The Effect of Employees' Personal Characteristics and Organizational Climate on Organizational Performance, with regard to the Mediating Role of Organizational Knowledge Creation Process
(Case Study of Paxan Co (LLP))

Mohammad Taghi Taghavifard [1]
Jalal Rezaeenour [2]
Mehdi syfollahi [3]
Narges Aghakhani [4]

Abstract

The process of organizational knowledge creation is affected by various individual (attitudes and motivation) and organizational factors (Organizational culture, leadership style and organizational structure). The process of knowledge creation requires people (attitude and motivation) and collaborative atmosphere (the desired organizational climate). Organizational climate and individual characteristics are two major factors to improve organizational performance. In the previous studies, the effects of organizational climate, and those of motivation and attitude on organizational performance have been investigated separately. This study has investigated the simultaneous effects of these two variables on organizational performance, as well as the mediating role of the process of organizational knowledge creation and is considered creative with this regard. This research is a descriptive coorelational study, in which structural equation modeling (SEM) is used. Data collection was done using questionnaires. In order to assess the reliability of questionnaires, Cronbach's alpha has been calculated. The results show that organizational climate and individual characteristics have a positive and significant effect on the process of knowledge creation. In addition, the process of organizational knowledge creation, as a mediator variable, has a significant role in the influenceability of organizational climate and individual characteristics in organizational performance.

Keywords: Correlation-SEM method, organizational climate, organizational performance, knowledge creation, personal characteristics.

1. Associate Prof, Faculty of Management and Accounting, Allameh Tabatabaee University.   dr.taghavifard@gmail.com
2. Associate Prof, Faculty of Technology and Engineering, University of Qom   J.rezaee@qom.ac.ir
3. Master of Science degree of IT management, University of Mehralborz   mehdi.seifolahi56@gmail.com
4. 3Master of Science degree of IT management, University of Mehralborz   n.aghakhani@mehralborz.ac.ir

Identifying and Ranking the Effective Factors in Improving the Quality of Student Dormitories by Comparing Analytical Network Process (ANP) and DEMATEL Methods.

Case Study: Student Dormitories of the University of Qom

Kheyrollah Rahseparfard [1]
Mohammad Moradi [2]
Shohreh Teymoori [3]

Abstract

Student dormitories, as second homes for students, are of great importance. The purpose of the current research is to identify and rank the effective and important factors in providing an appropriate dormitory regarding the welfare of students. The effective factors are prioritized by comparing analytical network process and DEMATEL methods. This case study is conducted in dormitories of the University of Qom. In the current study, the data was collected through interviews and questionnaires filled out by officials and experts, according to which 17 criteria were selected as the basic criteria. Finally, 11 criteria were chosen as the key criteria by the experts. The results show that among the indicators and criteria studied, the management of dormitoy buildings and discipline are high priorities according to both methods. According to ANP analysis dormitory buildings accessing each other and according to DEMATEL analysis welfare services within the dormitory play the most important roles in improving the quality of a dormitory.

Keywords: ANP method, DEMATEL method, student hostel

1. Assistant Prof. Department of Computer and Information Technology, Faculty of Engineering, Qom University, Qom, Iran.   rahseparfard@gmail.com
2. Ph.D. Student of Information Technology Engineering- e-commerce, Faculty of Engineering, Qom University, Qom, Iran.   mohammad.moradi444@gmail.com
3. MSc. Student of Information Technology Engineering- e-commerce, Faculty of Engineering, Qom University, Qom, Iran.   shohrehteimori93@yahoo.com

JEMSC.QOM

مدیریت مهندسی و رایانش نرم ۱۳۹۴

Dimensions of Relationship Marketing and Its Impact on Brand Equity in Banking Industry
(Case of Hekmat Iranian Bank)

Mahmood Mohammadian [1]
Amir Aslani Afrashteh [2]

Abstract

One of the new concepts in the field of marketing that was developed after the traditional marketing is relationship marketing. Considering the mutual benefits of both parties (service providers and customers), service organizations such as banks and financial institutions can implement relationship marketing tools and tactics, in order to establish and maintain a long-term relationship with their customers that can help enhance brand equity. The current study discusses the impact of the dimensions of relationship marketing including trust, empathy, bonding, shared values, reciprocity and communication on brand equity consisting of brand loyalty, perceived quality and brand image. This study is an applied research regarding its objectives. Considering the data collection method, it is a descriptive survey which uses structural equation modelling. The statistical population of this researchconsists of the customers of Hekmat Iranian Bank in Tehran. The customers are those who have active accounts in Hekmat Iranian Bank (current and savings accounts). A total number of 390 questionnaires were distributed in order to collect data. The collected information were analysed using SPSS and AMOS 23. The results indicate that trust, empathy, reciprocity and communication have a significant positive effect on banks' brand equity. Moreover, the results show that shared values and bonding do not have a positive significant effect on banks' brand equity.

