



ABSTARCT PROCEEDNIG

MEIT-2019

***CONFERENCE BOOK OF
ABSTRACT PROCEEDINGS***

BIRE

Bali Institute of Research Excellence



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Book of Abstracts Proceedings

2nd International Conference on Management Study, Business Economics, Engineering and Information Technology (MEIT)

Bali, Indonesia
January 23-24, 2019
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Proceedings of the 2nd International Conference on Management Study, Business Economics, Engineering and Information Technology

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***2nd International Conference on Management Study,
Business Economics, Engineering and Information
Technology (MEIT)***

**Venue: Hotel Santika Seminyak Bali, Jl. Sunset Road No.17, Seminyak, Kuta,
Kabupaten Badung, Bali 80361, Indonesia**

Conference Theme: Providing platform for enhancement of research
and developmental activities through networking and collaboration.

SCIENTIFIC COMMITTEE

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CONFERENCE TRACKS

- Basic Science
- Civil Engineering
- Economics, Finance & Accounting
- Business Management
- Electrical Engineering
- Life Sciences
- Mechanical Engineering
- Medicine Sciences

CONFERENCE CHAIR MESSAGE

Dr. Ryan Feinstein

“International Conference of Bali Institute of Research Excellence” is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the social sciences and applied sciences.

I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let’s get over all sorts of discrimination and take a look at the wider picture. Let’s work together for the welfare of humanity for making the world a harmonious place to live and making it flourish in every aspect. Stay blessed.

Thank you.

Dr. Ryan Feinstein

Conference Chair

Email: ryan@bireacademy.com

Conference Schedule

**Conference Name: 2nd International Conference on Management Study,
Business Economics, Engineering and Information Technology (MEIT)**

January 23-24, 2019

Venue: Hotel Santika Seminyak Bali, Indonesia

Time: Registration & Kit Distribution (09:00 am - 09:10 am)

Venue: Room 1

09:10 am - 09: 20 am	Introduction of Participants
09: 20 am - 09: 30am	Inauguration and Opening address
09: 30 am - 09:40 am	Networking Session

Tea/Coffee Break (09:40 am - 10:00 am)

DAY 01 (January 23, 2019)

1st Presentation Session (10:00 am - 01:00 pm)

Venue: Room 1

Track A: Medical, Medicines & Health Sciences

Presenter Name	Manuscript Title	Paper ID
R Rizal Isnanto	Expert System for Diabetes Mellitus Detection and Handling using Certainty Factor on Android-based Mobile Device	BAL-419-101M

Track B: Engineering, Technology & Applied Sciences

Annisa Dewanti Putri	Material Properties Analysis of Timber Using the Micro Drilling Technology	SDIBA-JAN19-BI101
Ayman Maqsood	The Effect of Antisolvent on the Formation of 2D-3D Perovskite Films for Efficient and Stable Perovskite Solar Cells	SDIBA-JAN19-BI103

Track C: Business, Economics, Social Sciences & Humanities

Rahmad Evans	Decision Support System for Business Application Project Prioritization and Selection in Oil And Gas Industry Using AHP-VOP Methods	ETSBS-019-ANI107
Ita Nurtovia Matsari	Analysis of Factors that Have Impact on Repurchase Intention: Case Study of Coffee Shop AYAM GEPREK 666 in SIDOARJO	MEIT-JAN19-BI177
Utario E. Putra., ST	Improving Shipyard Competitiveness Using Smart Contract	MEIT-JAN19-BI102
Yunita	Dynamic Energy Conservation Based On Room Characteristics at Polytechnic State of Pontianak	MEIT-JAN19-BI106
Gina Karunia Kusumah	Response Of Female Citizen On The Impacts Of Social-Culture-Economic Development Of Peripheral Urban Areas In Bandung Raya-Indonesia	MEIT-JAN19-BI107
Arif restu widodo	The Analysis of Factors that Influencing the Acceptance Level of PROUDS in Telkomsigma By Using TECHONOLOGY Acceptance Model (TAM)	MEIT-JAN19-BI111
Achmad Vierdan Habibi	Penerapan Metode Naive Bayes Untuk Pengambilan Keputusan Kredit Mikro Pada PT. Bank Mandiri (Persero) Tbk. Cabang Surabaya	MEIT-JAN19-BI112
Probo Moeljadi	The Suitability Evaluation Analysis of Employee Single Account (Esa) With User Equipment Operator And Management Needs (Case Study: Pt. Bjti)	MEIT-JAN19-BI113
Dita Khairina Irwandi	Analysis Of The Impact Of Production Acceleration On Financial Performance Of Delta Oil Field Development	MEIT-JAN19-BI115
Rahmad Evans	Decision Support System For Business Application Project Prioritization And Selection In Oil And Gas Industry Using Ahp-Vop Methods	MEIT-JAN19-BI119
Nova Novita	Board of Director Characteristics and Bank Asset Risk	MEIT-JAN19-BI125

Lunch Time (01:00 pm - 02:00 pm)

DAY 01 (January 23, 2019)

2nd Presentation Session (02:00 pm - 05:00 pm)

Venue: Room 1

Track C: Business, Economics, Social Sciences & Humanities

Presenter Name	Manuscript Title	Paper ID
Septiansyah Argi Gumilar	Strategic Planning For Information Systems / Information Technology In Regional Public Hospital	MEIT-JAN19-BI123
Fajar Seno Jati	Selecting Foam to Extinguish Full Surface Fire of Crude oil Floating Roof Tank Farm with Fuzzy AHP Approach	MEIT-JAN19-BI124
Harry Kurniawan Nugraha	Exploring of Factors Related to the Technology Adoption in Purchasing System of Product Through Mobile Application	MEIT-JAN19-BI126
Choerunnisa Adzwafar	Passion for Fashion : The Impact of Personal and External Factors to Consumer Behavior	MEIT-JAN19-BI131
Andrianto Prasetya Nugroho	Determinants of Repurchase Intention and Switching Intention: Analysis on Online Travel Agent, Peer-to-Peer Accommodation, Virtual Hotel Operator	MEIT-JAN19-BI132
Katarina Apriliani	The Effect Of Conventional Customer Habit: Touch, Sight, Smell On Online Written Batik Fabric	MEIT-JAN19-BI134
Ajeng Putri Lenggogeni	Proposed Competitive Strategy For A Coffee Shop Through Customer-Focused Business Model Canvas As A Tool (Case Study: Sa.Ko.Pi, Bandung)	MEIT-JAN19-BI135
Rizki Kresna W	Maritime Safety Risk Analysis In Alur Pelayaran Barat Surabaya (Aps) During Dredging Process	MEIT-JAN19-BI137
Wisnu Bayu Aji	The Influence Of Automotive Brand Community On Brand Trust (Case Study : Yaris Club Surabaya)	MEIT-JAN19-BI138
Yan Muhazir	Selecting Gas-Lift Strategy In Borneo Field Using Ahp Approach	MEIT-JAN19-BI141
Maria Levita Vitriani	Runtuwene Construction Workers Interaction Model to Minimize Work Accident Using Agent-based Modelling Approach	MEIT-JAN19-BI197
Yehezkiel Cahya Putra	Improvement Of Duration Overhaul Desalination Plant Pltgu Pt. Pjb Up Gresik Using Approach Of Lean-Six Sigma Method	MEIT-JAN19-BI142

DAY 01 (January 23, 2019)

1st Presentation Session (10:00 am - 01:00 pm)

Venue: Room 2

Track C: Business, Economics, Social Sciences & Humanities

Presenter Name	Manuscript Title	Paper ID
Abdurrazaq Al Muharram	Project Duration Decreasing With Lean Concept On The Activities Of Maintenance Combuster Inspection (Ci) Mechanical Fields In Gresik Ptgu	MEIT-JAN19-BI143
Ivan Partana	Implementation Of Lean Six Sigma To Increase Total Output In Polyols Production Process : A Case Study	MEIT-JAN19-BI144
Muhammad Nirwan Andriawan	Waste Reduction On Warehouse Operation By Applying The Lean Warehousing Method	MEIT-JAN19-BI145
Ide Bagus Hapsara	A Goal Programming Method For Coal Blending Optimization In The Coal Fired Power Plant (Cfpp)	MEIT-JAN19-BI146
Widhi Yuliarta Hidayat	Analysis Of Customer Satisfaction And Service Quality Improvement Of Building Management Services - Pt. Graha Sarana Duta Area V Jatim Bali Nusra	MEIT-JAN19-BI147
Annisa Nur Farida	Inventory Control Of Fast Moving And Intermittent Materials On Procurement Division Of Electricity Company	MEIT-JAN19-BI149
Danang Sukmo Guwindo	Analysis Of The Effect Of Work Satisfaction And Commitment To Ppnpn (Non-Civil Servants Government Employees) On Organizational Performance	MEIT-JAN19-BI150
Radya Senoputra	Managing Production Profile Uncertainties In P Field Llp Project Economic Evaluation Using Factorial Design	MEIT-JAN19-BI151
Eko Darmawan Jatmiko	Determination Of Preventive Maintenance Intervals By Means Of System Equipment Reliability Prioritization (Serp) And Reliability Optimization On The Gas Turbine M701d Series	MEIT-JAN19-BI152
Koko Nurdiono	Determining Inventory Policy To Support Maintenance Strategy Of Gas Turbin M701d In Power Plant Company	MEIT-JAN19-BI153
Aryani Fabiany	Route Vehicle Determination And Scheduling Of Aquas Distribution In Surabaya Using Firefly Algorithm To Minimize Total Cost	MEIT-JAN19-BI154
Wildan Manggara Hidayatullah	Comparison Of Greedy Approach And Aco Method For Cvrptw Of Lng Distribution To Power Plants	MEIT-JAN19-BI155
Riamitasari Guyandi	Planning Optimal Hospital Departments Layout Using Linearization Quadratic Programming	MEIT-JAN19-BI156
Intan Permata Sari	Business Planning By Using Swot-Business Model Canvas And Balanced Scorecard Integration Method To Increase Competitive Advantage On Chemical Construction Industry In Indonesia (Case Study At Pt. Yz)	MEIT-JAN19-BI200

Lunch Time (01:00 pm - 02:00 pm)

DAY 01 (January 23, 2019)

2nd Presentation Session (02:00 pm - 05:00 pm)

Venue: Room 2

Track C: Business, Economics, Social Sciences & Humanities

Presenter Name	Manuscript Title	Paper ID
Abdhidama, Dimas Enggal	Quality Analysis of Advertising Tax Services With The Servqual And Delphi Methods in the Regional Tax And Financial Management Agency of Surabaya	MEIT-JAN19-BI157
Jeky Ali Buyung	The Effect of Organizational Responses to Service Failures on Indihome Brand Credibility	MEIT-JAN19-BI158
Uranio Hario Bimo Pratomo	Analysis Of Service Performance In Correlation To Customers Satisfactory And Loyalty In Terminal I Of Juanda International Airport Surabaya	MEIT-JAN19-BI159
Aditya Dito Bagaskoro	Business Strategic Formulation of Wood Parquet Manufacturing Industry Aims to Develop Local Market	MEIT-JAN19-BI160
Yurika Caesarita	Strategic Planning SI/TI in the Fast Food Canning Industry (Case Study: PT. Indocan Koki)	MEIT-JAN19-BI162
Rizal Fernadny	Analysis and improvement Competency Management System in Oil and Gas Company by using SERQUAL, Kano's Model and QFD	MEIT-JAN19-BI163
Feby Diana Asia Mulia Perdana	Development Project Analysis in BPWS (Case Study: West Side Rest Area in KKJSM Phase III)	MEIT-JAN19-BI164
Fitroh Faizal	Evaluation the Necessity of Existing High Integrity Pressure Protection System Installation at Sm Platform to Optimize Operating Cost	MEIT-JAN19-BI165
Ahmad Nur Rizky Fauzy	Failure Mode Effect Analysis Method for Evaluating and Mitigating Failures of Electric Power Distribution of PT PLN (Persero) South Surabaya Area	MEIT-JAN19-BI166
Wiriyanti Isnasari	Identification And Analysis Of Causes Of Change Order Factors On Project Performance Using Decision Tree Methods	MEIT-JAN19-BI167
Andre Ridho Saputro	Development of QCDSM-Based Products for Increasing Competitive Advantage Case Study of Tenun Ikat SME Kota Kediri	MEIT-JAN19-BI168
Bagus Hadi Prastya	Company Performance Measurement of Electric Contractors with The Balanced Scorecard And Analytical Hierarchy Process Approach (Case Study: PT. Pendowo Bagus Jaya)	MEIT-JAN19-BI170

DAY 01 (January 23, 2019)

1st Presentation Session (10:00 am - 01:00 pm)

Venue: Room 3

Track C: Business, Economics, Social Sciences & Humanities

Presenter Name	Manuscript Title	Paper ID
Miranti Kartika Komariah	Enterprise Architectural Model Design On Event Organizer Company With Togaf Architecture Development Method (Study Case Pt. Xyz)	MEIT-JAN19-BI171
Bambang Gutomo	The Decision Making Analysis of Increasing Storage Capacity in Sutami Reservoir with Analytical Hierarchy Process (AHP) Approach	MEIT-JAN19-BI172
Rohandi Prastiawan	Determination of the Priority of Drinking Water Pipe Replacement to Reduce Leakage Using ANALYTHICAL Hierarchy Process	MEIT-JAN19-BI173
Reynilda Joan Ellizabeth Suprpto	Risk Management Framework Development In X. Ltd Based On Sni Iso 31000:2011	MEIT-JAN19-BI174
Narastomo Pramadityo	Modeling Restaurant Experience Toward Word Of Mouth (Wom) Intentions With Customer Satisfaction As The Mediating Effect: Speciality Type Restaurant	MEIT-JAN19-BI175
Retna Fetty Idamayanti	Analysis of the Use E-Samsat Jatim Services on the Admission of Motor Vehicle Tax	MEIT-JAN19-BI176
Amaliafany,Purnamasari Intan	Analysis of Factor Turnover Intention of Bus Pariwisata Driver in Po.X Using Generalized Structured Component Analysis	MEIT-JAN19-BI178
Eta Oktasari	Total Productive Maintenance (TPM) Analysis of Linear Accelerator (Linac) Device in Hospital Xyz	MEIT-JAN19-BI179
Laksmi Suproborini	Evaluation Of Etbm-E-Library Systems In Surabaya City Government Library And Archives Department With Human Approach, Organization And Technology - Fit Factors (Hot-Fit)	MEIT-JAN19-BI180
Rachma Rizqina	Mardhotillah Measuring the Service Quality Importance-Performance Analysis and Customer Satisfaction Index: A Case Study in An Indonesian Hospital	MEIT-JAN19-BI181
Dr. Ojela Mae Entero	Structural Equation Model of Purchase Intention of Online Shoppers in Digos City	MEIT-JAN19-BI103

