

# THE INTERNATIONAL JOURNAL OF REGIONAL INNOVATION

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## **Foreword from Editor-in Chief**

Praise be to our gratitude to pray for the presence of Almighty God, for His permission we can publish International Journal of Regional Innovation (IJORI) Volume 2 Number 3, August 2022.

Along with the increasing advancement of technology and science and human resources, the results of research and scientific refutations of innovation need to be published and can be accessed easily and quickly by readers.

This edition presents 5 (five) journals which include: (1) Integrated Ultra Low Invasion–Nanoparticles Drilling Fluid (ULIN): Drilling Additives with Low Environmental Impact as Innovation to Solve Common Drilling Issues, (2) The Influence of Brand Image, Price and Packaging Design on thePurchase Decision of Pixy Brand Cosmetics (Study on Users in Bandar Lampung), (3) Ecology-Based Coastal Community Empowerment Innovation in Batu Beriga Village, Central Bangka Regency, (4) The Effect of Online Customer Review and E-Service Quality on Consumer Purchase Decisions on the Marketplace Shopee in Bandar Lampung, (5) Public Service Innovation as a Strategy for Increasing Regional Innovation in Probolinggo City.

Our gratitude goes to the researchers and other functionalities who have participated in submitting papers for the continuity of this journal. We do not forget to thank peer-review who have helped to make this journal published.

We look forward to suggestions and criticism for the improvement of future publications, and hopefully the ongoing cooperation can be improved.

Bandung, August 2022

Redaction

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Sasa Aulia (Gadjah Mada University, Bulaksumur, Caturtunggal, Sleman Regency, Special Region of Yogyakarta 55281)

Integrated Ultra Low Invasion–Nanoparticles Drilling Fluid (ULIN): Drilling Additives with Low Environmental Impact as Innovation to Solve Common Drilling Issues

*INTERNATIONAL JOURNAL OF REGIONAL INNOVATION, August 2022, vol 2, no 3, p.1-7, 0 ill, 0 tab, 10 ref*

Drilling issues is extremely costly and a smart additives selection could be one of the ways to cope with these issues. Integrated Ultra Low Invasion–Nanoparticles Drilling Fluid (ULIN) purpose to overcome common drilling problems such as formation instability, differential sticking, lost circulation, and clay swelling by minimizing the invasion through environmentally safe drilling fluid additives. Ultra Low-Invasion produces a thin, deformable, yet robust shield that serves as the foundation for a low-permeability barrier at the formation's face, temporarily sealing pore throats. This seal forms after only a few seconds of invasion and has been demonstrated in laboratory experiments to be exceedingly effective at essentially inhibiting future fluid invasion or pressure transmission. On the other hand, nanoparticles drilling fluid inhibiting shales by either plugging pore in shales, viscosifying water in drilling fluids, and or osmotically dehydrating shales. It has a very high surface area to volume ratio resulting in improved physical and chemical sensitivity, boosting their performance efficiency. ULIN has exceeded the original oil production with an additional 1,800 BOPD produced by 11 wells. It also reduces the formation damage up to 93% from 64.3% to 4.5% in Naricual Formation. ULIN is safe for the environment while it can inhibit the reactive montmorillonite shales, declining rheology dropping back, controlling fluid loss amount and lubricity enhancement. Parameter of the feasibility of establishing a factory

using economic analysis with an annual sales of 37,449,000 USD, and ULIN get a profit before tax of 23,108,266.89 USD and a profit after tax of 14,340,733.11 USD with a parameter calculation is a positive NPV, IRR of 40.01% including the cash flow and present value start to be positive in the 3rd year when the system starts operating. ULIN has a payback period of 4.3 years. From the result of the analysis, it can be concluded that ULIN has good prospects and deserves to be implemented.

(author)

Keywords: economic analysis, environmentally safe drilling, nanoparticles drilling fluid, oil recovery, ultra low-invasion.

