



EJMS

**EUROPEAN JOURNAL OF
MULTIDISCIPLINARY STUDIES**

January – June 2022

Volume 7 Issue 1

ISSN 2414-8385 (Online)

ISSN 2414-8377 (Print)

ISSN 2414-8377



REVISTIA
PUBLISHING AND RESEARCH

EUROPEAN JOURNAL OF MULTIDISCIPLINARY STUDIES

January – June 2022

Volume 7 Issue 1

Every reasonable effort has been made to ensure that the material in this book is true, correct, complete, and appropriate at the time of writing. Nevertheless, the publishers, the editors and the authors do not accept responsibility for any omission or error, or for any injury, damage, loss, or financial consequences arising from the use of the book. The views expressed by contributors do not necessarily reflect those of Revistia.

Typeset by Revistia

Copyright © Revistia. All rights reserved. No part of this book may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without written permission from the publisher or author, except in the case of a reviewer, who may quote brief passages embodied in critical articles or in a review.

Address: 11, Portland Road, London, SE25 4UF, United Kingdom

Tel: +44 2080680407

Web: <https://ejms.revistia.com>

Email: office@revistia.com

Indexed in Elsevier's Mendeley, WorldCat, RePEc & Ideas, Google Scholar, Index Copenicus, Crossref

International Editorial and Scientific Advisory Board

Javier Cachón Zagalaz, PhD - Universidad de Jaén, Spain
Sevim Yılmaz, PhD - Pamukkale University, Denizli Turkey
Bartosz Kaźmierczak, PhD - Poznań University of Technology, Poland
Souad Guessar, PhD - Tahri Mohamed University of Béchar, Algeria
Warda Sada Gerges, PhD - Kaye College of Education, Israel
Gonca Atıcı, PhD - Istanbul University, School of Business, Turkey
Enkhtuya Dandar - University of Science and Technology, Mongolia
Sri Nuryanti, PhD - Indonesian Institute of Sciences, Indonesia
Balazs Hohmann, PhD - University of Pécs, Hungary
Basira Azizaliyeva, PhD - National Academy of Sciences, Azerbaijan
Natalia Kharadze, PhD - Ivane Javakhishvili Tbilisi State University, Georgia
Selma Maria Abdalla Dias Barbosa, PhD - Federal University of Tocantins, UFT, Brazil
Neriman Kara - Signature Executive Academy UK
Gani Pllana, PhD - Faculty of Mechanical Engineering, University of "Hasan Prishtina", Kosovo
Tatiana Pischina, PhD - Academy of Economic Studies, Moldova
Thanapauge Chamaratana, PhD - Khon Kaen University, Thailand
Sophia Moralishvili, PhD - Georgian Technical University, Tblis, Georgia
Irina Golitsyna, PhD - Kazan (Volga) Federal University, Russia
Michelle Nave Valadão, PhD - Federal University of Viçosa, Brazil
Ekaterine Gulua, PhD - Ivane Javakhishvili Tbilisi State University, Georgia
Mariam Gersamia, PhD - Ivane Javakhishvili Tbilisi State University, Georgia
José Jesús Alvarado Cabral, PhD - Centro de Actualización Del Magisterio, Durango, México
Jean d'Amour - Åbo Akademi University, Finland
Ornela Bilali, PhD - "Aleksander Xhuvani" University, Albania
Niyazi Berk, PhD - Bahcesehir University, Istanbul, Turkey
Suo Yan Ju, PhD - University Science Islam, Malaysia
Jesus Francisco Gutierrez Ocampo, PhD - Tecnologico Nacional de Mexico
Goran Sučić, PhD - Filozofski fakultet, sveučilišta u Splitu, Hrvatska
Ewa Jurczyk-Romanowska, PhD - University of Wroclaw, Poland
Siavash Bakhtiar, PhD - School of Linguistics, Queen Mary University of London, UK
Chandrasekaran Nagarajan, PhD - IFMR Graduate School of Business, India
Carmen Cecilia Espinoza Melo, PhD - Universidad Católica de la Santísima Concepción in Chile

Felice Corona, PhD - University of Salerno, Italy
Lulzim Murtezani, PhD - State University of Tetovo, FYROM
Ebrahim Roumina, PhD - Tarbiat Modares University, Iran
Gazment Koduzi, PhD - University "Aleksander Xhuvani", Elbasan, Albania
Sindorela Doli-Kryeziu - University of Gjakova "Fehmi Agani", Kosovo
Nicos Rodosthenous, PhD - Aristotle University of Thessaloniki, Greece
Irene Salmaso, PhD - University of Florence, Italy
Non Naprathansuk, PhD - Maejo University, Chiang Mai, Thailand
Sassi Boudemagh Souad, PhD - Université Constantine 3 Salah Boubnider, Algérie
Nino Orjonikidze, PhD - Gori State Teaching University, Georgia
M. Edward Kenneth Lebaka, PhD - University of South Africa (UNISA)
Sohail Amjad - University of Engineering and Technology, Mardan

TABLE OF CONTENTS

ANTERIOR VIEW OF POSTURAL YOUTH BEHAVIOR: A CASE STUDY	1
NAJADA QUKA RIGERTA SELENICA	
THE CONSCIOUSNESS IN DREAMS, FILM, AND ARCHITECTURE.....	10
MAHREEN JUNAID	
STUDY ON MEASURING OF REAL ESTATE SPECULATIVE BUBBLE: EVIDENCE FROM TURKEY	18
NIYAZI BERK SABRIYE BIÇEN NADIRE SEYIDOV	
TEACHING AND LEARNING WITH MOBILE DEVICES IN THE 21ST CENTURY DIGITAL WORLD: BENEFITS AND CHALLENGES	26
LINA DIAS ANGELIN VICTOR	
TESTING A METHODOLOGIC APPROACH TO TERRITORY CATEGORIZATION USING CENSUS DATA	35
MARGARIDA MIGUEL COSTEIRA E PEREIRA HELENA GUILHERMINA DA SILVA MARQUES NOGUEIRA	
THE ATTRIBUTION THEORY OF AS A PSYCHO-SOCIAL APPROACH TO THE PERCEPTION OF OCCUPATIONAL HEALTH AND SAFETY: A FOCUS GROUP STUDY AMONG WOMEN WORKERS IN METAL INDUSTRY	49
SERPIL AYTAC GIZEM AKALP	
THE RELATIONSHIP AMONG JOB SATISFACTION, ORGANIZATIONAL COMMITMENT AND EMPLOYEES' TURNOVER AT UNILEVER CORPORATION IN NIGERIA.....	62
CHIEMEKE KINGSLEY CHIEDU CHOI SANG LONG HAPRIZA BT ASHAR	
PHYSICAL SKILLS IN MALE VOLLEYBALL PLAYERS 14-18 YEARS OLD.....	84
ALTIN MARTIRI	
DEMOCRACY IN CENTRAL EASTERN EUROPE AND EUROPEAN UNION	90

BLERINA MUSKAJ

THE RELATIONSHIP BETWEEN CULTURAL INTELLIGENCE AND PSYCHOLOGICAL WELL-BEING WITH THE MODERATING EFFECTS OF MINDFULNESS: A STUDY OF INTERNATIONAL STUDENTS IN TAIWAN..... 102

TZU-PING YANG
WEI-WEN CHANG

THE RELATIONSHIP BETWEEN JOB STRESS RISK FACTORS AND WORKPLACE WELL-BEING WITH THE MODERATING EFFECTS OF JOB BURNOUT: A STUDY OF SUBSTITUTE EDUCATORS FOR EARLY CHILDHOOD EDUCATION IN TAIWAN 114

CHIA-LIN KAO
WEI-WEN CHANG

THE REPRESENTATION OF MASCULINITY IN CINEMA AND ON TELEVISION: AN ANALYSIS OF FICTIONAL MALE CHARACTERS 128

HASAN GÜRKAN
AYBIKE SERTTAŞ

THE ROLE OF DEMOGRAPHIC FACTORS IN PREDICTING ORGANIZATIONAL COMMITMENT AMONG SECURITY EMPLOYEES..... 138

ABDÜLKADIR AVCI
RAMAZAN ERDEM

THE ROLE OF KNOWLEDGE IN COMPUTER COLLABORATIVE LEARNING RESEARCH..... 147

EVELINA DE NARDIS

Anterior View of Postural Youth Behavior: A Case Study

Najada Quka

PhD, Sports University of Tirane, Faculty of
Movement Sciences, Department of Education and Health

Rigerta Selenica

PhD, Sports University of Tirane, Faculty of
Movement Sciences, Department of Education and Health

Abstract

In the last two decades, incorrect posture has become significantly more widespread, particularly among school-aged children. According to various studies, scoliosis is one of the most prevalent incorrect postural types seen in school-aged children. The purpose of our study is to find out how common "Scoliosis" is among Albanian children. *Methodology:* About 308 kids aged 10 to 13 years (n = 151 girls, n = 157 boys) were randomly selected from Tirana public schools for this study. This group took part in a Posture Shape Examination (Anterior View), using Grid Chart Postural Analysis and the platform "Posture Screen Mobile®-PSM" (iPod). To provide exact information on their looks, children were photographed from the front (upright standing posture) wearing as little as possible. We analyzed the data statistically using "IBM SPSS Statistics 20," which included Descriptive and Frequency Analyze. *Results:* Our findings revealed that 34 individuals, or 11.03 % of the youngsters, had Scoliosis. This improper posture was more prevalent in 13-year-old youngsters (19.5%) than in children aged 10, 11, or 12. In comparison to females, boys were more impacted by scoliosis (12.7%) than girls (9.3%). The results reveal a minor difference in the degrees of postural displacement between boys (5.8185°) and females (5.4361°). Furthermore, postural displacement is greater in 13-year-old males (7.7650°) and 12-year-old girls (6.1458°). *Conclusions and Recommendations:* Based on the results of our study we conclude that incidents of anterior postural asymmetry occurred even in Albanian school-age children. Scoliosis, even why is detected more in boys, seems to be present in both genders. Based on these conclusions we recommend that parents, teachers, and children should be more informed about good posture and the problems that might arise from an incorrect posture. Further studies are important to be conducted in this field, in order to prevent the occurrence of these deviations and their aggravation in our young generation.

Keywords: Scoliosis, Children, Posture Asymmetry, 10-13 years old, Postural Deviations

Introduction

Because of the modernization process, which has significantly affected human postural structure, our daily routines have changed substantially. As a result, poor posture has become one of the most explored issues among scientists, as well as a problem that is fast growing among the youth. (Motow -Czyz et al., 2014; Brianezi et al., 2011) It has been revealed during the last two decades that the young generation is frequently driven to the usage of electronic devices (e.g., mobile phone, iPod, video game act), which has been proven to have an influence on upright standing, also known as "Posture." (Tremblay and Willms, 2000; Banfield, 2000; Misra et al., 2012). Even Kratenova confirmed this, stating that youngsters who spent 14 hours a week watching television or playing video games had the highest likelihood of developing improper posture. (Kratenova et al., 2007) Furthermore, it has been shown that there is a link between the way they sit or handle their schoolbag and the onset of Scoliosis. (Minoo et al., 2013) Children's postural abnormalities are thought to be caused by lengthy periods of sitting. This occurs because of long-term strain on various joints, which causes weariness in the muscles around them to relax. The body emerges from the ideal postural pose because of these relaxed muscles. The longer it remains in the incorrect postural position, the faster it might be accepted as good postural behavior if they continue to execute it. As a result, frequent breaks with minor moves over long durations of sitting may be the ideal strategy. This method may help their body straighten up again. Regrettably, many Albanian instructors have yet to use this technique. Many scientists should continue to attempt to reduce the lack of understanding about how to maintain an upright standing posture. As a youngster grows older, postural concerns become more obvious. In reaction to quick and gradual changes, their bodies perform compensatory movements in an attempt to restore a new balance, which usually results in the formation of postural abnormalities. Scoliosis is the most common postural deviation in children, and it looks to be on the rise in school-age children. (Latalski et al., 2013) Scoliosis is a malformation of the spine that causes lateral bending (left or right). Since the young asymmetrical body was one of the most prevalent symptoms recorded in years, scoliosis has been one of the most investigated postural disorders. Scoliosis was found to be 0.13 % in Kane and Moe's study, with females being more afflicted than boys are (1.5: 1). (Kane and Moe., 1970) The same was found in the Willner and Uden study stated that Scoliosis is more common in females than in boys, with 4.3 % in girls and 1.2 % in boys. (Willner & Uden., 1982) According to Karachalios, 1.18 % of participants had scoliosis, and there is no difference between girls and boys, therefore they were recognized in a 1:1 ratio in terms of scoliosis prevalence. (Karachalios et.al., 1999)

Aim: As a result, we decided to explore and assess the prevalence of this inappropriate postural form in school-aged Albanian children.

Research Methods

Participants:

In our study, 308 youngsters aged 10 to 13 years old were chosen at random from Tirana's secondary and elementary public schools.

Posture Test:

An IPAD "Posture Screen Mobile®" and a Postural Analysis Grid Chart were used to analyze 308 children aged 10 to 13 years ($n = 151$ females, $n = 157$ boys) for postural anomalies. The IPAD was used to photograph 308 children in frontal view, and then we used Posture Screen Mobile® (created by Dr. Joe Ferrantell in 2010) to statistically assess their postural form. To provide an adequate postural evaluation from a photo taken near the Postural Analysis Grid Chart, children were encouraged to wear only light clothes.

Statistical Analysis:

We used "IBM SPSS Statistics 20" to statistically analyze the acquired data, utilizing Descriptive and Frequency Analyze. In order to evaluate the presence of Scoliosis in our children's postural form, we analyzed the angle of posture displacement (in total) (Anterior View).

Results

Figure 1 shows that out of 308 participants, 49 % are girls and 51 % are boys, with a mean age of 11.5 years. Because the gender gap is not statistically significant, it has little impact on the prevalence of scoliosis by gender. Furthermore, it was shown that 13-year-old children were less engaged in this study due to their parents' opposition to their participation.

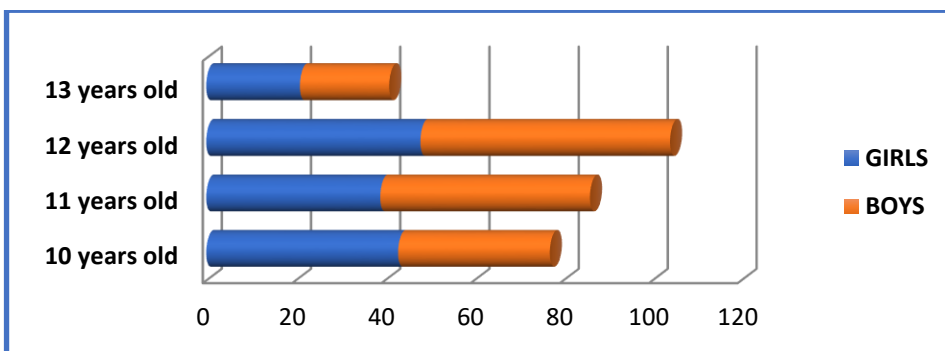


Figure 1. Participants by gender and age.

Table 2 shows that out of 77 children aged 10 years old, only 6 of them (3 boys and 3 girls) have light scoliosis, which means their spinal cord is deviated by $10^{\circ} - 20^{\circ}$ (Cob Angle, 1948). The prevalence of scoliosis at this age is 7.8%, therefore we can conclude that both genders are equally inclined to be impacted by scoliosis at this age.

ANTERIOR VIEW			BY GENDER			
SCOLIOSIS			Frequency	Percent	Frequency	Percent
			N	%	N	%
	Girls	Normal Posture	40	93.00	71	92.20
Age 10	N = 43	Light Scoliosis	3	7.00		
N = 77	Boys	Normal Posture	31	91.20	6	7.80
	N = 34	Light Scoliosis	3	8.80		

Table 2. Prevalence of scoliosis in children aged 10 years old, by gender.