Lunch Time (01:00 pm - 02:00 pm)

DAY 01 (January 23, 2019)

2nd Presentation Session (02:00 pm - 05:00 pm)

Venue: Room 3

Track C: Business, Economics, Social Sciences & Humanities

Presenter Name	Manuscript Title	Paper ID
Yovita Dwinanda	The Impact of Perceived Quality Towards Customer Satisfaction and Intention to Revisit in X Coffee Shop	MEIT-JAN19-BI182
Ervan Ade Pratama	Quality Analysis Of Instrument Maintenance Services With Service Quality And Quality Function Deployment Methode (Case Study : Pt. Spektris Metalab)	MEIT-JAN19-BI184
Ismi Zahria	Identification of Internal Factors Assessed by Students of Amanatul Ummah to Higher Education through SPAN-PTKIN Pathway using C4.5 Algorithm Classification Method	MEIT-JAN19-BI187
Bambang Sutomo	Design Of Quality Improving For Quality Service Assessment In Ship Feasibility Appraisal With Kano And Kansei Engineering Approach	MEIT-JAN19-BI189
Maramis Setiawan	Land Transportation Optimization Of Bag & Bulk Product In Indonesias Cement Industry To Minimize Supply Chain Cost Using Linear Programming	MEIT-JAN19-BI190
Septian Surya Pradana	Risk Analysis Change Of Coal Quality On Coal Power Plant Using Fmeca	MEIT-JAN19-BI191
Prio Utomo, Erlangga	Analysis On Factors Causing Fatigue in Sandal GERINDA Operator in Pt. X Indonesia	MEIT-JAN19-BI193
Yulyardhita, Rillya	Supply Chain Performance Measurement Using Scor Model At Pt.X	MEIT-JAN19-BI194
Agatha Liany Hadi	Competitive Strategy Formulation in Chemical Transportation Service Company of Oil and Gas Sector (Case Study, PT. XZ)	MEIT-JAN19-BI195
Gunadi Wijoyo	Justification Of Minor Overhaul To Increase Eaf At Pt Pembangkit Listrik Xyz Case Study For Steam Turbine 1.0 (St 1.0)	MEIT-JAN19-BI201
Aulia Quranna Sukamto	Supply Chain Interaction Model In Construction Industry Based On Agent-Based Simulation	MEIT-JAN19-BI196
Georgian Marcello	The Moderating Effect of Consumer Ethnocentrism to Behavioral Brand Loyalty of Batik in Indonesia	MEIT-JAN19-BI161

Ending Note (05:00 pm - 06:00 pm)

Conference Day 02 (January 24, 2019)

Second day of conference will be specified for touristy. Relevant expenses are borne by Individual him/herself.

TRACK A
MEDICAL, MEDICINES & HEALTH SCIENCES



Expert System for Diabetes Mellitus Detection and Handling using Certainty Factor on Android-based Mobile Device

^{1*}R Rizal Isnanto , ²Dania Eridani , ³Sri SY Wulandari Simbolon

^{1,2,3}Universitas Diponegoro, Indonesia

Corresponding Email: rizal_isnanto@yahoo.com

Keywords: Diabetes Mellitus, Expert System, Android, Sqlite, Certainty Factor

Diabetes Mellitus is a chronic disease that occurs when the pancreas is unable to produce insulin. Expert system is a system that seeks to adopt human knowledge to computer, so computer can solve problems as is usually done by specialist or experts. Construction of expert system in this research using ESDLC (Expert System Development Life Cycle) methodology, Android operating system, Java programming languages, XML and database program using SQLite. The process of disease detection using certainty factor method. By the certainty factor method, an accurate results obtained from calculations based on weight of symptoms of the selected user can be provided. From test results, it can be concluded that the results of the application using black box method and direct testing by the expert, both the fault functions as well as the disease mis-detection processes in application are not found. This application can perform early disease detection in accordance with expert recommendation symptom data. The certainty factor method was successfully implemented in this diabetes mellitus expert system and can provide result a correctness percentage of detection with the highest value of 90%. The response on questionnaire from users determines the validity of disease detection results.

TRACK B

ENGINEERING, TECHNOLOGY & APPLIED SCIENCES



Material Properties Analysis of Timber Using The Micro Drilling Technology

¹Wang Juan, ^{2*}Annisa Dewanti Putri

¹School of Civil Engineering, Beijing Jiaotong University, Indonesia, ²Key Laboratory
of Wind and Tunneling Engineering, School of Civil Engineering, Indonesia

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Keywords: Material Properties, Micro Drilling, SNTD, Timber structure, Timber Assessment

The material properties estimation is one of the important components for the condition assessment of a tree or a timber building structure. Due to the condition and preservation purpose, assessments of Semi Non Destructive test (SNTD) will give a proper solution especially for vulnerable component or structure. One of the test using the SNTD technology will be the Micro Drilling. This could be one of a technology that will help in predicting damage to the timber or wooden material. This research will focus on how the scheme test of Micro drilling can be used as a tool to estimate and detect damage within other similar SNTD method. As a result the material properties can be used for the next phase as reference for structural damage solutions of a single timber component or general building structure (i.e. Retrofitting, strengthening, preserving, etc.). This research will generally overview the use of SNTD which focus on the Micro Drilling to analyze the material properties that will be useful for assessment and reference for timber materials, historical and ancient timber structure.



The Effect of Antisolvent on the Formation of 2D-3D Perovskite Films For Efficient and Stable Perovskite Solar Cells

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Keywords: 2D-3D Perovskite Solar Cells, Antisolvent, Higher Stability.

Highly stable 2D-3D heterostructured Butyl Bromide-Cesium-formamidinium Lead bromide perovskite solar cells (PSCs) have been fabricated by introducing suitable antisolvent. We have analyzed the effect of antisolvent on the formation of 2D-3D structure and observed the appearance of 2D perovskite (BABR) platelets intermixed between the highly oriented 3D perovskite (FA_{0.83}Cs_{0.17}Pb(I_{0.8}Br_{0.2})₃) grains, which suppresses non-radiative recombination and enhance the remarkable stability of the PSCs. Both scanning electron microscopy (SEM) imaging and X-ray diffraction (XRD) analysis revealed that the 2D-3D perovskite thin films deposited on electron transport layer (ETL) using suitable solvent exhibit higher crystallinity, which account for more efficient pathways with lower resistance for charge carrier transport. Comparing to the other antisolvents, toluene is proved to be more appropriate in the formation of highly stable 2D-3D PSCs, due to the full surface coverage and better quality of the perovskite absorber layer. The PSCs based on 2D-3D intermixed heterostructure with better film quality exhibit an efficiency of 13.77% with a fill factor of 74%, an open circuit voltage (VOC) of 0.89 V and a short circuit current density (JSC) of 21.23 mA/cm² with storage stability over 60 days. The fabrication of the 2D-3D based perovskite layer provides a promising way to fabricate high-performance perovskite-based optoelectronic devices.

TRACK C

BUSINESS, ECONOMICS, SOCIAL SCIENCES & HUMANITIES



Decision Support System For Business Application Project Prioritization And Selection In Oil And Gas Industry Using AHP-VOP Methods

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Keywords: AHP, Business Application, Prioritization, VOP

IT Division is the entity within PTPM which is responsible for managing business application requests from business entities. In recent years, more than 50 requests per year have been made to the IT Division. However, requests are restricted by production capacity, limiting resources, time and budget. Requests range in proposals from new software development, change request development, to operational support and technical assistance. This research will focus on new software development request. To cope with the limitation, a Decision Support System (DSS) for an accountable and transparent prioritization and selection process is necessary. It will help the Decision-Makers to make more effective and reasonable decisions. In this process, the prioritization framework will be established by defining business value criteria, criteria weighting, and prioritization and selection method. This system is expected to adapt with the dynamic and multiple alternatives of MCDM (multiple criteria decision making) process due to the changing of company business goals and objectives in coming years. This research introduces several available method in the market to then use the most acceptable and efficient one. Focus Group Discussion, voting method, and scoring model will be used to select business values criteria, while AHP method (Analytic Hierarchy Process) will be used to calculate the weights of the main criteria and sub-criteria. The chosen method to rank and compare requests with one other is the VOP (Value Oriented Prioritization) model. VOP was concluded the best solution as it requires an easy, scalable, not time consuming process. The correspondence of this research will be carefully defined and involves a multi discipline stakeholder and management level for validation in order to conclude a holistic result, representing the companys perspective. This system is applicable in further future assessments, to be used as a baseline for other in Oil and Gas Industry companies



Improving Shipyard Competitiveness Using Smart Contract

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Keywords: Shipyard, Maritime Economic, Blockchain, Smart Contract, Internet Of Things, Ship Repair

In this reseach we explore the potential of implementation of Smart Contract in order to increase shipyard competitiveness. Fueled by the interest of blockchain in recent years, we lay the foundation of Smart Contract in coherent with operational of a shipyard. While provides an excellent automation and accelaration in many steps of legal and commercial aspect of ship repair project, the demand of a smooth transition of conventional legal and commercial papers into legally acceptable Smart Contract is certain. We will identify the key parameter in conventional legal paper and incorporate this into proposed design of Smart Contract. This provides preliminary action towards the adoption of Smart Contract.



Dynamic Energy Conservation Based On Room Characteristics at Polytechnic State of Pontianak

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Keywords: Energy Conservation; Fuzzy Logic; SNI-03-6917-2000.

Generally, energy conservation are carried out on a building as a whole, but in this research the energy conservation are carried out dynamically based on the characteristics and the user of the room. In this research, the lux measurement has been taken at certain times. Based on the characteristics of the existing room at Polytechnic State of Pontianak, the lux measurements were taken at one of the electronics laboratory, one technician room, Electrical engineering department library, one classroom for Information Technology students and one academic staff office. These rooms divided into three size: small, medium, and large. The data that has been taken will be compared with the standard of room lighting according to the Indonesian National Standard SNI-03-6917-2000. Some potential energy conservation have been found in the classroom and the academic staff office. Hence, the energy conservation will be made according to the differences obtained between the data measurements and the SNI while continuously taking into account the user comfort and satisfaction. In this case, the questionnaire will be distributed to find out the opinions of the users of each room. Using fuzzy logic method, we will obtain the energy conservation percentage. Thus, the final result of this study is in the form of alternatives of dynamic energy conservation based on the characteristics of the room and the comfort of the user of the room.



Response of Female Citizen on the Impacts of Social-Culture-Economic Development of Peripheral Urban Areas in Bandung Raya-Indonesia

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Keywords: Women, Development, Peri-urban, Bandung Raya, Indonesia

The development of an area aims to create and improve the welfare and prosperity of its community. However, in certain cases, the development is not only giving positive impacts but also negative impacts on the community around it. Likewise, the area development of Bandung Raya, West Java, Indonesia. In accordance with Regional Medium-Term Development Plan for 2013-2018, there are three centers of development and three metropolitan areas. The mentioned three metropolitan areas are Bodebek Karpur (Bogor City, Depok City, Bekasi City, Bekasi Regency, Karawang Regency, Purwakarta Regency), Cirebon Raya (Cirebon City, Cirebon Regency, Majalengka Regency, Kuningan Regency, Indramayu Regency), and Bandung Raya (Bandung City, Bandung Regency, West Bandung Regency, Cimahi City, and some areas of Sumedang Regency (Jatinagor Sub-district and Sukasari Sub-district)). One of the areas that are rapidly developed with strategic infrastructures, including Sports Stadium, Light Rapid Transit (LRT), thematic housing such as Technopolis, Industrial area, drainage, road facilities, etc. is a suburb of Bandung City that borders the suburb of Bandung Regency. This peri-urban area requires more attention because in this area development will lead to the social, economic and cultural transformation of its community. Transformation occurs as a result of shifting land use from agrarian characteristics to urban characteristics. The local government gives an opportunity to all parties to take the initiative in development and also to overcome the excesses of the development. This study aims to find out how the peri-urban community addresses the socio-economic changes that they experience, whether there has been a transformation shown by the presence of groups or clusters that differ from each other in socio-cultural characteristics or certain economic characteristics. Responses recorded for the development benefits of socio-cultural aspects are the fields of education, health, social environment, and natural environment that forms culture; while for economic aspects are employment opportunities, employment, income, job security. The result of this study is served as the basis for advanced research that is action-research, and to identify community needs accord to the characteristics of their respective clusters. It is expected that the planned actions



provide greater benefits for the targeted community. The survey of this research uses the sample of 30 women who work as farm laborers whose land is threatened with the functional shift and women affected by layoffs from the garment industry. Hierarchy Cluster Analysis is used to identify the number of clusters and members of each cluster, using the SPSS program. The results showed the characteristics of 2-3 clusters on socio-cultural aspects and 2-4 clusters on economic aspects.



The Analysis of Factors that Influencing the Acceptance Level of ProuDS in Telkomsigma by Using Techonology Acceptance Model (TAM)

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Keywords: Management, Technology Acceptance Model, TAM 3, SEM, PLS

Nowadays, technology development is very fast, information is needed by many companies in supporting performance improvements. One way for software development to run smoothly and well, is using information system management techniques. PT. Sigma Cipta Caraka (telkomsigma) engaged in information and communication technology services has implemented the Project Management & Resource Delivery System (ProuDS) application as Project Monitoring, Traking & Timesheet. The objectives and benefits of the program are said to be successful if they can support the Project Management's performance, can measure employee utilization and provide Reporting Dashboards to Management so that they can be used as material for analysis. But in reality the implementation of information technology still arises failure caused not because of technical factors but rather factors of human resources themselves. One evaluation model used to measure acceptance of an information system in an organization or public institution is Technology Acceptance Model (TAM) 3. Analysis and interpretation of data in this study are using Structural Equation Modeling (SEM) with PLS applications. The results of the research obtained through the questionnaire found that from the 16 hypotheses tested, there were 12 accepted hypotheses and 4 rejected hypotheses. Factors that influence. After analyzing the factors that influence the acceptance of ProuDS application users, Telkomsigma is expected to improve the influential factors. The results can be used to develop features in the program and increase the user experience level for users.



