcc -> Risk | -0.247 | -0.267 | 0.071 | 3.508 | 0.000 |
| TechAcc -> TraOnli | 0.221 | 0.234 | 0.087 | 2.527 | 0.012 |
| TraOnli -> ActPurch | 0.370 | 0.368 | 0.077 | 4.799 | 0.000 |

Discussion

The purpose of this research is to examine the influence of digital technology acceptance and the perception of risks and benefits on food product purchases in SMEs through the

adoption of online transactions as a medium.

Hypothesis 1 that the acceptance of digital technology has a positive and significant effect on the adoption of online transactions with a value of $\beta = 0.221$; $t = 2.527$. This means that the higher the perception of digital technology acceptance, the greater the increase in online transaction adoption and actual purchases. These results are consistent with previous research by Butt et al. (2016); Said S. Al-Gahtani (2011); Rachbini (2019), which states that the factors of ease of use and the benefits of digital technology influence the adoption of transactions on e-commerce platforms via mobile phones.

Hypothesis 2 states that risk perception has a negative effect on the adoption of online transactions. Risk perception has a negative and insignificant effect on the adoption of online transactions with a value of $\beta = -0.109$; $t = 1.350$. This means that although the use of technology is perceived to carry risks, it does not automatically decrease the adoption of online transactions, as the benefits of using technology are still felt to be relatively greater. This is in line with the Net Valency Model, which supports consumer behavior in deciding to adopt digital technology when the perceived benefits outweigh the risks (Featherman & Pavlou, 2003); (Featherman, Miyazaki, & Sprott, 2010); (Abramova & Böhme, 2016).

Hypothesis 3 states that the perception of benefits has a positive influence on the adoption of online transactions. The perception of benefits positively and significantly affects the adoption of online transactions with a value of $\beta = 0.358$; $t = 4.224$. This means that the higher the perception of the benefits of information technology, the higher the level of adoption of online transactions and the actual purchasing rate of food products in SMEs will also increase. This supports the findings of previous research by Kim et al. (2008); Featherman and Pavlou (2003); Lee (2009); Benlian and Hess (2011), and Cristi. (2016).

Hypothesis 4 states that the adoption of online transactions has a positive effect on the actual purchase of food products in SMEs. The adoption of online transactions has a positive and significant impact on the actual purchase of food products in SMEs with a value of $\beta = 0.370$; $t = 4.799$. This explains that if the adoption of online transactions increases, then the purchase of food products from SMEs will also rise.

CONCLUSION

This research demonstrates the indirect influence of digital technology acceptance and perceived benefits on food product purchases in SMEs through the adoption of online transactions. The direct influence of perceived technology benefits on food product purchases in SMEs indicates that the adoption of online transactions has a complementary partial mediating effect. Consumers are partially adopting other transactions to make actual purchases, in line with the condition that most SMEs have not gone digital yet. The government, along with relevant

agencies and institutions, needs to encourage the acceleration of digital adoption for SMEs and provide intensive support to enhance skills and capital. The results of this research contribute in several ways: (a) Theoretical perspective, it develops a construct of the model for digital technology acceptance and perceived risk-benefit regarding the consumption of food and beverage products through the adoption of online transactions, to complement existing constructs that can be used in future research, (b) Empirical standpoint, this study develops empirical research on SMEs in the food and beverage sector regarding how SME actors need to implement business efficiency strategies by shifting some of their resources to enhance digital literacy and adopt online transactions to support broader marketing efforts. This research focuses on the influence of digital technology acceptance and risk-benefit perception on food product consumption among SMEs through online transactions in the Jabodetabek area. Future researchers can conduct further measurements, such as how the development strategies of SMEs relate to the management of branch operations and digital marketing to expand target areas. The aim is to analyze the factors that influence the empowerment of SMEs in efforts to encourage economic recovery post-pandemic.