Table 3 indicates the prevalence of scoliosis in 86 children aged 11 years old, which was found to be 8.1 %, with light scoliosis identified in only 7 of them (6 males and 1 female), contrary to table 2 results.

ANTERIOR VIEW			BY GENDER			
SCOLIOSIS			Frequency	Percent	Frequency	Percent
			N	%	N	%
	Girls	Normal Posture	38	97.40	79	91.90
Age 11	N = 39	Light Scoliosis	1	2.60		
N = 86	Boys	Normal Posture	41	87.20	7	8.10
	N = 47	Light Scoliosis	6	12.80		

Table 3. Prevalence of scoliosis in children aged 11 years old, by gender.

According to the result in Table 4, children aged 12 are more afflicted by scoliosis than those aged 10 and 11. Scoliosis was found in 12.5 % of 104 children aged 12 years old, which means that 13 of them (6 males and 7 girls) had light scoliosis. Furthermore, both genders exhibit scoliosis, with a modest quantitative difference but no statistically significant difference.

ANTERIOR VIEW			BY GENDER			
SCOLIOSIS			Frequency	Percent	Frequency	Percent
			N	%	N	%
<i>Age 12</i>	Girls	Normal Posture	41	85.40	91	87.50
	N = 48	Light Scoliosis	7	14.60		
<i>N = 104</i>	Boys	Normal Posture	50	89.30	13	12.50
	N = 56	Light Scoliosis	6	10.70		

Table 4. Prevalence of scoliosis in children aged 12 years old, by gender.

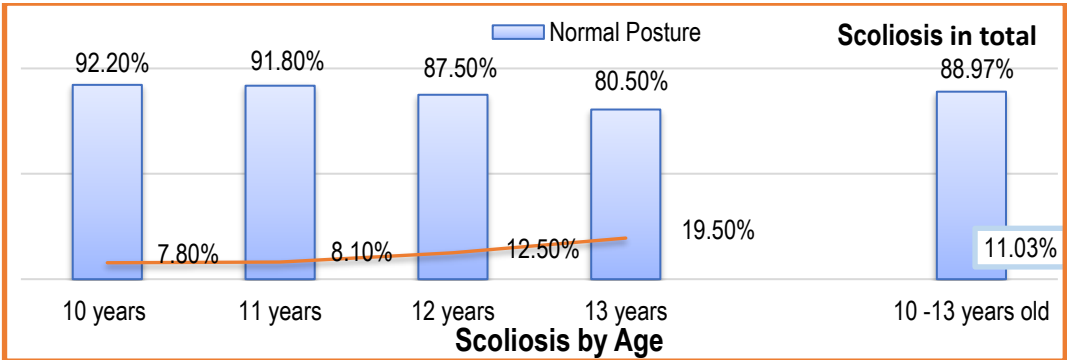
Table 5 shows that the prevalence of scoliosis is 19.5 % in 41 children aged 13 years old, which means that 8 of them (5 boys and 3 girls) had light scoliosis. Furthermore, results show that in this age group, boys are more likely to show scoliosis than girls are.

ANTERIOR VIEW			BY GENDER			
SCOLIOSIS			Frequency	Percent	Frequency	Percent
			N	%	N	%
<i>Age 13</i>	Girls	Normal Posture	18	85.70	33	80.50
	N = 21	Light Scoliosis	3	14.30		
<i>N = 41</i>	Boys	Normal Posture	15	75.00	8	19.50

	N = 20	Light Scoliosis	5	25.00		
--	-----------	-----------------	---	-------	--	--

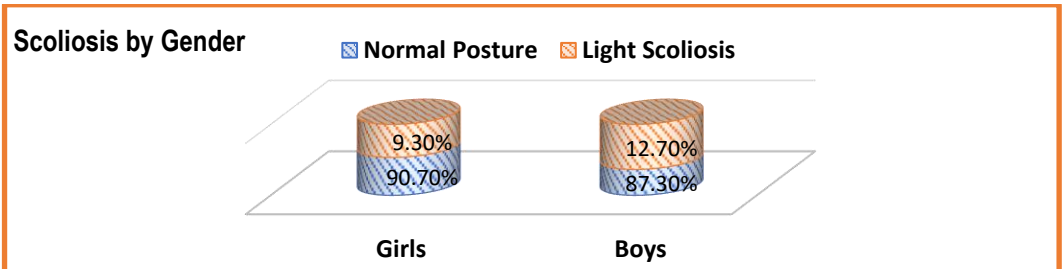
Table 5. Prevalence of scoliosis in children aged 13 years old, by gender.

As seen in Graphic 1, scoliosis becomes one of the most typically detected postural forms as children grow. Scoliosis affects 11.03 % of Albanian children aged 10 to 13 years old, according to the results.



Graph 1. Prevalence of *Scoliosis* in total and by age.

Graphic 2 shows the prevalence of scoliosis among all our participants (N=308; aged 10-13 years old), revealing that scoliosis is more common in males (12.7 %) than in girls (9.3 %).



Graph 2. Prevalence of *Scoliosis* by gender.

Table 6 shows that boys (5.8185⁰) have a more distorted posture than girls (5.4361⁰), which unfortunately appears to become much worse with time. Furthermore, the degree of postural displacement in females grows between the ages of 10 and 12, but after that, the posture displacement declines. The mean values of postural displacement are higher in 13-year-old boys (7.7650⁰) and 12-year-old females (6.1458⁰).

Descriptive Statistics	By gender
------------------------	-----------

Gender	Age	Min	Max	Mean	Std	Min	Max	Mean	Std
Girls N = 151	10	0.00	15.50	4.8453	3.2895	0.0	15.50	5.4361	3.2384
	11	0.00	12.20	5.0718	2.6433				
	12	0.00	14.70	6.1458	3.1451				
	13	0.00	15.00	5.7000	4.1370				
Boys N = 157	10	0.00	11.20	4.8176	2.9368	0.0	18.10	5.8185	3.5487
	11	0.00	12.70	5.2426	3.5932				
	12	0.00	15.50	6.2143	3.5294				
	13	2.80	18.10	7.7650	3.7465				

Table 6. Descriptive Analyze of Scoliosis by age and gender.

Discussion

Children's postural diversity has become one of the most explored and studied areas, especially among physical education professionals. As long as our children spend a significant amount of time in school, we must be vigilant about their long-term sitting position. Standing in the same posture for a long time relaxes muscles, resulting in an imbalance that impairs the upright standing position. All of this happens because of intolerable pressure operating on the same place of the body repeatedly.

It is crucial to emphasize why our study focuses on children aged 10 to 13 years old in order to examine the prevalence of postural deviations. All of this is connected to the fact that postural irregularities may be easily addressed by workouts only if they are detected before the developing process is completed, allowing ample time for repair. (Brianezi et al., 2011; Latalski et al., 2013; Cosma et al., 2015)

Recently, the incidence of postural deviations has grown among youngsters, as evidenced by Janakiraman's study, which concluded that bad posture has tragically reached pandemic proportions (Janakiraman, 2014). Based on these remarks, we decided to look into scoliosis and its incidence among Albanian children. When compared to other research, our findings revealed a reduced prevalence of this postural abnormality. Regardless, we must pay attention to this emerging health risk among Albanian youngsters in order to avoid it from becoming widespread. According to the findings of our study, 11.03 % of 308 Albanian children aged 10 to 13 years old were diagnosed with scoliosis, indicating that this global health concern

manifests itself in the posture of Albanian youngsters. These findings are consistent with recent research that show scoliosis is the most prevalent postural abnormality. (Kratenova et al., 2007; Bueno & Rech, 2013)

In the context of our research, it is crucial to note that the wide range of findings in different studies on the prevalence of scoliosis in children is understandable as long as diverse diagnostic procedures are used. (Purenovic, 2007; Bueno & Rech, 2013)

Our findings revealed that boys (12.7 %) are more affected by scoliosis than girls (9.3%), but this evidence contradicts the findings of international studies that claim that girls are more affected by scoliosis (Kane & Moe and Willner & Eden) and others who found that girls and boys are equally affected by scoliosis (Karachalios). This diversity is because of different tests and age groups of the referred research articles.

Conclusion and Recommendation

Based on our findings, we can clearly conclude that a scoliosis is a postural form that may be discovered in Albanian children. Furthermore, our findings revealed that girls aged 12 and males aged 13 were more harmed by this poor postural form than youngsters aged 10 to 11. Based on our findings, we need to be more cautious regarding the postural development of the next generation. Our future scientific purpose in this health concern will be to dig as deeply as possible in order to avoid its spread.

We recommend that parents must pay greater attention to their children's postural development because of the detected bad posture among Albanian youngsters. A periodic inspection by a professional must be the least of a parent's carelessness for their children's improved postural development. They have the ability to prevent the development of bad posture by asking and motivating them to maintain their bodies straight or involving them in an active lifestyle. Physical Education Teachers have a significant influence on the prevention of improper posture in youngsters. They are responsible for ensuring that children receive a good postural education during school hours. They should pay attention to preventing poor posture by keeping them informed about what good posture is, why it is necessary, when a postural shape is proper, and how to avoid it. Despite the fact that bad posture has become one of the most studied issues, it continues to be a serious problem in children's posture. All of this indicates that our research must continue and become more in-depth in order to help, at the very least, to minimize the number of incidences of this phenomenon.

Reference:

- [1] Brianezi L., Cajazeiro D.C., Maifrino L.B.M. (2011). Prevalence of postural deviations in the school of education and professional practice of physical education. *Journal of Morphol. Sci.* Vol.28, No.1, Pg.35-36.
- [2] Bueno R. C., Rech R.R. (2013). Postural deviations of students in Southern Brazil. *Rev Paul Pediatric.* 31(2):237-42.

- [3] Banfield M.A. (2000). The posture theory: some additional considerations. 11thed. Modbury, Australia: Pg.1004.
- [4] Cosma G., Ilinca I., Rusu L., Nanu C., Burileanu A. (2015). Physical exercise and its role in a correct postural alignment. *Physical Education, Sport, and Kinetotherapy Journal*. Vol. 9 No. 1. Pg. 39.
- [5] Janakiraman B. (2014). School bags and musculoskeletal pain among elementary school children in Chennai City. *International journal of medical science and clinical Invention*. Vol. 1, issue 6, Pg. 302-309.
- [6] Kratěnová J., Žejglicová K., Malý M., Filipová V. (2007). Prevalence and Risk Factors of Poor Posture in School Children in the Czech Republic. *Journal of School Health* Volume 77, Issue 3, Pg 131–137.
- [7] Kane W.J., Moe J.H. (1970). A scoliosis prevalence survey in Minnesota. *Clinical Orthopaedics*. 69(1):216-218
- [8] Karachalios T., Sofianos J., Roidis N., Sapkas G., Korres D., Nikolopoulos K. (1999). Ten-year follow-up evaluation of a school-screening program for scoliosis: is the forward-bending test an accurate diagnostic criterion for the screening of scoliosis? *Spine*. 24(22):2318-2324.
- [9] Latalski M., Bylina J., Fatyga M., Repko M., Filipovic M., Jarosz M.J., Borowicz K.B., Matuszewski L., Trzpis T. (2013). Risk factors of postural defects in children at school age. *Annals of Agricultural and Environmental Medicine*. Vol. 20, No 3, Pg. 583–587.
- [10] Minoo D., Nasser B., Mahmood Sh. (2013). Prevalence and causes of postural deformities in upper and lower extremities among 9-18 years old school females in Golestan province. *European Journal of Experimental Biology*. Vol. 3, No. 6, Pg. 115-121.
- [11] Motow-Czyż M., Orczyk A., Marek Orczyk. (2014). Postural defects correction in the process of physical education and sport. *Physical Activity Review*. Vol. 2. Pg.31-36
- [12] Misra A., Nigam M., Alagesan J. (2012). Effect of exercises in cervical postural deviation due to backpack in schoolchildren. *International Journal of Current Research*. Vol. 4, Issue. 08, Pg. 146-149.
- [13] Purenović T. (2007). Review of national and international research studies in postural deformities: The period from 2000 to 2007. *Physical education and sport*. Vol. 5, No 2, Pg. 139 – 152.
- [14] Tremblay M.S., Willms J.D. (2000). Secular trends in the body mass index of Canadian children. *Canadian Medical Association Journal*. 163(11):1429-1433.
- [15] Willner S., Uden A. (1982). A Prospective prevalence study of scoliosis in Southern Sweden. *Acta Orthopaedica Scandinavica*. 53:233-237.

The Consciousness in Dreams, Film, and Architecture

Mahreen Junaid

B-arch, M.A Interior Design,
National College of Arts, Lahore

Abstract

Dreams are a universal phenomenon and tie all mankind together. They have inspired man throughout history from influencing religious mythologies to various scientific innovations. Dreams have also inspired various art works. They are the ultimate visual, spatial and temporal experience and, due to this attribute, dreams are identified with the act of watching movies. Likewise, architecture provides visual, spatial and temporal experience. There are striking similarities between the medium of films and dreams experience. Thus movies have produced the most satisfying imitations of Dream experiences. But even though the architecture also provides a visual, spatial, and temporal experience, the attempt to portray dream characteristics deliberately is rare to find. This paper aims to narrow the gap regarding the understanding of the state of consciousness while experiencing dreams, films, and architecture. Thus, narrowing the gap between the three disciplines. The study is primarily based on qualitative data analysis. The research makes use of discoveries in the field of neuroscience and elaborates on the existing findings. The research concludes that all three disciplines have a lot in common and certain attributes of each can be experienced in the other.

Keywords: oneiric cinema, dreams, architecture design, oneiric architecture, neuroscience, consciousness

Introduction

Since the beginning of mankind, humans have been trying to comprehend dreams. The approximation of dreams with reality has led to their influence on religious mythologies. Many religions advocate dreams as divine messages from God. This is due to the fact that dreams appear so real that we are not able to deny their actuality when we are in them. The close to reality feeling about dreams has influenced and led people to act upon them, thus resulting in many scientific discoveries as well. Although dreams are identifiable from waking life, it's hard to avoid being influenced by them. A more common phenomenon is of nightmares where people may wake up as a result of anxiety evoked by dream content.

(Rodríguez, 2020) Thus, the state of consciousness in dreams has to be far more strikingly similar to waking life than it's generally perceived.

Dreams are visual, spatial, and temporal experiences and several art mediums have been used to illustrate dreams. However, cinema is the only medium that can generate the most satisfying dream portrayal than any other medium of art. (Juniad, 2021) People associate watching films with a dreaming experience. Like dreams, films also play with our perception and can generate relatable experiences. But on the other hand, architecture is an art form meant to inhabit people. It forms our consensus reality. It is a visual, spatial, and temporal experience and generates experience for our waking life. The role of buildings is not just to provide shelter but also to generate the identity and memory of a place. Movies are close to reality and life-like. The camera is used to capture reality out of which a new reality is generated, like the way a dream plot is generated out of fragments of waking life. While visualizing films, we devote our time to hallucinating another reality that is contrary to our existing reality.

Materials and methods

The research relies on qualitative research methods mainly. The research relates the neuropsychological findings with the experience of waking life, dreaming, and watching movies. It elaborated on co-relating the state of consciousness while dreaming and watching films. The interpretation of the state of consciousness in dreams is related to its most closely associated interpretation in architectural design and architectural elements. The aim is to aid in devising design interpretation of dream consciousness in architectural design when needed.