Penerapan Metode Naive Bayes untuk Pengambilan Keputusan Kredit Mikro Pada PT. Bank Mandiri (Persero) Tbk. Cabang Surabay

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Keywords: Data Mining, Nave Bayes Algorithm, Creditworthiness

Lending is one of the banking products that attract many interests of the community. In addition to being the largest earning assets of a bank, credit is also the highest risk carrier that can affect the soundness of banks. One of the risks of lending is the emergence of non-performing loans or often referred to as bad debts, meaning that the loans disbursed cant be billed back so that it threatens the liquidity of the bank. To prevent and reduce the occurrence of bad debts, PT Bank Mandiri (Persero) Tbk Surabaya Branch Benowo has been using Loan Origination System (LOS). However, the technology has nott been maximized in its application, it still gets incompatibility of data entered into the system with the facts in the field. Use of data mining technology using methods Nave Bayes help predict probability in the future front based on experience in the future previous with learn correlation hypothesis whichis the class label that is the target of the mapping in classification and the evidence which in this case is the features that are input into the classification model. This study uses 10 criteria detailing 8 criteria having 2 attributes and 2 criteria having 3 attributes performed on 753 data to obtain 1,009 experiments with TP Rate 0.992, FP Rate 0.009, Precision 0.992, Recall 0.992, F-Measure 0.992, MCC 0.984, ROC Area 1,000, PRC Area 1,000



The Suitability Evaluation Analysis Of Employee Single Account (Esa) With User Equipment Operator And Management Needs (Case Study: Pt. Bjti)

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Keywords: Technology Acceptance Model 3 (TAM 3), Structural Equation Modeling (SEM), AMOS

Employee Single Account or known as ESA is a system that aims in order to monitoring of employee absence report, employee salary and legal information network in PT. BJTI. The application of this system which has been running for four years cannot be separated from the occurrences of problems, for instance some users (equipment operators) still face difficulties and have not been able yet in using it properly. To optimize the application of this system, it is necessary to evaluate the system. The aim of conducting this study is to evaluate the suitability of the system to user (equipment operator) and management needs at PT. BJTI There are many models developed by researchers to measure the acceptance of information systems by users, one of which is the Technology Acceptance Model 3 (TAM 3). The TAM 3 model in this study will be modified based on the references in the previous study. To obtain data, a survey method was used with the google form online questionnaire to 325 tool operators at PT. BJTI. The number of samples used was 188 respondents. The data analysis method used is Structural Equation Modeling (SEM) using AMOS 22 software. Of the 16 hypotheses tested, there were 12 accepted hypotheses and 4 hypotheses were rejected. As for the factors that influence them behavior intention, Perceived Usefulness, perceived ease of use, computer self efficacy, perceptions of external control, computer anxiety, perceived enjoyment, objective usability, subjective norm, Image, job relevance. After knowing the factors that influence the acceptance of ESA. Management of PT. BJTI can focus on improving the influential factors. Thus the use of ESA by the equipment operator can be maximized in the future



Analysis of the Impact of Production Acceleration on Financial Performance of Delta Oil Field Development

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Keywords: Financial Performance, Production Acceleration, Plan of Development, Oil and Gas, Incremental Analysis

Delta Field is one of the oil fields developed by PT. Alpha. The government sees the potential to further develop the Delta field with the addition of production well drilling. For the Government, the probability of drilling wells producing oil and gas in the Delta field is greater than for new field exploration. The development of the Delta field can be done by acceleration without waiting for the permanent production facilities to be completed. In this production acceleration, it is necessary to add items to modular production facilities. But from the company side, PT. Alpha sees this acceleration is not necessarily profitable both technically and economically. With fixed oil and gas reserves, the acceleration of production may cause production from the Delta field to not reach the end of the contract in 2035 or production in last years is too low so there are costs that are unrecoverable. In addition, the acceleration of production will cause additional costs. In this study, the conditions for accelerating production were simulated (drilling was carried out before permanent production facilities were completed) and normal production (drilling was carried out after the permanent production facility was completed). The incremental analysis of financial performance of the two options will be compared, both from the overall planning horizon and focused on the last years of the contract period. In addition, sensitivity analysis will also be carried out on selected options to see how various parameters affect their financial performance.



Construction Workers Interaction Model to Minimize Work Accident Using Agent-based Modelling Approach

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Keywords: Safety, Unsafe Behavior, Simulation, Agent Based

Workers' unsafe behavior is the main cause of accidents in the construction industry. Construction practitioners have made efforts to regulate unsafe behavior, but the efforts made are less effective in reducing unsafe behavior. Therefore, the researchers examined how unsafe behavior was generated. The results of the study state that unsafe behavior mostly results from the process of social interaction that occurs in the project. Several studies have been conducted to examine the unsafe behavior of workers from interaction patterns, but the study still cannot solve the problem effectively. So the researcher made a research to see the behavior formed from the results of the interaction that occurred. The research aims to model the interaction between construction actors and to reduce the occurrence of workplace accidents. Previous studies were combined to see who the construction actors most affected workers' unsafe behavior. It was found that supervisors, managers and workers most influenced the interaction process. Next to see the interaction process that occurs, this research models the process of interaction that occurs between managers, supervisors and workers. Agent-based simulations are applied to overcome this problem. Simulation is chosen because this research is complex and cannot be observed directly in the field. The agent-based simulation itself was chosen because it has a bottom-up approach where simulations are carried out not only on agents and interactions between agents but can describe system behavior resulting from interactions between agents. The properties of the agent are obtained from previous studies and then compared with empiric. Then the data is entered into a software program for agent-based simulation. Two scenarios with different arrangements are applied, namely supervisory interventions and safety management strategies. From the two scenarios, the scenario that most influences the interaction will be selected. This model is expected to help construction practitioners to regulate unsafe behavior for workers.



Strategic Planning For Information Systems / Information Technology In Regional Public Hospital

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Keywords: Strategic Planning IS/IT, RSUD, PEST, Porter's Five Forces, Value Chain, McFarland Strategic Grid, SWOT, Balanced Scorecard, Critical Success Factor, Gap Analysis

The role of information technology in supporting operational and managerial in government and private institutions is very important at this time. Regional Public Hospital (RSUD) is a hospital that is under the local government both provinces and cities/districts. As the RSUD, then to improve service to the community it is necessary to support the Information System (IS)/Information Technology (IT). One of the SI/IT support is proper strategic planning to support the achievement of vision and mission of the hospital and the investment system created will support the business objectives so that the investment issued by the hospital management can be long-term. In undertaking the strategic planning of IS/IT there are several stages, namely the preliminary stage by establishing the background along with the research objectives, the data collection and information required, the understanding of current conditions by analyzing the internal and external environment of the business using PEST Analysis, Porter's Five Forces, analyzing business strategy and Value Chain Analysis, performing internal and external analysis of IS/IT by analyzing resources, IT infrastructure, tools and infrastructure then using McFarland Strategic Grid Analysis and analyzing IT trends. At the stage of determination of future needs used SWOT Analysis, Balanced Scorecard Analysis, Critical Success Factor Analysis and Gap Analysis. The results of IS/IT strategic planning are SI business strategy, IT strategy and management strategy of IS/IT. From these results, an upcoming portfolio of application recommendations that can support current business strategies, future and able to be in line with hospital strategic planning.



Selecting Foam to Extinguish Full Surface Fire of Crude oil Floating Roof Tank Farm with Fuzzy AHP Approach

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Keywords: Foam, Full Surface Fire, Floating Roof Tank, Fuzzy AHP

Full surface fire is the most severe ones of all kind accident in operating large scale of crude oil floating roof tanks (FRT). It has been drawn attention because of its serious consequence of fire or explosion. Considering the complexity, applying foam solution is always become the first choice in extinguishing the fire. Using suitable foam is plays a vital role in extinguishment of full surface fire. Foam type Fluoro-protein (FP) is having feature of more resistant to heat and fuel contamination with lower price. However the spreading is slower and shorter shelf life. Film Forming Fluoro-Protein Foam (FFFP) is combination of protein with Fluoro-chemical surfac-tant to increase fuel tolerance and burn back resistance. Aqueous film forming foam (AFFF) is very fluid and floats on the surface of most hydrocarbon fuels but poor in heat resistance. The price is more expensive but the shelf life is longer if compare with FP. Another alternative is alcohol resistant aqueous film forming foam (ARFFF). It can be used in wider application both in polar or non-polar fire. The shelf life is longer but with higher price. Fuzzy Analytic Hierarchy Process (Fuzzy AHP) is used to achieve the weight of each index and to evaluate the best foam selected in case of full surface fire.



Exploring of Factors Related to the Technology Adoption in Purchasing System of Product Through Mobile Application

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Keywords: Technology Adoption, Mobile Application, Customer Behavior

The digital world has been disrupting many conventional method especially the purchasing system. Smartphone is also becoming more addictive today. This study aims to explore the factors related to the people reaction and learning process of technology adoption in term of using application on smartphone as the purchasing canal. To find the factors related on adopting the technology, the qualitative analysis including in-depth interview with expert, tech savvy people and other related person to the reseach question is used. The company reputation, promotion in term of price reducing and design of user interface and also easy user experience are the factors that we found related to the technology adoption. The result on qualitative method will become basic questions for quantitative method using a questionnaire and validate the results with the unified theory of acceptance and the use of technology. The promotion has become the most influence factor based on our research to gain awareness or reaction until peoples are driven to learn the technology and decide to purchase. The price value has a relation to the behavioral intention that ended to the use of behavioral as a final step. The finding result will be used for jumping the chasm that exist between the early adopters and early majority on the technology adoption lifecycle . Due to the small amount of early adopters on market shares, the early majority become important segmentation in order to gain bigger market shares and become market leader. The finding factors will also use for the marketing strategy for future penetration and customer acquisition, especially new start-ups where their products/services are based on mobile applications. This study has not yet explored the strategy related to operation and financial aspect on company in term of using the finding factors for customer acquisition process.



Passion for Fashion : The Impact of Personal and External Factors to Consumer Behavior

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Keywords: Fashion, Self-expression word of mouth; Consumer Behavior.

This study examined the impact of Social Influence and Vanity to Passionate Desire for Fashion and the mediating role of Exhibitionist tendency and Social Comparison to Self-Expression Word of Mouth. The study was conducted with quantitative approach using SEM for statistical analysis. The Study used online survey questionnaire to collect data. Participants consisted of 201 women aged 18-35. This research found that there is a significant impact from social influence and vanity to passionate desire. There is a significant role of exhibitionism as a mediator of passionate desire and Self-expression word of mouth. There is no significant role of social comparison as a moderator of passionate desire and Self-expression word of mouth.



Determinants of Repurchase Intention and Switching Intention: Analysis on Online Travel Agent, Peer-to-Peer Accommodation, Virtual Hotel Operator

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Keywords: Online Travel Agency, Peer-to-Peer Accommodation, Virtual Hotel Operator, Repurchase Intention

The purpose of this research is to analyze the relationship between satisfaction, trust, repurchase intention, and switching intention in online-booking hotel platforms. The online-booking hotel platforms divided into three types: Online Travel Agency, Peer-to-Peer Accommodation, and Virtual Hotel Operator. Satisfaction divided into transaction-based satisfaction and experience-based satisfaction. Trust divided into institution-based trust and disposition to trust. The object of this research was 600 respondents who have ever used the service of online-booking hotel platform in all transaction process (from the start until the end of service). The sampling method using purposive sampling and the data analysis were conducted using SEM (LISREL). Results show there are similarities in positive relationship between variables in the three types of platform, those are experience-based satisfaction and disposition to trust, experience-based satisfaction and institution-based trust, transaction-based satisfaction and experience-based satisfaction, transaction-based satisfaction and institution-based trust, transaction-based satisfaction and repurchase intention, the last is institution-based trust and disposition to trust.



The Effect Of Conventional Customer Habit: Touch, Sight, Smell On Online Written Batik Fabric

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Keywords: Indonesian Batik, Batik, Online, Trust, Human Sense, Internet Shopping, Internet, Brand Image, Visual

Business patterns in Indonesia have changed to the industrial revolution 4.0. This is happened due to changes in the consumption patterns of the people, which have gradually shifted from shopping patterns to conventional retail stores to be online. Survey conduct by APJII indicates that the most useful is between the age from 19 until 54 years old and user using a mobile phone to access the internet. They use the internet for online shopping especially in the fashion category and 65 percent of consumers online shopping are women. In Indonesia, batik is one of the local fashion categories that has its own uniqueness. Batik is a technique to color textile using canting and wax. This technique makes batik has their own aroma. This research was conducted to provide deeper understanding about the possibility of batik product that needs 3 human sense (touch, smell, visual) can be sold using internet shopping that only need 1 human sense (visual) and the factors that can replace the current habit to buy batik product such as smell, touching, and seeing batik directly into just seeing from photos and purchases using internet shopping. The number of respondents from this research was 207 respondents with an age range between 19-54 years old. The research was conducted in the Bandung City from September 2018 to December 2018. This research found that when people buy batik, the most important thing for them when they bought written batik fabric is, they like the motif/pattern and color of that written batik. They forget about the information of the batik process and the origin of the batik pattern. This behavior is in accordance with the Gestalt law. The other finding in this research is written batik fabric customer did not consider about the brand. Factor that can significantly affect customer trust in internet shopping is a feedback mechanism, product information, customer trust in an offline store. It also found that privacy cue is insignificantly affect customer trust in internet shopping. The result of this research provide insight to industry batik especially in West Java to know about the possibility of a batik product can be sell using internet shopping.



Proposed Competitive Strategy For A Coffee Shop Through Customer-Focused Business Model Canvas As A Tool (Case Study: Sa.Ko.Pi, Bandung)

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Keywords: Coffee Shop, Customer, Business Model Canvas, Marketing, Competitive Strategy

In this global era the rapid urban lifestyle development is inevitable, especially for the millennials. The millennials are the interconnected generation that are dependence on the internet a lot. The youth seems really inseparable with their electronical device that are connected to the internet, that makes internet become the new primary needs. The coffee shop culture plays a big role in today generation, where most coffee shop in Indonesia offer free wi-fi connection targeting the millennials as the customer segments. The coffee shop culture that indirectly makes the millennials not only being internet dependent, but also coffee or caffeine dependent. Numbers of coffee shop in Indonesia has been growing rapidly for the last few years especially in Bandung, as there are no high barrier to entry the market. Moreover, the Indonesia government has been encouraging people to enjoy Indonesia coffee-origin to contribute in Indonesia economic growth. According to the Indonesia Ministry of Industrys records, the food and beverage industry grew 9.46 percent during the third quarter of 2017, and has contributed significantly towards the Indonesia economic growth, especially towards the countrys non-oil and gas GDP. That become one of the main reasons why the coffee shop market is growing so fast, which becomes a concern to coffee shop in the market. The coffee shop needs to understand the factors influencing customers purchase decision, and the value proposition that they can offer to the customer in the form of ideal business model that will be the business competitive strategy in order to survive in this red-ocean coffee shop market in Indonesia, particularly in Bandung.