REFERENCE

- Abramova, S., & Böhme, R. (2016). Perceived Benefit and Risk as Multidimensional Determinants of Bitcoin Use: A Quantitative Exploratory Study. *Proceedings of the Thirty*
- AIPEG, & KPPU. (2017). *The Digital Economy in Indonesia*. KPPU Komisi Pengawas Persaingan Usaha.
- Arno, A., & Mujahidin, M. (2024). Enhancing Zakat Management: The Role of Monitoring and Evaluation in the Amil Zakat Agency. *Jurnal Economica*, 20(3), 397-418. doi:<https://doi.org/10.21831/economia.v20i3.53521>
- ASBA. (2018). An Overview on Fintechs: Their Benefits and Risks. Diunduh 16 May 2019. Association of Supervisors of Banks of the Americas: <http://www.asbasupervision.com/en/bibl/publications-of-asba/otherreports/1604-orep24-1-1>
- Aslaksen, E. W. (2020). Technology. In *Lecture Notes in Networks and Systems*. https://doi.org/10.1007/978-3-030-40226-6_5
- Bank Indonesia (BI), Lembaga Pengembangan Perbankan Indonesia (LPPI). (2016). *Profil Bisnis Usaha Mikro, Kecil Dan Menengah (UMKM)*. Bank Indonesia dan LPPI.
- Banna, H. (2019). Muslim Customer Behavior in Halal Food Online Purchasing. *Journal of Islamic Monetary and Finance*, Vol. 5 No. 3 pp. 517-540
- Basry, A., & Sari, E. M. (2018). Penggunaan Teknologi Informasi dan Komunikasi (TIK) Pada Usah Mikro, Kecil dan Menengah (UMKM). *IKRA-ITH INFORMATIKA : Jurnal* <https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

Komputer Dan Informatika.

- Benlian, A., & Hess, T. (2011). Opportunities and risks of software-as-a-service: Findings from a survey of IT executives. *Decision Support Systems*.
<https://doi.org/10.1016/j.dss.2011.07.007>
- BPS.(2019) <https://www.bps.go.id/pressrelease/2019/02/06/1619/ekonomi-indonesia-2018-tumbuh-5-17-persen.html>
- Bruner, G. C., & Kumar, A. (2005). Explaining consumer acceptance of handheld Internet devices. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2003.08.002>
- Butt, I., Tabassam, S., Chaudhry, N. G., & Nusair, K. (2016). Using technology acceptance model to study adoption of online shopping in an emerging economy. *Journal of Internet Banking and Commerce*, 21(2), [202].
- Cheung, R., & Vogel, D. (2013). Predicting user acceptance of collaborative technologies: An extension of the technology acceptance model for elearning. *Computers and Education*.
<https://doi.org/10.1016/j.compedu.2012.12.003>
- Chin, L. P., & Ahmad, Z. A. (2015). Perceived Enjoyment and Malaysian Consumers' Intention to Use a Single Platform E-Payment. *SHS Web of Conferences*.
<https://doi.org/10.1051/shsconf/20151801009>
- Chin, W.W., & Newsted, P. R. (1999). *Structural Equation Modeling Analysis with Small Samples Using Partial Least Square*. SAGE Publication
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*.
<https://doi.org/10.1097/00006842-197609000-00003>
- Cocosila, M. (2013). Role of user a priori attitude in the acceptance of mobile health: An empirical investigation. *Electronic Markets*. <https://doi.org/10.1007/s12525-012-0111-5>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. <https://doi.org/10.2307/249008>
- Eltayeb, M., & Dawson, M. (2016). Understanding user's acceptance of personal cloud computing: Using the technology acceptance model. In *Advances in Intelligent Systems and Computing*. https://doi.org/10.1007/978-3-319-32467-8_1
- Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human Computer Studies*.
[https://doi.org/10.1016/S1071-5819\(03\)00111-3](https://doi.org/10.1016/S1071-5819(03)00111-3)
- Featherman, M. S., Miyazaki, A. D., & Sprott, D. E. (2010). Reducing online privacy risk to facilitate e-service adoption: The influence of perceived ease of use and corporate credibility. *Journal of Services Marketing*. <https://doi.org/10.1108/08876041011040622>
- Fiqran, M., Mujahidin, M., Bakri, A. N., & Abdulrahman, A. J. A. (2024). Motivation for Waqf in Millennials and Generation Z: Highlighting Religiosity, Literacy and Accessibility.
<https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