Results and Discussion

State of Consciousness

To identify the state of consciousness in the dream state and watching films, the neurological study of the brain is essential. While watching films, the synchronized part of the brain is the cortex and fusiform face area. (MILLER, 2014) Likewise, while dreaming visual cortex is a highly active part of the brain. (Burke, 2019) This is because dreams and films are both essentially visual experiences. In dreams, our brain elaborates on the visuals by proposing a narrative and plot. Similarly, while watching films, we comprehend the plot by linking the visuals. However, while we are dreaming, there is no room for generating new thoughts or engaging in another activity. Such as in the case of VR headset experience. (Community, 2021) The visual experience in dreams is so immersive that little room is left for the mind to wander around along with the brain engaged in proposing the narrative. But while watching films and in waking life there is room for the mind to wander round. There is room for ruminating after breaking the continuity of the experience. That is only when one is not focused on film for any reason. In dreaming, an exception is lucid dreams,

where one can consciously make decisions other than what is being projected as a visual and spatial experience. (Ursula Voss, 2009)

In dreams, there is decreased self-awareness, logical thinking, and a lack of sense of orientation. A similar experience is encountered when watching films in a cinema. Cinema is one such architectural program that helps viewers to give in to the screen visualization so as to hallucinate. This has particularly to do with the ability to sit and relax in dark surroundings where the only source of light and visualization is the screen for the viewers. In cinemas, we give-in to the visualization in front of us while we put our motor functions to rest. (Juniad, 2021)

It is important to distinguish the state of consciousness in dreams to be able to identify dream experiences from or with waking life and watching films. When we are experiencing the present or in a state of consciousness, our brain is continuously connecting our experience with memory while proposing plans for future actions, which is usually the same for experiencing architecture. While watching films and dreams, our memory does not help our movement with visual experience and our flow of thought is not guided by past experience, so our working memory is at rest. In dreams, we cannot choose how long we want to be part of a visual or spatial experience, the flow in space is unidirectional and repetition is a less experienced phenomenon. Only if dreams can be recorded, or in the case of an oneiric film we can always replay to re-live the dream plot. Dreams and cinema are able to hallucinate and to deceive perceptions. In architecture, such an effect has been created through the incorporation of media into spatial designs. Examples of this are projects by Team lab of Japan and the Museum of Dream space. (teamlab, 2015) Another type of approach can be found in the project Mimesis museum by Castanheira & Bastai Arquitectos Associados, Jun Sung Kim and Álvaro Siza. It has a hallucinatory effect in it. (Archdaily, 2013) It has a void that is partly a courtyard. On the human scale, it is hard to comprehend at first glance. Memisis is a mechanism of dreams that is part of the primary process. (Rascaroli, 2002) It is to displace or project attributes of what's causing disturbance into something associated with it in a signifying chain. So, in this museum, one can identify attributes of the courtyard projected in a void and vice versa.

Dreams have increased emotional experiences and anxiety is the most prevailing emotion of all. (moods, 2013) Dreams, architecture, and films can evoke emotions. The first display of the film of a moving train by the Lumier brothers is a classic example to understand that, as it made people rush for their lives. In architecture, building like the Berlin museum by Denial Libeskind evokes an emotional experience through its spatial design. The impact of the experience lasts even after visit of the building is over. During REM, the emotions experienced also can prolong further than the dream visual content. It is at times illogically related to the occurring dream events.

The visual composition of dreams is derived from fragmented visuals from memory. These fragments are regenerated in varying new compositions and arrangements. Such quality of juxtapositioning can be found in buildings such as Berlin museum and The Royal Ontario Museum by Denial Libeskind. Where the buildings of two distinct time periods are linked together. Thus, there are elements from two periods of time present in one place.

In dreams there is hyper association of thinking, perceiving, processing, and understanding of language. At this point mind is struggling to comprehend what it is exposed to. Thus resulting in dream plot or narrative. Such struggle in consensus reality occurs when we are exposed to either something new or something that may have hallucinating impact. The illusionary architecture can generate a sense of confusion and can result in struggle of finding a comprehension of spatial experience. KATHERINE MACDUFFIE, GEORGE A. MASHOUR (2010). Cinema is the medium through which an altered reality can be produced by the manipulation of captured reality. Cinema can portray the effect of de-familiarization. Such as in the case of Salvador Dali's *Un Chien Andalou* (1928) film. It uses Cinematographic techniques to destroy the symbolic order and to produce the effect of de-familiarization by presenting a familiar object and then disrupting it through montage. This same quality of narrative exists in surreal automatic writing, which was driven by the psychoanalytic technique of free association to suggest a disruptive narrative. Thus, Surrealist films used this method to illustrate disorientation. According to Baundry cinema creates an "impression of reality". While we are in dreams, they seem real, so dreams give the impression of reality. Thus, while we are in them, they are our reality. Likewise, when we experience architectural spaces, they are a component of our reality during the experience and it's when we are outside of a building we are able to differentiate it from other types of buildings and other types of spatial experiences. (Mormina, 2016)

In films, our prior waking life and dreaming experiences help the viewer to form link and connections in various shots of film. Our eyes correlate the movement in film as one consistent experience. They help us to assess scale, proportion, depth, texture, color, and light. (Academy, 2010-2022) We use our visual experience to judge and build imaginary out of the symbolic. Similarly, when we see a portion of space in the film, we assume it to be part of the larger context and we assume the space to be complete in itself. Such as in the case of the famous montage experiment by Eisenstein where our mind builds a relationship between the visuals juxtaposed together. (Admin, 2014). Such is our experience with dreams that we are exposed to fragmented visuals of spaces that are connected through perception and we perceive the space to be complete in itself. We talk about traveling to various places in a dream even though we are visually exposed to a fragmented vision of a space.

Co-relation of dreaming consciousness in architecture design.

Design theory is generally intended to enrich design through a developed concept around which the components and expressions of design rely upon. The expression helps formulate a method of analysis that is unique to the discipline and helps resolve design problems. (Elsemary, 2014) Since dreams and architecture are visual, spatial, and temporal experiences, the elaborate understanding of dreams can help device design theory for its possible interpretation in architectural design. Since movies have been used to portray the most satisfying illustrations of dreams, the study of oneiric cinema can provide an exemplary model for comprehension of the dreaming experience.

In dreams and films the visualization is generally out of the control of the visualizer. Similarly, when it comes to the design of a building it's the architect who devises the visual and spatial experience of the building for its user. When architects design a building they make decisions about the flow of people in the building. They can redirect, plan and control the flow of people in the space by manipulating the hierarchy of spaces or by playing with the scale of space for example with respect to human anthropometry. Thus the will of the user can be brought to rest unknowingly or unconsciously. Particularly in the case of public spaces, there is less in the hands of visitors to alter the visual experience proposed by the architect. Also in case of illusionary architecture, the movement of people can be further deceptive. Example for this is movement inside Ames room and movement around the Penrose triangle. (BROWNLEE, 2006) In the case of an impossible triangle, the working memory cannot help predict what's coming ahead while we are moving through the space, only a thorough investigation can lead to the comprehension of the space. Unlike dreams, architecture has a physical reality and a sense of permanence to it. Dreams and films are more fragile and are visual illusions. In case of buildings we are able to choose for how long we want to stay in one space and we can return to previously experienced space. We can also capture a building in multiple ways through camera and record it. By bringing dream scape into architectural experience architects can bring a sense of permanence to it. They can make illusive dream plots look more concrete, this will eventually and hopefully help to comprehend them in waking life. Dreams and films have hallucinatory effect on us. (Fusco, 2017) Furthermore, in dreams, there is a lack of color association and a natural pattern of luminance. Films have been portraying the uncanny through the process of lack of color association and natural patterns of illuminance such an example is of portray of jitterbug dance in the film Mulholland drive. Where the shadows of dancers don't correlate with their dance moves and the dance ends with the overexposed image of the leading protagonist of the film. In spatial designs, the art of anamorphism can portray a disruptive association of shadows, forms, and colors. Also, techniques like Thomp'e loei can create a very deceptive perception of space. In dreams, there is the absence of personality expression and moderation of social behaviors. Architecture may or may not be an expression of the personality of the client or an expression of the life

of someone in any way. This depends on the design philosophy that is being used for proposing design. It can be customized to decentralize it from being an expression of specific personality traits. To a certain extent, architecture has the ability to shape human social behaviors as well. (Lipman, 1969). For example, a window opening on the street enables the dwellers to keep a watch on the happenings in their neighborhood and sometimes vice versa. In films, many functions are associated with common, buildings elements of architecture such as windows, doors, walls, stairs, etc., showing their role in daily life and elaborating on them. (Anon., n.d.) A dream similarly, elaborates on the collection of visuals from waking life and generates an experience outside of our previous experiences. Thus, the elements in dreams are not far from identified by a dreamer. In cinematics set production is done to generate a specific spatial experience for a particular film sequence. The art of set production is similar to designing a building. In both a spatial experience is being shaped. In waking life, the movement of people within space is slower as compared to the shift of spatial frames in dreams and films. Our ability to communicate through a screen has a further blurred sense of reality, identity, personality, or physical characters of the users. This has broken down the 'physical' distance while maintaining a perception of distance. (Kacar, 2005)The incorporation of media in architectural spatial experience has revolutionized how architecture can be experienced today. (Community, 2021) dreams, Architecture and films both can evoke emotions but not necessarily the same type of emotions. Buildings can on purpose be created to generate anxiety such as haunted houses. Last but not least in dreams and films we are exposed to threats visually but not physically so a dream-like architecture may result in evoking emotions but can still be a safe spatial experience for all. And watching a film is usually physically a safe experience. The unique architecture program of cinema is devised to let people hallucinate in the dark while motor functions are at rest. (Juniad, 2021) Apart from cinematic experience, it's hard to disconnect people from awareness of self in waking life. An example of it is people being afraid of glass see-through bridges. They know they won't fall down but it cannot prevent them from fear of falling down. So their consciousness is connected with the awareness of the existence of self.

Conclusion

To a certain extent, the state of consciousness in dreams can be recreated in architecture through the design of its spatial composition. Today, all that is required to portray dreams in architecture is at our disposal but requires an active and conscious effort to do so. we can generate dream-related spatial experiences. However, one deliberate and coherent attempt is still due. Cinema is a suggested medium to study for architects in order to understand how a dream plot can be formulated such that it can generate an illusion of dreaming. A deeper study can be done by studying various film editing techniques that are used to generate oneiric

experiences. Comprehension of such techniques in design interpretation can further suggest methods of generating dream experiences in waking life.

References

- [1] Academy, S., 2010-2022. ARTH101: Art Appreciation. [Online] Available at: <https://learn.saylor.org/mod/page/view.php?id=4067> [Accessed 26 02 2022].
- [2] Admin, 2014. Soviet Montage Theory. [Online] Available at: <https://www.filmtheory.org/soviet-montage-theory/> [Accessed 26 02 2022].
- [3] Anon., n.d. CineMuseSpace ontology keywords. [Online] Available at: <http://www.cinemusespace.com/ontology.html> [Accessed 26 02 2022].
- [4] Archdaily, 2013. archdaily. [Online] Available at: <https://www.archdaily.com/78936/mimesis-museum-alvaro-siza-castanheira-bastai-arquitectos-associados-jun-sung-kim> [Accessed 2 Febrary 2022].
- [5] BROWNLEE, J., 2006. Wired. [Online]
- [6] Available at: <https://www.wired.com/2006/12/impossible-tria/> [Accessed 2 Febrary 2022].
- [7] Burke, C., 2019. What Happens in the Brain When We Dream?. [Online] Available at: <https://brainworldmagazine.com/what-happens-in-the-brain-when-we-dream/#:~:text=Activity%20in%20the%20limbic%20system%20is%20only%20one,one%20of%20the%20most%20active%20parts%20during%20dreams.> [Accessed 26 02 2022].
- [8] Community, 2021. What is Augmented Reality vs Virtual Reality?. [Online] Available at: <https://spatial.io/blog/what-is-augmented-reality-vs-virtual-reality> [Accessed 2 Febrary 2022].
- [9] Elsemary, Y., 2014. researchgate. [Online] Available at: https://www.researchgate.net/publication/326113816_Architectural_Theories_and_Design_Methodologies_Investigating_the_nature_of_relation [Accessed 1 2 2022].
- [10] Fusco, J., 2017. From Dream Sequence to Hallucination, What the Hell is Subjectivity, Anyway?. [Online] Available at: <https://nofilmschool.com/2017/02/subjectivity-film-movies> [Accessed 19 03 2022].
- [11] Juniad, M., 2021. Oneiric Cinema Creating a Collective Dream. *European Journal of Social Science* , 8(3), pp. 133-142.

- [12] Kacar, A. D., 2005. Proceedings of The 2nd International Conference for Postgraduate Researchers of the Built And Natural Environment (PRoBE), 16-17 November, Glasgow Caledonian University, Scotland. Rotterdam, in-house publishing.
- [13] Lipman, A., 1969. The Architectural Belief System and Social Behaviour. *The British Journal of Sociology*, 20(2), pp. 190-204.
- [14] MILLER, G., 2014. How Movies Synchronize the Brains of an Audience. [Online] Available at: <https://www.wired.com/2014/08/cinema-science-mind-meld/> [Accessed 26 02 2022].
- [15] moods, D., 2013. Dream moods. [Online] Available at: <http://www.dreammoods.com/dreamthemes/feelings.htm> [Accessed 3 2 2022].
- [16] Mormina, M., 2016. research.sabanciuniv.edu. [Online] Available at: https://research.sabanciuniv.edu/34572/1/MisiaMormina_10120289.pdf [Accessed 6 February 2022].
- [17] Rascaroli, L., 2002. Oneiric Metaphor in Film Theory. *Kinema: A Journal for Film and Audiovisual Media*, Issue fall 2002.
- [18] Rodríguez, D. G. S., 2020. How to Manage Trauma-Related Nightmares. [Online] Available at: <https://thepsychologygroup.com/trauma-related-nightmares/#:~:text=Trauma-related%20nightmares%20generally%20occur%20during%20REM%20sleep%2C%20which,soaked%20in%20sweat%20and%20with%20your%20heart%20pounding.> [Accessed 26 02 2022].
- [19] Society, C., 2003. c20society.org.uk. [Online] Available at: <https://c20society.org.uk/building-of-the-month/barcelona-pavilion> [Accessed 5 February 2022].
- [20] teamlab, 2015. teamlab. [Online] Available at: <https://www.teamlab.art/concept/transcending-boundaries/> [Accessed 02 February 2022].
- [21] Ursula Voss, R. H. I. T. a. J. A. H., 2009. Lucid Dreaming: A State of Consciousness with Features of Both Waking and Non-Lucid Dreaming. *Sleep*, 32(9), p. 1191–1200.

Study on Measuring of Real Estate Speculative Bubble: Evidence from Turkey

Niyazi Berk
Sabriye Biçen
Nadire Seyidov

Abstract

The investor's expectation of future price increases on real estate is causing to further rise of prices. In the 1990s, Turkey's real estate price / rental income ratio was around 10, now is between 17-20 years. On the other hand, as a result of insufficient innovation and incentive application of industry, some companies have left their core activity and moved to the construction industry. Studies using time series analysis with Turkey's data show that GDP growth and interest rates have a great impact on investment decisions of construction companies. Using Turkstat, Bloomberg and Eurostat data, the empirical part of this study present the relationship between interest rate and GDP growth and construction investments. The analysis will continue with cross-city-time-series analysis for a sample of 4 well-developed cities of turkey, in terms of construction investments. Finally, measuring the price-to-earnings ratio, the home price-to-rent ratio, the gross rental yield and the house ownership ratio will be compared to those of the metropolitan cities in Europe, whether there is a real estate bubble in Turkey or not.

Keywords: Construction industry, economic growth, recession, home price-rent ratio, real estate bubble.

