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# The effect of adversity quotient, technopreneurial learning, and innovation capabilities to the technopreneurship intention

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**ABSTRACT**

The aim of this research is to determine the influence of the adversity quotient, technopreneurial learning, and innovation capabilities on the technopreneurship intention. Based on research that has been conducted, the independent variables consisting of adversity quotient, technopreneurial learning, and innovation capabilities each have a significant influence on the technopreneurship intention variable as seen from the results of the regression analysis. The results of the classical assumption tests in the form of multicollinearity tests, normality tests and heteroscedasticity tests also show that the data meets the classical assumptions so it can be concluded that there are no multicollinearity, normality and heteroscedasticity.

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Tujuan dari penelitian ini adalah untuk mengetahui pengaruh adversity quotient dan pembelajaran technopreneurial terhadap variabel intensi technopreneurship. Berdasarkan penelitian yang telah dilakukan, variabel-variabel bebas yang terdiri dari adversity quotient, dan pembelajaran technopreneurial masing-masing memiliki pengaruh secara signifikan terhadap variabel intensi technopreneurship yang dilihat dari hasil analisis regresinya. Hasil uji asumsi klasik yang berupa uji multikolinearitas, uji normalitas, dan uji heteroskedatisitas juga menunjukkan bahwa data memenuhi asumsi klasik sehingga dapat disimpulkan bahwa tidak terjadi gejala multikolinearitas, normalitas, dan keteroskedatisitas.

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## 1. Introduction

The rapid development of technology has resulted in very significant changes in the field of information dissemination and communication and is now starting to spread to industry and business. This is what is called an era of disruption or an era of shift, where massive technological developments make the boundaries between various fields of science become increasingly thin. Industries and manufacturing companies that apply sophisticated technology have caused large-scale layoffs because work done by machines is considered more efficient. Jobs that do not require decision making will be replaced by robots or machines. This situation is proven by the results of the Central Statistics Agency (BPS) census which recorded the open unemployment rate (TPT) in August 2020 at 7.07 percent, an increase of 1.84 percentage points compared to August 2019.

One effort to reduce the increasing unemployment rate in Indonesia is entrepreneurship. According to Rintan Saragih, entrepreneurship is a dynamic process of providing added value to goods or services with the aim of increasing welfare and prosperity for society. The increasingly rapid development of digital technology is also integrating with the fields of business and entrepreneurship, so that the term technopreneurship has emerged (Rintan, 2017). Ali Basyah stated that technopreneurship comes from the word techno, meaning technology that can change the thinking of business people in managing their business, maintaining business in the face of intense competition, and trying to master technological developments so that innovation and creation can emerge (Basyah, 2018). A technopreneur is someone who is creative and creates innovations to develop opportunities and business models that were previously unforeseen. This has an impact on the emergence of new jobs that can improve people's welfare. Meanwhile, according to Anggraini et al, technopreneurship is an integration between the implementation of technological developments to develop, manage and maintain the existence of a business so as to produce jobs.

An entrepreneur cannot immediately develop a business without careful planning and proper calculations. Entrepreneurs must also be able to read opportunities, situations and market conditions as well as the ability to produce and market what the public needs and is interested in. Entrepreneurs must also be able to utilize any resources to start implementing their business ideas. Therefore, an entrepreneur must master work competencies related to the business field he is developing and managing. Entrepreneurs must also be creative, not easily discouraged, and confident. In business, entrepreneurs must also be clever and careful in making decisions. This is because the world of business and entrepreneurship is often faced with risk and uncertainty.

Digital technology has enabled the emergence of entrepreneurship in the younger generation. The potential independence of a young entrepreneur might start a company and earn money using social media. Young entrepreneurs contribute to strong economic achievements. The goal is for independent young entrepreneurs to be technologically educated, which will benefit the economy by increasing the number of businesses.

The government is trying to facilitate prospective young entrepreneurs through formal education. Through education, it is hoped that it can raise the enthusiasm and intention of the nation's future successors to develop a business or enterprise by integrating various scientific disciplines, namely economics and technology. A person who wants to build a business must have strong and

sincere intentions and be truly devoted to the field in which his business will be developed. Without strong intentions or intentions in technopreneurship, a business will not be able to be built and develop.

## 2. Literature Review

Febriyanto explained that etymologically, hero means a hero who is exemplary and virtuous. Effort means action, work that produces something or does something that has benefits both for oneself and others. Thus, the meaning of entrepreneurship is work that contributes to the welfare of oneself and others and seeks to improve the standard of living of the surrounding community. Entrepreneurs manage whatever resources are needed and can be utilized to generate profits. According to Junias Rosmiati and Munawar, an entrepreneur is an individual who does anything by utilizing the various things he has to produce a product that has higher value (value added). An entrepreneur always innovates, adapts, and likes new challenges (Febriyanto, 2015).