- GAPMMI. (2018). Gabungan Pengusaha Makanan dan Minuman Seluruh Indonesia, <http://www.gapmmi.or.id/?pilih=arsip&topik=26>
- Gefen, & Straub. (2003). Managing User Trust in B2C e-Services. *E-Service Journal*. <https://doi.org/10.2979/esj.2003.2.2.7>
- Ghazali, Imam (2021). Partial Least Square Konsep Teknik dan Aplikasi, Menggunakan Program SmartPLS 3.2.9 Untuk Penelitian Empiris Edisi 3, Badan Penerbit UNDIP, Semarang.
- Gupta, A., Singh, S., Surana, V. (2019). Factors Affecting Adoption of Food Delivery Apps. *International Journal of Advance Research* 7 (10) 587- 599.
- Hafni, R., & Rozali, A. (2017). Analisis Usaha Mikro, Kecil, dan Menengah (UMKM) terhadap Penyerapan Tenaga Kerja di Indonesia. *Ilmu Ekonomi Dan Studi Pembangunan*.
- Hair, J., Risher, J., Sartetd, M. (2019). When to use and how to report the results of PLS-SEM. *Eropean Business Review*. DOI: 10.1108/EBR-11- 2018-0203
- Hanim, A., & Sudaryanto, S. (2003). Evaluasi Kesiapan UKM Menyongsong Pasar Bebas Asean (Afta 2003): Suatu Analisis Perspektif dan Tinjauan Teoritis. *Jurnal Ekonomi Akuntansi Dan Manajemen*.
- Hartari, A. (2017). Pola Konsumsi Masyarakat Perkotaan dan Pengaruhnya terhadap Kesehatan. *Peran MST dalam Mendukung Urban Lifestyle yang Berkualitas*.
- Henseler, J., Fassot, G., Dijkstra, T.A., and Wilson, B. (2012). Analysing quadratic effect of formative construct by means of varianced-based structural equation modelling, *European Journal of Information System* (21:1), pp. 99-112.
- Hernández, B., Jiménez, J., & Martín, M. J. (2010). Customer behavior in electronic commerce: The moderating effect of e-purchasing experience. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2009.01.019>
- Hikhman, Dwi. R. (2017). 3 Peran Penting UMKM Penggerak Penting Ekonomi Indonesia. <https://www.kompasiana.com/hikhman/599eabfae728e442d60622e2/3-peran-penting-umkm-penggerak-penting-ekonomi-indonesia>. Diunduh 13 Sep 2019.
- Hill, R. J., Fishbein, M., & Ajzen, I. (1977). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. *Contemporary Sociology*. <https://doi.org/10.2307/2065853>
- Hu, L.T., Bentler, P.M. (1999). Fit indices in covariance structure modelling: Sensitivity to underparameterized model misspecification. *Psychology Method*, 3, pp. 424-453
- Hubeis, M. (2009). Prospek Usah Kecil dalam wadah inkubator bisnis. Bogor (ID): Ghalia Indonesia
- Igbaria, M., Guimaraes, T., & Davis, G. B. (1995). Testing the Determinants of Microcomputer Usage via a Structural Equation Model. *Journal of Management Information Systems*. <https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

