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# Proceedings of the 8th International Conference on Entrepreneurship and Business Management (ICEBM 2019) UNTAR

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## Proceedings Article

### [Factors Influencing Career Choice in Islamic Multilevel Marketing: The Mediating Role of Company Credibility](#)

Jhanghiz Syahrivar, Hetty Karunia Tunjungsari, Frangky Selamat, Chairy Chairy

Research in Islamic Multilevel Marketing (MLM) is relatively underrepresented, partly because such business model combined with Islamic appeal is a relatively new phenomenon and the novelty of MLM business is disputable in Islamic point of view. This research aimed to explore factors influencing the...

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## Proceedings Article

### [Psychological Contract in Improving Human Resources Strategy With Organizational Culture as Mediating Variable](#)

Sry Rosita, Edward Edward, Fitri Widiastuti

The minimum criteria regarding the qualifications and competencies of lecturers in conducting education require psychological contracts

lecturers in conducting education require psychological contracts, organizational culture and the strategy of Human Resources (HR) that are used as the basis for work relationships. The main objective of this research is to examine...

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#### Proceedings Article

### The Moderating Effect of Kaizen Culture on the Relationship Between Innovation and Operational Performance

Kong Siew Mui, Rajendran Muthuveloo

Kaizen culture and Innovation are key competitive factors deeply imbued into the organizational products and processes to achieve optimal operational performance sustainably. Literature suggested that manufacturing companies needing to differentiate themselves adopt a culture of continuous improvement...

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#### Proceedings Article

### Case Study of Moderating Effect of Customer Characteristics on the Relationship Among Service Quality, Customer Satisfaction and Customer Loyalty

Huang Chi-Wen, Lin Chin-Chiuan

The laser-cutting machine in line with the current manufacturing trend, small amount of diversification, elimination of the cost of molds, capability to finish the products through software, can reduce the processing time and with high quality. The case company is an agent of spare parts and laser-cutting...

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#### Proceedings Article

### An Innovative Business Model of Chinese Herbal Medicine in Handmade Tea Beverage Market in China

Chen Hui-Chuan, Lu Te-Tsai

This study aims to start up an innovative business model of handmade beverage market based on Chinese herbal medicine in China. This follows the Chinese ancient 24 solar terms to create a series of herbal beverages to meet the healthy need, of which any of the 24 solar terms in traditional Chinese

lunar...

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#### Proceedings Article

### A Study on the Effect of Learning Outcomes of the Five Practical Methods in Entrepreneurship Education

Lu Te-Tsai

The present study investigated the effect of learning outcomes of the five practical methods in entrepreneurship education. The two classes of junior students became the experimental and control group. After learning the five practical methods, the experimental group can produce better results than the...

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#### Proceedings Article

### The Effects of Expatriates' Cross-Cultural Competence, Work-Role Demand on Expatriates' Adjustment and Performance: A Meta-Analysis Approach

Lee Li-Yueh, Nguyen Phuoc-Thien

Along with the tremendous growth of international operations, more and more expatriates have to be dispatched to the overseas market places. However, expatriate's failure still remains in a higher rate. Expatriates' failure not only can incur the loss of company sales and profits, but also negatively...

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#### Proceedings Article

### Building Your Brand Through Social Media: How Communication and Money Work Wonderfully

Choong Kian Chong, Salmi Mohd Isa

Building brands at social media are challenging as consumers are easily swayed away to through a click; therefore, marketers need to gravitate the 3.196 billion of social media users based on Statista reports that the total spending might thrive at USD 4.5 trillion. Facebook's community is a force to...

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#### Proceedings Article

### A Comparative Study on Financial Performance of Registered Companies in the Jakarta Islamic Index (JII) Before and After the Implementation of IFRS in Accounting Standards

Muhammad Sholahuddin, Adi Parkawati

International Financial Reporting Standard (IFRS) is one of the changes in accounting standard regulations that affect the environment of international accounting information. In increasing capital market activities, IFRS provides a series of uniformity of accounting standards which is adopted by various...

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#### Proceedings Article

### The Effect of the Board of Directors' Characteristics on Company Value

Fitri Yeni, Zerni Melmusi, Esti Wulandari, Desi Ilona

This study aims to analyze the influence of the characteristics of the board of directors on company value. The characteristics of the board of directors are measured by size, age, and activities on company values. The samples of this research were taken randomly from 266 companies listed in the Indonesia...

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#### Proceedings Article

### Ethnic, Skill, Qualification Diversity of Board of Commissioners and Stock Performance

Hilda Mary, Hanna Pratiwi, Chyntia Loren, Desi Ilona

The goal of this study is to examine the effect of ethnic, skill, and qualification diversity of the board of commissioners on stock performance in emerging markets. This study employs 266 companies listed on IDX (Indonesia Stock Exchange) during 2011-2017 periods. The result shows that ethnic, skill,...

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#### Proceedings Article

### The Effect of Destination Image on Tourists' Satisfaction and Destination Loyalty: Bukittinggi City, West Sumatra



Sigit Sanjaya, Ronni Andri Wijaya, Yulasmi Yulasmi

This study discovered (1) the effect of destination images on destination loyalty (2) the effect of destination images on destination loyalty with tourists' satisfaction as mediating variable. Respondents in this study were the tourists in the Bukittinggi City. This study utilized primary data which...

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#### Proceedings Article

### The Effects of Age, Family-Relation, and Activities of the Board of Commissioners on Company Value

Sitti Rizki Mulyani, Darma Syahrullah Eka Jaya, Yani Fitriyanti, Desi Permata Sari

This study aims to analyze how the effect of age, family relation as a board of commissioners, and activities of the board of commissioners on company value. Two variables are used as control variables, which are company age and company leverage. The samples in this research is taken by random sampling...

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#### Proceedings Article

### The Effect of Business Knowledge and Self-Confidence on Business Performance With Business Innovation as Mediating Variable Among SMEs in Padang City

Ramdani Bayu Putra, Elfiswandi Elfiswandi, Hasmaynelis Fitri, Neni Sri Wahyu Nengsih

The era of digitizing the industry 4.0 has an impact on changes in the competence of all organizations, in order to survive and improve the performance of organizations. This study aimed to analyze the impact of business knowledge and self-confidence on business performance with business innovation as...

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#### Proceedings Article

### The Effects of Price Discount, Bonus Pack, and In-Store Display on Impulse Buying at Supermarkets

Della Asmaria Putri, Emil Salim, Vicky Brama Kumbara, Elfiswandi

215-222-22

The purpose of this research was to analyze the effects of price discounts, bonus pack, and in-store display on impulse buying at Supermarkets in Padang City. This study used quantitative method to investigate certain populations and samples. The sampling technique used in this study was accidental sampling;...