Nirbita said that an entrepreneur is a person who carries out a series of entrepreneurial activities starting from product preparation, marketing, buying and selling transactions, and financial bookkeeping. An entrepreneur is a manager, who manages his own business. However, managers work formally and have their own scope, with clear and structured main tasks and functions and limited authority (Sunarya, 2017).

According to Siti Muntari, technopreneurship is the process of processing products and services so that they have added value that can attract consumers to buy them. Technopreneurship is a business that combines technology with management to create and innovate that can position technology as an important factor in national economic development. Meanwhile, according to Sakti and Prasetyo, technopreneurship is a combination of technological development with an entrepreneurial spirit in developing a business that can provide benefits to many parties (Muntari, 2019).

Herwin Mopangga expressed his opinion that technopreneurship is an integrated entrepreneurial development in the field of technology. A technopreneur has the mindset, character and behavior of an entrepreneur, but the difference is that they tend to be more adaptive in applying technological developments to their business, and strive to produce innovation from creative thinking (Mopangga, 2015).

Nirbita revealed aspects of technopreneurship, including motivation to succeed by utilizing technology, daring to take risks and face challenges, being more flexible, globally oriented, trying to develop innovation and research, working together in a multidisciplinary manner, and the potential for very rapid growth (Sunarya, 2017). Meanwhile, Siti Marti'ah's opinion is that a technopreneur is an entrepreneur who innovates by utilizing technology in business. The use of technology is used as an entrepreneurial tool, for example the emergence of online product marketing using various media platforms, cyber security and securities businesses, and so on (Marti'ah, 2017).

Based on these various explanations, technopreneurship intention is an attitude towards becoming a technopreneur who uses technology to run his business. The use of technology can be in the resulting business products, marketing tools, and buying and selling transactions. With technopreneurship which combines business and technology, this can make it easier for business people to develop their business and make it easier for consumers to shop and get the products they need and want. It can be said that technopreneurship is a symbiotic mutualism for business people and consumers.

Mona Amelia expressed her opinion that the adversity quotient is a person's intelligence in facing obstacles or difficulties. Adversity quotient can strengthen someone in solving and having strong principles and stances that are not easily shaken. An individual must have an adversity quotient in order to be successful in life because someone who has an adversity quotient will not just give up before their goals and dreams are achieved (Mona Amelia, 2016).

According to Zubaidah Amir et.al, adversity quotient is an attitude towards facing difficulties, obstacles and obstacles and trying to overcome them. Adversity Quotient is how much effort you make in facing challenges and difficulties in life. Adversity quotient is also a form of perseverance in overcoming obstacles in achieving desired goals. Adversity quotient must always be developed so that someone tries with all their might to solve various kinds of problems (Zubaidah Amir et al., 2021).

Widad Syavirayana Shari et al stated that adversity quotient is a person's ability to face various kinds of problems in their life and try to use problems as a means to develop their potential. Adversity quotient is formed from several aspects, namely control, origin and ownership, reach, and endurance. Shelly Fadhila et al revealed that the adversity quotient is something that forms the basis of aspects of success, both in a person's career and life. Based on this opinion, it is known that the adversity quotient is an individual's ability to use their intelligence to direct, change the way they think and act when facing obstacles and difficulties during the learning process. So that students can overcome these difficulties and can recover from failure (Shari et al., 2022).

There are four aspects of the adversity quotient, namely: (1) control, which is an individual's response to facing obstacles or difficulties, quickly or slowly; (2) ownership, namely a person's feeling of being able to overcome problems; (3) extent, namely the extent to which the difficulty affects a person's life; and (4) resilience, namely how a person perceives difficulties and how to survive in the face of these difficulties.

In the opinion of Wiwin Astri and Lyna Latifah, one of the strengths a person has is how and how far he perseveres to overcome difficulties and obstacles. Adversity quotient is the ability a person has to overcome various life problems and a person's ability to survive. Based on these various studies, adversity quotient is a type of intelligence in facing various difficulties. Adversity quotient can influence a person's productivity because they do not give up easily and try to complete work no matter how difficult until it is complete and complete. This attitude must exist for a worker to carry out his work. Someone who aspires to become a businessman must always develop himself to have an adversity quotient attitude. He must have the mindset that all difficulties or problems must have a solution and a way out (Astri & Latifah, 2018).

When someone has a high AQ level, the easier it is for that person to face challenges. With good Control, Origin and Ownership, Reach and Endurance, the problems they face will be easily resolved. According to Stoltz (in Hasan Baharun) there are three groups that have different responses to adversity intelligence, namely: quitters, campers, and climbers.