Introduction

Property bubble refers to an increase in the price of a house that is not associated with such factors as wages, employment, construction costs, land value and interest rates. Real estate bubble can be described as differentiating from basic value by rising prices rapidly, at least for five years, as assets are measured frequently in modern economies. The holders of assets are positively affected by the increase of prices and an increase in their fortunes occurs. If the wealth is achieved by investing in national savings, the increase in wealth will be healthy. It is generally accepted that most of the past economic crises are triggered by housing bubbles. In this respect, it is important to identify housing bubbles. In the literature, asset bubbles are defined as a sudden rise, which in summary is separated from the expected market prices. The sudden

drop in prices after the sudden upsets is eventual bankruptcy and the economy tends to contract. However, there is no consensus on the preliminary design of housing bubbles in the literature. Some advocate that bubbles can be identified in advance, while others suggest that measures can be taken before they become more dangerous, others advocate that bubbles can not be detected, and recommend that measures should be taken to reduce the effects once they explode. However, some indicators and econometric models can be used to determine whether there is a housing bubble.

When housing bubbles burst, the balances in the general economy deteriorate through transmission mechanisms. According to Case and Shiller (2003), the housing bubble increases due to investors' expectations and speculative attacks, rather than the economic fundamentals of housing prices. Allen and Gale (1999) state that housing bubbles occurs generally in 3-stages. In the first stage, credit facilities increase after deregulation. In the second phase, prices decrease rapidly after a while. In the third stage, bankruptcies stemming from credit system are experienced. (Baker, 2007)

The leading figures of the explanatory indicators are price-income and price-rent ratio. The excessive increase of these ratios may be a signal of bubble. Other signals are the most concrete indicators of the unexpected increase in construction and vacancy rates, excessive decrease in interest rates, disproportionate increase in housing loans, and unrealistic expectations of investors. One or more of these indicators have been experienced in Japan, USA, Spain and Ireland. Econometric methods examine the relationship between housing supply and demand variables. If, for example, the price change of the established model is not high in explanatory power, it may indicate a bubble. In a method used by Hui and Yue (2006) and Jiang et al. (2011), they estimate prices by supply and demand variables, and express the difference between real and estimated prices as estimated housing price bubbles.

Major global housing bubble around the world

The Bank of Japan dropped interest rates in 1987 to 2.5 percent from 5 percent. Japanese banks, which preferably lend more to businesses, began to lend money to financial investors at the time due to the importance of stock markets and global investment opportunity. The government or banks did not have a measure against the case of non-repayment of credits or real estate values. When the bubble burst in late 1990s, economic growth stopped and businesses failure became more widespread.

Spain's housing bubble began in 2005 when social media and economists called on the Spaniards to buy assets. Local governments have earned millions by reclassifying land as rural to urban. Politicians and real estate developers have become millionaires of corruption, the real estate continued to grow bubble. However, while home prices continued to rise, salaries did not. As the risk of the Spanish banks increased, the central bank was not able to recover the situation.

At the beginning of the 1980s, there was a need for institutional arrangements aimed at helping citizens benefit from the modernization of the *Australian economy*. Towards the year 2000, low interest rates encouraged greater use of credit channels as a result of increased income. The creation of a private borrowing channel for housing purchases led to prices reaching unsustainable levels. Australia has the world's second highest rate of mortgage debt to GDP at 99%. Before 2009, there were times when the Australian home price index increased more than 10% in a year. There was a call for a bubble explosion of goods and an increase in regulation to prevent the housing crisis

The USA entered a period of great prosperity when it began to move from the wartime economy of the First World War to the economy of the peace period. When the entry of new technologies combined with the increasing entrepreneurial spirit, there is a strong link between the economy and the stock market. But in 1929 America's Great Depression era began in the 1920s. (www.brainyquote.com). In the recession period of 2001, housing prices continued to trend upward and showed a tendency to change, while other elements of the economy, such as the stock market and other interest-bearing investment activities, were stagnating.

There are basically two reasons to buy the real estate: Buying for the own usage and for the investment motive. Subjective motives play a role in purchasing the house to live in. However, if they are going to sell it in the future, it is aimed to gain from the price differences of buying and selling price.

The value of the property purchased for investment purposes must be carefully examined. The securities valuation methods with small modification in the financial literature can be applied to the real estate valuation. Three valuation principles can be summarized as cost based, income based and market-based approaches. The owner's production expenditures to build the real estate including land price or the replacement cost is a basis for selling price. But often the value attributed to the asset by the cost does not fit very well for the purchasing the real estate. The cost of the seller production or acquisition is often not a good measure, but the final price is determined by the supply and demand in the market.

The second principle is the income approach, cash flow generated real estate in form of rental income. Accordingly, the value of an apartment, shopping center or any real estate is determined by the cash flows (rental incomes) generated in the future." It is also necessary to discount the cash flow in order to calculate the pay back period of and net present value of the initial investment. This method is mainly based on the present value of cash flows that will be generated in the future. In the first step, future income is predicted. In the second step, cash flows are discounted and transferred to the present value finally the difference between discounted cash flows and initial investment gives the net present value of the investment.

The main reason for the discounting the cash flows is that we assume that, money to be received or paid in the future has less value, today, than an equal amount actually

received or paid today. The discount rate should also reflect the risks of the investment made. So the fundamental principle here is to adjust the discount rate according to the risk level of real estate and economic condition, the the higher investment risk a higher discount rate should be used.

The last approach is the market-value principle: "The idea behind this principle based on the question; what will be the market price of this real asset when it is sold." The role of real estate appraisers is great for this evaluation. Because they make a systematic appraisal, but they know that the price of other similar real estate for sale in the market should also not be ignored. Similar apartments close to the value of the real estate to be considered the price by making a near-sale comparison.

Since real estate is also a cash-producing asset, other projects can be evaluated on the same principle. However, the calculations of the discounted cash flow is not easy enough to be done from the head. That is why a more practical indicator of the real estate market is being used: cash yield. This indicator is based on the question of how many years will it take that the real estate will pay the initial investment (purchase price) through annual net rental income. For example, if the annual rental income of the real estate is \$10,000 and the selling price is 180.000 TL, it will pay back in 18 years.

In Turkey, commercial real estate are traded on average at prices equivalent to 15-20 pay back period and homes for 20-25 years. These numbers are lower than developed countries. It is therefore more attractive to invest in emerging country real estate in global comparisons. Of course, these payback periods can vary according to the territory and the neighborhood. The payback period plays a role rather than the price differences. There are various reasons for price differences. However an extremely high payback period may be signal of a bubble in the near future.

Literature Review

During the 2000s, bubbles of house prices were created in many countries. In an article named Hot Air's published in The Economist May 2003, six countries where houses are overvalued were America, England, Australia, Ireland, the Netherlands and Spain. Later, a lot of bubbles in housing prices confirmed this prediction in bubbles exploding in cities.

Himmelberg et al (2005) compared the level of housing prices with the local rental income by measuring the annual cost of single-family housing for the last 25 years of 46 metropolitan areas in the United States. Baker (2007) Using six metropolitan housing market data in three countries, he measured and compared the bubbles in housing prices. Using an asset pricing model, he identifies bubble periods retrospectively, and also evaluated the ability of various methods to identify bubbles repeatedly in the presence of bubbles. Given the complexity of the asset, the pricing approach he decided that a simple price-to-rent ratio measurement is a reliable method.

Valadez (2010) examined the relationship between home prices and US GDP before, during and after the period 2007, known as the global financial collapse. The housing price index and US GDP tested the degree of significance by analyzing the last five years' data, simultaneously and periodically, with regression analysis. The results indicated that there is a relationship between the two variables, a change in the housing price index of three months, which could lead to a three-month change in real GDP.

Thibodeau (2011), first explains the bubbles of house prices, then uses bubble indices for selected cities in the US for the period of 2000-2010, revealing bubbles in housing prices. The article then investigated some of the literature that tried to identify the bubbles, and then finally investigated the underlying reasons for this house price fluctuations.

As a result of the researches carried out to determine the contribution of the construction sector to emerging economies, have concluded in parallel with studies on industrialized countries that examine the relation between the same variables. The empirical studies examining Turkey's housing market are summarized briefly below. Aydın and others (2007), Hepşen and Kalfa (2009), Kaya et al (2013), Kargı (2013) and Özçelebi (2014), Bolkol (2015), Erol and Unal and Berk and Biçen (2017) examined the relationship between macroeconomic variables and the housing market. These studies investigated the effects of the construction sector on the economy in Turkey and emphasized the contribution in the short term. The majority of the studies found a relationship between the variables, while some studies emphasized that there is a strong relationship and other studies found moderate and weak relationship. Binay and Salman (2008) compared the price-income and price-rent ratios of Turkey with other countries using basically Ankara's data and their findings indicated that the housing bubble was not existed for period of 2000-2005 in Turkey. Coskun (2010) argues that the probability of a financial crisis arising from the housing sector is low because mortgage lending to GDP ratio in Turkey is lower than developed countries. Büyükduman (2012) determined a new housing price index for Istanbul and found that the sales price and rental income are in the vicinity of the long-term average. According to the results of the error correction model, found that only rental income and real interest rates were meaningful in the examined period of 2003-2012 in Turkey, defended that there was no housing bubble. In his empirical and detailed master thesis Karasu (2015) analyzed the recent trend of the housing sector in Turkey. Karasu has stated that the construction industry in Turkey is very active and the prices are going to increase in the near future due to the fact that the construction has increased rapidly and the prices have increased afterwards and that the sales of houses, the rapid increase in the lending and the increase in prices are not sustainable in the long run.

Methodology and data of the study

Price bubbles are frequent occurrences in property markets. Bubble refers to the fact that an asset has a significant and always incorrect price. A real estate can not be proved to be extremely high in prices unless bubble bursts, but repetitive patterns of real estate excess prices can be observed in the historical dataset. The main indicators for the existence of a bubble are the deterioration of the real economy, as a result of overcrowding mortgage credit and construction activity, where trends of asset prices are different from income or rent. In this study, it is examined whether there is a long-run relationship between housing prices, current price index, exchange rates and industrial production index variables of Turkey. Monthly data over the period 2010:02 and 2015:12 collected from TUIK, TCMB and Bloomberg and E-views 9 software was used for model analysis. In addition to the Johansen Cointegration test, the Granger causality test is used to define the direction between variables. We used Augmented Dickey Fuller and Phillips Perron Unit root tests for series with the individual intercept and without intercept. Lag length selection based on Schwarz Info Criterion with a max lag of 11. The study was continued with the co-integration test to determine the most stable linear combination of the considered time series. Johansen's Co-integration Test (1988) has been used for the exploration of stable long term relationships between variables. Unit root tests results as first step for this test shows us that all our variables are stationary at the first difference. Then we determine lag interval as 1 with VAR model. (appendix 1). We used the Granger causality test for analyzing the direction of causation between variables. H_0 hypothesis; $a \rightarrow b$ (a is not Granger cause of b) The null hypothesis of no causality is rejected if the F statistics exceed critical values 2.8 at 5% significance level.

Granger Causality test results shows us that exchange rates and industry production index causes housing unit prices; housing unit prices and current prices index causes exchange rates and exchange rates causes current prices index. We can summarize that there is bidirectional relationship between current prices index and exchange rates variables and between exchange rates and housing unit prices variables.

The real estate bubble exist currently in some region of Turkey particularly in the main centers of interest like Maltepe, Kadıköy, Sarıyer, and, Zeytinburnu, where urban transformation has continued in Istanbul. Rent and house price increases are not sustainable in these regions, real estate appraisal experts also approve of this development. In fact, the interest rates are fairly low compared to the earlier years, but the real estate prices are very high, We believe that the low interest rate in Turkey will end in the near future, since the CBRT will adjust the interest rate to the new risk profile of Turkey with global pressures.

This study measured the degrees of real estate bubble in four big cities of Turkey by index analysis for the period of 2001 to 2016. Briefly, we do not expect a real estate bubble burst in big cities of Turkey, however these exorbitant prices are not sustainable in some places.

References

- [1] Arsenault, M., Clayton, J., Peng, L., (2012), Mortgage Fund Flows, Capital Appreciation, and Real Estate Cycles, <http://static1.1.sqspcdn.com/static/f/1413632/18111570/1336581719407/arsenault2011fundflows.pdf?token=HtHSYH8Mnh3j3vgjQ2NpVcXM7A0%3D>
- [2] -Baker, D., (2007), Housing Bubble Update: 10 Economic Indicators to Watch, Center for Economic and Policy Research, Issue Brief February 2007.
- [3] Berk, C, *A critical Review on the Effect of Housing Industry to the Global Financial Crisis: The Case of Turkey*, International Journal of Economics and Finance Studies, 2010.
- [4] -Berk, N. and Biçen, S., Causality between the Construction Sector and GDP Growth in Emerging Countries: The Case of Turkey, 10th Annual International Conference on Mediterranean Studies, 10-13 April 2017, Athens, Greece April 10-11, 2017.
- [6] -Bourassa, S. C., Hoesli, M., Oikarinen, E. (2016), Measuring House Price Bubbles.
- [7] [file:///C:/Users/niyazi.berk/Downloads/measuring_house_price_bubbles_01-28-16_sb%20\(2\).pdf](file:///C:/Users/niyazi.berk/Downloads/measuring_house_price_bubbles_01-28-16_sb%20(2).pdf)
- [8] Cansen, E., 'Hürriyet Gazetesi', 25 Aralık 2010.
- [9] Case, K. E. and Shiller, R. J., Is there a bubble in the housing market?, Cowles foundation paper no. 1089, <http://www.econ.yale.edu/~shiller/pubs/p1089.pdf>
- [10] -Clayton J., Miller, N., Peng, L., (2008), Price-Volume Correlation in the Housing Market: Causality and Co-Movements, Springer Science + Business Media, LLC
- [11] <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.565.6858&rep=rep1&type=pdf>
- [12] -Gallin, J., (2004) The Long-Run Relationship between House Prices and Rents, Finance and Economics Discussion Series Divisions of Research & Statistics and Monetary Affairs Federal Reserve Board, Washington, D.C. <https://www.federalreserve.gov/pubs/feds/2004/200450/200450pap.pdf>
- [13] -Himmelberg, C., Mayer, C, and Sinai T., (2005), Assessing High House Prices: Bubbles, Fundamentals, and Misperceptions, Federal Reserve Bank of New York Staff Reports, no. 218, https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr218.pdf
- [14] -Holt, J., (2009), A Summary of the Primary Causes of the Housing Bubble and the Resulting Credit Crisis: A Non-Technical Paper, The Journal of Business Inquiry, 120-129
- [15] <http://www.uvu.edu/woodbury/jbi/articles>

- [16] Holzhey, M. and Skoczek, M. (2016), UBS Global Real Estate Bubble Index, For housing markets of select cities.
- [17] -International Monetary Fund (2017), Turkey, selected issues, prepared by Gregorio Impavido, Zoltan Jakab, Natalia, Novikova, Recai Çeçen, and Erdem Ataş, IMF Country Report No. 17/33
- [18] -Joebges,H., Dullien,S., Márquez-Velázquez,A., (2015) What causes housing bubbles? A theoretical and empirical inquiry, Institut für Makroökonomie und Konjunkturforschung Macroeconomic Policy Institute,., https://www.boeckler.de/pdf/p_imk_study_43_2015.pdf
- [19] -Thibodeau, T. G. (2012), Housing Bubbles, University of Colorado Real Estate Center, Encyclopedia of housing 2nd edition (2012), <http://realestate.colorado.edu/research/>
- [20] -Valadez,R. M. (2010), The housing bubble and the GDP: a correlation perspective, Pepperdine University, Journal of Case Research in Business and Economic.
- [21] <http://www.aabri.com/manuscripts/10490.pdf>
- [22] -Zhao,S. X. And Michael, B., (2016)How Big is the Chinese Real Estate Bubble and Why Hasn't it Yet Burst: A Comparative Study between China and World Major Financial Crises 1980-2014, Lincoln Institute of Land Policy, Working Paper WP16SZ2.

