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Jumlah Penulis : 4 orang

Status Pengusul : Penulis pertama/utama

Identitas Makalah : a. Judul Prosiding : Prosiding 2013 IEEE
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NIP. : 195109021981031002
Unit kerja : Fakultas Ekonomika Dan Bisnis
Universitas Diponegoro

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Prof. Dr. Ir. Udisubakti Ciptomulyono M.Eng.Sc
NIP. : 195903181987011001
Unit kerja : Intitut Teknologi Sepuluh November

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- Kecukupan dan kemutakhiran data/informasi dan metodologi:** Penulis menggunakan data-data primer dan sekunder yang berasal dari Batik Ganesha,. Walaupun sebagian besar rujukan yang digunakan adalah jurnal dengan tahun terbit diatas tahun 2000, namun masih ada rujukan yang memiliki tahun terbit sebelum tahun 2000. Perlu adanya beberapa pembaharuan dari literatur yang digunakan (skor= 7,50)
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Proof of Participation

Prepared for

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Universitas Diponegoro

**IEEM13-P-0117: Assessing SMEs Batik Readiness for SNI Adoption
(Case Study SMEs Solo and Yogyakarta)**

Aries Susanty, Dyah Ika Rinawati, Bambang Purwanggono, Diana Puspitasari, Meylani
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18 November 2014, Article number 6962568, Pages 1036-1041
2013 IEEE International Conference on Industrial Engineering and Engineering Management,
IEEM 2013; Bangkok; Thailand; 10 December 2013 through 13 December 2013; Category
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Assessing SMEs Batik readiness for SNI adoption (Case Study SMEs Solo and Yogyakarta) (Conference Paper)

Susanty, A. ✉, Rinawati, D.I., Purwanggono, B., Puspitasari, D., Meylani
Department of Industrial Engineering, University of Diponegoro, Semarang, Indonesia

Abstract

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The standards adoption gives two types of benefit, i.e. tangible and intangible ones. Related to the adoption of standard, this study proposed framework for assessing the SMEs readiness on SNI adoption which is composed of four critical factors, i.e. perceived national readiness (macro level), perceived industry readiness (meso level), perceived organizational readiness (micro level), and perceived environmental pressure. This study uses an AHP analysis for assigned importance weight of each critical factor and sub-factors in that framework and Likert Scale for measuring each critical sub factor. Then, a total 12 SMEs Batik (6 SMEs from Solo and 6 SMEs from Yogyakarta) participated in the pilot test based on the proposed framework. The result of the study indicated that SMEs Batik has a different level of readiness for SNI adoption. SMEs Batik in Solo more ready than SMEs Batik in Yogyakarta. Compare with small size firms, medium size firms tend to more ready for SNI adoption. © 2013 IEEE.

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*Singapore Institute of Manufacturing
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“Building and Rebuilding Universities through Engineering Education and Research”

Wednesday - 11 Dec, 09:30 - 10:15

Ghauth Jasmon

Vice-Chancellor

University of Malaya, Malaysia

Abstract

This talk is about academic leadership.

It will provide significant insights into what it took to build the first private university in Malaysia, and to propel Malaysia’s oldest and most reputable University into the elite group of top universities in the world – an experience spanning over 17 years! Both challenges demanded unique ways in terms of the policies introduced, and the targets adopted. Whilst there exist overlaps with respect to the fundamental ways in dealing with human capital, and financial resources in both cases, it is also worth identifying some key differences. The talk will highlight key policies introduced and the spillover effects resulting from being steadfast in implementing them. It will also discuss where University of Malaya will be headed in the next ten years, with particular note on its autonomy status and self financing plans.