A. People who give up (Quitters) Quitters are people who choose to leave, avoid obligations, withdraw, and quit. They reject the opportunity to try to find a solution to the problem. They ignore, cover up, or abandon the core human urge to climb and abandon many opportunities in life because they find it difficult. Even so, people who give up easily live a less enjoyable

life. They abandon their dreams and choose a path that is considered more sloping. They cannot use their time effectively. Ironically, at this time, people who give up easily will feel more pain than those who don't climb. And the most heartbreaking moment is when they look back and see that the life they lived was not fun. As a result, people who give up easily often become cynical, depressed, numb, angry, frustrated, blame everyone around them, and hate people who continue to climb. Quitters have little ability or even no ability at all. That's what caused them to stop. However, with help from other parties they can develop their abilities again.

B. Campers In this category of campers someone does not dare to take risks too far and says, "So far I have been able (or want to) climb to climb)". Then they end their climb and look for a comfortable flat as a hiding place from hostile situations. They spend the rest of their lives sitting there. Usually campers will not feel at a loss if they stop climbing so they can enjoy the fruits of their labor or enjoy the views that have been obtained during the unfinished climb. When setting up tents, campers will focus on their energy filling the tent comfortably. Campers are given the opportunity to advance, which can actually be achieved if energy and resources are directed well. Campers are easily satisfied with independence and do not want to develop themselves food, water, security, shelter, and something they have. By camping, they sacrifice the top part of Maslow's hierarchy of needs, namely self-actualization and holding on to what they already have. As a result, campers become highly motivated by comfort and fear. They feared losing their footing and sought the safety of their comfortable campsite. However, the camp begins to realize that their dreams have passed without ever being realized and change threatens the campsite continuously.

c. Climbers This description of climbers portrays them as resilient and driven individuals who approach challenges with determination and a deep understanding of the rewards of their efforts. Climbing, in this context, becomes a metaphor for life's challenges and the pursuit of personal growth. It's interesting how the narrative illustrates the climbers' ability to navigate both the highs and lows of their journey, emphasizing their endurance and commitment. The image of climbers gathering at a campsite to rest and recharge reflects the importance of self-care and reflection in the pursuit of any goal. This description captures the essence of perseverance and the mindset required to conquer obstacles, both on the mountain and in life.

Technopreneurial learning is a step to implement theoretical and practical knowledge from various competencies in scientific fields related to economics and technology. Therefore, technological technopreneurial learning (technopreneurship) can be used as learning that seeks to create a formal economic and business climate to develop technopreneurship intentions or intentions through certain learning models and methods (Baharun & Adhimah, 2019).

According to Dwi Nurhayati et al, Entrepreneurial learning is a process for developing cognitive, psychomotor and affective aspects in entrepreneurial activities that are integrated with technology on an ongoing basis for the process of developing and managing to become an effective technopreneur. Motivation, interest and intention in technopreneurship can be formed and developed through formal educational institutions, namely by integrating entrepreneurship and technology as one

of the special training subjects to form students' hard skills and soft skills in the field of technopreneurship. Technopreneurial learning contains student learning outcomes that are able to plan, execute and maintain business existence amidst competition (Nurhayati et al., 2020).

A technopreneur is a person who has the enthusiasm to build a business by utilizing technology to support business processes so that they run effectively and efficiently. The use of technology in business activities will be able to increase the competitiveness of every technopreneur both nationally and globally. The development of technopreneurship learning designs still needs to be carried out through a process of creativity and innovation which is supported by the use of learning technology in its application. To produce technopreneurship learning output products that have high selling value, interaction is required with universities and other stakeholders such as: local government, investors, industry, business organizations and the technopreneur community (Arief Yanto Rukmana et al., 2021).

Based on the various studies presented previously, it can be concluded that technopreneur learning is a learning activity between students and learning facilitators to develop students' cognitive, psychomotor and affective aspects in the integrated fields of economics, business and technology. Technopreneur learning applies various learning models and methods that support the achievement of learning goals.

Ninik Sudarwati and Chalimah stated that in simple terms it shows that the basic requirements for entrepreneurship are creative and innovative and can be applied appropriately through technology to develop a technopreneurship spirit. The implications of this research provide an overview regarding Technopreneurship Intention. This research will be very useful for educators as a reference in supporting modern learning in 21st century learning (Sudarwati & Chalimah, 2022).

Dwi Nurhayati and Amir Machmud stated that to unlock the potential of technopreneurship, aspiring entrepreneurs should focus on continuously learning about both entrepreneurship and technology, while nurturing their creativity and innovation. By mastering the art of combining these elements effectively, they can carve out unique positions in the market and drive meaningful impact through their ventures. (Nurhayati & Machmud, 2019).