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Melda Suryani, Mahrinasari MS (Lampung University, St. Prof. Dr. Ir. Sumantri Brojonegoro No.1, Bandar Lampung City, Lampung 35141)

The Influence of Brand Image, Price and Packaging Design on the Purchase Decision of Pixy Brand Cosmetics (Study on Users in Bandar Lampung)

*INTERNATIONAL JOURNAL OF REGIONAL INNOVATION, August 2022, vol 2, no 3, p.8-13, 0 ill, 0 tab, 17 ref*

In the increasingly competitive body care and cosmetic industry, the desire to use cosmetic products has fueled competition. Currently, various types of products are circulating in the market, both those produced domestically and abroad. The diversity of cosmetic products circulating in the market will clearly influence consumer decisions in choosing cosmetic products that are suitable for their skin, and there is no risk or harmful effect on skin health. This increasingly competitive market condition makes producers compete in creating products that are most in demand by consumers and must be more creative in reading market wants and needs. One of the most popular cosmetic brands based on Top Brand Index data is Pixy. The data used in this study is primary data obtained from the results of respondents' answers which were collected with the help of a questionnaire. The number of samples in this study were 170 respondents. The sampling method used purposive sampling, which is a technique to determine the sample with the appropriate criteria determined by the researcher. The analytical method used in this research is validity test, reliability test,

analysis stage using multiple linear regression, hypothesis test, namely t test and hypothesis test, namely F test, with the help of the IBM SPSS 26 application program for windows. The results of this study indicate that the variables of Brand Image, Price and Packaging Design have a positive effect on the Purchase Decision Variable

(author)

Keywords: Brand Image, Price, Packaging Design, Purchase Decision, Business Marketing, Pixy Cosmetics

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Fitriana, Ibrahim, Ranto (Bangka Belitung University, Gang IV No.1, Balun Ijuk, Merawang, Bangka Regency, Bangka Belitung Islands)

Ecology-Based Coastal Community Empowerment Innovation in Batu Beriga Village, Central Bangka Regency

*INTERNATIONAL JOURNAL OF REGIONAL INNOVATION, August 2022, vol 2, no 3, p.14-28, 0 ill, 0 tab, 53 ref*

The coastal area is a part that is rich in the potential of marine and coastal resources that can be developed properly. Talking about the coast can not be separated from the existence of people living in coastal areas, since long ago people have also depended on the use of natural resources around the coast and the sea. Over time, the lives of coastal communities have deteriorated and until now coastal communities are identically known as marginalized communities. This condition is accompanied by coastal communities who have not been able to manage marine and coastal resources optimally. This is because the touch of knowledge about the use of resource development in coastal areas is very minimal, As a result, the community does not know how to manage the potential of marine and coastal resources that are more effective and innovative. Therefore, the active role and concern of the government can certainly reduce the powerlessness of coastal communities with the limited capabilities that the community has so far so that coastal communities can get out of the state of powerlessness. which is characterized by the condition of marginalized society. The purpose of this research is to analyze how the form of ecological-based coastal community empowerment is, as well as to find out the implications of ecological-based coastal community empowerment programs, and identify what are the opportunities and challenges in

ecological-based coastal community empowerment in Batu Beriga Village, Central Bangka Regency. This study uses the concept of empowerment by Jim Iffe as the basic foundation of the research. Regarding the concept of empowerment, according to Jim Iffe, with regard to community empowerment, it is providing resources, opportunities, and knowledge to residents to improve their abilities. Empowerment is defined as an effort to provide power (empowerment) and strengthening (strengthening) to the community. This concept has a close relationship with two main concepts, namely (power) which means power and (disadvantaged) which means inequality. The method used in this research is descriptive qualitative with the primary data source coming from unstructured interviews with 15 informants. The informants consisted of 3 village officials, 5 community members, 3 tourism awareness groups in Batu Beriga Village, 2 staff from the Environment and Forestry Service (DLHK) of the Bangka Belitung Islands Province, 2 staff from the Ministry of Environment and Forestry (KLHK) of the Bangka Belitung Islands Province. The results of this study indicate that the empowerment of the Batu Beriga Village community is carried out based on environmental care. The form of community empowerment based on ecology is a manrove planting labor-intensive program. The implication of the program is that it can have a positive impact on social, economic, and environmental aspects, opportunities that occur The results of this study indicate that the empowerment of the Batu Beriga Village community is carried out based on environmental care. The form of community empowerment based on ecology is a manrove planting labor-intensive program. The implication of the program is that it can have a positive impact on social, economic, and environmental aspects, opportunities that occur The results of this study indicate that the empowerment of the Batu Beriga Village community is carried out based on environmental care. The form of community empowerment based on ecology is a manrove planting labor-intensive program. The implication of the program is that it can have a positive impact on social, economic, and environmental aspects, opportunities that occur namely opportunities for mangrove ecosystem rehabilitation and economic recovery opportunities. However, there are challenges such as conflicts of interest, lack of public awareness, and low human resources (HR).