About the Speaker

Ghauth Jasmon is a distinguished scholar, accomplished academician and entrepreneur. Ghauth is currently the Vice-Chancellor of the University of Malaya (UM), a position he has held since 10th November 2008. Previously, he had been Founder President/CEO of Multimedia University (MMU) and Chief Executive Officer of Unity College International. A distinguished scholar, he obtained a First Class Honours Degree in Electrical and Electronic Engineering and was awarded a PhD degree (Power Systems) in July 1982 from the University of London. His academic career began with the appointment as a Lecturer in the Department of Electrical Engineering at the University of Malaya in 1982. He was appointed as the Head of the Electrical Engineering Department in 1986 to 1988. Based on his credentials, Ghauth was promoted to the rank of Associate Professor in 1989 and to Full Professor at the University of Malaya in 1992. In the same year, he was appointed as the Dean of the Faculty of Engineering and held the position until August 1995. Ghauth then was appointed as the Deputy Vice-Chancellor (Development) who is responsible for the physical development and upgrading of many physical facilities across the university. He accepted the invitation by Telekom Malaysia Berhad to set up and build Multimedia University (MMU) in Malacca, the first government-approved private university in Malaysia and became the MMU President/CEO in December 1996. In January 2008, Ghauth left MMU to join a private college, Unity College International as CEO and shareholder. As an academic, Ghauth has contributed extensively in research and in the Engineering Profession. He has conducted research in the areas Power Systems Analysis, Network Analysis, Voltage Stability, System Security and Neural Network Applications. These and other works have been published in more than 30

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“Innovation for Sustainability: SCG Perspective”

Wednesday - 11 Dec, 11:00 - 11:45

Prinya Sainamthip

Managing Director

Siam Research and Innovation, Co., Ltd. &

SCG Cement Building Materials, Thailand

Abstract

This talk is about Innovation for Sustainability. In the globalized world today, the competitive landscape has changed dramatically. The world is connected. Customers are king and there are many alternative brands, products, services for them to select. A one-size-fits-all strategy will no longer be competitive compared to the customized one. Being excellent in production, meaning cost leadership, is good but not enough for the companies to be sustainable in the long run. Innovations (R&D and value creation) and Marketing (Branding) will play more important roles compared to production. Companies are keen to increase customer satisfaction by differentiating from the competitors and competing on Value to Customers, not price. In SCG’s perspective, one of the two key strategies is to create high-value-added products, services, and solutions through R&D and Innovation. Another is to be ASEAN sustainable business leader through corporate governance and sustainable development. This will keep a good balance between Business, Social and Environment factors, and make the organization healthy in the long run.

About the Speaker

Prinya Sainamthip is currently MANAGING DIRECTOR of Siam Research and Innovation CO., LTD., R&D unit of SCG – Cement Building Materials Group. He graduated with B.Sc (2nd class Honors), Materials Science, from Chulalongkorn University and M.Sc (Ceramic Engineering) and Ph.D (Ceramic Science) both from New York State College of Ceramics, Alfred University, Alfred, N.Y., USA. He has also attended various Management Courses, such as Wharton Executive Education, Pricing Strategies Measuring, Capturing and Retaining Value, The Wharton School, University of Pennsylvania, Executive Programs, Creating the Market-Focused Organization, Kellogg School of Management, Northwestern University, Advanced Management Program, Harvard Business School, Harvard University. His work experiences include Research Scientist, Enichem America Inc., NJ., USA. , Managing Director, Thai Ceramic Co., Ltd. (COTTO Brand). He has also served on the Board of Directors, National Metal and Materials Technology Center (MTEC), on National Science and Technology Development Agency (NSTDA), as Vice Chairman : Technology Innovation Management Group, Thailand Management Association (TMA), and on International Advisory committees, Department of Materials Science, Faculty of Science, Kasetsart University. Sample of his Publication is “Process for preparing a novel superconductor with high density and hardness using heating steps and high pressure compacting”, Taylor; Jenifer (Almond, NY); Sainamthip; Prinya (North Brunswick, NJ); Dockery; David F. (Alfred Station, NY) United State Patent 4971946.

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“Quality improvement: from autos and chips to nano and bio”

Wednesday - 11 Dec, 11:45 - 12:30

C.F. Jeff Wu

Coca-Cola Chair and Professor

Georgia Institute of Technology, USA

Abstract

Quality improvement (QI) has a glorious history, starting from Shewhart’s path-breaking work on statistical process control to Deming’s high-impact work on quality management. Statistical concepts and tools played a key role in such work. As the applications became more sophisticated, elaborate statistical methods were required to tackle the problems. In the last three decades, QI has seen more use of experimental design and analysis, particularly the methodology of robust parameter design (RPD). I will first review some major ideas in RPD, focusing on its engineering origin and statistical methodology. I will then discuss more recent work that expands the original approach, including the use of feedback control and operating window. To have an effective solution, the subject matter knowledge often needs to be incorporated. Techniques for fusing data with knowledge will be presented. For advanced manufacturing and high-tech applications, there are new challenges and possible paradigm shift posed by three features: large varieties, small volume and high added value. I will speculate on some new directions and technical development. Throughout the talk, the ideas will be illustrated with real examples, ranging from the traditional (autos and chips) to the modern (nano and bio).