Innovation is a product of a person's ability to adapt to the environment. Someone who has the ability to innovate is able to see opportunities from various forms of change and developments over time. For people who are innovative, adapting is fun and not a burden. Innovative people also like challenges and tend to get bored easily in their comfort zone (Hadjaat et al., 2015).

Rusdijanto Soebardi stated that Innovative work behavior refers to the willingness and ability of employees to generate and implement new ideas, processes, products, or services within their work roles. This behavior is not only about creativity but also about taking initiative to improve and adapt in response to changing environments or challenges. To encourage innovative work behavior, organizations can implement several strategies, 1) create a Supportive Culture; 2)Provide Resources and Tools; 3) Empower Employees; 4) Recognize and Reward Innovation; and 5) Encourage Collaboration. By focusing on these strategies and recognizing the importance of innovative work behavior, organizations can enhance their performance, develop their competitive edge, and achieve their strategic goals more effectively. (Soebardi, 2020).

Innovation is always related to creative ideas. Innovation capability is the implementation of creativity which aims to solve a problem and create opportunities to renew something that previously existed. Innovative people tend to be tenacious and have ideas to face the various kinds of problems that befall them. For them, problems are a means to train and develop thinking skills so they are able to discover new things (Wahyu Pril Ranto, 2015). According to Felix, innovative capability is a company's ability to adapt new methods, processes, technology, products and services to face environmental changes and achieve company goals (Felix, 2021). Based on these various studies, it can be seen that innovation is a product of individual creativity. The fundamental difference between innovation and creativity is that innovation is based on results that are original and have never existed before. Meanwhile, creativity is a process to produce products that are different from those that existed before or a form of improvement of existing products .

The hypothesis in this research is as follows:

a. Adversity quotient hypothesis on technopreneurship intentions.
   H0: adversity quotient has no significant effect on technopreneurship intentions.
   H1: adversity quotient has a significant effect on technopreneurship intentions.
b. Technopreneurial learning hypothesis on technopreneurship intentions.
   H0: Technopreneurial learning has a significant effect on technopreneurship intentions.
   H1: Technopreneurial learning has a significant effect on technopreneurship intentions.
c. Innovation capability hypothesis on technopreneurship intentions.
   H0: Innovation ability does not have a significant influence on technopreneurship intentions.
   H1: innovation ability has a significant influence on technopreneurship intentions.

## 3. Research Method

In this research, a quantitative approach was used with an associative type of research, namely to determine the relationship and influence of the independent and dependent variables. There are four variables in this research, namely three independent variables and one dependent variable. The independent variables are adversity quotient ($X_1$) technopreneurship learning ($X_2$) and innovation capabilities ($X_3$) while the dependent variable is technopreneurship intention (Y).

Population is the entire unit of analysis that is the object or subject of research. In this study, the population that was the source of research data for the 2020 Sharia Business Management study program students was 274.

The sample is part of the number and characteristics of the population and is a representation of the population studied so that the research results can later be generalized to all members of the population. The sampling technique used to determine the research sample was simple random sampling. To determine the sample size, use the Slovin Formula with a significance level of 5%, namely 163 respondents.

Data collection is the most important stage in research, because the aim of research is to obtain data, process data, and interpret the results of data processing. If researchers do not understand data collection methods, then the data obtained will not comply with research standards and there is a possibility of obtaining biased data. The data collection method in this research is a questionnaire.

A questionnaire or questionnaire is a method of collecting data by giving several written statements or questions to respondents who are research samples in order to get answers from them. The questionnaire used in this research is closed, namely a questionnaire where the answer choices have been provided by the researcher so that respondents only need to choose the most appropriate answer. Because the questionnaire will be distributed online, respondents simply select the answer button that best suits the respondent's condition. This questionnaire uses a Likert scale with 4 types of choices.

You've provided a solid summary of validity and reliability testing for questionnaires. Validity indeed assesses whether a questionnaire measures what it intends to measure. It's about ensuring that the questions truly capture the intended construct or concept. There are different types of validity tests, such as content validity (ensuring all relevant aspects are covered) and criterion validity (comparing against a gold standard). Reliability, on the other hand, focuses on consistency. This consistency can be measured in different ways, like test-retest reliability (consistency over time) or inter-rater reliability (consistency between different raters). A reliable questionnaire will consistently produce similar results under consistent conditions, even though it might not necessarily measure the intended construct accurately. In research, it's crucial to establish both validity and reliability to ensure that the findings are meaningful and trustworthy. A valid and reliable questionnaire enhances the quality and credibility of the research outcomes.

After collecting data, the next step is data analysis. Data analysis in this research is by grouping the data by calculating the central tendency for each variable whose data has been collected through a questionnaire. After calculating the central tendency on the data for each variable, the data is then presented in the form of a frequency distribution and graph. After that, statistical analysis was carried out to answer the problem formulation and test the hypotheses that had been proposed.