Maritime Safety Risk Analysis in Alur Pelayaran Barat Surabaya (APBS) During Dredging Process

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Keywords: Dredging, Risk, Formal Safety Assessment

The West Surabaya Sailing Route (APBS) is a shipping lane which is an in and out access port of Tanjung Perak Surabaya. The location of the APBS which is the estuary of several rivers has resulted in the sediment rate being high so that dredging activities need to be done regularly. In contrast to the dredging activities in other places, the dredging carried out along the APBS must be carried out carefully because it is a mined area and there is also a gas pipeline belonging to Kodeco and PLN's high-voltage undersea cable that runs along the APBS line. As a result of the higher hazard potential of dredging sites elsewhere, more comprehensive risk analysis needs to be carried out to reduce the risk of dredging. From some risk identification found in the APBS, it is known that major risk with the highest risk value based on qualitative calculations by means of FGD is the risk of ship collisions. By calculating the cost index (ICAF), the best mitigation to reduce the risk of ship crashing is to install a buoy as a barrier and shipping signs. After obtaining the best mitigation based on costs, then quantitatively performed by numerical simulation to determine how much influence mitigation on the probability of ship accidents. From the simulation calculation obtained the mitigation effectiveness to reduce the risk of ship accidents. The biggest decrease in the probability of a ship accident due to overtaking of 100%, followed by a decrease in the probability of a ship accident due to a head on collision by 54%. Furthermore, the decrease in the probability of ship accidents due to crossing and the probability of ship accidents due to each stranding decreased by 17% and 12%.



The Influence of Automotive Brand Community on Brand Trust (Case Study : Yaris Club Surabaya)

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Keywords: Brand Trust, Automotive, Community.

The automotive industry is currently experiencing significant growth. Based on Gaikindo (Indonesian Automotive Industry Association), sales of four-wheeled vehicle has increased compared to the previous year. In the wholesales category, vehicle sales in 2017 reached 1,079,534 units while in 2016 it was 1,062,716 units, Increased about 26.81%. One of the growing vehicle brands in Indonesia, Toyota. Toyota is still the market leader in the four-wheeled vehicle industry in Indonesia. This study discusses the influence of the car brand community on automotive company brand trusts. The purpose of this study is to analyze and explain the influence of the automotive brand community on brand trust. Brand trust is an intangible asset owned by a company and has a high value. With the existence of brand trust, the company will be easily trusted by consumers. This includes the customers expectation and services from the company. In various ways companies increase customer trust in order to become repeat order consumers. The community provides its own role in helping companies build Brand Trusts. The community itself can be a place for consumers to share, interact, and discuss products that influence and strengthen the relationship between consumers and products. This condition can help companies to build customer loyalty without being directly involved to customer. In this study, the data collection used was convenience sampling from the Toyota Yaris vehicle community in Surabaya, called Yaris Club Surabaya. Data were analyzed using the Sequential Equation Modeling (SEM) method. Based on research results through survey, showed that the automotive community affects positive effect in building the Brand Trust, and its including the effect on behaviors like repeat order, word-of-mouth, and constructive complaint.



Selecting Gas-Lift Strategy in Borneo Field Using AHP Approach

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Keywords: AHP, Oil, Gas, Petroleum, Reservoir, Engineering

Borneo is a mature oil field located offshore the Borneo Delta. Its first oil was in July 1974 and today it is producing 10,000 bopd with 95 MMscfd. The initial development from 1972 to 2007 drilled 85 wells and reached a peak production in 1978 (60,000 bopd). During that time, the production optimization included gas-lift and also water injection. In 2008, a re-development of the field was launched using the existing platforms and production facilities. The field production increased only relying on natural depletion as the pipeline previously used for gas-lift was converted into production pipeline. After years of production, the field is now facing a decline period as the oil, gas, and reservoir pressure are becoming more depleted. It therefore requires external energy, so called artificial lift, to help lift the oil from the reservoir to the surface. Among the available options, gas-lift injection is deemed as the suitable technique to overcome the issue. Gas-lift requires reliable gas source in order to have a continuous gas-lift injection. Based on the gas source availability, in Borneo field context, there are three possible gas-lift techniques that can be implemented, and they are: Auto Gas-Lift, Well to Well Gas-Lift Injection, and Gas-Lift using Gas Compressor. This research focus on deciding which type of gas-lift technique is suitable for application in Borneo field using Analytical Hierarchy Process (AHP) method. This method is proposed as there are many aspects to be considered and yet they are often conflicting to each other. AHP analysis is performed by considering the pre-defined criteria such as: Safety and environment, technical, economics, and equipment aspect.



Improvement Of Duration Overhaul Desalination Plant Pltgu Pt. PJB Up Gresik Using Approach Of Lean-Six Sigma Method

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Keywords: Desalination Plant, DMAIC, Lean-Six Sigma, Overhaul

Desalination Plant is a unit that processes seawater into fresh water by using evaporation and condensation. Routine maintenance is needed for the readiness, reliability and efficiency of the generator equipment. Therefore it is necessary to overhaul the desalination plant system to restore its performance. From historical overhaul data, it can be seen that there are several indicators that are not suitable for achieving the target, namely work delays, job wastage, job evaluation, which causes the duration of implementation not to be targeted, originally planned to be completed in 25 days to 27 days. On this basis, an overhaul of the duration of the overhaul needs to be carried out by reducing waste. Understanding the process is described in Value Stream Mapping to show information flow and work flow. The purpose of this study was to identify Non-Value Added activities and the existence of waste in managing overhaul and find ways to minimize it. To identify and reduce waste, researchers use the Lean-Six Sigma method approach. The Lean method is used to identify and reduce waste that arises while the Six Sigma Method is used to determine the research steps by utilizing DMAIC namely Define, Measure, Analyze, Improve and Control. This research is expected to get a better duration than the duration of the overhaul which is usually achieved but still prioritize quality for the operation of the PT. PJB UP Gresik Power Plant Desalination Plant unit.



Project Duration Decreasing With Lean Concept On The Activities Of Maintenance Combuster Inspection (CI) Mechanical Fields In Gresik Pltgu

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Keywords: Lean, CI, Overall Measure of Activity, VSMM

Electricity companies are required to produce electricity in accordance with existing demand. Maintenance is needed for generating equipment in order to achieve readiness, reliability and efficiency of power plants which are the main targets in the business process of the generation unit. UPHT is a maintenance unit that carries out Maintenance Overhaul especially in Combustion Inspection (CI). UPHT has been trying to carry out maintenance with planning and control. When viewed from the performance measurement unit, with the Measure of Activity Maintenance from historical data, it can be seen that there are several indicators that are not appropriate in achieving the target namely work wastage. It can be said that the CI activity in the Gresik PLTGU unit is still less effective in its implementation. The lack of effectiveness of the Maintenance CI is due to waste in the project activities. On this basis, the Maintenance CI needs to be analyzed for time reduction by reducing waste. Decrease in time is focused on Critical Path activities Overhaul which has the element of waste. The analysis was carried out with the Lean performance model through the Measure of Activity Maintenance which was then carried out by VSMM. From VSMM we obtain CSM along with data on Value Added, Non-Value Added, and Necessary non-value added activities. The existence of non-value added activities means that there are activities also called waste (waste). Waste obtained is used as the basis for reducing the duration of CI. By reducing waste, the Overhaul activity becomes more effective.



Implementation of Lean Six Sigma to Increase Total Output in Polyols Production Process : A Case Study

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Keywords: Lean Six Sigma, Value Stream Mapping, Capability Analysis, Risk Matrix

Daily customer demand fluctuations of polyols product is quite high and it continues to increase, while a sweetener company that produces polyols cant meet the demand volume so that the back orders appear every month. It requires CI company to be able to manage its production system continuously, effectively and efficiently by implementing lean six sigma in identifying defect and waste, fixing defect and reducing waste to increase production total output. Critical processes in polyols production are liquefaction, saccharification, hydrogenation, and final evaporation. Waste identification was done by arranging the current state value stream mapping. Defect analysis was done on critical processes in polyols production with capability analysis. The data obtained was analyzed by using cause effect diagram, 5 whys and pareto chart to produce a series of improvement recommendations. The recommendations will be assessed the risks that will arise from changes made with risk matrix tool. Mitigation plan will be developed to reduce the level of present risks. The result of improvements showed less defect in overall Cpk value improvement. The improvements can reduce the deviation between output stability and planning stability to 3.7result of 3 months implementation, CI company polyols total output increased to 10,088.1 tons per month and provided financial benefits equal to USD \$767,845. Control plan list carried out to monitor process conditions and make sure sustainability of improvement process.



Waste Reduction on Warehouse Operation by Applying the Lean Warehousing Method

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Keywords: Lean warehousing, 5 lean thinking principles, root cause analysis

Today problem faced by CI company is high operational cost spent in raw material and finish goods warehouse area. The CI company is one of largest multinational company that produced starch & sweetener product supply to many food and other consumer goods company in more than 70 countries around the world. A case study was done at CI company by applying lean warehousing method to identified & reduced waste happened at one of supply chain in the whole value stream. The stages of the research carried out refer to the 5 lean thinking principles which are closely related to lean warehousing namely identify value, map the value stream, create flow, establish pull, and seek perfection. Lean warehousing tools that used to identified waste by performing current state VSM (value stream mapping) and PAM (process activity mapping) obtained 4 identified wastes are unnecessary inventory, unnecessary motion, inappropriate process, excessive transportation refer from 7 wastes. Then in order to get real major root cause from each waste identified is using 5 why and fishbone analysis. The root cause found there is no policy that regulates the minimum monthly stock cover, handling bugs contamination process from neighboring animal feed factories, and handling dust contamination process from the boiler area. Design solution recommendations for company based on the research are determined based on the kaizen burst identification in the VSM current state map, to make improvements for the process flow by implementing pull system, reduce PLT (process lead time) and TCT (total cycle time) is by reduced waste identified. Future state VSM is used to see the new overall company supply chain value stream based on solution recommendation as a result of the research.



A Goal Programming Method For Coal Blending Optimization In The Coal Fired Power Plant (CFPP)

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Keywords: Coal Blending, Goal Programming, Multi Criteria Decision Making

Coal blending process with co-firing method is a common way used by CFPP manager to do optimization in the financial side. CFPP manager find some difficulties during coal blending optimization to determine the optimum coal blending proportions, choose the coal type to be used in coal blending, and also coal silo configurations. That is caused problem in power plant performance decreasing, increasing in pollutant quality, operational problem (coal plugging, slagging, fouling, coal self combustion), and also increasing of electricity production cost. That problem happens because they don't have standard to do coal blending, thus causing coal blending process less than optimal. The goal of this research is getting coal blending proportions in CFPP to achieve optimum emission factor, performance, operational problem, and also electricity production cost. In this research we use Multi Criteria Decision Making (MCDM) method with goal programming technique. The goal of this optimization is to minimize Sulphur content as representation of emission factor, to minimize coal price as representation of financial factor, to maximize coal heating value as representation of performance factor, and to minimize based ratio of ash as representation of operational problem, especially slagging-fouling problem. The objective function of this research is to minimize deviation constraint variable between coal standard and coal which is using in CFPP. Coal blending optimization is carried out on CFPP which uses five types of coal to fill five boiler silos. The result of coal blending optimization, three types of coal were selected for optimization with nine variations of silo boiler filling with an average goal achievement 137,45%, better than the conditions before optimization with goal achievement 119,229%.



Analysis Of Customer Satisfaction And Service Quality Improvement Of Building Management Services - Pt. Graha Sarana Duta Area V Jatim Bali Nusra

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Keywords: Service Quality, Quality Prdouct and Customer Satisfaction

Achievement of PT. Graha Sarana Duta Area V JatimBali Nusra was obtained from the results of service performance on customers. Performance results are reported through the monthly report Berita Acara Prestasi Pengelolaan (BAPP) which are assessed by each customer. The company's performance currently still does not meet customer satisfaction. Besides that, the calculation of monthly performance report is not in accordance with the number of complaints from customers. To increase customer satisfaction with company services, analysis needs to be done using the Six Sigma and SERVQUAL methods. SERVQUAL is one method that can be used to measure customer satisfaction for the services it has received by comparing the level of perception and expectations. While the Six Sigma method is a method or technique of control and quality improvement with 5 stages of the process, namely Define, Measure, Analyze, Improve and Control. The overall aim of this research is to help building management services companies can meet customer satisfaction levels and it is expected that the company can formulate the right strategy to improve service quality in order to produce quality service products in the building management business specifically.



Inventory Control Of Fast Moving And Intermittent Materials On Procurement Division Of Electricity Company

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Keywords: Inventory Control, Continuous review (s,Q) simultaneous, Periodic review (R,s,S) power approximation, Inventory Turn Over

Availability of materials will determine the company's service level. For electricity company, it will affect their ability to distribute electricity for customer. During this time, the company is still faced the stock out problem for fast moving materials. This cause disruption to the company's operational activities such as delay in new installations project. This delay can be seen from the average HPL (Customer Service Day) data per month that exceeds from targeted HPL limit. But on the other hand, the company also faced overstock problem for intermittent materials. There is a high level of inventory in the warehouse. This cause the company's balance sheet is increasing. One of the factors that could cause those problem is lack of attention at material management. The company does not yet have parameter to control their inventory. It needs strategy to calculate the inventory parameters based on the characteristic of materials. For fast moving materials, continuous review (s,Q) simultaneous methods is used and for intermittent materials, periodic review (R,s,S) power approximation methods is used. Material Requirement Planning (MRP) will be created from inventory parameter generated. MRPs outputs are the amount of material needed, total cost and Inventory Turn Over (ITO). Calculation of Continuous review (s,Q) simultaneous resulted inventory parameter which was able to press total cost inventory at 20,05% lower and increase ITO value from 8,43 to 14,28. Calculation of Periodic review (R,s,S) power approximation resulted inventory parameter which was able to press total cost inventory at 3% lower. But decrease ITO value from 2,85 to 2,48. These 2 methods are not effective to press stock out cost. Stock out cost increase 56% for fast moving material, 255% for intermittent materials.



Analysis Of The Effect Of Work Satisfaction And Commitment To Ppnpn (Non-Civil Servants Government Employees) On Organizational Performance

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Keywords: Job Satisfaction, Commitment, CB-SEM analysis, Job Performance.