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#### Proceedings Article

### The Effects of Multiple Directorship, Tenure, and Age of Board of Directors on Corporate Value

Lusiana Lusiana, Nila Pratiwi, Zefriyenni Zefriyenni, Rio Andhika Putra, Winda Fierza Vironica

The purpose of this study was to analyze the effects of multiple directorships, tenure, and age of board of directors on corporate value. Multiple directorships, tenure, and age were used as independent variables, and corporate value became the dependent variable. Two variables were used as control,...

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#### Proceedings Article

### The Influence Toward the Quality of Life When Technology Meets Handmade Goods and Services

Tsai Shieunt-Han

For improving the quality of life and health condition of Taiwanese, we promote handmade candles in order to service our consumers. We plan to use the convenience of technology and enhance our publicity more in the offering. We hence conducted an investigation on organic enterprises that included organic...

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#### Proceedings Article

### A Qualitative Study on Small Firms' Competitive Advantage Competencies in Laos Tourism Industry

Cheng-Lung Li, Sommanoxay Soulivanh

Companies can create core competencies or competitive advantages by

adopting the marketing strategies. It can result in creating profitable relationship with customers, differentiation themselves to gain superior customer value than others. This study emphasizes on investigating how small tourism firms...

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#### Proceedings Article

### Diversity Among the Board of Commissioners and Stock Return: A Study on the Influence of Nationality, Gender and Educational Background

Muhammad Ridwan, M. Afuan, Rio Andhika Putra, Nora Putri Ayu

This study analyzes the influence of board nationality, diversity, gender, and educational background as independent and dependent variables on stock returns. Two control variables were used namely, the audit quality and company age, with secondary data obtained in the form of financial statements and...

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#### Proceedings Article

### The Influence of Corporate Social Responsibility, Managerial Ownership, and Firm Size on Firm Performance: Evidence From Manufacturing Companies in Indonesia

I Gede Adiputra, Henryanto Wijaya, Azhar Affandi

The main objective of this research is to explore and determine the effect of Good Corporate Governance, Managerial Ownership, and Firm Size that affect Firm Performance. We used the sample from financial statements of manufacturing companies engaged in Food and Beverages which are listed on the Indonesia...

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#### Proceedings Article

### The Impact of Big Data Analytics Adoption on the Performance of Malaysian Small and Medium Enterprises

Loh Chun Hong, Teoh Ai Ping

In today's digitalized era, the adoption of Industry 4.0 technology pillars can boost businesses by enhancing organizational performance. As one of the crucial pillars, big data potentially has been receiving heightened interests

crucial pillars, big data potentially has been receiving heightened interests from academics and practitioners. Big Data Analytics (BDA) is viewed as...

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#### Proceedings Article

### The Role of Employees' Responsiveness in Organizational Performance

Vivi Nila Sari, Sitti Rizki Mulyani, Marta Widian Sari, Erwin Hotmansyah Harahap

This study aimed to determine how much influence of the Leadership Style and Leader's Innovation on Organizational Performance through Employee's Responsiveness as an intervening variable. This research variables are Leadership Style (X1), Leader's Innovation (X2) Employee's Responsiveness (Z), and Organizational...

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#### Proceedings Article

### The Effect of Financial Distress and Corporate Governance on Earnings Management

Silvy Christina, Nico Alexander

The purpose of this research is to analyze the effect of financial distress and corporate governance toward earnings management. The samples of this research consist of 131 non-financial companies that are listed on the Indonesia Stock Exchange from the years 2014 to 2017 by using purposive sampling...

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#### Proceedings Article

### Fostering Sustainability Advantage in Rural Tourism Destination at Kulon Progo, Yogyakarta

Kartika Nuringsih, Nuryasman M. N., Cokki Cokki

The goal of this study was to assess the advantages of rural tourism development at Kulon Progo County based on 800 visitors who were observed about their perception of strength, weakness, opportunity, and threat on eight rural destinations. Respondent consists of tourist, local residents, and destination...



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#### Proceedings Article

### Analysis of the Effectiveness of Financial Education for Small and Medium Enterprises to Increase Financial Literacy (Preliminary Study: A Small Business Enterprise in Bandung)

**Maya Malinda**, Asni Harianti, Miki Tjandra, Meryana Meryana

Financial education is very important to everyone including financial education on Small Business Enterprise (SBE). This preliminary study revealed that financial education can increase financial literate significantly. Using Financial Fitness Quiz built by O'Neill, there were different results before...

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#### Proceedings Article

### Analysis of the Effectiveness of Financial Education for Students in Higher Education to Increase Financial Literacy (Case Study: Financial Planning Class in Maranatha Christian University)

**Maya Malinda**, Miki Tjandra, Asni Harianti, Olivia Vania Olius

Financial literacy is a term that is currently used in many papers about a person's literacy in managing his / her finance. Someone is said to be financially literate when he or she is able to take advantage of financial institutions and manage his / her finance. The efforts to improve financial literacy,...

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#### Proceedings Article

### The Effect of Servant Leadership and Work Engagement on Organizational Citizenship Behavior Mediated by Organizational Commitment on Volunteers in Abbalove Ministries Church

Fidela Sadikin, Melitina Tecualu, Eka Desy

This research aimed to examine the effect of Servant Leadership and Work Engagement on Organizational Citizenship Behavior mediated by Organizational Commitment on Volunteers in Abbalove Ministries Church. This research utilized the Structural Equation Modeling (SEM) as data

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analysis technique by using...

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#### Proceedings Article

### The Influence of Technology Factors on Retail 4.0 Adoption in Malaysia

Poorni Sakrabani, Teoh Ai Ping

The younger generation, i.e., Gen Y and Gen Z, would make up 67% of Malaysia's population in 2019. They are technically savvy and have huge spending power. Since this young generation is attracted to novel and exciting shopping experiences, Malaysian retailers should entice them by incorporating Retail...

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#### Proceedings Article

### Entrepreneurial Orientation and Market Orientation in Business Performance of SMEs: An Exploration of the Impact on E-Commerce Adoption

Yayuk Sriayudha, Ade Octavia, Sigit Indrawijaya

In the industrial era of 4.0, digital and physical changes are inevitable, as well as for Small and Medium Enterprises (SMEs). The majority of SMEs in Jambi Province have not conducted digital technology as marketing strategy for the expansion of their market share. The purposes of this research were:...

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#### Proceedings Article

### Assessing the Impact of Business Model Innovation, Firm Characteristics and External Collaboration on Food Outlet Performance in Malaysia

Bryan Teoh Phern Chern, Fauziah Binti Sh. Ahmad

Kuala Lumpur, the national capital of Malaysia is a diverse and dynamic city. The food scenery in Kuala Lumpur is constantly changing, with new variants of business models being introduced frequently. Restaurants and food outlets need to adapt to this change in order to maintain sustainable competitive...