In this research, data processing uses descriptive statistical analysis and inferential statistics. Inferential statistics consists of two types, namely parametric and non-parametric statistics. Descriptive statistics aims to analyze data for each variable by describing or illustrating the data through calculating central tendency.

Prerequisite Tests:

- ∂ Multicollinearity Test: This test assesses whether there are high correlations among the independent variables in your model, which can cause issues with the regression analysis such as unstable coefficients.
- ∂ Autocorrelation Test: This test checks for the presence of autocorrelation in the residuals of the regression model, which would violate the assumption of independence of observations.
- ∂ Heteroscedasticity Test: This test examines whether the variability of the residuals is consistent across different levels of the independent variables. Heteroscedasticity can affect the reliability of the regression results.
- ∂ Normality Test: This test assesses whether the residuals of the regression model are normally distributed. Normally distributed residuals are an important assumption for inference in regression analysis.
- ∂ Linearity Test: This test checks whether the relationship between the independent variables and the dependent variable is linear. If this assumption is violated, the regression model may not accurately represent the data.

Hypothesis Testing:

After passing the prerequisite tests, hypothesis testing via multiple linear regression analysis can be performed.

- ∂ Simultaneous Influence: This refers to testing whether all the independent variables together have a significant effect on the dependent variable. This is typically assessed using an F-test, which tests whether the model as a whole is statistically significant.
- ∂ Partial Influence: This involves testing the significance of each individual independent variable on the dependent variable while controlling for the other variables in the model. This is done using t-tests for each coefficient in the regression model.

## 4. Result and Discussion

### Validity and Reliability Test Results.

Table 1. Validity of Adversity Quotient ($X_1$)

| Num. Item | R count | R table | Significantion | Explanation |
|---|---|---|---|---|
| X1_1 | 0,749** | 0,361 | 0,000 | Valid |
| X1_2 | 0,512** | 0,361 | 0,004 | Valid |
| X1_3 | 0,600** | 0,361 | 0,000 | Valid |
| X1_4 | 0,521** | 0,361 | 0,003 | Valid |
| X1_5 | 0,404* | 0,361 | 0,027 | Valid |
| X1_6 | 0,573** | 0,361 | 0,001 | Valid |
| X1_7 | 0,683** | 0,361 | 0,000 | Valid |
| X1_8 | 0,559** | 0,361 | 0,001 | Valid |

Table 2. Validity of Technopreneurial Learning ($X_2$)

| Num. Item | R count | R table | Significantion | Explanation |
|---|---|---|---|---|
| X2_1 | 0,782** | 0,361 | 0,000 | Valid |
| X2_2 | 0,587** | 0,361 | 0,001 | Valid |
| X2_3 | 0,677** | 0,361 | 0,000 | Valid |
| X2_4 | 0,611** | 0,361 | 0,000 | Valid |
| X2_5 | 0,673** | 0,361 | 0,000 | Valid |
| X2_6 | 0,500** | 0,361 | 0,005 | Valid |
| X2_7 | 0,519** | 0,361 | 0,003 | Valid |
| X2_8 | 0,617** | 0,361 | 0,000 | Valid |
| X2_9 | 0,473** | 0,361 | 0,008 | Valid |
| X2_10 | 0,683** | 0,361 | 0,000 | Valid |

Table 3. Validity of Innovation Capabilities ($X_3$)

| Num. Item | R count | R table | Significantion | Explanation |
|---|---|---|---|---|
| X3_1 | 0,782** | 0,361 | 0,000 | Valid |
| X3_2 | 0,587** | 0,361 | 0,001 | Valid |
| X3_3 | 0,677** | 0,361 | 0,000 | Valid |
| X3_4 | 0,611** | 0,361 | 0,000 | Valid |
| X3_5 | 0,673** | 0,361 | 0,000 | Valid |
| X3_6 | 0,500** | 0,361 | 0,005 | Valid |
| X3_7 | 0,519** | 0,361 | 0,003 | Valid |
| X3_8 | 0,617** | 0,361 | 0,000 | Valid |

Table 4. Validity of Technopreneurship Intention (Y)

| Num. Item | R count | R table | Significantion | Explanation |
|---|---|---|---|---|
| Y_1 | 0,542** | 0,361 | 0,002 | Valid |
| Y_2 | 0,404* | 0,361 | 0,027 | Valid |
| Y_3 | 0,771** | 0,361 | 0,000 | Valid |
| Y_4 | 0,615** | 0,361 | 0,000 | Valid |
| Y_5 | 0,629** | 0,361 | 0,000 | Valid |
| Y_6 | 0,674** | 0,361 | 0,000 | Valid |
| Y_7 | 0,519** | 0,361 | 0,003 | Valid |
| Y_8 | 0,391* | 0,361 | 0,032 | Valid |