In every work environment, satisfaction and commitment in work makes it important to support organizational performance. However, in its implementation, there are several obstacles because there are still many factors that hinder or not in line with expectations. In carrying out government organizational tasks, there are Non-Civil Servants Government Employees hereinafter abbreviated as PPNPN are temporary employees. PPNPN has a specified working period, so the influence of satisfaction and commitment when working needs to be considered so that the achievement of the target organization is realized properly. So to find out the factors that make the performance still not optimal in achieving the target, researchers conducted a survey in the PPNPN circles. So what factors are most influential and after that are expected to provide appropriate alternative strategies to improve employee performance. The number of samples is 150 respondents from 340 people. The independent variable consists of job satisfaction and commitment while the dependent variable is employee performance. The method of data analysis uses CB-SEM. The results of this study indicate the relationship of job satisfaction and employee commitment to performance. Job satisfaction and commitment of employees who have the greatest influence on employee performance are significantly Promotion factors for Job Satisfaction variables, while for Commitment variables is Organizational Commitment. Whereas seen from the estimated value between 2 (two) of these variables that most influence Performance is the Commitment variable with a value of 0.375 compared to the Job Satisfaction variable which is only 0.228.



Managing Production Profile Uncertainties In P Field Llp Project Economic Evaluation Using Factorial Design

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Keywords: Economic Evaluation, Low Low Pressure (LLP), Uncertainties, Factorial Design, Monte Carlo, Production Profile.

P field is a Gas field in Mahakam area, East Kalimantan, Indonesia. Having been produced since 1999, its production has decreased and is forecasted to fall below economical cut-off starting at the end of 2020. Low Low Pressure (LLP) project may extend the life of the field. In 2016, An economic evaluation has been performed for LLP pilot project on Platform 4 and Platform 5 but didnt properly integrate the uncertainties behind the production profile. This study evaluates a new approach to perform economic evaluation for LLP project on the remaining platforms. The new method develops a model from platform 2 data to capture production profile uncertainties by using factorial design. Monte Carlo simulation is applied to the model to obtain a production profile range. Economic analysis is then performed to calculate Net Present Value (NPV), Internal Rate of Return (IRR) and Payout Time (POT). Eventually, the new method conclude that the LLP project on Platform 2 will generate cumulative cash flow between 32.9 to 60.4 MUSD (NPV0) or 11.7 to 21.8 MUSD (NPV11) with IRR ranging between 27 to 34 %, therefore it is economical. Information gathered from Platform 2 evaluation hinted that only Platform 1 has the potential to be economical. Additional work is required to have a complete economic evaluation, however, the management should decide go on with the platform 2 LLP project.



Determination Of Preventive Maintenance Intervals By Means Of System Equipment Reliability Prioritization (SERP) And Reliability Optimization On The Gas Turbine M701d Series

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Keywords: Gas turbine, Breakdown, Reliability, SERP, MTBF

PT. Z is one of the largest electricity suppliers in the Jamali area (Java Madura Bali). The company manages PLTGU (Gas and Steam Power Plants) with a total production capacity of 1,500 MegaWatt. One of the main engines of the PLTGU is the gas turbine, which plays a vital role in the process of electricity production. The reliability of the engine will be reduced due to failure of one of components on a gas turbine. Moreover, the undersirable effect is breakdown on gas turbine. Later, this condition caused of any opportunity loss, increasing of maintenance cost and decreasing of opportunity to produce electricity. However, this research initiated by determining the critical components of a gas turbine with the System and Equipment Reliability Prioritization (SERP) method. Secondly, the reliability value and Mean Time Between Failure (MTBF) will be determined. After that, the residual life of each gas turbine equipment is determined. Furthermore, optimization of the targets is carried out according to the performance of PT. Z. Then obtained preventive maintenance time intervals and maintenance cost savings after reliability optimization. The results of the study obtained a total cost of preventive maintenance for one year with the largest reliability target of 0.9 in turbine equipment with a total savings of maintenance costs of IDR 145.174.877,40. With the same reliability target, the longest preventive maintenance time interval obtained on Main Lube Oil System (MOT) equipment is 1101,5112 hours.



Determining Inventory Policy To Support Maintenance Strategy Of Gas Turbin M701d In Power Plant Company

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Keywords: Equivalent Availability Factor (EAF) power plant, Realibility Centered Maintenance, inventory policy

One of the benchmarks of performance standards for power plants used in PT. PLN is Equivalent Availability Factor (EAF). EAF shows the readiness of the power plant unit to produce electricity in one year. An equipment that operates continuously will surely experience a decrease in performance. Therefore, after a certain period of time, a maintenance program must be carried out on the equipment so that it has the same performance as before. EAF is determined by the activities of maintenance programs carried out. If maintenance is not in accordance with the condition of the equipment, it can cause the equipment to experience downtime for a long time, so the EAF generating unit will decrease. For this reason, a maintenance strategy that is appropriate for the performance of the equipment must be determined. This maintenance strategy must also be supported by inventory policies so that maintenance objectives can be achieved. Based on past experience, the company determines that its spare parts inventory policy still uses manual methods based on user / expert judgment and has not considered the maintenance requirements of the Turbine Gas. The maintenance strategy of this power plant is performed based upon the Reliability Centered Maintenance (RCM) method. The results of RCM will determine how many spare parts are needed by looking at the demands of typical parts. The study outcomes are expected to determine the exact ROQ and ROP values in accordance with the maintenance method applied to the M701D turbine gas so that it can be used as a reference for making inventory policy for instrument control materials to improve service levels and avoid shortage cost. With the availability of spare parts, maintenance programs can be executed on time so as to improve the M701D's EAF gas turbine.



Route Vehicle Determination And Scheduling Of AQUAS Distribution In Surabaya Using Firefly Algorithm To Minimize Total Cost

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Keywords: Management, Transportation, Logistic and Supply Chain

Decisions on the delivery of customers demands is a part of strategic as well as tactical consideration of many companies, including those in food and beverage sector such as packaged drinking water (PDW). In this case of PDW, the customers are spread to all around Surabaya with uneven distribution of demand and delivery scheduling. There are four regions spread in Surabaya. This study uses 98 samples from the area of West Surabaya. Distribution of PDW is carried out using 7 trucks provided for the area. Most of the trucks are rented while the rest are owned by the company. The process of route determination creates the shortest route of distribution to each customer by considering their respective demand, truck capacity, mileage between depots to customers and mileage between the customers. After determining the shortest route, the minimum total cost will be obtained. The vehicles used for the distribution process are also categorized based on the maximum load capacity. The different capacity and costs of each truck indicates that this problem is included in Heterogeneous vehicle routing problem (HVRP). This study applied Firefly algorithm which is one of metaheuristic methods. The function of this studys objection is to minimize total cost and minimize mileage deviation of each vehicle used. Firefly algorithm can produce a minimum total cost and the deviation of distance, which is Rp. 6.590.815 and 2 km for deviation of distance.



Comparison Of Greedy Approach And ACO Method For CVRPTW Of LNG Distribution To Power Plants

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Keywords: Capacitated vehicle routing problem with time windows, greedy approach, ant colony optimization, LNG

Liquefied Natural Gas (LNG) as one of the main commodity in Indonesia is utilized as gas turbine power plants fuel nowadays. Beside, Indonesia has many natural gas resources. One of the biggest resources is located in Tangguh, Papua. Therefore, Indonesian government decided to allocate 40% of Tangguh LNG Production Terminal as domestic demands. An appropriate assignment of vehicles and routes in LNG distribution significantly affects the minimization of total operational cost. In LNG industries, some cases can be considered as capacitated vehicle routing problem with time windows, since capacity and time became constraints. Capacitated Vehicle Routing Problem with Time Windows (CVRPTW) can be solved either by heuristics or metaheuristics. However, this paper compared both heuristics and metaheuristics to solve CVRPTW of LNG distribution to power plants in Papua. Greedy approach as the representative of heuristic will be compared to Ant Colony Optimization (ACO) which is one of metaheuristic. Both will offer solutions by assigning ship and determining routes. Later, the total operational cost will be compared in order to attempt the most minimum operational cost, leads to maximum profitability. In addition, the ship sizes were limited to four alternatives, which were 2500 m³, 7500 m³, 10000 m³, and 23000 m³. The result recommends the utilization of ACO to solve CVRPTW in order to attempt the lowest operational cost. Moreover, ACO provides faster processing time than Greedy approach and also adaptable to be applied for other case studies in industries.



Planning Optimal Hospital Departments Layout Using Linearization Quadratic Programming

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Keywords: Hospital, Layout, Optimization, Quadratic Programming

The nationwide implementation of universal healthcare (BPJS) in Indonesia will increase the demand of healthcare services and hospitals all throughout Indonesia. To ensure these health institutions can keep up with the increased demand, every service needs to be effective and efficient. One way to optimize the hospital operations is to minimize the traffic among departments within the hospital, which in result can reduce the risk of infection and delivers a more efficient service to the patients. Currently, hospital layouts refer to the guidelines issued by Indonesian Health Department. This research project calculated the optimized department layout based on accounted criteria using linearization quadratic programming. Factors that are considered into the layout optimization are inter-department distance, flow, and relevancy as concluded from surveys. The optimization process resulted in two alternative layouts with different parameters within the set criteria. Compared to the layout based on Indonesian Health Department guidelines, these alternative layouts outperform the efficiency for travelled distance by 47.27% and 45.15%.



Quality Analysis of Advertising Tax Services With The Servqual And Delphi Methods in the Regional Tax And Financial Management Agency of Surabaya

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Keywords: Regional Tax, Advertisement Tax, Servqual, IPA, Delphi Methods.

Tax is one of the funding instruments that is very important for the State to develop the economy. Development process in Indonesia uses the concept of regional autonomy. In carrying out regional autonomy, Surabaya City Government formed the Regional Tax and Financial Management Agency to explore revenues through local taxes in the city of Surabaya. One source of regional income is advertisement tax. The absorption of the advertising tax value in Surabaya has decreased from 2016 to 2017 by 5.8%. To deal with this problem the steps that must be taken by Regional Tax and Financial Management Agency as a public service institution is to improve the quality of services to taxpayers. Gap analysis will be used to determine expectations and reality of taxpayers on service quality of advertising tax at Regional Tax and Financial Management Agency. The method used to analyze the gap is servqual, science and the Delphi method. There were 22 service attributes that were asked of 100 respondents through questionnaires. With the calculation of the servqual method and IPA, this research found 6 service quality variables that have a high gap value between performance and expectations. The highest gap is 1.9 in the service speed attribute. To improve service quality, the Delphi Method is completed by experts to find solutions. By using the Delphi method There are 14 solutions for 6 service quality variables that must be improved in order to increase the original tax revenue of the regional advertisement tax.



The Effect of Organizational Responses to Service Failures on Indihome Brand Credibility

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Keywords: Organizational Responses, Perceived Justice, Satisfaction, Brand Credibility.

This paper describes how organizational responses in handling service failures will affect the perceived justice of service recovery, recovery satisfaction, overall satisfaction, and brand credibility, as well as the influence of task motivational orientation and relation motivational orientation which will be mediators between organizational responses (acknowledgment and prompt action) towards perceived justice of service recovery. This study will take up on Indihome brand with 225 respondents in the areas of Jakarta, Banten, Bogor, Tangerang, Depok, and Bekasi and have experienced a service failures. The research design that will be conducted in this study is conclusive design with a single cross-sectional design method and the result of the study state that acknowledgment and prompt action positively affects the perceived justice, which can positively affects the service recovery satisfaction, overall satisfaction, and brand credibility. Moreover, relation orientation can moderate acknowledgment to perceived justice of service recovery, while task orientation does not become a moderation between the prompt actions to perceived justice of service recovery.



Analysis Of Service Performance In Correlation To Customers Satisfactory And Loyalty In Terminal I Of Juanda International Airport Surabaya

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Keywords: Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), Structural Equation Modelling (SEM), Service Performance, Customer Satisfaction, Customer Loyalty.

In 2017, passenger capacity at Juanda Airport terminal 1 has overloaded around 17 million passengers per year from 2006's design capacity of only 6 million per year, thus predicting a decrease in the level of service from services that are design capacity and has an impact on satisfaction and loyalty of service users. At the beginning of 2018 changes were made to facilities and services from the manager. After conducting research in 2018 at Terminal 1 of Juanda airport in Surabaya, it was found that customer satisfaction index was at 74% satisfaction with the quality of services provided. Then with the importance performance analysis method, it was found that the service of check-in boarding passes, services to the physical form of buildings and arrangement of rooms and number of tenants, availability of disabled facilities, staff flexibility, and airport tax were still below the expectations of service users and there was a need to improve service quality. The SEMPLS method informs that service quality does not fully affect service users' satisfaction and loyalty, but service user satisfaction influences the loyalty of service users.



Business Strategic Formulation of Wood Parquet Manufacturing Industry Aims to Develop Local Market

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Keywords: Wood Parquet Manufacturing Industry, Strategy formulation, David Model, Market penetration

Indonesia is one of the biggest wood parquet product exporters in the world. Align with the lifestyle and purchasing power in East Java, Indonesia, thus, the economic development is improved as well. On the other hand, the global economic crisis leads to decreasing of export market. Hence, wood parquet manufacturing industry for the local sector increases rapidly as well as the construction project such as houses, apartment, resort, hotel, and office in Indonesia. However, a wood parquet manufacturing industry "S" in East Java desire to develop local market in Indonesia. Therefore, in order to response the problem, the business strategy formulation for wood parquet manufacturing industry "S" is taken as the case study. The business strategy formulation is necessary to be made to grab local market share, particularly in East Java. Additionally, This research identifies internal and external factor to formulate an appropriate corporate strategy for corporate S in order to cope with local market competition in East Java. The David Model is used as the method in this research by engaging primary and secondary data. This model attempted the best strategy to develop local market of wood parquet. It holds 2.63 points for internal factor analysis (IFE Matrix) score and 3.5 points for external factor analysis (EFE Matrix) score. Later, SWOT, IE, SPACE, and GS Matrix are utilized as the next analysis step that results some alternative strategies. Furthermore, the alternative strategies are selected by using QSP Matrix attempted to obtain the best strategy for corporates. Moreover, the strategy with the highest Total Attractive Score (TAS) which 6.56 points will be selected and utilized to develop local market for corporates "S".



Strategic Planning SI/IT in the Fast Food Canning Industry (Case Study: PT. Indocan Koki)

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Keywords: PT. Koki Indocan, Strategic Planning, Ward And Peppard Method.

At present information systems and information technology do not only function as supporting facilities to improve company performance over time, but furthermore have become the main weapon in competing. Goals from the company are able to provide benefits, excellence, survive in competition and carry out its business activities. PT. Koki Indocan, which is a fast food canning industry, has experienced an inconsistency in the information technology process with its business goals and IS / IT that has not been integrated makes it an obstacle in improving company performance. Thus, the IS / IT strategic planning is needed in accordance with the company's business strategy to improve the competitiveness of the company and as an appropriate business enabler and in line with the company's business strategy. Broadly speaking, this research method uses the Ward and Peppard methodology. Then analyze the condition of the company through various factors that can affect the organization. Followed by conducting a SWOT analysis to obtain internal and external factors and get opportunities in the future. The determining factors will be mapped and harmonized with the company's business strategy with Balanced Scorecard analysis and Critical Success Factor analysis to get harmonized SI requirements. Then the gap analysis is carried out between current conditions and the needs of SI. Continued to compile SI business strategies, IS / IT management strategies, and IT strategies. In the last stage is to compile a portfolio of future applications that produce applications. the results of McFarlan's strategic grid for the next portfolio of applications are ERP, CRM and QMS applications entering the Strategic quadrant, ITIL entering the High potential quadrant, Key operational entering the web-commerce while the support quadrant is for performance appraisal.



