



1-1-2010

The Impact of Team Member Familiarity on Communication Media Use and Subsequent Project Performance

Priscilla Arling
Butler University, parling@butler.edu

Hongjiang Xu
Butler University, xhu@butler.edu

Follow this and additional works at: https://digitalcommons.butler.edu/cob_papers

 Part of the [Management Information Systems Commons](#), and the [Organizational Behavior and Theory Commons](#)

Recommended Citation

Arling, Priscilla and Xu, Hongjiang, "The Impact of Team Member Familiarity on Communication Media Use and Subsequent Project Performance" (2010). *Scholarship and Professional Work - Business*. 142. https://digitalcommons.butler.edu/cob_papers/142

This Article is brought to you for free and open access by the Lacy School of Business at Digital Commons @ Butler University. It has been accepted for inclusion in Scholarship and Professional Work - Business by an authorized administrator of Digital Commons @ Butler University. For more information, please contact digitalscholarship@butler.edu.

COMMUNICATIONS OF THE ICISA

Spring 2010
Volume 11, Number 1

Table of Contents

From the President
From the Editor

Using Similarity Theory to Examine Inconsistencies in Nursing Communication	1
<i>Sharie L. Falan</i>	
Buying Patterns at a Retail Chain Store: Neural Net, Affinity and Market Basket Analysis	28
<i>Kuriakose Athappilly, Muhammad A. Razi, and Anoop James</i>	
Investigating the Joint Effect of Two Types of IS Support for Top Managers' Dynamic Capabilities on Firm Performance in the Dynamic External Environment	42
<i>Michael J. Zhang</i>	
The Impact of Team Member Familiarity on Communication Media Use and Subsequent Project Performance	57
<i>Priscilla A. Arling and Hongjiang Xu</i>	

Using Similarity Theory to Examine Inconsistencies in Nursing Communication

Sharie L. Falan

Western Michigan University, Kalamazoo, MI, USA

sharie.falan@wmich.edu

ABSTRACT: Inconsistencies in communication lead to errors in healthcare and can result in devastating patient outcomes. This comparative study examined communication inconsistencies in the context of similarity. The words and phrases nurses used to represent commonalities in two sets of paired images were examined, categorized to four similarity levels (surface, literal, thematic, and analogy) and compared. Surface similarity is the least complex and each remaining level is more complex with analogy as the most complex level. Significant differences in the communication patterns of nurses emerged. Nurses with more education used the least complex similarity levels, and those with the least amount of medical-surgical experience used more complex similarity responses. The nurses also rated the similarities between images and identified the most important similarity. There were positive correlations between the most important similarity identified and similarity rating among nurses with Associate Degrees in Nursing (ADN) and Baccalaureate Degrees in Nursing (BSN) with the least amount of medical-surgical experience. Implications for nurse educators and information technology designers are discussed.

Keywords: communication, nursing, education, documentation, technology

Buying Patterns at a Retail Chain Store: Neural Net, Affinity and Market Basket Analysis

Kuriakose Athappilly

Western Michigan University, Kalamazoo, MI, USA

Athappilly@groupwise.wmich.edu

Muhammad A. Razi

Western Michigan University, Kalamazoo, MI, USA

muhammad.razi@wmich.edu

Anoop James

Western Michigan University, Kalamazoo, MI, USA

anoop.james@wmich.edu

ABSTRACT: This is a market basket analysis study that focuses on baby items sales in department stores of a giant supermarket chain located in the Midwest region of United States of America. The purpose of this study is to analyze sales of baby items arranged in two different ways: a) all baby items displayed in a specific location, named ‘baby center’ and b) the baby items displayed in different isles of different locations/sections of the department store. For the purposes of this study, we call them ‘non-baby centers’. The methods employed for analysis include Neural Networks, Affinity analysis and Market Basket Analysis. Conclusions regarding consumer buying pattern and relative merits and demerits of creating two different configurations for baby items and non-baby merchandise are drawn after pulling results from these methods and putting them together.

Consumer buying patterns and items that are most frequently purchased together are analyzed using neural net methods and market basket analysis. This study analyzes the pros and cons of two different centers for baby and non-baby items at a retail store. Results show that effective predictions on consumer buying patterns can be made by combining results from different tools.

Keywords: Market Basket, Neural Networks, Affinity Analysis, Buying Pattern.

Investigating the Joint Effect of Two Types of IS Support for Top Managers' Dynamic Capabilities on Firm Performance in the Dynamic External Environment

Michael J. Zhang

Sacred Heart University, Fairfield, Connecticut, USA

zhangm@sacredheart.edu

ABSTRACT: While information systems (IS) have long been designed and used to support top managers and their work, there is scant research attention to whether and how IS support for top managers contribute to a firm's competitive success. Drawing from the dynamic capabilities perspective in the strategic management research, this paper argues that firms can develop and deploy IS to support two critical dynamic capabilities (fast response and mental model building) of their top managers and that the simultaneous IS support for both capabilities may lead to competitive advantage in the dynamic external environment. This argument received some initial support from a study using both survey and archival data.

Keywords: information systems, dynamic capabilities, top managers, environmental dynamism, firm performance

The Impact of Team Member Familiarity on Communication Media Use and Subsequent Project Performance

Priscilla A. Arling

Butler University, Indianapolis, IN, USA

parling@butler.edu

Hongjiang Xu

Butler University, Indianapolis, IN, USA

xhu@butler.edu

ABSTRACT: This study explores how team member familiarity is related to the communication media used in the completion of projects and how that use impacts project performance. We surveyed 148 university undergraduate students who were enrolled in information systems courses. The students worked on projects in teams of 3 to 4 students. The results suggest that prior collaboration with current team members, as well as a student's class year, are related to what communication media are used. The influence of team member familiarity and class year varies by the type of media used. We also find that higher levels of text messaging are related to lower project performance. The results have implications for practitioners and educators looking to enhance project performance.

Keywords: communication media, familiarity, teams, project performance