Teaching and Learning with Mobile Devices in the 21st Century Digital World: Benefits and Challenges

Lina Dias
Angelin Victor

Abstract

Mobile devices have introduced a new generation of educational tools that afford creative use and instant access to a wealth of resources. These devices hold great potential for transforming learning. On one hand teachers and students are very positive about these devices, on the other hand, there are several obstacles faced. This paper examines the benefits and challenges of mobile devices on learning and teaching. The study shows that teachers and students are optimistic about the use and influence of these devices on students' motivation, communication, collaboration and ability to research. Adequate training and support can help overcome the challenges faced.

Keywords: Classroom, learning, mobile devices, teaching.

Introduction

Learning in the 21st century is omnipresent with computer and technology and is gaining momentum in the lives of the young and becoming a part of education at schools. Student use technology on a daily basis and this has an impact on their education. Technology used effectively in the classroom enables students to be innovative while developing new skills and provides students with futuristic information. (Saxena, 2013). In recent time, the increase in use of technology is shifting traditional teaching methods in the classroom by facilitating learning in new ways. Mobile learning is the use of mobile technology to facilitate learning anytime and anywhere.

According to a UNESCO report (2013), mobile devices include any portable, connected technology, such as basic mobile phones, smartphones, e-readers, netbooks, tablets, iPads and computers. Marc (2001) points out that today students have not just changed incrementally when compared to those of the past. They are the first generation to grow up with electric devices of new technology. He adds that they have been using videogames, video cams, digital music players, cell phones, computers, and all other toys and tools of the digital age almost from their birth and are an essential part of their lives. He further says that today, mobile learning is a need but not a want. It is believed that by allowing students to use mobile devices in the

classroom, motivation to learn and to achieve increases (Kunzler, 2011). Hepple (1998) pointed out that just in the development of technology where these devices are becoming a reality. However, it is yet understood how learning and teaching will change with the access and use of these devices. Without such understanding, we are left with an insufficient analysis that creates the conditions for ill-informed policy decisions at educational institutes. It is of vital importance for teachers to augment or change the way they teach in order to entirely educate students and prepare them for scientific and technological global competitiveness for the 21st century.

The study addresses the benefits and challenges presented by the implementation of mobile devices in classrooms for teaching and learning at school. Though still in the initial stage, it is essential to highlight the challenges hampering systemic change. According to Alberta (2011), mobile devices not only eradicate many of the access issues but also reduce the need for teacher expertise and provide evidence of enriched learning instantly. As with the implementation of any new technology in education, there are challenges and mismatches in the classroom. The purpose of this study is to look at the benefits of mobile devices in education. It further looks into the challenges to the school, teachers and students in its implementation with suggestions.

Benefits of Tablets for Teaching and Learning

Many schools are now moving towards mobile learning in the classroom because of the new electronic devices that offer portability and ease of use on a budget. The new electronic devices include Netbooks, iPads, cell phones, iPods, e-readers and even PDAs. Recent research on use of various mobile devices in classrooms have revealed positive learning outcomes for its use in classroom.

Students are generally positive in using mobile devices for learning, which is essential for 21st century education (Wylie, n.d.). These devices enable students to control their individual learning and allow learners to switch learning contexts conveniently from formal to informal or personal to social. It keeps students engaged, attentive and motivated and allows interaction with the devices. Teachers also benefit from the use of these devices. There is evidence that mobile devices have encouraged independent learning making it easy for teachers to differentiate individual student needs and share resources with students and among each other.

For students, mobile devices are easy to use and attractive. These devices have larger screens, variety of apps, audio and video recording software, higher processing and battery power. Research on tablet use and adoption reports that electronic devices have a positive impact on students' engagement with learning (Mango, 2015). The research showed that students tend to spend more time and effort in learning tasks that are of interest to them. Clark and Lucking (n.d.) findings showed increased interest, creativity, enthusiasm, engagement, motivation, independence and self-regulation, and improved productivity in students. Doing activities and discussions facilitated by the mobile device, students find learning more fun as compared to a typical lecture-based classroom (Morrone et al, 2012).

When tablets and iPads are used in classrooms, they have had a profound impact on teaching and learning according to the research by Nishizaki, (2015). The research also showed that relationship in teaching and learning in the classroom changes and becomes more student centered and student friendly allowing for more creativity of the student. The numerous apps available allow students to work independently, in groups and as part of the whole class, developing a range of knowledge and skills. With an increase in the use of devices, creative processes are possible as the boundaries between formal and informal learning blurs. There is emerging evidence to suggest that apps have a significant potential to support the learning process (Shuler, 2009).

Teachers can create interactive presentations, which include students' observations and comments. Teachers can give lessons, monitor progress and stay organized. Simple-to-use and easy to create presentations with stunning animations and effects. Productivity applications help students and teachers put together professional-looking documents, presentations, and spreadsheets no matter where they are. Teachers' can directly write notes using these mobile devices during interactive discussion and these can be displayed on a projected screen for students. These notes can be saved, modified, uploaded and can be helpful to students who miss anything. Students can track their assignments, take notes, and study for finals using the notes.

Tablets and iPads help students feel more confident in their learning after participating in technology-driven activities by promoting active learning. Teachers could engage students in online discussion by linking all computers. The students can then take part in the discussion by writing on the screen. The mobile devices have the capacity to connect student and instructor and create more active discussions and more constructive reflection (Morrone, 2012), that includes teacher-teacher, student-student, teacher-student, and student- teacher, what they are discovering is possible with the device. With a device, the classroom is always at the students and teachers fingertips with thousands of educational apps available to download.

Mobile devices help forge closer connections between student and teacher. Both teachers and students have learned and developed effectively through exploration and by wanting to share knowledge with each other (Burden et al, 2012). Teachers, students and parents report that the multiple communication features, routine availability and easy accessibility of tablets in the classroom and in students' homes make communication between teachers and students, and school and home easier and routine. Positive evidence from parents such as: increased engagement and interest in learning, gaining knowledge and technology skills, more time spent on homework and more opportunity to make learning relevant and authentic. Parents' state that home-school communication improves with the introduction of mobile devices and lighter school bags is a major benefit.

The portability of mobile devices provides users with access to a broader and greater flexible source of learning materials than what is offered in current classroom

settings. In addition, it can be used anywhere, in physical education, music, dance or even in the swimming lesson. With over thousands of apps available to download, teachers have access to an abundance of learning materials for use on mobile devices such as the tablet. The teacher can easily update the student's data even when outside class that is without going to the desk or school. Tablets and iPad are fitted with sensors, cameras, microphones, accelerometer, touch screen, on-screen typing, Voiceover and Talkback. These features have made these devices a popular device for teaching and learning for students of special needs such as students with autism or speech disorder, motor skills impairments, attention deficit hyperactivity disorder, dyslexia and visual impairment. The touch screen enables them to access tablet effectively specially the student with motor skill impairments and voice output offers advantage to autism or speech disorder students. Mobile devices contribute to the development of skills and connect students with and without disabilities (Dwight, 2013).

Tablets and iPads have been overestimated as 'revolutionary' devices that hold great potential for transforming learning (Goodwin, 2012). One of the chief benefits of these mobile devices is that they enable learning anywhere, anytime. This allows a shift away from the traditional model where the classroom is the central place of learning driven by the teacher and limited to instruction within the school day. In deploying mobile devices, the teacher is no longer at the center of the learning process and the instructional time can surpass the school day.

The use of mobile devices provides many positive outcomes for students, staff, and the community. It not only improves writing skills and gravity of students' research but also increases student interest in learning and ownership of the learning process. There are reductions in lecture/presentation instruction and an increase in project based learning activities.

Challenges

In this digital era, more and more schools in many countries are taking advantage of these new mobile devices that offer portability and ease of use. Although the use technology in education is remarkable and has a positive trend, there is a need for concern, as there are several obstacles that restrain the integration of technology (Vrasidas, Kyriacou, 2008). The existing process needs to be reassessed and new methods may have to be implemented to be used in classrooms. The approach of throwing these devices into classrooms to see what happens is bad and definitely will have negative consequences. Although the students are in favor of mobile devices, they too have concerns. However, there are some concerns on the use of mobile devices in education raised by students, teachers and parents, which are discussed below.

Technology is developing at a rapid pace and it is an ongoing process. Traxler (2010) considers that devices owned by students are not designed for education use and are poorly suited for learning. Initially tablets and similar devices were developed for

personal use but of late, they are designed for educational purpose. Innovative technology is developing at a rapid pace and a number of apps for learning and teaching purpose are being introduced. The management experience some stress in taking decisions in choosing the apps that are best for learning and teaching. As Melhuish and Falloon (2010) noted that "for an application to be a part of an individual's learning pathway they must be pedagogically sound in designrather than focusing solely on content, engagement or edutainment."

In this era of digital technology, most children are immersed in digital technology. Homes are flooded with devices like smart phones, tablets, Xbox etc. These children spend most of their time playing games and watching movies and it has become a sedentary past time. However not all children have access to modern technology at home not only in developing countries but also in developed countries. Even if the developing countries introduced digital technology in educational institutions, it is only limited to urban regions while the rural and poor people continue to lag behind, due to lack of investment, infrastructure and skilled teachers. The tablets are expensive to purchase and the cost of maintenance is even higher.

Karsenti, & Fievez (2013) stated that students spend 76% of their time on using iPads outside the classroom on social activities, amusement and other recreation. Although students feel that use of tablet for learning would not intimidate them, as it is an omnipresent constituent of their daily activities; yet even the tech-savvy students may consume more time for learning activities until they are familiarized with the device. Not being competent in the use of mobile devices may frustrate them and they might not want to explore the capabilities. Majority of mobile devices used for education seemed to be messy and poorly executed. When students lose their confidence, they might have a negative outlook on education. It is observed that the students find it easier to use gaming applications than education apps.

Mobile devices when used inappropriately by students in classroom can be a source of distraction. Parents do not trust that their young children were responsible in their use and felt possible danger. Students find creative ways to do something on these devices than follow the teacher's instructions. With access to internet, their attention is diverted to gaming sites and social networking functions. Distraction is a big challenge to teachers. According to the study in Quebec, Canada 99% of students, using tablets say that they find it distracting in class (Karsenti, & Fievez 2013). Management in educational institutions have to take responsibility to block certain applications or websites; and teachers need to move around the class to control and monitor the use of such devices by students. In addition, they could create a place and time in the school for social networking than prohibiting.

Tablets are more fragile than computers; parents and teachers are concerned about the damage. In addition, these gadgets are expensive and when dropped or misplaced the loss is quite big as they are costly devices. There is also possibility of theft of the devices at school. Parents concern is how this could be replaced. Clarke & Svanaes

(2012) suggested that insurance could replace or repair the devices with some implications if the student broke more than one or two devices.

Reading a large amount of text on the small screen of mobile devices can be difficult and can cause eye strain (Shuler, 2009). There are a great variety of digital books available but schools have very limited access and some are also difficult to use. Schools should provide students with the link to online books. Some governments have urged schools to speed up the transition to digital textbook so that in the next few years every student in America should have a digital textbook (Torres and Lofholm 2013). A small number of students use digital books in middle and high school in America. In the future digital textbooks will replace the traditional paper textbooks, which will be lighter. Initially for schools cost of investment would be high but in the end, they would be able to save a considerable amount of money. Tablets are used in schools in ever-increasing numbers, as prices come down in a competitive market, and with the added attraction of over 100, 000 free or low-cost educational apps, and the arrival of tablets specially designed for schools.

It is observed that tablets do not have the required features in a single application. They look to be for receiving information than inputting. This is one of the major drawbacks of this device. Some students find it difficult to write lengthy text responses on the table due to lack of keyboards. Use of separate keyboards debilitate better power and reduce portability. Although it has an onscreen keyboard but when used, the view area becomes smaller and peculiar.

Morrone et al (2011) found that use of tablets for learning and teaching requires advanced planning and devotion of more time monitoring and supervising student's tablets explorations. When digital technology is introduced for learning and teaching, instructors have to quickly adapt and always have backup plans to face disruptions and distractions. It is also found that students adept and are faster compared to teachers. This is a sign that changes for adoption success are thin. Some teachers have found use of tablets for teaching and learning challenging, and some found the need for training on technical advices, lists of useful application, discussion of pedagogy and sufficient time to get used to the device. In addition, some teachers at school have shown reluctance to adopt to this new technology and have touted as transformative devices.

For use of tablets for teaching and learning at school requires internet connectivity with a proxy server. Internet is required to export response and other work created by students on their devices. At the same time, schools must restrict internet access to avoid inappropriate use. Setting up devices and account user names and passwords for individual students consumes school time of management, which is a probable barrier. Schools also have to consider adequacy of wireless network required for portability of the device. The use of device in classrooms need internet connectivity, for which students have to log in and out each time they use. Teachers have reported that they sometimes face disruption in their teaching plan due to bad

network or limited range of the wireless network.

Conclusion

Conclusions drawn show that the benefits overshadow the challenges. What is evident from the discussion is with proper training to teachers, supervision of students and awareness of mobile learning; educational institutes will soon be able to make rapid strides. Teachers deal with substantial challenges but when provided with adequate training and support the challenges are fewer. Using mobile devices allows students to extend learning beyond the classroom walls, says Harvard's Dede. In addition, students are highly engaged and are able to demonstrate unique and creative ways to respond to the use of technology that offers some distinctive affordances to users. It is important to remember that digital technology should enhance curricular goals and support student learning in new and transformative ways (Hutchison & Reinking 2011). Educational institutions need to take note of this, and look for safe, productive ways to integrate mobile learning devices into our curriculums. There has been very little research done on mobile learning and there is lot of scope for further research especially in evaluation and assessment.

Reference

- [1] Alberta (2011). *IPads: What are we learning? Summary report of provincial data gathering day*, ISBN 978-0-7785-9859-6 (Print) ISBN 978-0-7785-9860-2 (Online), Retrieved March 10, 2016, from <https://education.alberta.ca/learning-with-technology/overview/>
- [2] Burden, K., Hopkins, P., Male, T., Dr, Martin, S., Dr, & Trala, C. (2012, October). *IPad Scotland Evaluation (Rep.)*. Retrieved February 06, 2016, from The University of Hull website: <http://www.janhylen.se/wp-content/uploads/2013/01/Skottland.pdf>
- [3] Clark, W., & Luckin, R. (n.d.). *IPads in the Classroom (Rep.)*. Retrieved April 06, 2016, from Institute of Education University, London website: <https://digitalteachingandlearning.files.wordpress.com/2013/03/ipads-in-the-classroom-report-lkl.pdf>
- [4] Clarke, B., Dr, & Svanaes, S. (2012, December 04). *One-to-one Tablets in Secondary Schools: An Evaluation Study (Rep.)*. Retrieved March 22, 2016, from http://www.e-learningfoundation.com/Websites/elearningfoundation/images/PDF.Documents/Honeywood_2012_Barbie_Clark.pdf
- [5] Dwight, V (2013): *The apps have it. iPads and tablets are changing the face of special education* URL: <http://www.weareteachers.com/hot-topics/special-reports/assistive-technology-in-theclassroom>
- [6] Goodwin, K., Dr. (2012). *Use of Tablet Technology in the Classroom* (pp. 1-16, Rep.). Strathfield, New South Wales: NSW Curriculum and Learning Innovation Centre.