(This talk is based on the 2012 Deming Lecture given during the JSM.)

About the Speaker

C. F. Jeff Wu is Professor and Coca Cola Chair in Engineering Statistics at the School of Industrial and Systems Engineering, Georgia Institute of Technology. He was elected a Member of the National Academy of Engineering (2004), and a Member (Academician) of Academia Sinica (2000). A Fellow of the Institute of Mathematical Statistics (1984), the American Statistical Association (1985), the American Society for Quality (2002), and the Institute for Operations Research and Management Sciences (2009). He was formerly the H. C. Carver Professor at the University of Michigan, 1993-2003 and the GM/NSERC Chair in Quality and Productivity at the University of Waterloo in 1988-1993. He also taught in the Statistics Department at the University of Wisconsin from 1977-1988. He got his BS in Mathematics from National Taiwan University in 1971 and Ph.D. in Statistics from the University of California, Berkeley (1973-1976).

He received the COPSS (Committee of Presidents of Statistical Societies) Presidents’ Award in 1987, which was given to the best researcher under the age of 40 per year and was commissioned by five statistical societies. His other awards include the 2011 COPSS Fisher Lecture, the 2012 Deming Lecture, the Shewhart Medal (2008) from ASQ, the Pan Wenyuan Technology Award (2008), the 1990 Wilcoxon Prize in Technometrics, the

Daily Program

THURSDAY - 12 DECEMBER 2013				
08:00 - 16:30	Registration			
09:00 - 10:30	Salon A	Rachavadee	Ubonchard	Krisana
	NSF Panel on Partnerships for Innovation Organized by Roger Jiao & Chaired by Medina-Borja, Alexandra*)	HF 2 Human Factors (2) Pg.56	SC 3 Supply Chain Management (3) Pg.60	Poster Session 2 Pg.84 - 86
	Jamjuree	Sakthong	Patumchard	
	QC 2 Quality Control & Management (2) Pg.64	SM 2 Systems Modeling & Simulation (2) Pg.68	PM 2 Project Management (2) Pg.72	
	Satabud	Boontarik		
EB 2 E-Business & E-Commerce (2) Pg.76	TK 3 Technology & Knowledge Management (3) Pg.80			
10:30 - 11:00	Coffee/Tea Break, Krisana Level 2			
11:00 - 12:30	Salon A	Rachavadee	Ubonchard	Krisana
	Meet-the-editor's Panel Organized & Chaired by M Xie	ET Engineering Education & Training Pg.57	SC 4 Supply Chain Management (4) Pg.61	Poster Session 2 Pg.84 - 86
	Jamjuree	Sakthong	Patumchard	
	HS 1 Healthcare Systems & Management (1) Pg.65	QC 3 Quality Control & Management (3) Pg.69	EE 2 Engineering Economy & Cost Analysis (2) Pg.73	
	Satabud	Boontarik		
RM 2 Reliability & Maintenance Engineering (2) Pg.77	SR 2 Safety, Security & Risk Management (2) Pg.81			
12:30 - 13:30	Lunch, Nilubon, Busakon and Sarocha Level 3			
13:30 - 15:00	Salon A	Salon B	Rachavadee	Krisana
	TK 4 Technology & Knowledge Management (4) Pg.52	OR 3 Operations Research (3) Pg.54	DM 2 Decision Analysis & Methods (2) Pg.58	Poster Session 2 Pg.84 - 86
	Ubonchard	Jamjuree	Sakthong	
	SC 5 Supply Chain Management (5) Pg.62	HS 2 Healthcare Systems & Management (2) Pg.66	PP 2 Production Planning & Control (2) Pg.70	
	Patumchard	Satabud	Boontarik	
IP Information Processing & Engineering Pg.74	RM 3 Reliability & Maintenance Engineering (3) Pg.78	IS Intelligent Systems Pg.82		
15:00 - 15:30	Coffee/Tea Break, Krisana Level 2			
15:30 - 17:30	Salon A	Salon B	Rachavadee	Krisana
	TK 5 Technology & Knowledge Management (5) Pg.53	OR 4 Operations Research (4) Pg.55	DM 3 Decision Analysis & Methods (3) Pg.59	Poster Session 2 Pg.84 - 86
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	SC 6 Supply Chain Management (6) Pg.63	SI 2 Service Innovation & Management (2) Pg.67	PP 3 Production Planning & Control (3) Pg.71	
	Patumchard	Satabud	Boontarik	
FP Facilities Planning & Management Pg.75	RM 4 Reliability & Maintenance Engineering (4) Pg.79	MS Manufacturing Systems Pg.83		
17:30 - 21:30	Conference Banquet at Siam Niramit (Please gather at Swissotel Le Concorde Lobby, Level 1 at 17:30 and present ticket to board bus.)			