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#### Proceedings Article

### The Belt & Road Initiative: A Study from Malaysian SMEs' Perspective

Chin Mui-Yin, Theresa Ho-Char-Fei, Teo Poh-Chuin, Chong Chu-Le, Wai Chew-Keong

The Belt & Road Initiative that was introduced by President Xi Jinping has received numerous attentions from the governments, business organizations and individuals from different countries. However, even though it is believed that Chinese companies will be the big winners from the Belt & Road...

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#### Proceedings Article

### The Impact of Innovation on Competitiveness in Smartphone Industry in China

Kii-Geat Johan Lim, Poh-Chuin Teo, Lim Zheng Yang

Smartphone is considered as a common trend in this globalization era. Everyone wishes to have his / her own smartphone as it is making everyone's life easier. Today, there are four major domestic smartphone brands that dominate the smartphone segment in China, which are Huawei, Vivo, Oppo, and Xiaomi,...

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#### Proceedings Article

### The Impact of the Use of Computer-Assisted Audit Technique, Professional Ethics, and Motivation on Auditors' Performance

Michelle Kristian

The purpose of this study was to examine the impact of the use of Computer-Assisted Audit Techniques (CAAT), professional ethics, and auditor's motivation on auditors' performance. The study was conducted by using survey method which distributed the questionnaires to auditors in Public Accounting Firm....

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#### Proceedings Article

## The Role of Social Influence Towards Purchase Intention With Value Perception as Mediator: A Study on Starbucks Coffee as an Environmentally Friendly Product

Miharni Tjokrosaputro, Cokki Cokki

This study aimed to examine the effects of social influence both directly and indirectly on purchase intention of Starbucks as an environmentally friendly product. This study used a survey method. The respondents consisted of 100 Starbucks consumers. A convenience sampling technique was used. The data...

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### Proceedings Article

## The Effect of Intellectual Capital on Tax Avoidance Before and After the Tax Amnesty

Estralita Trisnawati, Herlina Budiono

The purpose of this research was to analyze the effect of intellectual capital on tax avoidance before and after the tax amnesty. This research used manufacturing industries listed on Indonesia Stock Exchange in the periods of 2015 and 2017 as the samples. By using purposive sampling technique, 230 data...

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### Proceedings Article

## Why I Should Run My Own Business: A Study on Female Entrepreneurs' Motivation and Business Success in Indonesia

Frangky Selamat, Mei Ie, Jhanghiz Syahrivar, Chairy Chairy, Hetty Karunia Tunjungsari

The purpose of this study was to analyse the key motivations that encourage entrepreneurship among women in the Greater Jakarta Area, Indonesia. The number of female entrepreneurs has been increasing in recent years. Potential success through entrepreneurial acts is also open for the females. Furthermore,...

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### Proceedings Article

## Talent Management Model in Digital Age: Strategic Internal



## Talent Management Model in Digital Age: Strategic Internal Entrepreneurial Mechanism

Wei-Ting Yvonne Fong, Yi-Shien Yeh, Bih-Shiaw Jaw

With economic growth and social development, Taiwan has gradually emerged as an ageing social problem, thus causing a structural imbalance in the population and aggravating the level of competition in the talent market. On the other hand, the new generation of workers who grew up under the influence...

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### Proceedings Article

## Investment Decision: The Case of Indonesian Manufacturing Companies

Rousilita Suhendah, Nathania Nathania

The purpose of this paper was to examine the determinant of investment among companies in consumption goods sector listed on the Indonesia Stock Exchange (IDX) during the period of 2014-2017, with the sample as many as 100 companies. The investment decision was measured by nett investment. The authors...

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### Proceedings Article

## Designing an Entrepreneurial University Model With Social Cognitive Theory Approach

Irine Herdjiono, Gerzon Maulany, Benediktus Elnath Aldy, Fitriani Fitriani

This study aimed to examine the proposed entrepreneurial university model that is relevant to the changing times. A number of studies on the entrepreneurial university model have been conducted. This study used social cognitive theory that underlies the entrepreneurial university model. The method used...

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### Proceedings Article

## The Effect of Capital Structure and Firm Size on Firm Value Through Profitability as Intervening Variable

Khairina Natsir, Yusbardini Yusbardini

The aim of this study was to investigate the effect of capital structure and firm size on firm value through profitability as an intervening variable. This study was conducted among manufacturing companies in various industrial sectors in Indonesia Stock Exchange (IDX) during the period 2013-2017. The...

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#### Proceedings Article

### The Effect of Organizational Characteristics on Whistleblowing Behavior for Identifying Fraud

Elsa Imelda, Yenyen Hendris

The purpose of this research was to obtain empirical evidence about the effect of organizational characteristics such as respect and openness, cooperation and flexibility, fair treatment, and trust in supervisory authority, on whistleblowing behavior to identify fraud. This research used questionnaires...

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#### Proceedings Article

### The Effect of Affective Commitment and Psychological Contract Violation on Organizational Citizenship Behavior (OCB) With Locus of Control as Intervening Variable

Chintya Ones Charli, Bayu Pratama Azka, Robby Dharma, Dori Mittra Candana

The purpose of this study was to determine the effect of affective commitment and psychological contract violation on Organizational Citizenship Behavior (OCB) with Locus of Control as intervening variable at Gunung Naga Mas Ltd. Data was collected through surveys and distributing questionnaires with...

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#### Proceedings Article

### The Influence of Accounting Conservatism, Leverage, Growth Opportunities, Cash and Liquidity on Corporate Investment Among Manufacturing Companies Listed on Indonesia Stock Exchange

Andreas Bambang Daryatno, Linda Santioso

This study aimed to provide empirical evidence on the influence of

Accounting Conservatism, Leverage, Growth Opportunities and Cash and Liquidity on Corporate Investment. The object of this research used was manufacturing companies listed on Indonesia Stock Exchange (IDX) in 2014-2016. Samples were obtained...

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#### Proceedings Article

### Factors Affecting Earning Response Coefficient With Profitability as Moderating Variable in Manufacturing Companies

Henryanto Wijaya, Stefanus Adhitya, Hadi Cahyadi, Susanto Salim

The purpose of this study was to obtain empirical evidence about the effect of Corporate Social Responsibility (CSR) Disclosure, Profitability, Leverage, and Sales Growth on Earning Response Coefficient (ERC) among manufacturing companies that listed on Indonesia Stock Exchange (IDX) during the years...

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#### Proceedings Article

### The Best Model for Predicting Tourists to Visit Kalibiru Tourism Object

Nuryasman M. N., Kartika Nuringsih

Tourism sector is the most effective sector in encouraging an increase in Indonesia's foreign exchange, although there is no forecasting model that can be used to predict the number of tourist visits. This study attempted to fill the void of the model to predict the number of tourist visits to Kalibiru...

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#### Proceedings Article

### The Role of Human Capital and Knowledge Management in Innovation

Muthia Roza Linda, Gesit Thabrani, Firman Firman

The purpose of this study was to examine the impact of human capital and knowledge management in innovation. This study was conducted in Indonesia. Research respondents were bank employees who had structural positions. Data had been collected by using a survey with questionnaires. Based on data analysis...