- [7] Hutchison, A. & Reinking, D. (2011). *Teachers' Perceptions of Integrating Information and Communication Technologies into Literacy Instruction: A National Survey in the U.S.* *Reading Research Quarterly*, 46(4).
- [8] Karsenti, T., & Fievez, A. (2013, December 09). *The iPad in education: Uses, benefits, and challenges A survey of 6,057 students and 302 teachers in Quebec, Canada* (Rep.). Retrieved March 18, 2016, from http://www.karsenti.ca/ipad/pdf/iPad_report_Karsenti-Fievez_EN.pdf
- [9] Kunzler, G. (2011, September 11). *Tablets motivate students to learn, improve the education experience.* *Tablet News*. Retrieved from <http://www.mactrast.com/2011/11/tablets-motivate-students-to-learn-improve-the-education-experience/>
- [10] Mango, O. (2015). *iPad use and student engagement in the classroom.* *The Turkish Online Journal of Educational Technology*, 14(1), 53-57. Retrieved March 15, 2016, from <http://www.tojet.net/articles/v14i1/1417.pdf>
- [11] Marc P. (2001), *Digital Natives, Digital Immigrants* By From On the Horizon (MCB University Press, Vol. 9 No. 5, October 2001) <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- [12] Melhuish, K., & Falloon, G. (2010). Looking to the future: M-learning with the iPad. *Computers in New Zealand Schools: Learning, Leading, Technology*, 22(3). Retrieved February 12, 2016, from <http://www.otago.ac.nz/cdelt/otago064509.pdf>
- [13] Morrone, A. S., Gosney, J., & Enge, S. (2012, April). *Empowering Students and Instructors: Reflections on the Effectiveness of iPads for Teaching and Learning*. Retrieved March 18, 2016, from <https://net.educause.edu/ir/library/pdf/ELIB1201.pdf>
- [14] Nishizaki, D. M. (2015). *The Effects of Tablets on Learning: Does Studying from a Tablet Computer Affect Student Learning Differently Across Educational Levels* (Unpublished master's thesis). Claremont McKenna College, United States.
- [15] Saxena, S. (2013, November 14). *How Can Technology Enhance Student Creativity?* Retrieved March 19, 2016, from <http://edtechreview.in/trends-insights/insights/750-how-can-technology-enhance-student-creativity>
- [16] Shuler, C. (2009, January). *Pockets of potential: Using mobile learning technologies to promote children's learning*. New York: The Joan Ganz Cooney Center at Sesame Workshop. From: http://joanganzcooneycenter.org/pdf/pockets_of_potential.pdf
- [17] Torres Z and Lofholm N (2013), *Colorado schools face challenges in transition to digital textbooks*. The Dever Post; http://www.denverpost.com/news/ci_24730836/colorado-schools-face-challenges-transition-digital-textbooks?source=infinite

- [18] Traxler, J. (2010). Will student devices deliver innovation, inclusion and transformation? *Journal of the Research Center for Educational Technology (RCET)*, 6(1), 2010th ser., 3-15.
- [19] UNESCO - United Nations Educational, Scientific and Cultural Organization report, (2013) by Shuller C., Winters N. & West M, *The future of mobile learning - Implications for policy makers and planner*, ISSN 2227-5029 Retrieved March 20, 2016, from United
- [20] Vrasidas, C., & Kyriacou, E. (2008). *Integrating Technology in the Classroom*. Retrieved March 26, 2016, from <http://www.integratingtechnologyintheclassroom.com/>
- [21] Wylie, J. (n.d.). *Mobile Learning Technologies for 21st Century Classrooms* [Web log post]. Retrieved February 22, 2016, from <http://www.scholastic.com/browse/article.jsp?id=3754742>

Testing a Methodologic Approach to Territory Categorization Using Census Data

Margarida Miguel Costeira e Pereira

Research Centre for Anthropology and Health; Department of Geography and
Tourism of the University of Coimbra

Helena Guilhermina da Silva Marques Nogueira

Research Centre for Anthropology and Health; Department of Geography and
Tourism of the University of Coimbra

Abstract

The more traditional perspective in Geography views territory as a dichotomous reality of sociodemographic and biophysical characteristics yet, literature states that both territorial dimensions coexist and interact. The number of indicators for each territorial dimension is vast which makes the territory categorization a complex task. Despite it, territory categorization generates knowledge about the differences between territories that improve the planning process and make it more directed and strategic. This work main goal is to test a methodologic approach to categorize Lisbon Municipality area at the statistical section level, integrating information on the physical and social aspects. For this purpose, multivariate and complementary statistical analysis techniques will be used: Principal Component Analysis (applied to the physical and social aspects of the territory) and Hierarchical Classification Analysis (based in the factors extracted in the Principal Component Analysis). The resulting clusters will then be mapped and its distribution will be tested for spatial autocorrelation.

Keywords: Territory; Principal Components Analysis; Hierarchical Classification Analysis; I of Moran.

Introduction

Territory can be defined as a delimited and precise space, with multiple dimensions, in which several power relations interact (Albagli, 2004; Faria and Bortolozzi, 2009).

Territory results from the integration of culture in the environment (Braga, 2007), however, it is not only a social construction resulting from historical power relations, but also a natural space (Haesbaert and Limonad, 2007).

The definition of territory varies according to different sciences, which makes this concept ambiguous (Faria and Bortolozzi, 2009). From a political point of view, territory is closely related to the borders of the State/Nation as in the environmental perspective the territorial biophysical characteristics are emphasized (Faria and Bortolozzi, 2009). Once territory integrates several dimensions, namely geographical, anthropological, cultural, social, economical and bioecological (Albagli, 2004), one can state that the choice of the aspects to be highlighted depends on the research objective and the researchers own conceptualization of territory (Faria and Bortolozzi, 2009).

This study is based on a geographical interpretation of the territory as a combined space, resulting from a set of processes in which the material, physical and social aspects of human action are inseparable and interdependent (Haesbaert and Limonad, 2007).

Albagli (2004: 27) states that: "Territorial differences and inequalities lie both in their own physical and social characteristics and in the way they fit into larger structures. Each territory is thus shaped by the combination of internal and external conditions and forces and must be understood as part of a spatial totality."

This means that each territorial unit is determined by endogenous and exogenous factors and also by the way they interact: they carry intrinsic characteristics, which give each territory a peculiar structure, and in turn determines the way each territory is integrated in wider spaces conditioning the evolution of its own internal structure.

The categorization and differentiation of each territorial unit by its level of development, or living conditions, for example, is an attempt of researchers to understand and explain the differences between territories (Martín e Barros et al., 2015). In addition, analyzing how territories relate to each other, observing the spatial networks formed according to certain aspects, allows strategic and more targeted planning (Martín and Barros, 2015).

For example, studies in the public health field often use deprivation indices at the area level rather than individual information to identify areas of greater vulnerability, thus less healthy, which are priority areas in the fight against health inequalities (Allik et al., 2016; Knighton et al., 2016). These indices, also called Geographic Deprivation Indices, generally use census data and are validated in Western Europe (Knighton et

al., 2016). Since deprivation is a multidimensional concept, composite indices in opposition to a single indicator better reflect the true level of deprivation at different geographic scales, as the existing evidence suggests (Lian et al., 2016).

As mentioned previously, each territory is the product of the interaction between physical and social aspects, and both dimensions of the territory are composed of a large number of indicators. The objective of this study is to classify the area of the Municipality of Lisbon, at the statistical section level, integrating information on the physical and social aspects, simultaneously, and to test the existence of spatial autocorrelation.

Methodology

This study was carried out in the Municipality of Lisbon, capital of Portugal, which is composed of 1054 sections. However, the analyses performed refer to 1053 sections due to lack of information for one section.

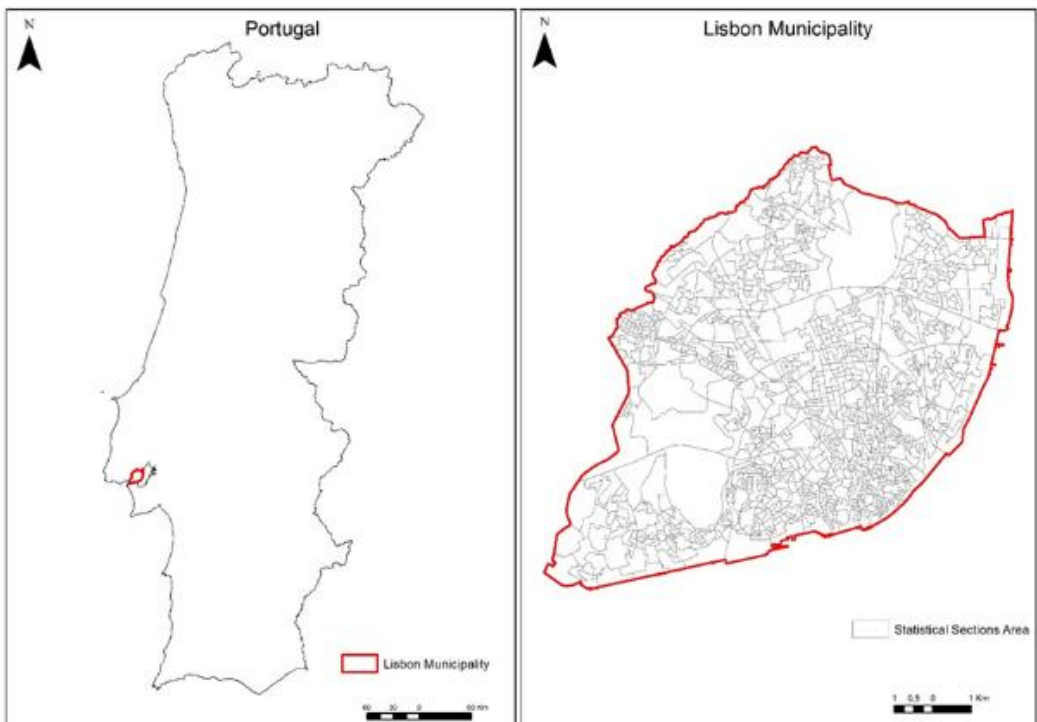


Fig. 1 Study Area: Lisbon Municipality by Statistical Sections

Data collection and organization

Data used in this study was collected at the statistical section level and was collected from the 2011 census. Sixty-one sociodemographic, economic and building variables were freely available and collected on the National Statistics Institute (INE) website. Information on land use (at level 2) was collected on the Territory General Directorate website and comprised 11 variables, dated from 2007.

Data were grouped in two large dimensions: Physical Aspects (PA) that include information on buildings and land use, and Social Aspects (SA) integrating demographic and socioeconomic information. Afterwards, the information was converted into percentage resulting in 34 indicators in the PA dimension and 24 indicators in the SA dimension.

Data Analysis

All statistical analysis was performed using SPSS (v.22) except the Moran I that was calculated in ArcGIS (v.10.4.1).

In order to reduce the number of indicators in each of the dimensions (PA and SA), the statistical method used was the Principal Components Factor Analysis (PCA). The PCA was performed with a Varimax orthogonal rotation, which facilitates the interpretation of the components by maximizing intra and intercomponent variation, thus seeking that in each component only some indicators present high loading values, appearing in the other factors with values close to zero.

PCA on PA initially resulted in 12 factors according to the Kaiser method (value of eigenvalues above 1). To reduce the number of factors, some of the original information was excluded (indicators that presented loadings between -0.49 and 0.49 in all the components initially extracted), which resulted in a new extraction of 6 factors. No indicators were excluded from the SA dimension because the results of the first analysis were more parsimonious: 5 factors. In addition to considering the loadings, the scores or coordinates resulting from the PCA were analysed and mapped.

PCA were followed and complemented by an Ascending Hierarchical Classification (AHC), commonly known as cluster analysis, performed with the 6 PA factors and the 5 SA factors. AHC was computed using the Ward method and the Euclidean quadratic distance as methods of similarities and distances between elements and between groups of elements.

Moran's I measures the spatial autocorrelation by analysing the degree of dependence between the values of the sections estimating how much of the value of each section depends on the values of the neighbouring sections. This index varies between -1 and 1 - the closer it is to 1 the stronger the spatial autocorrelation, the closer it approaches -1, the less similar are the neighbouring areas. When the value is equal to or close to zero it means that there is no spatial autocorrelation, that is, the study areas are spatially independent. In order to calculate the statistical significance of Moran's I, the pseudosignificance test was used.

Moran's I was calculated using CHA results (clusters), previously calculated in SPSS and imported into ArcMap. CHA was computed choosing the contiguity of boundaries and corners as the conceptualization of spatial relations, that is, taking into account the values of all the sections that share a border, a nodule or that overlap.

Results

Principal Components Factor Analysis

Physical Aspects

Table I shows the value of the highest loadings per factor and the respective percentage of variance explained. The six resulting factors account for almost 75% of the variance in this group of indicators.

Table I Loadings e % of variance explained per factor

Factor (% Explained Variance)	Indicator	Loadings	Designation
1 (28,76%)	% houses with water	0,953	Housing Conditions
	% houses with toilet	0,941	
	% houses with sewage	0,937	
	% houses with bath	0,731	
2 (14.49%)	% houses with 50m ²	0,855	House Dimension
	% houses with 1 or 2 divisions	0,696	
	% buildings without plate	0,668	
	% houses with 3 or 4 divisions	0,625	
3 (10.24%)	% empty houses	0,857	Non Residential
	% mainly non residential buildings	0,669	

	% family houses	-0,858	
4 (8.30%)	% buildings with 3 or more floors	0,838	Urban Area
	% urban land use	0,583	
	% buildings with 1 or 2 floors	-0,838	
5 (6.76%)	% buildings with plate	0,915	Construction Material
	% buildings with concrete	-0,723	
6 (5.60%)	% temporary crops	0,964	Agricultural Area

The first factor is related to housing conditions, such as the percentage of houses with water, toilet and sewage. The variables that most contribute to the second factor are the percentage of houses with 50m² followed by the houses with one or two divisions (Housing Dimension). The third factor is related to the percentage of empty houses and mainly non-residential buildings, as opposed to family houses (Non Residential). The percentage of buildings with 3 or more floors and the predominantly urban land use, as opposed to the percentage of buildings with only 1 or 2 floors are highlighted in the fourth factor (Urban Area). In the fifth factor, the indicator with the highest loading value is the percentage of buildings with plate (Construction Material), and finally in factor 6 (Agricultural Area), the percentage of land uses of temporary crops is the only indicator with a high loading value.

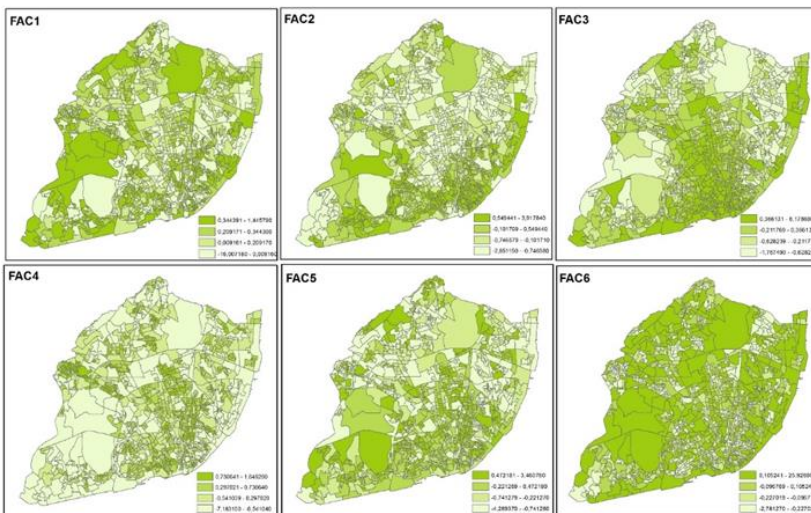


Fig 2 Spatial distribution of scores/coordinates of the factors categorized in quartiles

Figure 2 represents the spatial distribution of the scores/coordinates by statistical section, categorized in quartiles. This figure show that factors 1 (Housing Conditions), 2 (Housing Dimension) and 5 (Construction Material) do not appear to have any pattern in their distribution. Factor 3 (Non Residential) has higher values in the central sections as well as in the sections near the river. Most of the sections of the municipality of Lisbon have score values above 0 (mean value) in factor 4 (Urban Area), and the sections with larger area and more peripheral have the highest score values in factor 6 (Agricultural Areas).