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TK 1 Technology & Knowledge Management (1)

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Chairs: Tuomo Kassi
Susan Morton

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Business Management and Mobile Experience

Riccardo Cognini, Roberto Gagliardi,
Alberto Polzonetti
University of Camerino, Italy

Organizational Innovation through Knowledge Taxonomy Model

Iwan Inrawan Wiratmadja¹, Augustina Asih Rumanti², Trifenaus Prabu Hidayat²
¹*Bandung Institute of Technology, Indonesia*
²*Atma Jaya Catholic University of Indonesia, Indonesia*

Research on the Strategy of Patents Layout Basing on TRIZ

Hui Li, Runhua Tan, P. Jiang, H.G. Zhang
Hebei University of Technology, China

Individual Tacit Knowledge for Organization's Competitive Advantage

Augustina Asih Rumanti¹, Iwan Inrawan Wiratmadja²
¹*Atma Jaya Catholic University of Indonesia, Indonesia*
²*Bandung Institute of Technology, Indonesia*

Fostering Interdisciplinary Integration in Engineering Management

Tobias Vaegs, Inna Zimmer, Stefan Schröder, Ingo Leisten, R. Vossen, Sabina Jeschke
RWTH Aachen University, Germany

Organizational Culture, Inter-organizational Learning Ability and Innovation Performance of the Technology Alliance of Small and Medium Enterprises

Xiaodi Zhang¹, Zhanxing Zheng², Kexin Huang¹, Ping Wang¹
¹*Northwestern Polytechnical University, China*
²*AVIC Shaanxi Aircraft Industry(Group) Corporation Ltd, China*

TK 2 Technology & Knowledge Management (2)

12/11/2013 15:30 - 17:30

Room: Salon A

Chairs: Roula Michaelides
R. Kant

Abstracts: see page 32

The Impact of Shukko (Employee Transfers) within Group Companies on the Capability and Speed of Promotion of Engineers

Hideki Shimizu-Tanaka, Yoshifumi Nakata
Doshisha University, Japan

Intrinsic Motivation and Creative Behavior: Moderating Role of Active Efforts

Sayaka Shinohara, Tetsushi Fujimoto, Hideki Shimizu-Tanaka, Yoshifumi Nakata
Doshisha University, Japan

Technology Transfer Portals: A Design Model for Supporting Technology Transfer via Social Software Solutions

Günther Schuh¹, Susanne Aghassi²
¹*RWTH Aachen University, Germany*
²*Fraunhofer Institute for Production Technology IPT, Germany*

Comparison of Indicators to Detect Emerging Researches using Time Transition in Quasicrystals

Shino Iwami¹, Junichiro Mori¹, Yuya Kajikawa², Ichiro Sakata¹
¹*The University of Tokyo, Japan*
²*Tokyo Institute of Technology, Japan*

Identity Management for the Requirements of the Information Security

Mirley Ferreira, Kelly Alonso
Fluminense Federal University, Brazil

Knowledge Management in the Chinese Local Beer Market: A Case Study

Jiageng Duan, Nachiappan Subramanian, Muhammad Abdulrahman
The University of Nottingham, China