- <https://doi.org/10.1080/07421222.1995.11518061>
- Ishak, I., Putri, Q. A. R., & Sarijuddin, P. (2024). Halal Product Assurance at Traditional Markets in Luwu Raya Based on Halal Supply Chain Traceability. *Amwaluna: Jurnal Ekonomi dan Keuangan Syariah*, 8(2), 224-240.
- Jang, H. (2015). Analysis and Forecasting for ICT Convergence Industries. *Journal Of Service Research and Studies*. <https://doi.org/10.18807/jsrs.2015.5.2.15>
- K, A. ., Astuti, A. R. T. ., & ., Mujahidin. (2024). The Impact of Word of Mouth and Customer Satisfaction on Purchase Decisions: The Role of Maslahah as an Intervening Variable in the Cosmetic Products Industry in Indonesia. *Journal of Ecohumanism*, 3(7), 1525–1540. <https://doi.org/10.62754/joe.v3i7.4307>
- Kemenkop. (2019). Kementerian Koperasi dan Usaha Kecil dan Menengah, <http://www.depkop.go.id/data-umkm>
- kontan.co.id. (2019). Produk frozen food Indonesia memiliki prospek bagus namun daya saingnya masih rendah. <https://industri.kontan.co.id/news/produk-frozen-food-indonesia-memiliki-prospek-bagus-namun-daya-saingnya-masih-rendah>.
- Lai, P. C. (2018). Security as an Extension to TAM Model: Consumers' Intention to Use a Single Platform E-Payment. *Asia-Pacific Journal of Management Research and Innovation*. <https://doi.org/10.1177/2319510x18776405>
- Lee, S.-H., & Lee, D.-W. (2015). FinTech - Conversions of Finance Industry based on ICT. *Journal of the Korea Convergence Society*. <https://doi.org/10.15207/jkcs.2015.6.3.097>
- Lei, X. (2016). Discussion of the Risks and Risk Control of P2P in China. *Modern Economy*. <https://doi.org/10.4236/me.2016.74043>
- Li, Y., Wang, X., Lin, X., & Hajli, M. (2018). Seeking and sharing health information on social media: A net valence model and cross-cultural comparison. *Technological Forecasting and Social Change*. <https://doi.org/10.1016/j.techfore.2016.07.021>
- Majid, N. H. A., Omar, A. M., & Busry, L. H., Mujahidin Reviving Waqf In Higher Education Institutions: A Comparative Review Of Selected Countries. *European Proceedings of Social and Behavioural Sciences*.
- Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2003). Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. *Journal of Marketing*. <https://doi.org/10.1509/jmkg.64.3.50.18024>
- Miller, M. (2017). Can “fintech” innovations impact financial inclusion in developing countries? *Private Sector Development (World Bank)*.
- Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-WideWeb context. *Information and Management*. [https://doi.org/10.1016/S0378-7206\(00\)00061-6](https://doi.org/10.1016/S0378-7206(00)00061-6)
- Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions <https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

- of adopting an information technology innovation. *Information Systems Research*.
<https://doi.org/10.1287/isre.2.3.192>
- Morgan-Thomas, A., & Veloutsou, C. (2013). Beyond technology acceptance: Brand relationships and online brand experience. *Journal of Business Research*.
<https://doi.org/10.1016/j.jbusres.2011.07.019>
- Muheramtohad, S. (2017). Peran Lembaga Keuangan Syariah dalam Pemberdayaan UMKM di Indonesia. *MUQTASID Jurnal Ekonomi Dan Perbankan Syariah*.
<https://doi.org/10.18326/muqtasid.v8i1.95-113>
- Mujahidin, M., Imran, M., Sapa, N. B., Fasiha, F., Aisya, S., & Trimulato, T. (2025). Challenge of Waqf to the Social and Economic Welfare of Muslim Communities: A Comparative Analysis Between Countries. *Jurnal Ilmiah Mizani: Wacana Hukum, Ekonomi Dan Keagamaan*, 12(1), 168-184.
- Mujahidin, Rahmadani, N., & Putri, Q. A. R. (2024). Analysis of the Influence of Religiosity Values In Reducing Consumptive Behavior in Indonesian Muslim Consumers. *Amwaluna: Jurnal Ekonomi dan Keuangan Syariah*, 8(2), 253-274.
- Mumtahana, H. A., Nita, S., & Tito, A. W. (2017). Pemanfaatan Web E-Commerce untuk Meningkatkan Strategi Pemasaran. *Khazanah Informatika: Jurnal Ilmu Komputer Dan Informatika*. <https://doi.org/10.23917/khif.v3i1.3309>
- Nam, K., Lee, Z., & Lee, B. G. (2016). How internet has reshaped the user experience of banking service? *KSII Transactions on Internet and Information Systems*.
<https://doi.org/10.3837/tiis.2016.02.014>
- OECD. (2017). Financial education for micro, small and medium-sized enterprise in Asia. Diunduh 15 Juni 2019, <https://www.oecd.org/finance/Financial-education-for-MSMEs-in-Asia.pdf>
- OJK. (2018). Digital Financial Inclusion In Indonesia. [https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Materi-OJK-PROKSI-2016/7.Digital Financial Inclusion - OJK.pdf](https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Materi-OJK-PROKSI-2016/7.Digital%20Financial%20Inclusion%20-%20OJK.pdf).
- Omar, M.K., Kamariah, N.M.N., Imhemed, A.G. (2012). The Direct Effects of Halal Product Actual Purchase Antecedents among the International Muslim Consumers. *American Journal of Economics* 2(4) 87-92
- Palvia, P. (2009). The role of trust in e-commerce relational exchange: A unified model. *Information and Management*. <https://doi.org/10.1016/j.im.2009.02.003>
- presidenri.go.id. (2019). Potensi Besar UKM Industri Makanan-Minuman. <http://presidenri.go.id/berita-aktual/potensi-besar-ukm-industri-makanan-minuman.html>.
- Pujiono, A., Setyawati, R., & Idris, I. (2018). Strategi Pengembangan UMKM Halal di Jawa Tengah
<https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