Social Aspects

Table II shows the highest loadings per factor and the percentage of variance explained by the SA dimension. In this case, the five resulting factors account for almost 82% of the variance of this group of indicators.

Table II Loadings e % of variance explained per factor

Factor (% Explained Variance)	Indicator	Loadings	Designation
1 (35.68%)	% houses occupied by renters	0,889	Low Socioeconomic Level
	% residents looking for job	0,833	
	% classic families with unemployed	0,782	
	% residents who don't read or write	0,733	
	% residents with 6 years of schooling	0,725	
	% residents with 4 years of schooling	0,714	
	% residents with academic degree	-0,765	
	% classic families without unemployed	-0,782	
2 (26.39%)	% houses occupied by owners	-0,867	Socioeconomic Stable
	% employed residents	0,779	
	% residents employed in the tertiary sector	0,765	
	% residents between 15 and 64 years old	0,759	
	% residents with 9 years of schooling	-0,456	
	% residents 65 years old	-0,723	
3 (8.79%)	% retired residents	-0,769	Families with Under 15 y/o Children
	% classic families with 3 or 4 persons	0,805	
	% nuclear families with children less than 15 years old	0,72	
	% residents employed in the secondary sector	0,444	
	% residents with 12 years of schooling	-0,677	

	% classic families with 1 or 2 persons	-0,829	
4 (5.59%)	% male residents	0,904	Residents Gender
	% female residents	-0,904	
5 (5.09%)	% residents looking for first job	0,539	Families with Over 15 y/o Children
	% nuclear families with children above 15 years old	0,807	

Indicators in factor 1 are associated with the labour situation, educational level and type of residence housing (Low Socioeconomic Level). The second factor highlights individuals employed in the tertiary sector, in working age residents as opposed to residents over 65 and retired (Socioeconomic Stable). In factor 3 the percentage of families with 3 or 4 persons and with children under 15 years of age have the highest positive loadings and smaller families with a high negative value (Families with Under 15 y/o Children). The fourth factor is related to the percentage of male and female residents (Residents Gender) and, finally, the percentage of families with children above 15 years of age in search of the first job have higher loadings in factor 5 (Families with Over 15 y/o Children).

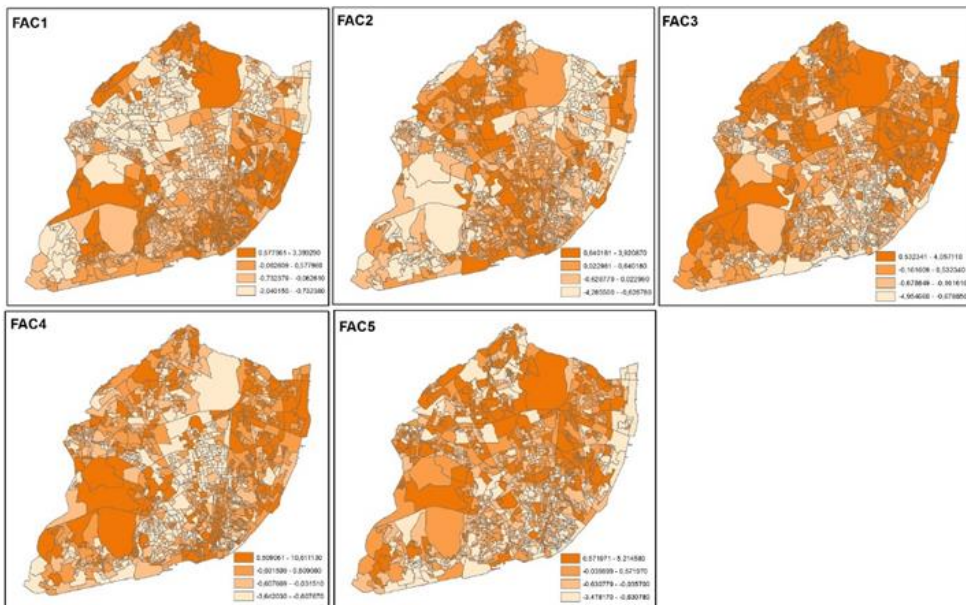


Fig. 3 Spatial distribution of scores/coordinates of the factors categorized in quartiles

The spatial distribution of factor 1 (Low Socioeconomic Level) shows that the sections with the highest scores are located in the centre of Lisbon and near the river. Factor 2 (Socioeconomic Stable) and 4 (Residents Gender) do not present a clear distribution pattern of the scores by section. Sections with the highest values in factor 3 (Families with Under 15 y/o Children), are located in the peripheral areas as well as in the northeast area of the municipality. Sections with scores higher in factor 5 (Families with Over 15 y/o Children) appear to be concentrated in the peripheral areas and to the north of the municipality.

Ascending Hierarchical Classification (Clusters Analysis)

The performed classification suggested the formation of four distinct clusters. Figure 4 and Table III synthesize information by cluster allowing a better understanding of each cluster meaning. In the graph of Figure 4, which presents the means of the factors per cluster, one can verify that each cluster represent a different conjugation of factors' values.

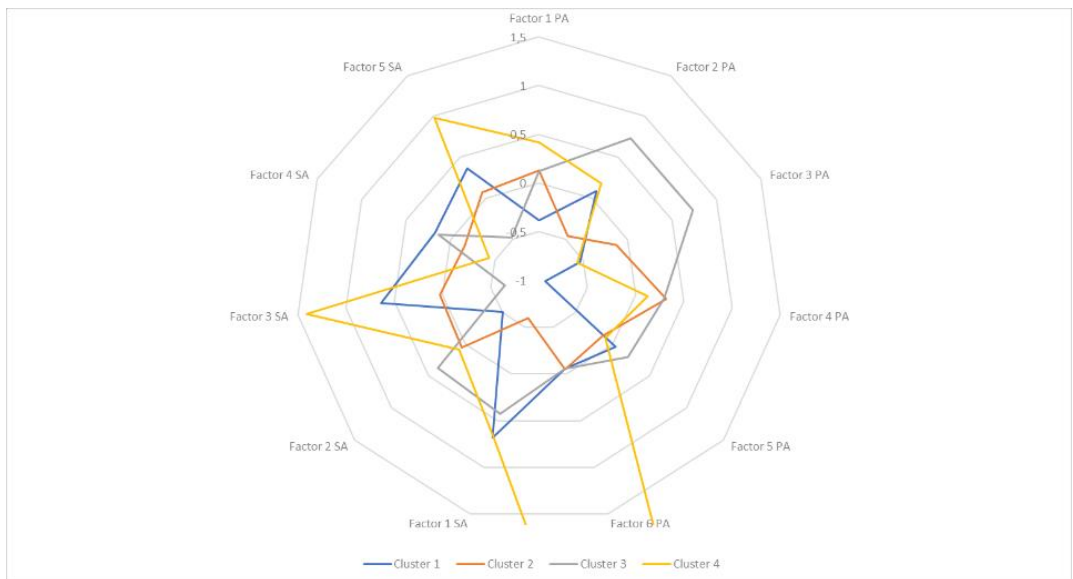


Fig 4 Mean factor score per cluster

Note: The average value of factor 6 PA (Agricultural Area) is too high to be represented in this graph (13,79).

In summary, cluster 1 integrates sections that are similar in terms of the size of housing (small housing), with a low socioeconomic level and with families with under and over 15 years old individuals. Cluster 2 predominantly consists of urban sections

with good housing conditions, families with over 15 years old individuals and employees in the tertiary sector. In cluster 3, sections are characterized by the small size of housing and mainly non-residential buildings. In this cluster, there are low socioeconomic level sections as well as sections with employees in the tertiary sector. Cluster 4 is uniquely related to the agricultural area, regarding land use typology.

Table III Synthetic Description of Cluster Factors

Clusters	Factors with highest score mean	Factor description	Designation
1	Factor 2 PA Factor 1 SA Factor 3 SA Factor 5 SA	House Dimensions Low Socioeconomic Level Families with Under 15 y/o Children Families with Over 15 y/o Children	Areas of Socioeconomic Vulnerability
2	Factor 4 PA Factor 1 PA Factor 5 SA Factor 2 SA	Urban Area Housing Conditions Families with Over 15 y/o Children Socioeconomic Stable	Areas of Greater Urbanity
3	Factor 2 PA Factor 3 PA Factor 1 SA Factor 2 SA	House Dimensions Non Residential Low Socioeconomic Level Socioeconomic Stable	Essentially Non-Residential Urban Areas
4	Factor 6 PA	Agricultural Area	Agricultural Areas

Cluster 1 (Areas of Socioeconomic Vulnerability) encompasses 24.79% of the population living in the study area, which underlines the precariousness conditions in which almost a quarter of the residents of this municipality live in. On the other hand, about 48% of the statistical sections, where almost half of the population of the municipality of Lisbon live in, are Areas of Greater Urbanity (cluster 2) - with good housing conditions and jobs in the tertiary sector.

In Cluster 3 (Essentially Non-Residential Urban Areas), there is a little more than 21% of the population of the whole municipality, in about 27% of its statistical sections. And in cluster 4 (Agricultural Areas) that encompasses only 4 sections with 2226 (0.38%) individuals.

Table IV Sections and population per cluster

Cluster	Sections		Population	
	N	%	N	%
1	261	24,79	153528	28,03
2	505	47,96	271641	49,59
3	283	26,88	120338	21,97
4	4	0,38	2226	0,41

Figure 5 reveals that, the spatial distribution of clusters seems to have a pattern. The value of Moran's I confirms that the distribution of clusters is spatially autocorrelated and significant once Moran's I equals 0.49 with a z-score=28.37 and p=0.000.



Fig. 5 Clusters spatial distribution

The map presented in Fig. 5 overlaps the administrative boundaries of each parish of the Municipality of Lisbon and the distribution of clusters by statistical section. In this map one can verify that there is internal homogeneity in the parishes with respect to the clusters of the sections that compose them. For example, the parishes of Misericórdia and Santa Maria Maior are almost exclusively composed by sections classified as cluster 3, Essentially Non Residential Urban Areas, that is, parishes where services and commerce predominate.

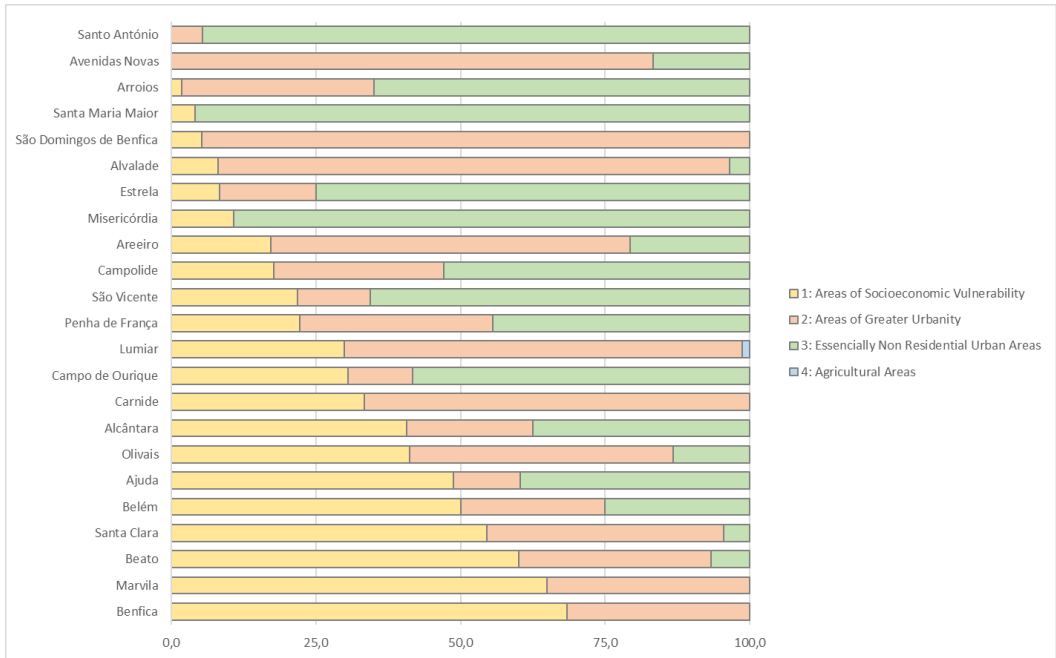


Fig. 6 Percentage of statistical sections per cluster and parish

Analysing the percentage of statistical sections by cluster and parish, we verified that:

Benfica, Marvila and Beato are the parishes with the highest percentage of sections classified as Socioeconomic Vulnerability Areas (cluster 1)

Cluster 2 (Areas of Greater Urbanity) is in a higher percentage in the parishes of Avenidas Novas, São Domingos de Benfica and Alvalade.

All parishes have sections classified as Essentially Non-Residential Urban Areas (cluster 3).

Only 4 sections are classified as Agricultural Areas (cluster 4).

Conclusions

The categorization of the territory is a complex task essentially due to the multidimensionality of the concept "territory" and to the large number of territorial indicators available. However, it is essential to know the territory in depth, to understand its differences and to interpret them. Only this way one can intervene to attenuate these differences, in particular through strategic and targeted planning.

PCA is the most appropriate statistical analysis to reduce the number of indicators needed to describe territorial units, without prejudice of losing relevant information. However, the spatial representation of the factor loadings distribution by sections is difficult to read and interpret.

The application of HCA to PA and SA factors together facilitates the interpretation of the distribution of these characteristics by cluster and section after mapping.

Moran's I proves the spatial autocorrelation of the mapping of the distribution of clusters by sections. Sections with similar PA and SA are geographically closer and spatially pooled significantly.

The grouping of sections by clusters is relatively uniform per parish and there are also parishes whose sections belong almost exclusively to a single cluster.

The methodology of factorial analysis, followed by hierarchical analysis and its mapping and spatial autocorrelation test through the Moran I, proved to be useful in the analysis of the statistical sections of the Municipality of Lisbon. The aggregation of sections by sections classification with clusters is not due to chance and the interpretation of the information of each cluster seems to be theoretically valid. However, this methodology needs replication in other territories and at different scales in order to prove its broader applicability.

References

- [1] Albagli, S. (2004). Território e Territorialidade. In R. D. Editora (Ed.), *Territórios em Movimento: Cultura e Identidade como Estratégia de Inserção Competitiva* (pp. 23-70).
- [2] Allik, M., Brown, D., Dundas, R., & Leyland, A. H. (2016). Developing a new small-area measure of deprivation using 2001 and 2011 census data from Scotland. *Health Place*, 39, 122-130. doi:10.1016/j.healthplace.2016.03.006
- [3] Braga, R. M. (2007). O Espaço Geográfico: Um Esforço de Definição. *GEOUSP - Espaço e Tempo*, 22, 65-72.
- [4] Faria, R. M. d., & Bortolozzi, A. (2009). Space, territory and health: contributions of Milton Santos for the theme of the geography of health in Brazil. *Raega - O Espaço Geográfico em Análise*, 17, 31-41.
- [5] Haesbaert, R., & Limonad, E. (2007). O território em tempos de globalização. etc, espaço, tempo e crítica *Revista Eletrônica de Ciências Sociais Aplicadas e outras coisas*, 1(2 (4)), 39-52.
- [6] Ianoş, I., Petrişor, A.-I., Zamfir, D., Cercleux, A.-L., Stoica, I.-V., & Tălângă, C. (2013). In search of a relevant index measuring territorial disparities in a transition country. Romania as a case study. *Die Erde - Journal of the Geographical Society of Berlin*, 144(1), 69-81. doi: 10.12854/erde-144-5
- [7] Knighton, A. J., Savitz, L., Belnap, T., Stephenson, B., & VanDerslice, J. (2016). Introduction of an Area Deprivation Index Measuring Patient Socioeconomic

Status in an Integrated Health System: Implications for Population Health. EGEMS (Wash DC), 4(3), 1238. doi:10.13063/2327-9214.1238

- [8] Lian, M., Struthers, J., & Liu, Y. (2016). Statistical Assessment of Neighborhood Socioeconomic Deprivation Environment in Spatial Epidemiologic Studies. *Open J Stat*, 6(3), 436-442. doi:10.4236/ojs.2016.63039
- [9] Martín, A. C., & Barros, C. M. d. C. P. (2015). Designing a Living Conditions Index and Classification of the National Territory. *Revista Cubana de Medicina General Integral*, 31(3), 323-332.
- [10] Nogueira, H. (2006). os Lugares e a saúde: uma abordagem da Geografia às variações em saúde na Área Metropolitana de Lisboa. (Doutoramento), Universidade de Coimbra.