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#### Proceedings Article

### Financial Inclusion in Rural MSMEs: A SWOT Analysis

Rosyeni Rasyid, Erni Masdupii, Muthia Roza Linda

Regional economy is generally supported by Micro, Small and Medium Enterprises (MSMEs). One of them is the MSMEs of embroidery. One of the regions which produce the best embroidery product in West Sumatera is Pariaman; the product is the embroidery of gold thread. The problem with MSMEs of embroidery...

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#### Proceedings Article

### Lecturers' Perception of the Purpose of Performance Appraisal System

Ietje Nazaruddin, Hafiez Sofyani, Sri Rezki Hayati, Erni Suryaningrum, Caesar Marga Putri

The Performance Appraisal System (PAS) has purposes that are oriented towards individuals and institutions to improve the performance of higher education. This study explores lecturers' perceptions of the purposes of PAS. Data were collected via questionnaires from 269 lecturers at higher educational...

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#### Proceedings Article

### The Effect of Leadership Style on Job Satisfaction Among HWI Lindeteves Shops, With Burnout as Mediating Variable

Oey Hannes Widjaya, Herlina Budiono, Hendra Wiyanto

The purpose of this research was to reveal the effect of leadership attitude on job satisfaction through burnout among HWI Lindeteves shops. This research used SEM-PLS in a descriptive research method that observed over 80 respondents. A positive effect of leadership style on burnout was found as the...

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#### Proceedings Article

### Credit and Collection Management Practices, Credit Risk Management, and Financial Performance of Private Higher Educational Institutions (HEIs) in the Philippines: Basis for Continuous Improvement

Maria Delia M. Poot

The main goal of an educational institution is to maintain its stability and improve its growth and sustainability. Thus, educational institution must have an effective Credit and Collection Management Practices (CCMP) and Credit Risk Management to avoid credit risk. The study assessed the CCMP of private...

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#### Proceedings Article

### Factors Affecting the Use of Leverage Among Manufacturing Firms in Indonesia

Margarita Ekadjaja, Agustin Ekadjaja, Halim Putera Siswanto

A firm's decision to use leverage becomes a controversial policy between the managers and shareholders. The aim of this study was to reveal the determinants that affect a firm's decision to use leverage. Data was collected from financial reports of manufacturing firms in Indonesia during the years of...

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#### Proceedings Article

### The Relationship Between Servant Leadership and Job Satisfaction: The Mediating Effect of Job Empowerment

Linda Lin Chin Lin, Agustinus Purna Irawan, Paula Tjatoerwidya Anggarina, Zhang Yu-Wen

The purpose of this study was to explore the relationship between servant leadership and job satisfaction, and whether job empowerment will affect job satisfaction. Using the Army aviation unit subordinates as sample and 350 questionnaires were distributed. There were 321 effective questionnaires collected....

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Proceedings Article

## The Relationship Between Moral Leadership and Organizational Citizenship Behavior: The Mediating Effect of Job Satisfaction

Linda Lin Chin Lin, Agustinus Purna Irawan, Paula Tjatoerwidya Anggarina, Chou Li-Feng, Hung Chun-Ping

Moral Leadership is one of the most important leadership styles among Chinese enterprises, which are also the one of the leadership styles of the paternalistic leadership. Nowadays most Chinese are expecting the higher leaders who have highly standard moral across societies and organizations. It's based...

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Proceedings Article

## The Effects of Intellectual Capital and Knowledge Management on Business Performance

Riza Yonita, Sutyem Sutyem, Muthia Roza Linda

The purpose of this study was to examine the effects of intellectual capital and knowledge management on business performance. This study was conducted in Indonesia. Research respondents were bank employees who had structural positions. Data had been collected by using a survey with questionnaires. We...

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Proceedings Article

## Attitudes Toward Mobile App Payment Systems: A Case Study Among Indonesian Millennials

Vita Briliana, Tita Deitiana, Wasisto Ruswidiono

This study adapted the Technology Acceptance Model (TAM) to examine the usefulness of mobile apps, value-for-money, emotional value, and individual mobility factors that influence Indonesian millennials' attitudes toward mobile app payment systems and how their attitudes mediate these four variables...

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Proceedings Article

## Stakeholder Perception of Earnings Management and Its Influence on the Quality of Accounting Information

Elizabeth Sugiarto D., M. F. Djeni Indraajati

This study aimed to provide an overview of stakeholder perception among companies in Indonesia about earnings management and its influence on the quality of accounting information. Primary data was acquired from respondents consisting of stakeholders. The questionnaire was distributed both manually and...

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### Proceedings Article

## Designing Consumer Intention Index

Keni Keni, Lerbin R. Aritonang R., Ary Satria Pamungkas

This research is a preliminary study to develop a national Consumer Intention Index (CII) in the context of batik-art. As a preliminary study, this study was conducted on 346 people who purchased batik-art as samples in the cities of Yogyakarta and Solo. The result shows that the CII instrument produced...

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### Proceedings Article

## Factors Affecting Free-Cash-Flow (FCF) with Dividend Policy as a Mediating Variable

Nia Widyanti, Widyasari Widyasari

The purpose of research was to obtain empirical evidence about the impact of board structure, board independence, and leverage on Free-Cash-Flow (FCF) with dividend policy as a mediating variable among manufacturing companies during the period of 2016-2018. This study used 29 manufacturing companies...

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### Proceedings Article

## Comparing the Benefits of International Diversification Using Industrial Correlation and Non-Systematic Risk

Ignatius Roni Setyawan

Roll (1992) stated that the ASEAN capital market is still attractive for

international diversification in various industries. To test the benefits of this international diversification, I used the industrial correlation between stock exchanges index and MSCI, and non-systematic risk measurement from...

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#### Proceedings Article

### The Effects of Leverage, Sales Growth, Firm Size, and Corporate Social Responsibility Disclosure on Earnings Response Coefficient

Syanti Dewi, Nataherwin Nataherwin

Financial information owned by a company is considered as a good signal for investors to make investment decisions, so they tend to see the earnings information as a benchmark, but other information is needed to predict the value of the company's stock returns, which is the earnings response coefficient....

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#### Proceedings Article

### SWOT Analysis on the SMEs of Batik Products in Jambi City

M. Tony Nawawi, Rodhiah Rodhiah

Batik is one of Indonesian cultures which is an asset from ancestors, thus must be preserved. Almost every province in Indonesia has its own distinctive Batik products. However, not all regions in Indonesia can preserve the Batik industry. This study aimed to assess the strengths, weaknesses, opportunities,...

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Yi-Chang Chen, Hui-Ho Lee

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Conny Tjandra Rahardja, Tiara Nur Anisah

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Sonata Christian, Trianggoro Wiradinata, Christian Herdinata, Auditia Setiobudi

**Purpose** – This study aimed to help define the environmental factors affecting the acceleration of FinTech adoption by SMEs in the East Java Region.  
**Design/methodology/approach** – An empirical study of TOE Framework focused on environmental factors using the data from 402 respondents of SMEs Owners and...