Table 5. Reliability Test

| Num. | Instruments | Cronbach's Alpha | Explanation |
|---|---|---|---|
| 1. | Adversity Quotient ($X_1$) | 0,703 | Reliable |
| 2. | Technopreneurial Learning ($X_2$) | 0,814 | Reliable |
| 3. | Innovation Capabilities ($X_3$) | 0,787 | Reliable |
| 4. | Technopreneuriship Intention (Y) | 0,690 | Reliable |

Table 6. Results of Descriptive Analysis

| Num. | Instruments | MEAN | MEDIAN | MODUS | MIN. | MAX. | STDEV |
|---|---|---|---|---|---|---|---|
| 1. | Adversity Quotient | 24,31 | 24 | 24 | 16 | 32 | 3,68 |
| 2. | Technopreneurial Learning | 30,48 | 31 | 30 | 19 | 40 | 4,72 |
| 3. | Innovation Capabilities | 24,01 | 24 | 24 | 15 | 32 | 3,90 |
| 4. | Technopreneurship Intention | 23,67 | 24 | 23 | 14 | 32 | 3,89 |

**Analysis Prerequisite Test ResultsMulticollinearity Test**

Before carrying out a hypothesis test using multiple linear regression analysis, it is necessary to carry out a multicollinearity test first to find out whether symptoms of multicollinearity occur or not. The way to interpret the results of the multicollinearity test is to look at the Tolerance and VIF (Variance Inflation Factor) values. If the Tolerance value is > 0.1 and the VIF value is < 10, it can be concluded that there are no symptoms of multicollinearity.

Table 7. Multicollinearity Test Results

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | X1 | 0,415 | 2,409 |
| | X2 | 0,584 | 1,711 |
| | X3 | 0,442 | 2,262 |

Based on the results of the multicollinearity test with the help of the SPSS application, it can be seen that at X1 the Tolerance value is 0.415 and VIF 2.409; X2 has a Tolerance value of 0.584 and VIF is 1.711; X3 has a Tolerance value of 0.442 and a VIF value of 2.262. Based on these results, it can be concluded that the influence of each independent variable does not experience symptoms of multicollinearity.

**Normality Test**

The normality test aims to assess whether the residuals (the differences between the observed values and the values predicted by the regression model) are normally distributed. The Kolmogorov-Smirnov test is a statistical test used to determine whether a sample comes from a specific distribution, in this case, the normal distribution. In SPSS, when conducting the One Sample Kolmogorov-Smirnov Test on residuals: The null hypothesis is that the sample data is normally distributed. The alternative hypothesis is that the sample data is not normally distributed.The significance level (often denoted as "Asymp sig 2-tailed") determines the outcome of the test. If the significance value (p-value) is greater than 0.05 (commonly used threshold), then we fail to reject the null hypothesis. This suggests that the residuals are normally distributed. If the significance value is less than or equal to 0.05, then we reject the null hypothesis, indicating that the residuals are not normally distributed. However, it's important to note that a lack of perfect symmetry does not necessarily mean the data is not normally distributed, especially with larger sample sizes. Normality of residuals is an important assumption in regression analysis. Normally distributed residuals indicate that the errors are random and do not exhibit systematic patterns. If residuals are not normally distributed, it may suggest that the model assumptions are violated, which can affect the validity of the regression results and interpretation. In SPSS, after conducting the Kolmogorov-Smirnov test on residuals, focus on the significance value provided. If the p-value is greater than 0.05, conclude that the residuals are normally distributed (fail to reject the null hypothesis). If the p-value is less than or equal to 0.05, conclude that the residuals are not normally distributed (reject the null hypothesis).

Tabel 8. Kolmogorov-Smirnov Test Results

| | | Unstandardized Residual |
|---|---|---|
| N | | 163 |
| Normal Parameters[a,b] | Mean | 0,0000000 |
| | Std. Deviation | 1,71222859 |
| Most Extreme | Absolute | 0,053 |
| Differences | Positive | 0,049 |
| | Negative | -0,053 |
| Test Statistic | | 0,053 |
| Asymp. Sig. (2-tailed) | | 0,200[c,d] |

Based on the results of the One Sample Kolmogorov-Smirnov normality test, it is known that the value of Asymp. Sig. (2-tailed) shows 0.200 which means it is greater than 0.05 so it can be concluded that the data is normally distributed.