- Dalam Menghadapi Persaingan Global. *Indonesia Journal of Halal*.
<https://doi.org/10.14710/HALAL.V1I1.3109>
- Putri, Q. A. R., Fasiha, F., & Rasbi, M. (2024). Affiliate marketing and intention to adopt mudarabah: The mediating role of trust in Islamic financial decision-making. *JEMA: Jurnal Ilmiah Bidang Akuntansi Dan Manajemen*, 21(2), 337–362.
<https://doi.org/10.31106/jema.v21i2.23381>
- RachbiniW., SalimF., HaqueM. G., & RahmawatiE. (2019). Analisis Niat Pembelian Ulang E-Commerce Mobile Dengan Pendekatan Technology Acceptance Model (TAM). *Jurnal Aplikasi Bisnis Dan Manajemen (JABM)*, 5(3), 530.
<https://doi.org/10.17358/jabm.5.3.530>
- Rahadiyan, I. (2019). Aspek Hukum dan Tantangan Pengaturan P2P Lending di Indonesia. *Kerjasama OJK Dan FH UGM*. Diunduh dari
<https://www.researchgate.net/publication/328717455>
- Ramdhani, (2011). Penyusunan Alat Pengukur Berbasis Theory of Planned Behavior. *Buletin Psikologi*. Volume 19, No. 2, 55-69
- Rusdianasari, F. (2018). Peran Inklusi Keuangan melalui Integrasi Fintech dalam Stabilitas Sistem Keuangan Indonesia. *Jurnal Ekonomi Kuantitatif Terapan*
- Ryu, H. S. (2018). What makes users willing or hesitant to use Fintech?: the moderating effect of user type. *Industrial Management and Data Systems*. <https://doi.org/10.1108/IMDS-07-2017-0325>
- Said S. Al-Gahtani, Modeling the electronic transactions acceptance using an extended technology acceptance model, *Applied Computing and Informatics*, Volume 9, Issue 1, 2011, Pages 47-77, <https://doi.org/10.1016/j.aci.2009.04.001>.
- Sapsuha, M. U., Alwi, Z., Sakka, A. R., & Al-Ayyubi, M. S. (2024). Review of Gold Trading Practices on Credit (non-Cash) Based on Hadith. *Al-Kharaj: Journal of Islamic Economic and Business*, 6(3).
- Schierz, P. G., Schilke, O., & Wirtz, B. W. (2010). Understanding consumer acceptance of mobile payment services: An empirical analysis. *Electronic Commerce Research and Applications*.
<https://doi.org/10.1016/j.elerap.2009.07.005>
- Setiawan, W. (2017). Era Digital dan Tantangannya. *Seminar Nasional Pendidikan 2017*
- Sharma, S. K., Govindaluri, S. M., Muharrami, S. M., & Tarhini, A. (2017). A multi-analytical model for mobile banking adoption: a developing country perspective. *Review of International Business and Strategy*. <https://doi.org/10.1108/RIBS-11-2016-0074>
- Sudaryanto, Ragimun, & Wijayanti, R. R. (2015). Strategi Pemberdayaan UMKM Menghadapi Pasar Bebas Asean. *Web Kementerian Keuangan*. <http://www.kemenkeu.go.id>
- Supriyanto, -. (2019). Pemberdayaan Usaha Mikro, Kecil dan Menengah (UMKM) Sebagai Salah
<https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