Analysis and improvement Competency Management System in Oil and Gas Company by using SERQUAL, Kano's Model and QFD

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Keywords: Oil and Gas, Competency Management System, Kano Model, Internal Service Quality, QFD.

The last 3 years Oil and Gas industry face difficult situation following the decreasing of oil price. PT. PHM, an Oil and Gas Company operated in Indonesia, adopts this condition by initiating cost reduction and cost efficiency initiative in order to keep profitable. In order to be able to operate the maintain the oil and gas processing facilities safely and efficiently, the Field Operation (Division), through Competency and Development Department (C&D) establish a web base Competency Management System (CMS) to manage the competency of FO employee. C&D consist of a team in team Balikpapan Office and C&D site representatives to support daily CMS implementation by Site Production team (operator, chief operator and supervisor) and Site Maintenance Team (technician, Forman, and supervisor). This research introduce an integrated approach involving Kanos model, Internal Service Quality (ISQ) and quality function deployment (QDF) to help C&D to analyze and improve CMS. The data is obtained by a survey to Site Maintenance and Site Production team. Firstly the survey data will be analyzed by ISQ to identify several strong and weak attributes. Then Kanos model is integrated to ISQ to prioritize the attributes that need to be improved, and finally the QFD will be used to propose the improvement action. This research will be useful for C&D to define further development of FO CMS and to expedite development of innovative internal services.



Development Project Analysis in BPWS (Case Study: West Side Rest Area in KKJSM Phase III)

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Keywords: Risk Analysis, Risk Mitigation, Failure Mode Effect Analysis

Development project of the west side rest area at KKJSM Phase III is an important project for the Madura people and tourists. The construction is capable of having greater value and benefits than just a transit point for drivers. Many buildings were constructed and designed with local heritage of Madura. The construction was built by BPWS (Suramadu Regional Development Agency) which was carried out by the contractor. There are several problems occur in the process of construction which results in completion delays of the project. Hence, this research is trying to manage and mitigate risk in this construction project with the remaining time targets. This research can be used as learning for the next stage rest area project, which this research aims to identify existing and mitigate available risks by using the Focus Group Discussion (FGD) with many experts of this project and Failure Mode Effect Analysis (FMEA) methods for assisting the thought process used by engineers to identify potential failure modes and their effects. Later, this research namely the risks that are considered critical and dominant towards cost, time, and mitigating those risks. The risks that are considered as a very high and dominant are the retention of incoming materials, the problem of land acquisition, the existence of social problems, and the late arrival of material. So, the project can be completed no more than the agreed time delay and can be a reference for the next development project.



Evaluation the Necessity of Existing High Integrity Pressure Protection System Installation at Sm Platform to Optimize Operating Cost

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Keywords: HIPPS, Pressure Protection System.

SM Platform was built during LPC (Low Pressure Compressor) Project in 2008. SM Platform is equipped with a flaring system (maximum capacity 800 MMSCFD). Flaring system calculation based on the maximum released gas which came from scenarios on the process facilities only. During engineering phase, it was observed that the capacity of flaring system is not sufficient to accommodate the maximum released gas of the overall system (4400 MMSCFD). Thus, an analysis was performed to obtain project solution with competitive cost without jeopardizing safety aspect. The solution then came up with decision to install HIPPS (High Integrity Pressure Protection System) to protect the flaring system reaching above its design pressure (20 barg). The HIPPS installation was designed with basis maximum gas production coming to SM Platform was 800 MMSCFD. As a consequence of natural production decline, in 2018, gas production coming to SM Platform is only reach 180 MMSCFD. With the objective to optimize operating cost (maintenance and production), further study to evaluate the necessity of keeping existing HIPPS installation need to be performed as HIPPS installation require more strict maintenance compared to common installation. The methodology to evaluate existing HIPPS installation can be divided into several steps. First, required response time calculation to evaluate the pressure evolution at system correspond to required valve response time. Second, risk assessment method to identify risk level and the maximum potential losses that can be generated as consequences of the HIPPS existence. Third, cost evaluation from maintenance and production point of view. Alternative solutions that will be reviewed in this study are maintain HIPPS current configuration, the HIPPS valve as common isolation valve, or maintain part of HIPPS installation. Solution that will be chosen to solve this problem is the one with the most optimize cost without jeopardizing safety and production effect.



Failure Mode Effect Analysis Method for Evaluating and Mitigating Failures of Electric Power Distribution of PT PLN (Persero) South Surabaya Area

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Keywords: Electricity Continuity, Feeder Failures, Failure Mode Effect Analysis

The community's economic activities enhanced by the increasing of electricity distribution facilities. PLN South Surabaya area is obliged to maintain the distribution continuity of electricity to customers. The continuity is affected by feeders reliability. Feeder is a component to transport electricity from one place to another. Commonly, failures are caused by various kinds of matters, such as lightning strikes, unwanted objects laid on wire, and broken wires. Failures might be happened in substations and distribution substations in the form of transformer and switch damage. It causes electricity loss which results in blackouts. The outages caused losses to corporates and its customers. Therefore, the data was taken from Electricity Distribution Failures Report in order to obtain interferences type and quantity of that failures occur at PLN Surabaya Area. Furthermore, the Failure Mode Effect Analysis (FMEA) method is carried out to analyze and weighting the severity which obtained from losses due to outages and occurrence. The criteria are obtained from the results of brainstorming with experts from PLN. The weight of each failure is utilized to evaluate the highest level of risk and also to determine risk mapping in order to find the most critical types of disorders. The mitigation is determined for each failure in accordance with the priority group given. In this research, failures come from the Undiscovered Failures group. It took the largest portion and became one of the biggest loss contributors to the corporates. Later, PLN South Surabaya Area is expected to be able to analyze network activities profoundly. Hence, the cause is able to be discovered attempted a better economical assessment in the future. The better economical assessment is expected to reinforce quality of Budgeting Proposal of Network Maintenance Division.



Identification And Analysis Of Causes Of Change Order Factors On Project Performance Using Decision Tree Methods

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Keywords: Construction project, Change Order, Classification, Decision Tree

Building projects are building works that carried out on request of the project owner or contractor. In project implementation, project owners and project implementers have rights to be received and obligations that must be carried out in accordance with the agreed period of time between project owners and project implementers. Later on, the project implementation can be planned regularly and neatly arranged, then the goals for the establishment of this building project can later be achieved. In every implementation, there is always a change or commonly called change order. Change order can occur at any time from the beginning, mid, until the end of the construction work, and can occur in all construction projects. This study aims to identify the causes of change order, how to change order classification, probability and impact of change order on building construction projects. Factor identification is done by distributing questionnaires to several project managers. The data is input and entered into the orange software to get the most dominant factors that occur and to see how the classification of decision trees. The factors obtained will be the decision tree classification input. The results is to get the most influential change of order factors including design changes, limited owner's budget, late contractor schedule, suitability between image and rab, suitability between image and field, incomplete specifications, weather, changes in unit price values caused by escalation, changes in work methods, reduction of scope of work items, addition of scope of work items, incomplete contracts related to the scope of work. While the classification results show that the design change factor, owner budget and contractor schedule are the most influential factors. For probabilities and impacts, there is a probability of 0.131 with a factor in design changes, unlimited owner's budget, complete contract and probability of 0.130, namely design changes, unlimited owner's budget, incomplete contracts that have an impact on costs. The probability of 0.106 is fixed design, the contractors schedule is too late to have impact on time.



Development of QCDSM-Based Products for Increasing Competitive Advantage Case Study of Tenun Ikat SME Kota Kediri

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Keywords: Quality Function Deployment, Quality Cost Delivery Safety Morale, SME

Economic development in Indonesia will not be separated from the role of Small and Medium Enterprises. The development of SMEs is one of the solutions to sustain the rate of economic growth in Indonesia, because the development of SMEs tends to be stable and not affected by the massive economic crisis. Sentra Tenun Ikat is one of a collection of ikat weaving craftsmen in Kediri City, East Java. In the center of the weaving industry there are 10 weavers which can cover 270 workers. Products produced by UMKM Tenun Ikat are less able to compete with other products because they do not meet customer expectations. On the basis of the problems that often occur in SMEs, related to the fulfillment of customer satisfaction researchers provide solutions to the method of selecting product development strategies based on competitive advantage criteria including quality, cost, delivery, service, and morale. Thus, the purpose of research is to be able to know the priority of market competition criteria and be able to determine the right product development strategy in business competition and SMEs in Indonesia. Methods of collecting data with questionnaires for UMKM Tenun Ikat customers about the criteria for competitive advantage for Tenun Ikat Kediri. The method to be used is Quality Function Deployment (QFD) based on the criteria of competitive advantage for Tenun Ikat Kediri.



Company Performance Measurement of Electric Contractors with The Balanced Scorecard And Analytical Hierarchy Process Approach (Case Study: PT. Pendowo Bagus Jaya)

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Keywords: Quality of human resources, Balance Score Card, Analytical Hierarchy Process

PT. Pendowo Bagus Jaya (PBJ) is an electrical contractor which is liable for high, medium, and low voltage electrical installation such as transformer installation and residential electrical installation. Besides, changes in industrial triggers competition among corporates, Human resources management is considered necessary as evaluation benchmark, subject to assess corporates performance and plan long-term objectives. Nowadays, PT. PBJ is focused on financial assessment only since there is no performance measurement tool which can assess profoundly and accurately. However, the corporate cannot assess reliability of corporate vision, mission, and strategic objective. Therefore, this research objective is an assessment of PT. PBJ vision, mission, and strategic objective based on current corporate vision and mission by means of Balance Score Card (BSC) and Analytical Hierarchy Process (AHP). These tools is utilized in order to determine weight among perspectives in priority scale. The result is expected to become a reference for PT. PBJ reinforce the corporate performance and quality. The design of this performance measurement system, resulting in 13 strategic objectives and 18 indicators of performance measurement (KPI). Implementation of the design in this study resulted in the performance value obtained from scoring Objective Matrix (OMAX) showed that the value of Current Performance Indicator that has been achieved PT.PBJ for the second of 2018 is 5.111 which is at level 4 7. And symbolized of traffic light system classified as yellow. This indicates that PT. PBJ is in sufficient performance but it isnt reached the target and still needs improvement in achieving the expected target.



Enterprise Architectural Model Design On Event Organizer Company With Togaf Architecture Development Method (Study Case Pt. Xyz)

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Keywords: Designing, Enterprise Architecture (EA), Event Organizer (EO), TOGAF ADM

In the globalisation era, companies are required to keep growing in order to suit advanced era, and they are able to contend the global competition. PT. XYZ is a company engaged in Event Organizer (EO), digital printing and exhibition which still using Ms. Office and book to make data record in their business activity. That manual process often create many data mistakes and longer information access time, well integrated information system and effective management process are needed to create accurate management decision for the company to continually improve and increase service to clients. This affect of manual process are accuracy and speed of information provided to staff and decision making by owner for companys development. Based on that, a basic foundation is needed to minimize the planning gaps, designing and managing information systems called enterprise architecture (EA). The research stages are as follows: data collection and information covering literature study, document study, interview and observation, design architectural model according to TOGAF ADM framework (Preliminary, Requirement Management, Architecture Vision, Architecture Business, Architecture Data, Architecture Application, Architecture Technology, and Opportunities and Solution). This result of research is EA blueprint have content domain of TOGAF ADM which adjusted with companies needs and can be used as the development foundation of SI / IT in the future.



The Decision Making Analysis of Increasing Storage Capacity in Sutami Reservoir with Analytical Hierarchy Process (AHP) Approach

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Keywords: Decision Support System, Sutami Dam, Sutami Reservoir, AHP

Reservoir is a lake to keep and safe the water. This reservoir is been used to keep water from dam. This reservoir has function to keep the excess water during rainy season and can be used during dry season. Dam is a water barrier to control the flow of water to be kept by reservoir. Our research case is using the one of the dam in Indonesia, Sutami Reservoir. This dam is located in Malang, East Java, Indonesia. Sutami Reservoir is a multifunction dam to provide the water as energy source of power plant, agricultural irrigation, industry, communities, and flood controller. The function of Sutami Reservoir is decreasing overtime and it has been caused by a reduction of dam capacity as a result of increase in sediment rate every year. If this kind of situation is not handled properly, the functional of dam can be failure and decreasing the life of dam. Innovative steps are needed to increase the volume of Sutami Reservoir and lifespan of dam functional. There are several alternative actions can be taken, but this is still a polemic among experts with consideration of different viewpoints. This research aims to determine the priority order of proposed alternative actions by involving the opinions of experts in the field of reservoirs, dams, water resources and stakeholders who is managing the Sutami Reservoir. We proposed the approach of Analytical Hierarchy Process (AHP) which allows accommodating the various level of complex decision based on the certain criteria through pairing comparison. The results of this research are expected to provide the best choice to handle the problem of reducing the storage capacity of Sutami Reservoir and can be used as a companion to financial quantitative evaluation in the decision-making process by stakeholders.



Determination of the Priority of Drinking Water Pipe Replacement to Reduce Leakage Using ANALYTICAL Hierarchy Process

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Keywords: Pipe Rehabilitation, Pipe Replacement, Cluster, Analytical Hierarchy Process

Drinking water supply service in Surabaya has reach 98,6% using total 151.203 meter of primary water pipe, 676.850 meters of secondary water pipe and 3.384.783 meters of tertiary water pipe. PDAM Surabaya must deal with leakage problems in water distribution system. Leakage in water distribution system caused by several factors i.e. age, length, material, location, joint, depth, landfill material, and water pressure. Rehabilitation in water distribution system required great amount of investment yet the budget is limited. More efforts should be made to identify priority area and leakages criteria so that decision makers can prioritize repair, rehabilitation, or replacement activities. This research applied Analytical Hierarchy Process (AHP) to prioritize the rehabilitation pipe area and leakages criteria. First, All pipe locations were clustered then continued to Analytical Hierarchy Process and sensitivity analysis to determine the most significant criteria. The result is Cluster I is the most priority area to conduct rehabilitation with 41,66% of total score, while Cluster 2 is 27,91% total score and Cluster 3 is 28,84%. Moreover, the most significant Leakage Criteria is age in 18,8%, material in 16,2%, pipe joint in 15,9%, location in 15%, depth in 11,5%, landfill in 8,7%, water pressure in 7,3% and soil condition in 6,6%.