OR 1 Operations Research (1)

12/11/2013 13:30 - 15:00

Room: Salon B

Chairs: Mohamed K. Omar
Amir Azaron

Abstracts: see page 33

Mathematical Modeling of Co2e Emissions in One-to-one Pickup and Delivery Problems

Emrah Demir, Tom Van Woensel
Technology University of Eindhoven, Netherlands

G/G/1 Models for a Single Machine under Different Types of Interruptions

Kan Wu¹, Ning Zhao²
¹*Georgia Tech, United States*
²*Kunming University of Science and Technology, China*

Improving Productivity of the SMEs in Singapore – Case Studies

Aloysius Lee, Roland Lim, Bin Ma, Laura Xiao Xia Xu
Singapore Institute of Manufacturing Technology, Singapore

A Note on Computing the Exact Probability Distribution of the Project Completion Time in a Stochastic PERT Network

Zdzislaw Milian
Cracow University of Technology, Poland

A Bi-level Model for Resource-Constrained Multiple Project Scheduling Problems

Zhe Zhang¹, Yang Wang²
¹*Nanjing University of Science and Technology, China*
²*Sichuan University, China*

A Novel Multi-Objective Fuzzy Mathematical Model for Designing a Sustainable Supply Chain Network Considering Outsourcing Risk under Uncertainty

Firoozi Mehdi¹, Ali Siadat¹, Nima Salehi², S. M. Mousavi²
¹*Arts et Métier Paris Tech, France*
²*University of Tehran, Iran*

A mathematical framework for parameter designing under the noise: A case study from a conventional turning machine

1 Author(s) R. M. Chandima Ratnayake View All Authors

1 Paper Citation

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Abstract

Abstract:

In parameter design, the best settings for the control factors that minimize quality loss in a particular manufacturing operation are determined. In this process, it is possible to carry out minimization of the manufacturing cost, showing sensitivity to noise and quality loss with existing wide tolerances on the noise factors, low-grade components and materials. This manuscript proposes a mathematical framework for parameter designing under the existing noise. The mathematical framework has been proposed using the 'parameter design' approach suggested in the robust design approach (RDA). The 'parameter design' focuses on designing a process to make the performance minimally sensitive to the different causes of variation. Use of the framework has been illustrated with a case study, which has been performed using a conventional turning machine. The possibility of improving the quality under the noise due to age-related deterioration of the selected turning machine and the particular manufacturing environment has been demonstrated.

Document Sections

- I. Introduction
- II. Background
- III. Methodology
- IV. Discussion
- V. Conclusion

Authors

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Keywords

Metrics

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I. Introduction

The performance of machinery as measured by the quality characteristic varies in the manufacturing environment due to a range of causes. Such causes are referred to as 'noise' factors [1]. For instance, depending on the age of a turning machine, its accuracy varies and finally is reflected as a high variability of a machined item's quality characteristic (e.g. surface roughness (R_a), diameter, pitch or lead, etc.). Basically, the 'noise' presents due to 'external' conditions (i.e. the environment in which the machinery operates) and 'internal' conditions (i.e. the unit-to-unit variation) (i.e. different brands of machinery manufacture the same item with different variability) and 'deterioration' (i.e. functional characteristics of a machinery deviate over time and deteriorate the performance of a manufactured item) [2]. Hence, it is vital to understand and control these noise factors to improve the quality of the manufactured product.

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R. M. Chandima Ratnayake

Department of Mechanical and Structural Engineering and Materials Science, University of Stavanger, Norway

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Improving productivity of the SMEs in Singapore — Case studies

4 Author(s) A. J. L. Lee; R. Y. G. Lim; B. Ma; L. X. X. Xu [View All Authors](#)

3 Paper Citations 111 Full Text Views



Abstract

Document Sections

- I. Introduction
- II. Related Work
- III. OMNI for Productivity Improvement
- IV. Case Studies
- V. Discussion

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Abstract:

For the Small and Medium Enterprises (SMEs) in Singapore, survival and growth depend critically on improving their productivity and thus helps Singapore to develop into an Operational Excellence Manufacturing hub in the world. Unfortunately, most of the current productivity planning methodologies is being developed from the perspective of the larger multinational companies (MNCs). This paper presents the Operations Management Innovation (OMNI) Programme with a productivity planning methodology that provides practical and procedural aid for productivity planning efforts for SMEs in Singapore, and applies it to three industry case studies. The discussions will highlight how the programme together with the methodology guides the practitioner through a series of well-defined steps necessary to improve productivity and achieve operational excellence.