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The purpose of this study was to analyze the West Sumatera MSMEs strategy in facing competition in the era of the Industrial Revolution 4.0. This study used a qualitative method with a strategic analysis tool that is SWOT analysis to analyze the internal and external factors and what strategies should...

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Rajendran Muthuveloo, Teoh Ai Ping

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Astuti Purnamawati, Jody Bintang Hudaya

This research examined the effects of fiscal decentralization ratio, regional financial dependency ratio, regional financial independence ratio, and expenditure allocation harmony ratio on Human Development Index (HDI).

This study used the data on regional financial ratios in Central Java Province from...

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Nuning Kristiani, Ni Wayan Lasmi Pipiyanti

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Robby Dharma, Letnan Dalimunthe, Arbiuddin Syahputra Hakim Harahap, Susriyanti, Sartika Putri Rahayu

This study intended to reveal the effects of profitability, growth, and company size on company value, with capital structure as control variable, among manufacturing companies listed on the Indonesia Stock Exchange (IDX). This study used 165 manufacturing companies listed on IDX from 2013 to 2017 as...

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Marta Widian Sari, Vivi Nila Sari, Sitti Rizki Mulyani, Yosi Aifa Putri, Andry Novrianto

This research aimed to reveal the effects of work accuracy, experience, work involvement, and motivation on employee performance, partially and simultaneously. Data was collected through survey and questionnaire distribution, with 81 respondents of the Department of Public Works and



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### The Impacts of Online Comments and Bandwagon Effect on the Perceived Credibility of the Information in Social Commerce: The Moderating Role of Perceived Acceptance

Choon Ling Kwek, Bi Lei, Lai Yan Leong, Michelle John A/P John Saggayam, Ying Xue Peh

Social commerce is growing and gaining popularity among Generation Y due to the advancement of technology, in which it creates a new marketplace for sellers and buyers. It allows an individual to browse, compare and purchase the products on social media sites such as Facebook, Twitter and Instagram....

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Choon Ling Kwek, Zhang Li, Ke Shin Yeow, Ng Ka Yee, Thamilarasi A/P Thiruchandren

With the advancement of internet technology, the transaction conducted via social commerce has become a trend. However, the credibility of social commerce is in doubt due to many fraudulent cases and scams being discovered frequently. Therefore, this study would like to evaluate the impacts of the number...

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Phuah Kit Teng, Khoong Tai Wai, Ow Mun Waei, Tey Sheik Kyin

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Yemima Amitay, Hery Winoto Tj, Saparso, Soegeng Wahyoedi

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# Analysis of the Effectiveness of Financial Education for Students in Higher Education to Increase Financial Literacy (Case Study: Financial Planning Class in Maranatha Christian University)

Maya Malinda<sup>1\*</sup>, Miki Tjandra<sup>2</sup>, Asni Harianti<sup>3</sup>, Olivia Vania Olius<sup>4</sup>

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## ABSTRACT

Financial literacy is a term that is currently used in many papers about a person's literacy in managing his / her finance. Someone is said to be financially literate when he or she is able to take advantage of financial institutions and manage his / her finance. The efforts to improve financial literacy, one of them is by utilizing the education on financial planning. Maranatha Christian University has been carrying out financial planning education since the 2007 curriculum was applied as one of the subjects mandatory in financial management concentration. The aim of this education is to increase financial literacy in the students' realm. The purpose of this research was to convey the educational result from the students in financial planning course to the behavior of financial literacy. The criteria of financially literate are a person can understand and practice financial management, saving/investing, insurance & estate planning, credit, and shopping. Therefore, further study is needed on whether or not there is a change in the understanding and the score of students in managing their finances because of financial planning education. The method for testing used in this paper was built by O'Neill, which was the Financial-Fitness Quiz (FFQ), to find out whether there is a difference among the students before and after taking the financial planning subject, by using Wilcoxon-Test. The data used in this research was a population of students who took the financial planning courses during the odd semester of 2017/2018 academic year as many as fifty-two persons consisting of twenty-two males and thirty females. The result showed significantly different score before and after undertaking the financial planning class. However, it has not been proven that the financial planning education is effective to increase Financial Literacy, especially in the Financial Management and Saving and Investment criteria.

**Keywords:** Financial Education; Higher Education; Financial Literacy; Financial Planning

## 1. RESEARCH BACKGROUND

Everyone certainly wants to be successful in his / her life. Success is determined by many factors, one of which is determined by having financial management intelligence or the current term is financial literacy. Intelligence factors in managing finance related to the knowledge in using money is supported by financial services such as banks, insurance, pawnshops, pension funds and others.

In 2014, the Board of Commissioners of the Financial Services Authority (OJK), Muliaman Hadad as Chairman, explained that the government through an inclusive program has expanded people's access to financial products and services to support financial literacy as a priority.

Muliaman also mentioned that from the survey results in Indonesia from 27 Provinces, at least 8,000 respondents had described the level of financial literacy. Based on the results, the banking sector was the largest market share in financial sector. He explained that 18% of people understood in the insurance sector and only 12% actually used insurance services, 50% of people already understood pawnshops but

the utilization-rate was only 5%, and then 10% of people understood multifinance with 6% utilization-rate only. Furthermore, from 7% of people understanding pension funds, the utilization rate was 2%. Meanwhile from 2% of people understanding the capital market, only less than 1% used it.

From the results of this survey, it was revealed that there needs some efforts to increase literacy, or understanding, which is the first step, to expand access to improve the quality of financial products for social welfare.

Muliaman said that in the implementation, there are 3 main pillars: First, education and literacy campaigns for housewives, candidates and Indonesian workers, students, students, majelis taklim, pesantren, as well as Micro, Small and Medium Enterprises (MSMEs). Second, strengthening the infrastructure through regular surveys, integrated complaints and information services. OJK also prepares sites / websites, and prepares the financial cars (SIMON) which will operate in Indonesia and in areas that are difficult to access the information. Third, the development of financial products and services by developing affordable

public financial products and services and the empowerment.

By looking at the government's direction that is serious in dealing with this matter, the education to manage finance is very important. Therefore, a study was proposed to measure the role of financial planning education to find out about the changes in financial management behavior which ultimately increased financial literacy with case studies at Maranatha Christian University.