Key Words: Dimension of Relationship Marketing, Brand Equity, Banking Industry

1. Assistant Professor Business Management Allameh Tabataba'i University   mohammadiann@gmail.com
2. Ph.D. student business management Allameh Tabataba'i University   Amiraslani43@yahoo.com

Determining EOQ Regarding the Quality of Products, Destructive Inspection, Reworking and a Review of Shortage and Deteriorating Items

Hassan Torabi [1]
Mohammad Hossein karimi gavareshki [2]
Morteza Abbasi [3]

Abstract

Among the most important unrealistic assumptions of EOQ model is the perfect quality of items received in stock. Trying to overcome this constraint and making the mentioned model get closer to real circumstances, this paper considers destructive inspections and the existence of imperfect and rejected items after reworking. EOQ is determined under three following conditions: 1- rejecting the imperfect and reworkable items after the inspection 2-keeping the aforementioned items until the end of the inspection period, and 3- keeping these items until the end of the cycle. Results show that using the traditional model instead of the modified new model will lead to increased costs. In other words, with an increase in total proportions of imperfect and reworkable items, EOQ and the total cost per unit of time will increase. A numerical example is solved to evaluate the results.

Keywords: Cost, EOQ, Imperfect Items, Inspection, Rework.

1. Ph.D. Student in industrial engineering, Faculty of Management and soft technologies Malek Ashtar University of Technology, Tehran , Iran.   h_torabi@alum.sharif.edu
2. Associate Prof., Faculty of Management and soft technologies Malek Ashtar University of Technology, Tehran , Iran.   mh_karimi@aut.ac.ir
3. Assistant Prof., Faculty of Management and soft technologies Malek Ashtar University of Technology, Tehran , Iran.
abbasi@alum.sharif.edu

JEMSC.QOM

مدیریت مهندسی و رایانش نرم ۱۳۹۴

Presenting and Solving a Three-layer Supply Chain Model to Maximize Quality and Minimize the Estimated Delivery Time

Elham Nazemi [1]
Mahdi yousefi Nejad Attari [2]
Mahdi Ghaffari [3]

Abstract

Today, the supply chain and evaluating its costs are of great significance. The number of layers of the supply chain and the structure of the interactions between these layers can play an important role in achieving the optimal performance of the supply chain. Besides, it is undeniable that service provision and product transportation from a chain layer to the next one do not take the same amount of time because due to different reasons such as transportation challenges, there would always be the possibility that transportation doesn't go as planned. Therefore, by proposing a multi-purpose model, this study seeks to maximize the profit and the quality of the products transported through the supply chain, as well as minimizing the total delivery time. After presenting the model, it is solved by applying deterministic algorithms using GAMS software, and also NSGAII and MOIWO non-deterministic meta-heuristic algorithms using proper software. Then, these two solutions are compared with each other. Results indicate that MOIWO meta-heuristic algorithm is superior to NSGAII in all indicators except for the NPS indicator.

Keywords: supply chain, delivery time possible, NSGAII algorithm, MOIWO algorithm

---

1. MSc, Faculty of Industrial Engineering, Islamic Azad University, Naragh branch, Naragh, Iran
                                                                        e.nazemi68@gmail.com
2. Faculty of Industrial Engineering, Islamic Azad University, Bonab branch, Bonab, Iran   Mahdi_108108@yahoo.com
3. Faculty of Industrial Engineering, Islamic Azad University, Naragh branch, Naragh, Iran   Ghaffari@Iau-Naragh.ac.ir

Designing a Neural Observer to Estimate the State Variables of the Dynamical System of a Specific Class of Leukaemia

Yousef Frashidi [1]
Reza Ghasemi [2]
Amin Sharafian Ardakani [3]

Abstract

This article aims to present a novel neural network observer-based approach in order to estimate the state variables of the nonlinear dynamical system of chronic myelogenous leukemia (CML), specially the number of the infected cells. For this purpose, a two-layer feed forward neural network was applied. The weights of both layers are considered variables, depending on time. In order to adjust the neural network weights, the error back propagation learning algorithm was implemented. First of all, in this algorithm, the system outputs are generated according to random weights. Then the error is calculated and propagated back to the network and the weights are updated. This loop is executed until the error asymptotically converges to a small neighbourhood of zero. The better performance of a neural observer would be apparent in comparison with a classical high gain observer. Applying this method for estimating the state variables of cell dynamics results in a reduction in the number of tests and the required samples, which will consequently reduce costs and prevent wasting leukemic patients' time.

Keywords: chronic myelogenous leukemia, nonlinear systems, neural observer, high gain observer.

1. MSc, faculty of Engineering, University of Qom, Qom, Iran
2. Assistant Prof., faculty of Engineering, University of Qom, Qom, Iran   r.ghasemi@qom.ac.ir
3. PhD. Student, faculty of Engineering, University of Qom, Qom, Iran   amin.sharafian@gmail.com

Table of Contents