**Heteroscedasticity Test**

If all independent variables' coefficients are found to be statistically insignificant ($p > 0.05$) in their

respective Glejser Tests, it might be concluded (based on this method) that there is no evidence of heteroscedasticity in the regression model. However, it's important to note that the absence of significance in these tests does not definitively prove the absence of heteroscedasticity. Other diagnostic tests and visual inspections (like residual plots) should also be used to confirm the absence of heteroscedasticity. In summary, while the Glejser Test can provide insights into potential heteroscedasticity based on the significance of independent variables in separate regressions, it's just one diagnostic tool among others that should be used to assess the assumptions of regression analysis thoroughly.

Table 9. Glejser Test

| Model | | Sig. |
|---|---|---|
| 1 | (Constant) | 0,429 |
| | X1 | 0,394 |
| | X2 | 0,274 |
| | X3 | 0,373 |

A. Dependent Variable: Abs_RES

It is known that the significance value of X1 is 0.429; variable X2 is 0.394; and the variable

The heteroscedasticity test can also be done by looking at the Scatterplot graph. If the graph of a group of data forms a certain pattern, then heteroscedasticity occurs and if the pattern spreads irregularly then heteroscedasticity does not occur. In this study, the graph does not form a particular pattern so it is certain that there are no symptoms of heteroscedasticity.

**Multiple Linear Regression Analysis**

Data analysis aims to test whether the alternative hypothesis (Ha) that has been proposed can be accepted or the null hypothesis (Ho) is rejected. The parametric analysis used is multiple linear regression. Data to be analyzed using multiple linear regression must meet several conditions and assumptions. Data analysis was carried out using a statistical application program in the form of SPSS. This hypothesis test is carried out looking at the results of the significance of the F test or simultaneous test. If the significance value is smaller than 0.05 ($p < 0.05$) then an individual test is carried out on each independent variable on the dependent variable.

Multiple linear regression is a statistical technique used to understand the relationship between a dependent variable (the variable you want to predict) and two or more independent variables (predictor variables). The goal is to model the relationship between these variables as an equation that can predict the dependent variable based on the values of the independent variables (Ghozali, 2018).

Table 10. Regression Analysis Results

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -1,369 | 1,011 | | -1,354 | 0,178 |
| | X1 | 0,646 | 0,057 | 0,611 | 11,282 | 0,000 |
| | X2 | 0,133 | 0,038 | 0,161 | 3,537 | 0,001 |
| | X3 | 0,220 | 0,052 | 0,220 | 4,200 | 0,000 |

a. Dependent Variable: Y

$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + e$

$Y = (-1,369) + 0,646X1 - 0,133X2 + 0,220X3 + e$

From the multiple linear regression equation above, it can be explained as follows:

- The constant value (a) has a positive value of -1.369. A positive sign means that it shows an influence in the opposite direction between the independent variable and the dependent variable. This shows that if all the independent variables, which include the adversity quotient (X1), technopreneurial learning (X2), and innovation ability (X3), have a value of 0 percent or have not changed, then the technopreneurship intention value is -1.369.
- The regression coefficient value for the adversity quotient variable (X1) is 0.646. This value shows a positive (unidirectional) influence between the adversity quotient variable on technopreneurship intentions. This means that if the adversity quotient variable increases by 1%, then on the other hand the technopreneurship intention variable will increase by 0.646 with the assumption that the other variables remain constant.
- The regression coefficient value for the technopreneurial learning variable (X2) is 0.133. This value shows a positive (unidirectional) influence between the technopreneurial learning variable on the technopreneurship intention variable. This shows that if the technopreneurial learning variable experiences an increase of 1%, then on the other hand the technopreneurship intention variable will experience an increase of 0.133 with the assumption that the other variables are considered constant.
- The regression coefficient value for the innovation ability variable (X3) has a positive value of 0.220. This shows that if innovation capability increases by 1%, then tax aggressiveness will increase by 0.220 assuming other independent variables are considered constant. A positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable.

**Simultaneous Test Results**

Simultaneous influence testing is carried out with the aim of determining the influence of all independent variables on the dependent variable. In this research the independent variables consist of adversity quotient, technopreneurial learning, and innovation ability towards technopreneurship intentions.

Table 11. Simultaneous Test Results

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0,898[a] | 0,806 | 0,803 | 1,72831 |

a. Predictors: (Constant), X3, X2, X1
b. Dependent Variable: Y

Table 12. Simultaneous Testing Significance Value

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1978,827 | 3 | 659,609 | 220,823 | 0,000[b] |
| | Residual | 474,940 | 159 | 2,987 | | |
| | Total | 2453,767 | 162 | | | |

a. Dependent Variable: Y

Based on this explanation, it is known that the coefficient of determination (Rsquare) or simultaneous influence is 0.806 and the significance value = 0.000. Because the significance value is less than 0.05, the simultaneous test has been fulfilled and can be continued with a partial test.