Financial literacy means having the knowledge and understanding about financial problems. The absence of financial literacy can lead to poor financial decisions that can have an adverse effect on the health of individuals' finance. The education on managing finance is very important in helping people with budgets to manage income, to save and invest efficiently, and to avoid being the victims of fraud. Financial education is increasingly needed for individuals, not only to ensure their own financial well-being, but also to ensure the smooth functioning of financial and economic markets. [1] Surveys in OECD countries showed that financial levels were especially low for certain groups, such as less educated, minorities, and people at the lower-end of income distribution. Financial education can help individuals to get out of poverty. Financial education can benefit consumers of all ages and income levels, such as being able to help young people who have just started their lives by providing basic tools for budgeting and saving to control their expenses and debts, being able to help workers to ensure sufficient savings to comfortably retire by providing information and skills to make wise investments for their pensions, and also being able to help families to obtain discipline in saving for their homes or education for their children. Financial education can help individuals and families continue their education. Education is a mean for people to get out of their poverty. The average of the overall Indonesian Financial Literacy Index (FLI) was 42.51 (on a scale of 0-100). Financial literacy correlates with income and education levels. The lower education or income level shows the lower the level of financial literacy. Based on the 2015 S & P Global FINLIT survey, worldwide, only 1-in-3 adults were financially literate. Not only is financial illiteracy widespread, but there were also large variations between countries and groups. The information about financial literacy based on questions was added to the Gallup World Poll survey, among more than 150,000 nationally representative adults and randomly selected in more than 140 countries interviewed during the 2014 calendar year. Then, the questions were developed to measure the four basic concepts for making financial decisions — basic counting, knowing interest, inflation, and diversifying risk. [2]

In addition, the country-wide survey of financial literacy ranging from 13% to 71% revealed that Indonesia was in the range of 25-34, while Japan was in the range of 45-54. This data explains that for younger generation in Japan, they had higher financial literacy compared to those in Indonesia. Young people must be equipped with the skills and information they need to make financial choices. Now financial literacy is a life skill that is more important than

before. While financial decisions have been faced by all generations in the past, both young people and adults today must make increasingly important and complex choices about consumption, saving and investment. Financial literacy will have impact on financial health of the nation's future. Therefore, the mapping of a comprehensive multigenerational community is very important to be developed in order to build financial capacity for life-long financial health. Mutual understanding and knowledge sharing between people will establish the findings of a solution to common problems in financial literacy to produce significant social change through fostering the process of mutual learning.

The problem that occurs is that there are still many students who feel difficulties in managing personal finance. They generally feel that they are still relying on parents, do not have steady income, and still feel young to think about financial management, so that in the end they do not feel that there is an interest in financial planning [3].

Looking at this gap of interest, it can be seen about the problems that exist, so it is very appropriate for the studies to be conducted on: Will financial planning education provide changes in financial management behavior? The purpose of this study was to determine whether there was a change in financial management behavior through financial planning education.

## 2. FINANCIAL LITERACY

Lusardi & Mitchell stated that financial literacy can be interpreted as financial knowledge, which has a goal to achieve prosperity. (Lusardi & Mitchell 2007) [4]. The definition of Financial Literacy is the ability to understand how money works in the world: how one manages to get or make money, how someone manages it, how he / she invests it (turns it into more) and how people contribute to help others [1].

In 2013, the Indonesia Financial Services Authority (OJK) conducted a survey on the level of financial literacy among the population in Indonesia. The result was: Well Literate (21.84%), which has the knowledge and confidence about financial service institutions and products, including features, benefits and risks, rights and obligations related to financial products and services, and has the skills to use the financial products and services; Sufficiently Literate (75.69%), which has the knowledge and beliefs about financial service institutions and financial products and services, including features, benefits and risks, rights and obligations related to financial products and services; Less Literate (2.06%), which only has the knowledge of financial services institutions, financial products and services; Not Literate (0.41%), which lacks the knowledge and confidence in financial service institutions and financial products and services, and does not have the skills to use financial products and services [5].

Financial Literacy has a long-term goal for all segments of society, namely to improve someone's literacy which previously was less literate or not literate to be well literate;



and increasing the number of users of financial products and services.

In order for the wider community to determine financial products and services that meet their needs, the community must understand the benefits and risks correctly, know their rights and obligations and believe that the selected financial products and services can improve people's welfare. For the community, Financial Literacy provides great benefits, such as being able to choose and utilize financial products and services that are suitable for their needs; having the ability to do financial planning better and avoid the investment activities in financial instruments that are not clear; getting an understanding of the benefits and risks of financial products and services. Financial Literacy also provides great benefits for the financial services sector. Financial institutions and communities need each other, so that in the higher level of public financial literacy, more people will use financial products and services [5].

Research conducted by Byrne stated that low-level of knowledge makes financial planning wrong and causes a bias in achieving welfare. Conversely, with a high level of financial literacy, MSME's entrepreneurs are expected to be able to estimate what parts are used for savings, business and investment [6]. In addition, there have been enough studies to measure the financial literacy level by Lusardi and Mitchell for various roles, housewives research conducted by Rita & Santoso, Zahroh. [7] [8] [9], that examined the level of financial knowledge, personal financial attitudes, and personal financial behavior of Management Department students of the Economics and Business Faculty in semester 3 and 7, showing the results that there were differences in behavior between students in semester 3 and 7. In addition, Rita and Santoso found that among 100 housewives who lived in Sidorejo Lor Village, Salatiga, the result of financial literacy level obtained in planning their children's education funds was high [8]. Behrman, et al examined how financial literacy affects the increase in wealth among households resulting that there was a positive relationship between financial literacy and wealth. Financial literacy increases the likelihood of communities contributing to their retirement savings indicating that this is a valuable pathway through which the increased financial literacy can build the household's net worth [10].

### 3. METHODOLOGY AND HYPOTHESES

#### 3.1 Methodology

Financial-Fitness Quiz (FFQ) developed by Cooperative Extension consists of 20 practical financial statements covering five dimensions, namely: Financial Management (describing how financial management is carried out, there are 8 items of statement), Savings & Investing (a dimension that describes financial behavior in saving and investment, this dimension consists of 6 items of statement), Insurance & Estate Planning (this dimension describes financial

behavior in insurance and long-term planning, there are 2 items of statement), Credit (is a financial behavior dimension in debt management, consisting of 2 items of statement), and Shopping (a dimension that shows financial behavior in spending money consisting of 2 items of statements). To determine financial behavior measured by the total score obtained from these five dimensions, this provision was adopted from the O'Neill, whereas respondents were asked to choose the response that was most closely related to their current financial management practices. Financial-Fitness Quiz is used to get an idea of how well you have managed your money by choosing the score that best describes the frequency of his / her current financial management practices: 5 = always; 4 = usually; 3 = sometimes; 2 = seldom; 1 = never. When it is done, add up the scores for each of the 20 questions below. The summary at the end of the quiz tells how you are doing. Financial Management: 8 questions, Saving / Investing: 6 questions, Insurance & Estate Planning: 2 questions, Credit: 2 questions, and Shopping: 2 questions. The scoring for Financial-Fitness Quiz is as follows [11]:

1. 0-20 points: You need lots of help, but don't despair. It is never too late to take action to improve your finance.
2. 21-40 points: You are headed to financial difficulty. Now is the time to take action to reverse the trend.
3. 41-60 points: You are doing a fair job in managing your finance and have taken some steps in the right direction.
4. 61-80 points: You are doing a good job and are above the average in managing your finance.
5. 81-100 points: You are in excellent financial shape. Keep up the good work!