Risk Management Framework Development In X. Ltd Based On Sni Iso 31000:2011

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Keywords: House of Risk, Risk Management, SNI ISO 31000: 2011

Lately risk management is commonly used either together with project management or independently. By adapting risk management, company can anticipate any potential negative risk comes up during project life cycle by removing or mitigating the risk. Though it is powerful, most companies did not use it regularly in formal format due to lack of directional guidance. Object research in this study will be a pharmaceutical company which had performed Quality Risk Management. There are so many guidance for risk management but most of them in high level only, less directional instructions. Therefore, researcher try to develop a risk management framework from a study case in software deployment in X. Ltd based on SNI ISO 31000:2011. By having an instructional guidance will provide a better tool to create a risk management easily for any project in general. This ready to use risk management tool intended for avoiding any loss due to project failure. House of Risk (HOR) will be the tool to be incorporated in the risk management framework development, which can identify the risk agents need to prioritized by company to mitigate along with the effective preventive action. As results, researcher identified 75 risk events that caused by 97 risk agents. Since some of those risk agents have the same root cause, they were classified as a common risk agent so their number decreased to 7. From 7 risk agents, 44 preventive actions identified to remove or minimize the impact of risk agents. 2 actions with the highest score were over 2000, 10 actions scored between 1500-2000, 24 actions scored between 1000-1500 and the remaining was below 1000. Based on the research and literature, the researcher created a template of form that can be used right away since it was accompanied by the how to use guide.



Modeling Restaurant Experience Toward Word Of Mouth (WOM) Intentions With Customer Satisfaction As The Mediating Effect: Speciality Type Restaurant

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Keywords: WOM, Restaurant Experiences, Customer Satisfaction, SEM

Word Of Mouth (WOM) as the marketing strategy can make a difference in a very high and vigorous competition of a restaurant business. It also known as the most trusted method by the customer as a reference to choose and buy a product. WOM as a form of customer behavior was resulted from the experience that customer perceived after they consume the product, in this case it is defined as the restaurant experiences. This research analyzes the effect of the restaurant experiences (product quality, service quality, atmosphere / ambiance, and price fairness) towards the intentions of WOM creation, with the customer satisfaction as the mediating effect. It uses the structured equation modeling method to see what kind of restaurant experiences which has the significant effect to the intentions of WOM. Customer satisfaction was analyzed using structured equation modeling and sobel test to see its significance as mediator between each restaurant experiences and the WOM intentions. The research object is a specialty type restaurant in Surabaya, which sells a specialty food with specialty restaurant theme and taste. This kind of restaurant has more specific customer background as the limitation. Based on the research, its concluded that restaurant experiences variable of product quality, service quality and price fairness have a positive and significant effect toward the WOM intentions at a specialty type restaurant. Customer satisfaction was also functioned significantly as the mediator between them. Atmosphere / ambiance of the restaurant was not significant for the WOM intentions and its also cannot be mediated by the customer satisfaction.



Analysis of the Use E-Samsat Jatim Services on the Admission of Motor Vehicle Tax

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Keywords: E-Samsat Jatim, Intention To Use, Recommendation, Structural Equation Modeling (SEM).

E-Samsat Jatim is one of the public services in Indonesia that provides an option in annual Motor Vehicle Tax payments, but in its application does not have a large number of users due to a lack of recognition to the community and what benefits can be taken from e-Samsat Jatim services. In this study analyze the factors that influence the intention to use e-Samsat Jatim services. The method of collecting data by distributing questionnaires to 200 respondents, data analysis using the Structural Equation Modeling (SEM) approach. Using variables of Trust, Ease, Awareness and Intention to Use. The results of the study show that Trust, Ease, Awareness directly or indirectly affect the Intention of Using e-Samsat Jatim services, and the most dominant factor influencing Intention to Use is Awareness. So it needs to be considered these three factors as a recommendation to increase the acceptance of Motor Vehicle Taxes through the application of e-Samsat Jatim services.



Analysis of Factors that Have Impact on Repurchase Intention: Case Study of Coffee Shop AYAM GEPREK 666 in SIDOARJO

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Keywords: Price, Customer Satisfaction, Word Of Mouth, Repurchase Intention, Structural Equation Modeling

In business competition, companies are now competing for consumer attention. This increasingly fierce competition also occurs in the coffee shop business. In Sidoarjo there are a lot of coffee shop stands with various kinds of concepts presented. These various concepts are presented with the aim of striving to each other in maintaining, influencing and seizing their customers in order to revisit their coffee shop in the future. Coffee shop ayam geprek 666 in Sidoarjo was established in January 2018, equipped with better facilities and atmosphere than coffee shop which in general, but the number of turnover is still relatively small and has not met the target. This study aims to determine the factors that can influence and which do not affect consumers' repurchasing interest. Variables studied were the atmosphere of the coffee shop, service quality, price, product quality, customer satisfaction, word of mouth. On this basis a theoretical model with 8 hypotheses was proposed to be tested using the SEM method. The research sample was taken randomly on 100 respondents who had visited Coffee shop Ayam Geprek 666. From the results of the research analyzed using SPSS AMOS software, it is known that customer satisfaction factors significantly affect repurchase intention, and the word of mouth factor significantly affect repurchase intention. In addition, it was found that the atmosphere of the coffee shop and price significantly affected customer satisfaction, and customer satisfaction significantly affected word of mouth



Analysis of Factor Turnover Intention of Bus Pariwisata Driver in Po.X Using Generalized Structured Component Analysis

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Keywords: Turnover, GSCA, JDI, OCQ

PO.X is a company engaged in transportation services, namely tourism bus rentals. According to the data from the company and the results of observations through interviews, it was found that there was an increase in turnover from 2014 to 2018 due to various factors affecting the driver. This turnover of course can harm the company in terms of costs and loss of time, chance to take advantage of opportunities, and increased workload. This study aims to obtain factors that influence turnover intention and provide recommendations to reduce the turnover of tourism bus driver intentions at PO.X. The factors used in the study are based on the results of observations and previous research approaches regarding turnover intention. This study used Generalized Structured Component Analysis (GSCA) for the method. The data used are primary data and collected by distributing the Job Descriptive Index (JDI) and Organizational Commitment Questionnaire (OCQ) questionnaires directly. Based on the results of hypothesis testing by looking at the value of the critical ratio and the path estimate on the inner model, the results show that turnover intention factors on the A, B, C, and observation results through interviews that have an influence on turnover intention are subjective job characteristics, and personal organizational-fit. While the division of work schedules has an effect on objective job characteristics, and compensation has an effect on job satisfaction, and organizational commitment.



Total Productive Maintenance (TPM) Analysis of Linear Accelerator (Linac) Device in Hospital Xyz

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Keywords: Linac, TPM, OEE, FMEA

Medical equipment is an important factor in the health services implementation, both in hospitals and other health facilities. The challenges across by the Hospital XYZ as one of the health care centers in Indonesia which has Linear Accelerator (Linac) radiotherapy facilities, is maintaining the availability and reliability of its infrastructure. During this time, Hospital XYZ has been working through maintenance activities every year. Linac is the latest radiotherapy technology in the treatment of cancer by utilizing high-energy radiation to accelerate subatomic particles so that particles accelerate and release energy to kill cancer cells. Linac 2300 iX has a breakdown that tends to exceed the standard every year. This is very important for Hospital XYZ to pay attention to the maintenance of Linac, where the Linac 2300 iX is the latest Linac in the Hospital XYZ. In this case the breakdown time certainly affects the service of the Linac 2300 iX patient and the total effectiveness of the Linac. Total Productive Maintenance (TPM) measurements are carried out using the Overall Equipment Effectiveness (OEE) method to determine the involvement of operators and maintenance officers in maximizing the effectiveness of equipment, reducing production failures and losses. The results of the TPM measurement show an OEE value of 58.07% with OEE elements namely Availability (71.60%), Performance (81.1%), and Quality (100%). These results indicate that the performance of the equipment and TPM program implementation are not maximal. Based on the causes analysis of downtime using Failure Mode and Effect Analysis (FMEA) shows that the failure of the Linac 2300 iX control system is the main factor that contributes the most to the breakdown loss. This measurement and analysis can be a reference for RS in managing Linac.



Evaluation Of ETBM-E-Library Systems In Surabaya City Government Library And Archives Department With Human Approach, Organization And Technology - Fit Factors (Hot-Fit)

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Keywords: eTBM-e-library, information quality, system usage, organizational management, net benefit, HOT Fit, SEM

eTBM-ePustaka is a system launched in April 2017 by the Surabaya City Library and Archives Department, which aims to facilitate reporting, accelerate reporting of library officers and facilitate monitoring and evaluation of the performance of library technical officers spread in 1389 reading service points in the city of Surabaya , The use of eTBM-eLibrary system until now still faces many obstacles and complaints, as evidenced by the level of report filling and monitoring evaluation that has not reached 100Evaluation is carried out to measure the benefits obtained from the application of eTBM-eLibrary for users, organizations and technology. This study uses an evaluation model of Human, Organization, and Technology (HOT) Fit. The number of samples used was 220 respondents. Analysis of the data used is Structural Equation Modeling (SEM) Of the 18 hypotheses tested, 4 hypotheses were accepted and 12 hypotheses were rejected. The variables that influence the achievement of net benefits are information quality, system usage, organizational structure and net benefits. After knowing the variables which influence the achievement of the net benefit system, it is expected that there are improvements to maximize the efficiency and expected performance.



Measuring the Service Quality Importance-Performance Analysis and Customer Satisfaction Index: A Case Study in An Indonesian Hospital

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Keywords: Customer Satisfaction, Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), Service Quality

X Hospital is currently facing problems with the increasing number of complaints, especially in aspect of service quality. The preliminary research shows that tangible has the most complaints from customers. If this problem is not immediately followed up by the hospital management, a decrease in the level of customer satisfaction is predicted to occur. This study aims to analyze the level of importance performance attributes and to measure the level of customer satisfaction at Hospital X. This study uses Importance Performance Analysis (IPA) and Customer Satisfaction Index (CSI) method. The quantitative survey results were used with the distribution of questionnaires to 131 respondents who were inpatient customers of Surabaya X Hospital. The IPA method show that there are several attributes included in quadrant I, which means that attributes belong to quadrant I must be improved by the hospital management. However, there are also several attributes that included in quadrant II, which is these attributes must be maintained in the future. Based on CSI analysis, the current inpatient customer is in the satisfied category according to the CSI standard. This result become a problem if compared with government standards Ministry of Health of The Republic of Indonesia which sets higher standard. This study provides managerial implications based on the research findings, includes strategies to improve service quality and future research, which has been discussed and formulated together with the hospital external and internal stakeholders using Focus Group Discussion method.



The Impact of Perceived Quality Towards Customer Satisfaction and Intention to Revisit in X Coffee Shop

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Keywords: Perceived Product Quality, Perceived Service Quality, Perceived Experience Quality, Customer Satisfaction, Intention to Revisit

Coffee sales in the x coffee shop tend to be decreased every single year, even more statistically, the growth is stagnant. In the last year, the number of the customers were fluctuating. Those tended to be declined every single month as well. As long as the problems still occur and not solved by the x coffee shop management, the level of customer satisfaction and intention to revisit will be lower simultaneously. The unstable numbers of the customers could be affected by the customers perceptions that the x coffee shop has such a poor quality, the waiter is not friendly, and others. This study is aimed to determine the effect of perceived product quality, perceived service quality, and perceived experience quality on customer satisfaction and intention to revisit the x coffee shop. This study applied the Structural Equation Model (SEM) because the research model is multivariable. The quantitative survey results were used with the distribution of questionnaires to 150 respondents who were the customers of x coffee shop. The results indicate that the perceived service quality has a significant positive effect on the customer satisfaction and intention to revisit. While perceived product quality has a non-significant positive influence on the customer satisfaction and intention to revisit, and perceived experience quality has a significant positive effect on the customer satisfaction but not significantly on the intention to revisit the x coffee shop.



Quality Analysis Of Instrument Maintenance Services With Service Quality And Quality Function Deployment Methode (Case Study : PT. SPEKTRIS METALAB)

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Keywords: Service Excellence, Servqual, Importance-Performance Analysis, QFD

Quality of service is an important factor for companies engaged in the delivery of services. As done by PT.Spektris Metalab are also engaged in the maintenance of the instrument by applying a system of "Service Excellence". Service Excellence is a concern by the company to the customers, to provide the best possible service to meet the expectations and needs of customers based on standards and procedures to realize the customer's trust so that they are always satisfied, thus realizing high customer loyalty. From the research that has been conducted with 41 respondents and 20 attributes of questions can be summed service excellence try implementation by the company has not been achieved or managed -0.6434 and dimension with the lowest gap is responsiveness of -0.4643. Then from the attributes that have been described, to determine which attributes are important for the improved use of IPA (Importance-Performance Analysis), obtained five attributes that have the lowest satisfaction levels, but it is considered important by customers are in quadrant I. While the results of the methods Quality function Deployment (QFD) the result of technical response priorities which can be implemented company is making a list and information stock of spare parts, as well as having the greatest relative weight that is 16.7% also had a very low level of difficulty. So that efforts to improve the quality of maintenance services can be done first is to make a list, information on spare parts and complete spare parts in all branches of the company



Identification of Internal Factors Assessed by Students of Amanatul Ummah to Higher Education through SPAN-PTKIN Pathway using C4.5 Algorithm Classification Method

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Keywords: Educational Data Mining, Classification, C4.5 Algorithm

Featured MAU Amanatul Ummah is one of senior high school level located in Mojokerto, Indonesia. Like any other high school level in general, MAU Amanatul Ummah is trying to direct its students to get seats in majors and universities when completing high school. This study aims to find out the internal attributes that affect of MAU Amanatul Ummah alumni when entering the university level through the SPAN-PTKIN pathway and propose improvements to increase the number of students accepted to universities in the next year. This study uses the machine-learning method as a reference for making patterns of MAU Amanatul Ummah students in universities through the SPAN-PTKIN pathway with a classification model of the data obtained. The C4.5 algorithm can be used in research with data models like this. In this study several data mining processes were carried out. Starting with the annual group selection, data obtained from 2018 Type 2 graduates has the highest score. Followed by variations in the attributes used, the result is better when all grades of report are used from semester 1-5. Finally the test uses all attributes in the data group of 2018 Type 2 Graduates. The result of thi research was good as indicated by a fairly high accuracy value of 64.15% and a precision value above 0.5, which is 0.694 for labels Not Accepted and 0.529 for labels Accepted. Also error value for the data is not too far from the model. .