**Partial Test Results**

Table 13. Partial Test Results

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -1,369 | 1,011 | | -1,354 | 0,178 |
| | X1 | 0,646 | 0,057 | 0,611 | 11,282 | 0,000 |
| | X2 | 0,133 | 0,038 | 0,161 | 3,537 | 0,001 |
| | X3 | 0,220 | 0,052 | 0,220 | 4,200 | 0,000 |

**a. The Influence of Adversity Quotient on Technopreneurship Intentions**

Based on Table 4.10, it can be seen that the variable X1 has a sig value. of 0.000 which is smaller than 0.05. It can be concluded that Ho is rejected and Ha is accepted, which means that the influence of X1 on Y is significant. Adversity quotient is a character that shows that a person has the ability to face difficulties or various kinds of problems that occur to him. Humans always face various kinds of difficulties, especially in developing a business, whether difficulties caused by external factors beyond human control or internal factors within humans themselves. Characters such as adversarial intelligence can be developed and trained to become more optimal so that a person becomes a person who does not easily give up and is able to find opportunities from the difficulties they face.

**b. The Influence of Technopreneurial Learning on Technopreneurship Intentions**

Based on Table 4.10, it can be seen that the variable X2 has a sig value. of 0.001 which is smaller than 0.05. It can be concluded that Ho is rejected and Ha is accepted, which means the influence of X2 on Y is significant. Technopreneurial learning is a treatment or effort to develop individual potential in becoming a technopreneur. A technopreneur is a businessman who has a lot to do with technological developments and is required to be able to adapt to various kinds of dynamics and changes. A technopreneur must also have tenacious qualities and not easily give up on learning new things, because he is required to always be able to apply technological developments in his business and must also be careful and thorough. If someone is not careful in reading situations and opportunities, it can be detrimental to their business. Apart from that, a technopreneur must always have various plans to anticipate when the main plan does not go according to hopes and expectations.

**c. The Influence of Innovation Capabilities on Technopreneurship Intentions**

Based on Table 4.10, it can be seen that variable X3 has a sig value. of 0.000 which is smaller than 0.05. It can be concluded that Ho is rejected and Ha is accepted, which means the influence of X3 on Y is significant. In this very significant technological development, someone must be able to think creatively which results in innovation. Innovation is a result or product of a creative thinking process. Innovations are able to have a positive impact on technological developments that are integrated with economics and business. In fact, this scientific discipline itself is the result of innovations to further improve the quality of human life. However, what must be realized is that not everything related to technological developments always has a good impact on human life. The very rapid development of

Technology requires someone to have a competitive nature in any case. Everything in human life is used as an arena for competition, so that if one is unable to compete, one will be crushed by the times. With this very competitive condition, individuals will become easily stressed and depressed. This is one of the negative impacts of technological development. Apart from that, many victims of bullying from social media can also cause someone to become depressed and have difficulty improving their self-image. Therefore, innovation ability is a person's potential to take advantage of the positive side of technological developments and be able to defend themselves from the negative effects of technological developments.

## 5. Conlusions

Based on the results of previous research and discussions, it can be concluded that:

a. The variables adversity quotient, technopreneurial learning, and innovation ability together have a positive and significant effect on technopreneurship intentions. The attitudes and treatment that are variables in this research are factors that support technopreneurship intentions in an individual. Someone who intends to develop a digital business must develop their character and abilities and must carry out a lot of learning activities, both self-taught and with an expert. The characteristics that form technopreneurship intentions do not exist directly within a person, but must be trained and developed to be optimal.

b. The adversity quotient variable has a positive and significant influence on the technopreneurship intention variable. Adversity quotient is an attitude that shows how a person responds to problems that occur in their life. A person with high adversity intelligence always tries to solve problems in an intelligent way and does not feel anxious if one day they experience a difficulty or problem in their life. A person who has the intention to build a business must be able to develop this attitude within himself, because in developing a business he will experience various kinds of difficulties, obstacles and problems that require the right strategy to overcome them.

c. The technopreneurial learning variable has a positive and significant influence on the technopreneurship intention variable. In forming the character of an entrepreneur, there must be treatment or a learning process. Studying here aims to familiarize someone with the character and thinking of an entrepreneur. Technopreneurial learning uses a scientific approach with project-based and problem-based learning models, with the aim of further developing a person's creativity and reasoning power.

D. The innovation ability variable has a positive and significant influence on the technopreneurship intention variable. Innovation is a product of an individual's creative attitudes and thinking. In the increasingly rapid development of technology, a creative and innovative attitude is needed so that someone can keep up with the times. Increasingly competitive competition triggers someone to discover and develop new things in science and technology. A person who intends to build a business must be able to develop an innovative attitude within themselves in order to maintain the existence of their business and even expand their business.

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