As the second methodology, we used Wilcoxon-Test, to test whether there was a difference before and after the training on financial education. The Wilcoxon-Test is a statistical method for testing the paired-data or data before and after the treatment in the same sample group. [12] [13].

#### 3.2 Hypothesis

In this study, we attempted to find out whether there was a difference in financial literacy before and after the financial planning class taken from 52 respondents. The research hypothesis was:

H<sub>0</sub>: There is no difference before and after joining the Financial Planning Class.

H<sub>1</sub>: There is a difference before and after joining the Financial Planning Class.

Significance level: 5%

The data type was non-metric (ordinal), the tool used was non-parametric: Wilcoxon-Test (to test the paired data or before and after the treatment in the same sample group)

### 4. RESULT AND ANALYSIS

Based on descriptive statistics, the results were as follows: 42.3% male and 57.7% female; 75% did not work, it means that they still got support from their parents; 4 persons were

independent; and the highest percentage income was between IDR 2.000.000-3.000.000 per month. By using the Financial-Fitness Quiz (FFQ) distributed to 52 participants, this research revealed that before the training (as shown in Table 1a and 1b), the score 44 had the highest frequency, and no one had the score higher than 70. From Table 1b, 7.69% had the score 0-20, 46.15% had the score 21-40, 38.46% had the score 41-60, and 7.69% had the score 61-80. This condition showed that most participant needed help to understand about financial planning. In other word, they needed more financial education.

**Table 1a.** The Score of Participants Before Joining the Financial Planning Class

Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20.00	4	7.7	7.7	7.7
24.00	4	7.7	7.7	15.4
28.00	4	7.7	7.7	23.1
32.00	5	9.6	9.6	32.7
36.00	6	11.5	11.5	44.2
40.00	5	9.6	9.6	53.8
44.00	8	15.4	15.4	69.2
48.00	2	3.8	3.8	73.1
52.00	6	11.5	11.5	84.6
56.00	4	7.7	7.7	92.3
64.00	2	3.8	3.8	96.2
68.00	2	3.8	3.8	100.0
Total	52	100.0	100.0	

Source: Data obtained from 52 Samples

**Table 1b** The Frequency and Percentage of Participants Before Joining the Financial Planning Class

Skor	Frequency	Percentage (%)
0-20	4	7.69
21-40	24	46.15
41-60	20	38.46
61-80	4	7.69
81-100	0	0.00

**Table 3** The Frequency of Participants' Score Before and After Joining the Financial Planning Class based on Criteria

Financial Management Before					Financial Management After				
Score	Frequency	Percent	Valid Percent	Cumulative Percent	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 8.00	9	17.3	17.3	17.3	Valid 8.00	4	7.7	7.7	7.7
12.00	9	17.3	17.3	34.6	12.00	3	5.8	5.8	13.5
16.00	12	23.1	23.1	57.7	16.00	5	9.6	9.6	23.1
20.00	9	17.3	17.3	75.0	20.00	8	15.4	15.4	38.5
24.00	5	9.6	9.6	84.6	24.00	3	5.8	5.8	44.2
28.00	6	11.5	11.5	96.2	28.00	13	25.0	25.0	69.2
32.00	2	3.8	3.8	100.0	32.00	9	17.3	17.3	86.5
Total	52	100.0	100.0		36.00	7	13.5	13.5	100.0
					Total	52	100.0	100.0	
Saving & Investment Before					Saving & Investment After				
Score	Frequency	Percent	Valid Percent	Cumulative Percent	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 6.00	16	30.8	30.8	30.8	Valid 10.00	7	13.5	13.5	13.5
10.00	14	26.9	26.9	57.7	14.00	8	15.4	15.4	28.8
14.00	13	25.0	25.0	82.7	18.00	16	30.8	30.8	59.6
18.00	9	17.3	17.3	100.0	22.00	11	21.2	21.2	80.8
Total	52	100.0	100.0		26.00	8	15.4	15.4	96.2
					30.00	2	3.8	3.8	100.0

Source: Data obtained from 52 Samples

**Table 2a** The Score of Participants After Joining the Financial Planning Class

Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 28.00	2	3.8	3.8	3.8
32.00	2	3.8	3.8	7.7
36.00	1	1.9	1.9	9.6
40.00	2	3.8	3.8	13.5
44.00	1	1.9	1.9	15.4
48.00	2	3.8	3.8	19.2
52.00	3	5.8	5.8	25.0
56.00	6	11.5	11.5	36.5
60.00	4	7.7	7.7	44.2
64.00	6	11.5	11.5	55.8
68.00	1	1.9	1.9	57.7
72.00	6	11.5	11.5	69.2
76.00	6	11.5	11.5	80.8
80.00	4	7.7	7.7	88.5
84.00	3	5.8	5.8	94.2
88.00	3	5.8	5.8	100.0
Total	52	100.0	100.0	

Source: Data obtained from 52 Samples

**Table 2b** The Frequency and Percentage of Participants After Joining the Financial Planning Class

Skor	Frequency	Percentage (%)
0-20	0	0.00
21-40	7	13.46
41-60	16	30.77
61-80	23	44.23
81-100	6	11.54

Source: Data obtained from 52 samples

Table 2a and 2b showed the score from participants after joining the Financial Planning Class. The result revealed that the score had increased in mostly all participants. No one had the score for credit below 20, and only 7 persons had the score 21-40. Therefore for all criteria, more than 55% participants had the score in the range of 61-100.

Insurance & Estate Planning Before					Insurance & Estate Planning After				
Score	Frequency	Percent	Valid Percent	Cumulative Percent	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	35	67.3	67.3	Valid	2.00	2	3.8	3.8
	6.00	17	32.7	100.0		6.00	13	25.0	28.8
Total	52	100.0	100.0		Total	52	100.0	100.0	
Credit before					Credit After				
Score	Frequency	Percent	Valid Percent	Cumulative Percent	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	43	82.7	82.7	Valid	2.00	30	57.7	57.7
	6.00	8	15.4	98.1		6.00	15	28.8	86.5
	10.00	1	1.9	100.0		10.00	7	13.5	100.0
Total	52	100.0	100.0		Total	52	100.0	100.0	
Shopping Before					Shopping After				
Score	Frequency	Percent	Valid Percent	Cumulative Percent	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	14	26.9	26.9	Valid	2.00	14	26.9	26.9
	6.00	24	46.2	73.1		6.00	15	28.8	55.8
	10.00	14	26.9	100.0		10.00	23	44.2	100.0
Total	52	100.0	100.0		Total	52	100.0	100.0	

Source: Data obtained from 52 samples

Table 3 revealed that mostly in all criteria, before and after the treatment, had significant difference, especially for Financial Management and Saving and Investment, as well as Insurance & Estate Planning, Credit, and Shopping. Therefore, in Financial Management there were still several participants having the score 21-40. By comparing the results from two conditions in Table 1b, Table 2b, and Table 3, this study showed that there was a significant difference in financial understanding and knowledge among the participants who undertook the training about financial planning for students and individuals. The training on financial planning is part of the financial education. Researchers had temporary conclusions that financial education could increase financial literacy for the students and can also be applied for other participants as well. Therefore, to make sure the result is valid, this data had been tested by using the Wilcoxon-Test. Based on the result of Normality Test, it is known that the data was normally distributed, because the sig. values both were 0.808 and 0.348 (greater than 0.05).