Design of Quality Improving for Quality Service Assessment in Ship Feasibility Appraisal with Kano and KANSEI Engineering Approach (Case Study: Indonesian Classification Society)

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Keywords: Kano, Kansei, Loyalty, Customer, Quality

The Indonesian Classification Society then called BKI is a state owned company engaged in the classification and feasibility test of ships. Problems that often occur in services provided by Indonesian Classification Society is still a gap between expectations and perceptions received by customers and the lack of competitiveness of companies with similar companies. The researcher saw this problem because companies were unable to understand the desires and expectations of customers, thereby reducing customer loyalty. From these problems the purpose of this study is to find a solution using the integration of the Kano model with Kansei Engineering in an effort to find proposed improvements to improve the quality of service at Indonesian Classification Society. This research took Indonesian Classification Society Surabaya region with the reason at Indonesian Classification Society Surabaya region has the most customers and relatively diverse types of services. This study also uses Service Quality variables from Parasuraman. Then the results of the gap between perception and expectation are categorized on the Kano attribute. The results of Kano will be processed using the Kansei Engineering stage and taken as a Must-be and One Dimensional category to create a linear regression model. In the Must-be category, the education variable is related to the ship classification test and the accuracy in ship classification testing, One Dimensional namely representative office variables, equipment systems, adequate facilities and infrastructure, the integration of class and statutory surveys which are very adequate, ship classification tests according to national and international rules and regulations, the availability of informative information and service guarantees. Attractive is only a professional service variable, and Indifferent is the ship classification test service on time and attention to customer complaints. From these results it will be processed using the Kansei Engineering stage and taken as a Must-be and One Dimensional category to create a linear regression model. In the regression model obtained 3 regression models with the variables that most influence customer satisfaction are equipment system facilities, facilities and infrastructure adequate at 0.205 while the variables that have the smallest influence are the accuracy in the ship classification test of 0.013.



Land Transportation Optimization Of Bag & Bulk Product In Indonesias Cement Industry To Minimize Supply Chain Cost Using Linear Programming

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Keywords: Supply Chain, Supply Chain Cost, OpenSolver, Optimization, Transporta-
tion Problem, Linier Programming

Land transportation problem in the cement industry is interesting because it has two different truck characters, in terms of their products, their load size, forms, and shipping costs. This is caused by two types of cement packaging sent to customers, which consist of bag cement and bulky cement. This study discusses land transportation problem in the Indonesias cement industry with consideration of trucks containing bag cement and bulky cement. Many methods or algorithms have been introduced by researchers in optimizing transportation problems, one of the methods is linear programming. In this study, the model has been designed to optimize using OpenSolver, instead of Excel's built-in Solver which is limited to 200 variables. Optimization results are proposed for companies in planning the allocation of supply sources to the sales district in order to achieve the set targets but at the minimum cost. As for the potential reduction in supply chain costs, it can save up to IDR 8.4 billion when existing supplies compared to optimal supplies.



Risk Analysis Change of Coal Quality On Coal Power Plant Using Fmeca

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Keywords: Coal Quality, FMECA, Mitigate Risk

PLTU PTN is a Coal Power Plant which have a changing operation program because degrading of Coal Quality consume. This research has a purpose to analyze every Risk that happened because degrading the Coal Quality. Default specification for PLTU PTN is a High Quality Coal and now is facing reality to consume Low Quality Coal. FMECA method use as a reference to analyze Risk that might be happen because this program. Risk Assessment can be measure by FMECA and can be use as a tool to Mitigate Risk for PLTU PTN.



Analysis On Factors Causing Fatigue in Sandal GERINDA Operator in Pt. X Indonesia

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Keywords: Fatigue, IFRC, GSQS, KSS, Correlation

PT. X Indonesia is an individual-owned company engaged in manufacturing slippers. This industry is one of the industries in Indonesia that applies a work shift system, where the workforce is divided into 2 work shifts, namely the morning work shift starting at 7:00 a.m. to 7:00 p.m., night shift starting at 7:00 a.m. to 7 p.m. Workers act as operators to run and manage equipment and machines that produce for 24 hours at PT. X Indonesia. As a result of these things many operators complained about the problem of fatigue experienced during the grinding process. In addition, operators become less productive at work due to perceived fatigue. At the beginning of 2016 the working hours of the company changed from 8 hours of work in one shift to 12 hours of work in one shift thus increasing the risk of fatigue and work accidents on the operator. The purpose of this study was to determine the condition of fatigue and the factors that affect the fatigue of the grinding grinding operator. The method used to determine the fatigue condition of sandal grinding operators is Industrial Fatigue Research Committee (IFRC), Groningen Sleep Quality Scale (GSQS) to determine sleep quality and a third questionnaire using the Karolinska Sleepness Scale (KSS) for drowsiness. The data processing then uses the SPSS 16.00 program which aims to determine the relationship between bivariate variables, and the most dominant variable in a multivariate manner.



Supply Chain Performance Measurement Using Scor Model At Pt.X

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Keywords: AHP, Fishbone Diagram, SCOR Model, Supply Chain Performance

PT. X in Surabaya, Indonesia is a national company engaged in pulp and paper manufacturing that needs supply chain performance measurement as an evaluation of its performance. This study aims to develop new supply chain performance measurement model, measure the supply chain performance and generate improvement recommendation to improve the supply chain performance of PT.X. This research use SCOR model as reference to develop the supply chain performance model and to measure the supply chain performance which is integrated with Analytical Hierarchy Process (AHP) to define the weight for each indicator. Fishbone diagram analysis are used to identify and generate the improvement recommendation for a better supply chain performance. The result of this research shows that there are fourteen indicators that have been identified and will be used to measure the supply chain performance of PT.X which the fourteen indicators fulfill the objectives of PT.X. Based on the supply chain performance measurement conducted by using the eleven indicators that have been identified, Perum BULOG Divre Jatim scored 88.28% which is categorized in yellow category or need to be improve according to the traffic light system. The failure identification results two critical failure that need to be mitigated, namely the product failure rate and production machine efficiency.



Competitive Strategy Formulation in Chemical Transportation Service Company of Oil and Gas Sector (Case Study, PT. XZ)

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Keywords: Transportation Service Industry, Competitive Strategy, Business Model Canvas, Blue Ocean Strategy

High competition that occurs in the business of the chemical transportation, particularly in the oil and gas sector, urges each firm to possess excellency despite rivalry, in order to be capable of maintaining sustainability in their company. Market growth that is quite significant is in contrary to the objectives achieved by PT. XZ, one of which is the disappearance of the contracts of several regions of haulage, which causes an impact on the decline in turnover that is largely radical. On the other hand, the administrative system that is frail, and the allocation of human resources that is inefficient, lead to a maximal production cost depleted by the company. Opposing strategic analysis is introduced by reforming a new Business Model Canvas through the method of Blue Ocean Strategy and constructing contemporary plan of approach targets in the form a Strategy Map. The first phase of this research is to establish the standing point of PT. XZ in the industrial counteraction based on the critical success factor by operating a survey, an inspection and interviews regarding the industry and the company. Applying the Blue Ocean Strategy analysis, this research attains the value of innovation that escalates the factors which have become remarkable to PT. XZ previously in this commerce as it seemed, a magnified level of responsiveness, delivery flaccidity that is satisfactory to all customer needs, a time efficient distribution, and quality of assets. Additionally, PT. XZ established virtues that are considered innovative and they do not exist in this industry. They include offering support of customization commodities, and providing delivery assistance through a website. Furthermore, a newly be generated based on competitive components that has been analyzed beforehand, producing 12 strategic objectives as outlined in 4 Balanced Scorecard perspectives to measuring performance and achieving mission and vision of PT. XZ.



Justification Of Minor Overhaul To Increase Eaf At Pt PEMBANGKIT LISTRIK Xyz Case Study For Steam Turbine 1.0 (St 1.0)

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Keywords: PLTGU, Overhaul Minor, Condition Base Maintenance (CBM), Reliability, Availability, Maintainability (RAM)

PT Pembangkit Listrik XYZ has the strategic objectives set forth in the RJPP of 2017-2021 to achieve corporate EAF according to world class (10 corporate EAF PT Pembangkit Listrik XYZ in the year 2016 is 90.61). PT Pembangkit Listrik XYZ still apply overhaul cycles according to the manuals of manufacturer. PT Pembangkit Listrik XYZ is committed to helping the achievement of corporate objectives according to world class standards, by looking for strategies to raise EAF generators. So far, PLTGU PT Pembangkit Listrik XYZ uses books of discussions that are handling manual manufacture is Simple Inspection (SI) - Serious Inspection (SE) - Simple Inspection (SI) - Medium Inspection (ME) with interval 8000 EOH. For that PLTGU still maintain the round, then the EAF target according to the road map is difficult to get. There are several alternative strategies that can be selected to raise the EAF, which extends the overhaul (OH) interval, shortens the duration of OH, and eliminates the OH minor. With the above, then one of the approaches used to know and fix it is to install it. The methods undertaken by reviewing current employment standards for minor overhauls (SI), history of findings over SI overhaul, validate using RAM (Reliability, Availability, Maintainability) analyzes. Also the things that can be used as input only to perform the main tasks main Steam Turbine.



Board Of Director Characteristics And Bank Asset Risk

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Keywords: ank Asset Risk, Board of Director, Age, Gender, Education Level, Loan Loss Provision, Risk-Weighted Assets to Total Assets

The banking industry is unique because of the operating system, and their exposure to risk than other industries. Individual efforts in a group will influence the performance of the group. In the context of the board of directors, many researchers believe that the heterogeneity of top management plays an important role in corporate decision-making which later impacts the level of bank risk. A heterogeneous board of directors will gain benefit through the diversity of the executives member. On the other hand, it is possible that a too heterogeneous board of director will complicate communication between executives. The purpose of this research is to investigate the effect of the board of directors characteristics on the bank risk assets. The characteristics of the board of directors in this study were measured through the diversity of age, gender, size and background of education. While the risk of bank assets is measured by using a loan loss provision and a ratio of risk-weighted assets to total assets. The sample used in this research is commercial banks in four ASEAN countries: Indonesia, Malaysia, Singapore and Thailand. The results of the study generally indicate the influence of the diversity of age, education and size of the board of director on the risk of bank assets. While gender diversity does not affect the risk of bank assets. The test also indicates a difference in the risk of bank assets in Indonesia compare with other countries



Business Planning By Using SWOT-Business Model Canvas And Balanced Scorecard Integration Method To Increase Competitive Advantage On Chemical Construction Industry In Indonesia (Case Study AT PT. YZ)

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Keywords: SWOT Analysis, Business Model Canvas, Balanced Scorecard, Strategic Planning.

The construction chemical industry in Indonesia as a support for construction technology is growing. More companies are entering the construction chemical business, both local and foreign. PT. YZ is a company engaged in chemical construction and originating from within the country. As a developing company, PT. YZ has experienced a sales increase of 51% in 2016 and 71% in 2017. But in 2018, the sale of PT. YZ decreased by 16% due to a weak business situation. PT. YZ has several product segments, including admixture, coating, and supporting products. To improve competitive advantage in the construction chemical industry in Indonesia, the company carried out strategic planning in the production of product portfolios in accordance with the business model of PT. YZ. The method used in this study is SWOT, business model canvas, and balanced scorecard. Based on the analysis of the company's internal and external conditions, the best strategy is to add 100 employees and open 5 branches outside Java. To apply a new strategy in the company, product portfolio and business model canvas are redesigned. Then 9 blocks from the business model canvas are converted into the balance scorecard and the strategy map of PT. YZ.



Structural Equation Model of Purchase Intention of Online Shoppers in Digos City

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Keywords: Marketing, Online Shoppers, Purchase Intention, Structural Equation Model, Philippines

This study intended to develop a structural model that characterizes the purchase intention of online shoppers in Digos City. It also sought to investigate whether the exogenous variables composed of attitude towards online shopping, consumer innovativeness and subjective norm have significant causal attribution with purchase intention in the context of online shopping. Descriptive and causal methods were used, and primary data were gathered through the use of survey questionnaires distributed to n=200 consumers who have experienced to shop online. In the analysis of the data, weighted mean was used while in the model estimation procedure, structural equation modelling (SEM) was used with six fit indices as guide towards determining the best model of purchase intention of online shoppers. Results revealed a high extent of online shoppers attitude towards online shopping, high level of consumer innovativeness and high level of subjective. The overall level purchase intention of online shoppers was found to be high. Structural equation estimation revealed that the best fit model of purchase intention of online shoppers in Digos City is a newly-generated and re-specified model which passed all of the six goodness-of-fit indices, having 2/df less than 3.0, goodness of fit index, Tucker-Lewis index and comparative fit index greater than 0.90, and RMSEA less than 0.08 with PCLOSE greater than 0.05. The derived model can be a contribution to the existing literature on purchase intention in the context of online shopping and in a much-localized geography. voices.



Supply Chain Interaction Model In Construction Industry Based On Agent-Based Simulation

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Keywords: Supply Chain Construction, Material Flow, Agent-Based Simulation

In a very complex construction industry is needed construction management to avoid problems. So that it is necessary to apply the supply chain concept in the field of construction. However, its fragmented nature and the parties involved in independent supply chains, it is difficult to apply in the construction industry. So that problems arise in the supply chain construction such as the delay in material flow. Problems that are not only caused by one party cause the problem to be complex. Complex problems also cause complex systems in construction projects. This study aims to model the material flow system in construction projects and simulate the system model. Simulation that aims to correct problems in construction projects is mostly done. Many previous studies used dynamic system simulations or discrete event simulations, but in this study agent-based simulations will be used. This agent-based simulation can model how the role of agents or individuals involved in the system. Individuals involved in a system certainly have a big influence on the system, because each agent has its own behavior. The study was conducted by comparing the material flow that occurred in the construction project of the VVIP building in Bhayangkara hospital in Surabaya with a simulation model. The agents involved in this research are contractors, subcontractors and suppliers.



The Moderating Effect of Consumer Ethnocentrism to Behavioral Brand Loyalty of Batik in Indonesia

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Keywords: Attitudinal Brand Loyalty, Behavioral Brand Loyalty, Brand Equity, Consumer Ethnocentrism.

Batik as a casual clothing is derived from strong culture that resembles high respect of the user in the past times. slowly, the culture shifted in a good way, sustaining batik as a value of the nation and a symbol of high culture. Although the behavior of repeat purchase in batik brands is competing with other patterned imported fashion item in the industry. It is important to acknowledge the affecting variables that could generate a behavioral loyalty to a batik brand.



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