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I. Introduction

In Singapore, a SME is defined as a company with less than \$100 million annual revenue by the definition from the Standards, Productivity and Innovation Board (SPRING) Singapore [1]. There are currently more than 100,000 SMEs in Singapore [2]. These enterprises locally [1]. These SMEs are contributing to about a quarter of Singapore's gross domestic Product (GDP), and employ almost half of the country's workforce [2].

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Authors

A. J. L. Lee
Singapore Institute of Manufacturing Technology, Singapore

R. Y. G. Lim
Singapore Institute of Manufacturing Technology, Singapore

B. Ma
Singapore Institute of Manufacturing Technology, Singapore

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Singapore Institute of Manufacturing Technology, Singapore

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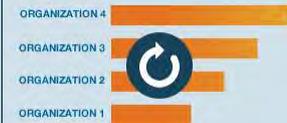
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Models for the optimization of supply chains a literature review

3 Author(s) F. G. H. Behncke ; J. Ehrhardt ; U. Lindemann [View All Authors](#)

1 Paper Citation

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Abstract

Abstract:

Manufacturing firms respond to fierce competition on global markets through a concentration on their core competences. As a result, the competitive position of OEMs depends on the individual performance of their suppliers as well as their arrangement in the supply chain. Against this background this paper presents the results of a literature review on optimization models of supply chains. Thereby, this paper reveals five different categories; deterministic-analytical-, stochastic-analytical-, economic-, simulation- and structural models. Moreover, the 14 models are analyzed against established performance criteria to foster a demand-oriented development of future optimization models for supply chains.

Document Sections

- I. Introduction
- II. Research Methodology
- III. Results of the Literature Review
- IV. Discussion and Conclusion
- V. Summary and Outlook

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I. Introduction

Manufacturing firms respond to fierce competition on global markets through a concentration on their core competences [1]. As a result, the competitive position of OEMs depends on the individual performance of their suppliers as well as their arrangement in their supply chain [2], [3]. This dependency fosters the demand for approaches for the optimization of the supply chain performance and still draws the research agenda for both industry and academia [4]-[6].

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Authors

F. G. H. Behncke
Institute of Product Development, Technische Universität München, Munich, Germany

J. Ehrhardt
Institute of Product Development, Technische Universität München, Munich, Germany

U. Lindemann
Institute of Product Development, Technische Universität München, Munich, Germany

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The impact of managers selection criteria on quality of capabilities: Are managers only for representative function?

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Abstract

Abstract:

Dynamic capabilities represent every change-oriented routine action in company. Dynamic capabilities are widely used due to their aim to cope with dynamical changes, which happen often/regularly. Managers and employees are behind of most companies' actions. While earlier research has emphasized more capabilities selection than their development techniques, then it makes managerial decisions especially important. This research investigates empirically how manager selection criteria influence goodness of capabilities. Managerial criteria influence more on top-management related issues and less middle-management issues. Interestingly, prior education and experience are not as much important than fit with organization, however, latter is hard to evaluate ex-ante - at selection. Formal academic degree/certification of managers is more evaluated than the real educational background. Companies do not evaluate highly the selection criteria such as creativity and entrepreneurship. Also, it is like that human resource management is not closely tied with dynamic capabilities.

Document Sections

- I. Introduction
II. Methodology
III. Theory
IV. Results and Discussion
V. Conclusion

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Introduction

Dynamic capabilities (DCs) are couple of decades old phenomenon [46] [18] to make a fit between company and environment, similar with contingency theory [23] [15]. Since start, due to global changes the phenomenon has exist more than thousand articles about it [38]. However, DC still lacks one single definition [24] and abstract/meta level research [25] [26] [45]. Many fields have been investigated...

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Authors

Mait Rungi
Tallinn School of Economics and Business Administration, Tallinn University of Technology, Tallinn, Estonia

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