#### 4.1 Normality Test

**Table 4.** One-Sample Kolmogorov-Smirnov Test

		Before	After
N		52	52
Normal Parameters <sup>a,b</sup>	Mean	40.6154	63.1538
	Std. Deviation	12.87977	16.29794
Most Extreme Differences	Absolute	.089	.129
	Positive	.089	.064
	Negative	-.081	-.129
Kolmogorov-Smirnov Z		.639	.933
Asymp. Sig. (2-tailed)		.808	.348

a. Data distribution is Normal.

b. Calculated from data.

Source: Data Analysis using SPSS Software

For Normality Test, we used the One-Sample Kolmogorov-Smirnov Test.

The hypothesis was formulated as follow:

H<sub>0</sub>: Residual data is normally distributed

H<sub>1</sub>: Residual data is not normally distributed

Criteria:

Asympt. Sig > 0.05 □ H<sub>0</sub> is accepted

Asympt. sig ≤ 0.05 □ H<sub>0</sub> is rejected [14] [15]

## 4.2 Descriptive Statistics Test Results

**Table 5** Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	52	40.6154	12.87977	20.00	68.00
After	52	63.1538	16.29794	28.00	88.00

Source: Data Analysis using SPSS Software

Based on Table 5, obtained from 52 participants, it can be seen about the descriptive statistics results, such as mean (average), std. deviation (standard deviation), minimum and maximum values for each variable, before and after the treatment. The highest score of the assessment is 5 and the lowest score is 1. Description: 5 = always; 4 = usually; 3 = sometimes; 2 = rare; 1 = never, in implementing the current financial management practices. The average score before undertaking the one-semester financial-planning class was 40.6154, which means that they 'rarely' implemented the financial management practices. On contrast, after undertaking the one-semester class of financial planning, the participants had obtained the average score of 63.1538, of which this was a significant result that they 'sometimes' implemented the financial management practices. However, the standard deviation became higher after the participants had undertaken the financial-planning class.

## 4.3 Hypothesis Test Result

Based on the Wilcoxon-Test results in Table 6, it is known that value of Asymp. obtained was 0.000, which is below the significance level of 5%. Therefore, it can be concluded that there was a significant difference before and after the participants undertook the training on financial planning.

**Table 6.** Test Statistics<sup>a</sup>

	Before - After
Z	-5.751 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed-Rank Test

b. Based on negative ranks.

Source: Data Analysis using SPSS Software

## 5. CONCLUSIONS

In this study, it was found that there was a significant difference in the level of financial intelligence from the result of undertaking financial planning course in one-semester class taken from 52 sample data. There was an increase in the score of FFQ before and after the treatment. This result was similar to [7] [8] [9], that showed significant difference in the score of Financial-Fitness Quiz before and after undertaking the financial education. Finally, among 52 participants, no one had the score below 20, and there were 29 persons obtaining the score between 61 and 100. Due to limitations of this study, it is necessary to re-carry out the data collection and samples from the students of Higher Education to further expand the efforts to increase

their financial intelligence. In addition, more in-depth-exploration is needed regarding the plan to provide training in the use of financial applications on mobile phones that will make it easier for participants to carry out financial practices.

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## REFERENCES

- [1] OECD: Improving Financial Literacy: Analysis of Issues and Policies. (2005).
- [2] S7P Global. Financial literacy around the world: Insight from The S&P Global FINLIT survey. <https://www.spglobal.com/corporate-responsibility/global-financial-literacy-survey> (2015).
- [3] Malinda, M. Perencanaan Keuangan pribadi, Penerbit Andi, Yogyakarta. (2007).
- [4] Lusardi, A & Mitchell, O. S: Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics* 54 (2007) 205–224. (2007).
- [3] S7P Global: Financial literacy around the world: Insight from The S&P Global FINLIT survey. <https://www.spglobal.com/corporate-responsibility/global-financial-literacy-survey>. (2015).
- [4] Lusardi, A & Mitchell, O. S: " Financial literacy: evidence and implication for financial education. Trends and issues May 2009. (2009).
- [5] OJK (2013). About OJK, Vision and Mission. Cited on January 17, 2017.. <http://www.ojk.go.id/id/tentang-ojk/Pages/Visi-Misi.aspx#>
- [6] Bryne, A. (2007). Employee Saving and Investment Decision in Defined Contribution Pension Plans: Survey evidence from The U K, Financial Service Review 26 (2007)



- [7] Lusardi, A & Mitchell, O. S. ." Financial literacy: evidence and implication for financial education. Trends and issues May (2009).
- [8] Rita, M.R., Santoso, B: Financial Literacy and Financial Planning in Children's Education Funds Jurnal Ekonomi..XX, (2), Juli 2015: 212-227. (2015).
- [9] Zahroh: Test the Financial Knowledge Level, Personal Financial Attitudes, and Personal Financial Behavior of Management Department Students in the Economics and Business Faculty Semester 3 and Semester 7. Skripsi di Fakultas Ekonomika dan Binis, Universitas Diponegoro, Semarang. (2014).
- [10] Behrman Jere R. & Olivia S. Mitchell & Cindy K. Soo & David Bravo,. "How Financial Literacy Affects Household Wealth Accumulation," American Economic Review, American Economic Association, vol. 102(3), pages 300-304, May.(2012)
- [11] O'Neill, B: Financial Self-Assessment Tools: Rutgers Cooperative Extension. <https://njaes.rutgers.edu/sshw/message/message.php?p=Finance&m=334>(2003).
- [12] Hogg, R.V. and Tanis, E.A., Probability and Statistical Inference, 7th Ed, Prentice Hall, (2006).
- [13]R Core Team R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.(2016).
- [14] Stephens, M. A. "EDF Statistics for Goodness of Fit and Some Comparisons". Journal of the American Statistical Association. 69 (347): 730–737. doi:10.2307/2286009. JSTOR 2286009. (1974).
- [15] Marozzi, Marco "Nonparametric Simultaneous Tests for Location and Scale Testing: a Comparison of Several Methods". Communications in Statistics – Simulation and Computation. 42 (6): 1298–1317. doi:10.1080/03610918.2012.665546. (2013).