

RESEARCH

Emirates Aviation University Research Newsletter



Message from the Director of Research

by Professor Zindoga Mukandavire

Welcome to EAU monthly newsletter in which we share news on research activities, outputs, and other research related information.

In this edition, we highlight seminar presentations for this month given by faculty members in the Business School and School of Mathematics, Statistics & Computing. The seminar presentations covered very interesting topics, and their link demonstrated great potential for multidisciplinary research collaboration within the schools.

The first seminar focused on using statistical approaches in exploring factors affecting buying behaviour of women in the UAE and the second seminar demonstrated the utility of recommender systems in clothing industry using machine learning approaches. I would like to thank colleagues who volunteered to share their research in these seminars. As noted in the previous newsletter, the Research Office will continue to organise similar seminars and welcomes external speaker recommendations and invitations from faculty.

IN THIS ISSUE

MESSAGE FROM THE DIRECTOR OF RESEARCH

SEMINARS

RECENT PUBLICATIONS

This edition also includes a list of recent publications for this month.

Again, I would like to encourage all faculty to contribute to the newsletter by sharing news of your research work and sending us comments and suggestions on how we should improve future newsletter editions.



Seminars

The Research Office organised two seminars series in the month of May with speakers from the Business School and School of Engineering and School of Mathematics, Statistics and Computing. The titles and abstracts of the research talks are given below. Readers interested in the presentation slides and video recordings can contact the Research Office.

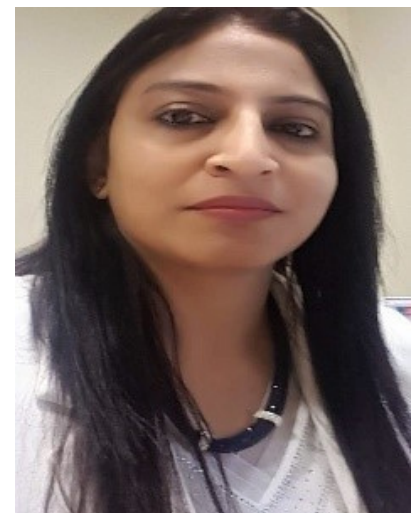
Seminar # 1 - 5th May 2021

Exploring the Factors Affecting Buying Behaviour of Women in UAE

by Dr Nidhi Chaturvedi

EAU Business School

Purpose: The purpose of this study is to investigate the various factors affecting consumer buying behaviour in UAE for beauty products with special reference to the Emirates of Dubai and Sharjah. The four factors of buying behavior studied were Personal, Psychological, Cultural and Social.



Design/ Methodology: Extensive research of the relevant respondents was done. The questionnaires were collected from 576 female consumers who are all using cosmetics. The research used Non-Probability sampling method and adopted Judgement sampling technique for the research.

The instruments of this study involved two parts: the first section of the instrument consisted of forced-choice questions about demographic characteristics: nationality, marital status, age, occupation, monthly income level and nature of residency in UAE. The second section of the study consisted of variables chosen in order to measure the factors influencing consumer buying behavior in cosmetics products. The Statistical Package for the Social Science (SPSS) was used to complete the analysis of the collected data. Descriptive statistics, including means, standard deviations and percentage analysis were implemented in order to investigate the demographic data. One-way analysis of variance (ANOVA) was used to determine whether any significant relationships exist among respondents. The study used Principal Component Analysis (PCA) as an extraction method for Exploratory Factor Analysis (EFA) followed by Confirmatory Factor Analysis (CFA) on explored and established factors. KMO test for Sampling Adequacy and appropriateness of Factor Analysis, Bartlett's test of sphericity, Reliability analysis using Cronbach alpha and Pearson Correlation were used for data analysis. In addition, the .05 level of statistical significance was set at all statistical tests in the present study.

Findings: The findings suggest that the Cultural factors followed by Personal and Social factors were significant for women in UAE while they make their purchase choices. Psychological factors were found to be moderately affecting the behavior of the consumers.

Research Limitations and Implications: The field is ever evolving due to the changes in the global social and economic environment. Much research still needs to be carried out in new products and new markets.

Originality Value: The paper covers the various factors of complex buying behavior for women consumers in UAE. The field is lesser explored and throws many new insights on the UAE market and consumers.

Seminar # 2 - 19th May 2021

A comparison of Content and Image Based Recommender Systems: Machine Learning Approaches

by Mr Mirza Baig

School of Mathematics, Statistics and Computing

Recommender systems are widely popular in many situations, like web-based systems catering to ecommerce, movies and books. For this purpose, a lot of approaches and algorithms have been proposed to serve the user or consumer with best possible recommendations. In this regard, content-based recommendation is one of the commonly used approaches; however, these days a new trend has been set by giving recommendations through images. This gave rise to a new

recommendation approach, commonly called "Image Based Recommenders". In this talk, my approach entails a comparative study of content based and image based recommender systems in the context of clothing recommendations for the user. The expected outcome of this study would be the answer to the question on how relevant are the results-to the user- that are produced by different algorithms from both approaches and whether there is any correlation between them? The findings from this study are key in identifying the most suitable algorithm or approach that best fits the domain of clothing business based on the relevancy of results for the user.



Recent Publications

1. Ahmed R & Rani R, Some Algebraic Structures On Poset And Loset, Turkish Journal of Computer and Mathematics Education Vol.12, No.11 (2021), 3877-3880.
<https://www.turcomat.org/index.php/turkbilmamat/article/view/6502/5367>
2. Cuadros DF, Branscum AJ, Mukandavire Z, Miller FD & MacKinnon N. Dynamics of the COVID-19 epidemic in urban and rural areas in the United States. Ann Epidemiol. 2021 Apr 22; 59:16-20. doi: 10.1016/j.annepidem.2021.04.007.

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