- Satu Upaya Penanggulangan Kemiskinan. *Jurnal Ekonomi Dan Pendidikan*.
<https://doi.org/10.21831/jep.v3i1.627>
- Szajna, B. (1996). Empirical evaluation of the revised technology acceptance model. *Management Science*. <https://doi.org/10.1287/mnsc.42.1.85>
- The Influence of Brand Equity and Service Quality on the Decision to Use Islamic Banking Services. (2024). *International Journal of Religion*, 5(11), 7402– 7409.
<https://doi.org/10.61707/gfqm3b30>
- Tim APJII. (2018). BULETINAPJIIEDISI22Maret2018.pdf. APJII.
- Tingchi Liu, M., Brock, J. L., Cheng Shi, G., Chu, R., & Tseng, T. (2013). Perceived benefits, perceived risk, and trust. *Asia Pacific Journal of Marketing and Logistics*.
<https://doi.org/10.1108/13555851311314031>
- Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*.
<https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Speier, C., & Morris, M. G. (2002). User acceptance enablers in individual decision making about technology: Towards an integrated model. *Decision Sciences*.
<https://doi.org/10.1111/j.1540-5915.2002.tb01646.x>
- Warta Ekspor. (2015). Peluang Besar di Pasar Ekspor Daging Olahan. *Warta Ekspor*, Ditjen PEN.
- Werthamer, N. R., & Raymond, S. U. (2003). Technology and finance: The electronic markets. *Technological Forecasting and Social Change*. [https://doi.org/10.1016/s0040-1625\(96\)00144-8](https://doi.org/10.1016/s0040-1625(96)00144-8)
- Widyaningsih, N. (2018). Analisis Mitigasi Resiko Financial Technology Peer to Peer Lending Dalam Penyaluran Kredit Terhadap UMKM di Indonesia (Studi Kasus Pada PT. Amarta Mikro Fintek). *Jurnal Ilmiah Mahasiswa FEB*
- Wulandari, S., Irfan, A., Zakaria, N. B., & Mujahidin. (2024). Survey Study on Fraud Prevention Disclosure Measurement at State Islamic Universities in Indonesia. *IQTISHODUNA: Jurnal Ekonomi Islam*, 13(1), 327–348. <https://doi.org/10.54471/iqtishoduna.v13i1.2305>
- Yan, T. C., Schulte, P., & Lee Kuo Chuen, D. (2017). InsurTech and FinTech: Banking and Insurance Enablement. *Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1: Cryptocurrency, FinTech, InsurTech, and Regulation*. <https://doi.org/10.1016/B978-0-12-810441-5.00011-7>
- Yaskun, M., & Sugiarto, E. (2017). Potensi Hasil Perikanan Laut Terhadap Kesejahteraan Para Nelayan Dan Masyarakat. *Studi Manajemen Dan Bisnis*.
- Yousafzai, S. Y., Foxall, G. R., & Pallister, J. G. (2010). Explaining internet banking behavior: Theory of reasoned action, theory of planned behavior, or technology acceptance model? *Journal of Applied Social Psychology*. <https://doi.org/10.1111/j.1559-1816.2010.00615.x>
<https://ejournal.iainpalopo.ac.id/index.php/alkharaj>

Zavolokina, L., Dolata, M., & Schwabe, G. (2017). FinTech transformation: How IT-enabled innovations shape the financial sector. *Lecture Notes in Business Information Processing*. https://doi.org/10.1007/978-3-319-52764-2_6