(author)

Keywords: Empowerment, Coastal Communities, Marginal, Based, Ecology

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Intan Lidiya Widuri, Mahrinasari MS, Mudji Rachmat Ramelan (Regional Research and Development Agency of North Kalimantan, St. Agatish No.1, Tj. Selor Hilir, Kec. Tj. Selor, Bulungan Regency, North Kalimantan)

The Effect of Online Customer Review and E-Service

Quality on Consumer Purchase Decisions on the Marketplace Shopee in Bandar Lampung

*INTERNATIONAL JOURNAL OF REGIONAL INNOVATION, August 2022, vol 2, no 3, p.29-33, 0 ill, 0 tab, 15 ref*

The phenomenon of online shopping in the modern era continues to increase, so it is not surprising that business people need to pay attention to the importance of online customer reviews and provide the best quality e-service for customers to purchase products in the marketplace. One of the marketplaces that can be used is Shopee. The type of data used in this study is primary data obtained from the results of respondents' answers which were collected with the help of a questionnaire. The number of samples in this study were 120 respondents. The sampling method used purposive sampling, which is a technique to determine the sample with the appropriate criteria determined by the researcher. The analytical method used in this research is validity test, reliability test, analysis stage using multiple linear regression, and hypothesis testing, namely t test and coefficient of determination test (R<sup>2</sup>), with the help of the IBM SPSS 26 application program for windows. The results of this study indicate that the online customer review variable has a positive and significant effect on the purchasing decision variable. The e-service quality variable also has a positive and significant effect on the purchasing decision variable. In this study, the independent variable was able to explain the dependent variable by 49.8% while the rest was influenced by other variables outside the variables in this study.

(author)

Keywords: Online Customer Review, E-Service Quality, Purchase Decision, Marketplace, Consumer Behavior

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Public Service Innovation as a Strategy for Increasing Regional Innovation in Probolinggo City

*INTERNATIONAL JOURNAL OF REGIONAL INNOVATION, August 2022, vol 2, no 3, p.36-47, 0 ill, 0 tab, 27 ref*

This research is about innovation in the field of public services carried out by the City of Probolinggo. This research is important and relevant to be discussed because it. This innovation can solve problems from the aspect of limited funds for sanitation and technology development which are considered complicated and the introduction of the SIBER-PAM strategy that can guarantee an increase in the quality of services for the community. Thus, the two innovations gave rise to various strategies that offer convenience in the use of public services. And can be an inspiration for other regions in order to overcome the same problem. The population in this study is in areas that have implemented policies or innovation in the field of public services. While the sample in this study is innovations carried out by the Probolinggo City government are called Si Inol Aja innovations (Innovation System for Arisan Services / Latrine Installments) and innovations Easier Access Based on "SIBER-PAM" (Socialization of Information Based on People's Education - Drinking Water Company). The results of this study indicate that Si Inol Aja has proven to be one of the most effective ways to eradicate open defecation (BABs), namely people have healthy latrines with technological convenience, namely a direct cast system on the spot, having healthy latrines is not difficult and inexpensive, people have a latrine faster healthy without having to wait for help from the government, strengthen participation and community self-reliance, provide new skills for craftsmen who can expand their job opportunities in the surrounding area, and grow a synergistic partnership between the government, the community and the business world to realize better sanitation. Meanwhile, the introduction of the SIBER-PAM strategy can guarantee an increase in the quality of services for the community. The presence of SIBER-PAM can provide education to the public, especially customers of PDAM Kota Probolinggo and the means of socializing the services provided at this time have innovated to become more modern. Thus, through this strategy, conveniences in the use of public services will be offered.

(author)

Keywords: Innovation, Public Service, Sanitation, PDAM, Community, Local Government.