The Attribution Theory Of As a Psycho-Social Approach to the Perception of Occupational Health and Safety: A Focus Group Study Among Women Workers in Metal Industry

Serpil Aytac

Prof. Dr. Uludag University, Faculty of
Economics and Administrative Sciences, Turkey

Gizem Akalp

M.Sc. Occupational Health and Safety Specialist, Paris/France

Abstract

Nowadays, women involved in working life with the industrial revolution provide their labor as much as men and are affected by the risk factors in the workplace as much as men. Women are more affected by the psycho-social risk factors because of gender roles and they are also more affect society because of important central role in the family. Psycho-social risks that is one of the occupational health and safety risk factors affect employee attitude and performance to work at least as much as the other risk factors. In this study, researchers aim that reveal awareness's about psychosocial risk factors in their workplace in metal industries in Turkey. In addition, negative attitudes of workers about occupational health and safety practices will be examined with attribution theories in social psychology. In this study, we used qualitative method. Data were collected with focus group study at eight different groups in two different days from woman member of Turkish Metal Union in Bursa city in Turkey. Totally 155 employees participated in the focus groups study. Job satisfaction, job stress, wellness, the relationship with coworkers and managers were evaluated in this study. This study was supported and funded (Project USIP (İ) 2014/7) by the Scientific Research Projects Commission of Uludag University cooperated with Turkish Metal Union. According to the obtained results, work stress emerges as an important psychosocial risk factor. In addition to, stress and lack of communication are important factors causing job dissatisfaction.

Keywords: Occupational Health and Safety, Psychosocial Risks, Women Workers, Metal Industry, Attribution theories

Introduction

Women, who participated in workforce with the Industrial Revolution, engage today in labor and get affected by workplace risk factors at least as much as men do. They are influenced more by psychosocial risks, which are among the occupational health and safety risk factors, due to their duties arising from gender and cultural practices. In return, they also influence the society more since they form the core of the family.

Psychosocial assessments first appeared in the 1950s. With the rise of working psychology, the effect of psychosocial aspects of working environment on health gained prominence. Psychosocial risk factors affect workers' health through stress to a considerable extent, either explicitly or implicitly (Korkut, 2014:3).

In a guide prepared by the Psychosocial Risk Management Excellence Framework (PRIMA-EF) Consortium created by the World Health Organization for the identification and prevention of psychosocial risk factors, work-related psychosocial risks are handled under ten categories (Leka ve Cox, 2008:2). These risks are: Job Content, Workload and Pace of Work, Work Schedule, Control, Environment and Equipment, Organizational Culture, Interpersonal Relationships at Work, Career Development, Role in the Workplace, Home-Work Interface. In addition to these; stress, violence, bullying and harassment at workplace are also considered psychosocial risks.

Psychosocial threats have a negative impact on workers' physical as well as social health either implicitly or explicitly. The subject threats might lead to workplace stress; and workplace stress, in turn, might result in physical or psychological diseases (Vatansever, 2014:126). Psychosocial risks that workers face reduce their quality of life and as a consequence, both their job satisfaction and work performance are affected negatively (Çakmak et al., 2012:56).

It can be suggested that handling occupational health and safety subject in terms of engineering aspect alone will not suffice. Considering the fact that most occupational accidents stem from human-related factors, such issues as workers' violation of some occupational health and safety rules due to their prejudice or again workers' perception of causes and risks of accidents in different ways can be explained with the help of psychology (Seçer, 2012:32).

According to results of studies by National Safety Council, which carries out significant research in the USA, 18% of occupational accidents occur due to mechanical factors while 19% and 63% of the accidents result from individual reasons and from mechanical and individual factors combined, respectively. According to data from the Department of Labor and Industry of the State of Pennsylvania, 3% of the accidents stem from mechanical factors and 2% from factors related to workers while the remaining 95% are the result of the combination of these two factors (Camkurt, 2013:70).

In Turkey, some research has been done to reveal the reasons for occupational accidents. Of this research, in Haksöz's study (1985) unsafe behaviors and not using personal protective gear were cited as the reasons for 95% of occupational accidents while technical reasons were named as the cause of 5% of the accidents. On the other hand, Çelikkol (1977) indicated production instruments/equipments and unfavorable environmental conditions as the reason for the 20% of the accidents. He named human factor as the cause of the remaining 80%. According to Kepir (1981), on the other hand, 2% of the accidents were beyond human control while 10% were connected to mechanical shortcomings and 88% to human factor. As these findings suggest human factor holds the first place in occupational accidents (Camkurt, 2007:81).

If occupational health and safety is addressed in relation to risk factors, it is seen that psychology is utilized for the assessment of workers' behaviors. Attribution theory, a social psychology theory, offers an understanding of the reasons for occupational accidents (Secer, 2012: 32).

According to Heider, who is regarded as the founder of the attribution theory, there exists a general theory by which individuals explain their behavior. He calls this "naïve psychology". Humans satisfy two needs by means of attribution (ascription): attaining a consistent view of the world and gaining control over their surroundings. The goal of these needs is being able to foresee how people will behave (Kağıtçıbaşı, 2010:248).

As it is also shown in Figure 1 on general attribution process, internal or external stimulus is reorganized by beliefs and structured by cognitions. In the end, the subject cognitions shape behavior.

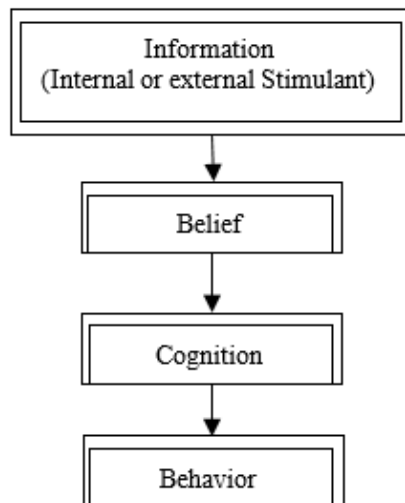


Figure 1: General Attribution Process, Reference: Glendon et al., 2006:86

According to Heider, human attributions are made in two forms namely internal and external. **Internal attribution** is the explanation that assumes the cause of a given behavior is the internal characteristics of an individual. Here, internal characteristics refer completely to personal characteristics such as the personality, attitudes, abilities, efforts, mood of the individual. **External attribution** is the act of explaining the cause of a given behavior through situations, other people or behaviors which are beyond the control of the individual. For example, other people’s behaviors, fate, luck, the circumstances an individual is subject to, the equipment and material used etc. (Kağıtçıbaşı, 2010:248-249). Kelley (1967) analyzed the process of making internal and external attributions in Heider’s attribution theory based on details and multiple observations and developed the “Covariation Model”. In this model, he indicated that people rely on three main categories for the causes of behaviors or actions when explaining a social occasion. According to this, people seek the causes in the *actor*, *stimulus* or *in a given situation or circumstance* (Hogg et al., 2014).

Attribution theory is crucial for understanding what the problem stems from in occupational safety practices and for taking more efficient measures. If occupational health and safety is analyzed within the framework of attribution theories, internal and external attributions appear in the causal explanations of occupational accidents. Indeed, if the relevant literature is reviewed, it is noteworthy to see workers usually tend to make external attributions while managers prefer making internal attributions (Secer, 2012:40). Table 1 shows the internal and external factors in workers’ causal explanations concerning occupational accidents.

Table 1: External and Internal Factors in Causal Explanations for Job Accidents

External Factors	Internal Factors
Low wages	Lack of qualification
Saving time	Professional arrogance
Excessive workload	Loss of attention
Defective equipment	Abuse
Inadequate training	Lack of comprehension
The pressure of administration	Being a victim
Errors of colleagues	Risky business behavior
Concentration loss	Inexperience
Operational procedures	Carelessness
Incorrect assignment	Flaunt
Bad luck	Do not care
Religionial Belief	Feeling of job security

Poor management	Mood, having a bad day
Difficulty of task and uncertainty	Fatigue and burnout
No suitable equipment	Deliberate neglect

Gyekye, 2010:408.

In social psychology, studies on how we interpret and explain the events in the world defined three types of errors that affect our attributions and explanations. Attribution is regarded as a rational process. Here, an observer tries to identify the causes of events or behaviors in a rational framework. However, individuals have difficulty maintaining objectivity when evaluating the causality of success or failure, that is, they tend to behave in a biased manner. Behavior occurs as a result of the interaction between individuals' personal characteristics and external factors. Yet, we tend to explain the reasons for a given social behavior on the basis of personal characteristics instead of situational characteristics. This is referred to as *fundamental attribution error* (Kağıtçıbaşı, 2010:255; Gross, 2016; Moran et al, 2014:570).

Another attribution error is observer-actor bias. In this respect, individuals tend to explain their own behaviors through environmental factors while they tend to explain the causes of others' behaviors through those individuals' personalities. Another type of error refers to *errors that are about the self*. These are addressed as self-serving biases. That is individuals tend to assign the cause of their success to internal factors while they attribute their failures to external factors. The bias as a result of which individuals tend to think that others share the same opinion with them is also an attribution error (Kızgın et al., 2012:66; Berry et al. 2015:47).

Material and Method

In this work carried out in cooperation with Uludağ University and Turkish Metal Union (Research Project (BAP-USIP (İ) 2014/7), data were collected by means of focus group research method, a qualitative data collection method. Results from these data were compared to the results of the data which had previously been collected for a project via survey method, a quantitative method.

Focus group studies refer to a data collection method in which attention should be devoted both to both participants' statements and the social context of the statements in accordance with the instructions set before the procedure and by giving particular importance to the personal subjectivity of participants. Focus group method, in this regard, is a research method that explores the behaviors a set of groups or subgroups engage in consciously, unconsciously or semi-consciously, while also aiming to inquire their psychological and socio-cultural traits and to understand the reasons for their behavior (Çokluk et al., 2011:97-98). Focus group research is a qualitative data collection method that is carried out in accordance with a list of instructions which are set before the procedure. This method requires one to give particular importance

to the personal subjectivity of participants and to devote attention to both participants' statements and the social context of these statements. And in doing so, the logic behind the subject method should be given due consideration (Çokluk et al., 2011; 99).

In this method, interviews are conducted by a person who is competent in the research topic, with the help of questioning and summarizing techniques for obtaining information about participants' opinions and experiences. Next, a synthesis is made using the assessments, concerns and opinions which are identified in the analysis of the resultant data (Güzel, 2006:2). Questions used in the interviews are open-ended and allow free interpretation. As to the linguistic style, questions are in the form of conversation and use daily language (Arlı, 2013:175).

The study group consists of female workers who are members of Turkish Metal Union. Total number of female members organized by the Bursa Branch of Turkish Metal Union is 2599. The study used purposive sampling method. Purposive sampling methods have completely evolved as part of the qualitative research method. Purposive sampling allows a thorough investigation of situations that are believed to offer bulk of information (Yıldırım et al., 2006). In this sampling method, criteria that are considered significant are set and the sample is selected in accordance with those criteria. The resultant sample is believed to represent all the properties of the research population (Tavşanlı et al., 2001). Thus, in the current study, purposive sampling method was adopted and focus group interviews were conducted with the study group. Interviewees were selected, with the help of the union representatives, on a voluntary basis from among female workers employed at different enterprises. It was ensured that they came to the recreational facility of the union after working hours so as to attend the interviews. A total of 155 participants were asked questions about their opinions.

An "interview form" was developed by the researchers in order to ask opinions of blue collar female workers in the metal industry regarding their risk awareness on occupational health and safety at workplace. In the preparation of the interview questions, the survey form "risk awareness concerning occupational health and safety", which is also an area of interest of the current research and which was used formerly for a quantitative survey study with female workers at their workplace, was utilized.

In the study, data were obtained through focus group studies which were conducted on two days with groups of 8-10 involving female workers employed in the metal industry in Bursa province and 2 researchers. Data were recorded in written form by interviewers of each group. In the first place, participants were informed about the objective of the study. After they introduced themselves, interviews began. Female workers were asked the following questions:

Do they consider occupational health and safety training offered at their workplaces sufficient?

Do they use protective gear in line with OHS? If so, do the materials really ensure protection?

How do they evaluate their relationship/communication with their colleagues and managers at workplace?

What are the sources of occupational or workplace stress for them?

The interview form consists of open-ended questions. According to Kuş (2009), open-ended questions bring in flexibility to the interview process, allow interviewees more opportunity to talk and help researchers obtain more detailed information.

In the interviews, which were based on questions and answers, the questions were about occupational safety training and practices at workplace, perceived risks of occupational safety, use of personal protective gear and problems associated with them, communication at workplace, work-related stress, mobbing, time pressure and workload.

Results

In the study, each participant's speech was analyzed using the researchers' records from the focus group interviews and the respective codes for each category were defined. At first, it was checked which of these codes was emphasized by a given participant. The study addressed the clearest and most similar statements instead of all the statements by participants. Participants are encoded as P1, P2 and P3.

In the focus group interviews, workers tended to use mainly external attribution factors. It was claimed that the administration provided either no training, which is actually crucial for occupational safety, or little training in order not to disturb the flow of production. Some of the answers to the relevant questions in the focus group interviews are as follows:

Q1. Do you consider occupational health and safety training offered at your workplace sufficient?

P1. *We are aware of the importance of occupational safety, but our company either doesn't offer any training or offers only limited training in order not to hinder the workflow. Therefore, we do not think it is sufficient.*

P2. *Training activities are not frequent. Even more, once we were asked to sign a document stating "I have received training" although we hadn't. I refused to sign and therefore, was asked to write a statement of defense. And so did I. I wrote I did not want to sign any document about a training I hadn't received. After some time, I was called for an interview with the administration and they said I was right.*

P.3. *God saves us from occupational accidents. Otherwise, we do not get any proper training.*

Q.2. Do you use protective gear in line with OHS? If so, do the materials really ensure protection?

Work-appropriate clothes and equipment's are among the primary components of a safe workplace and safe working conditions. As it was the case with the training questions, workers tended to use mainly external attribution factors in their answers to this question, as well. It is emphasized in their responses that work clothes are not attached due importance and are designed completely for a male's body type. They do not believe these materials can provide protection because they think their employees cut corners.

P.1. *Knitted gloves that are given to us are short. Thus, as you can also see, my arms have been burnt.* (The participant rolls up her sleeve and shows the burn mark on her arm).

P.2. *Our shoes are renewed every 6 months and we get the same type of shoes for all seasons. Thus, particularly in summer, our shoes don't let air in and our feet get really uncomfortable.*

P.3. *In the unit I work, we have to wear gloves all the time. Our gloves are renewed once a month, but actually they get punctured in around a week. Even if we demand a new pair in such cases, they do not accept. Although, under normal conditions, I have to wear gloves on both hands, if one is torn, I turn the one on my less-active hand inside-out and use it that way.*

P.4. *We need to use snap-off knives; but, the one they give is too heavy and thick. It doesn't fit in our hands. Therefore, we get more practical snap-off knives for ourselves. In times of inspection, we hide them and work using the ones that we should actually be using. After the inspection is done, we continue to use our own knives; because what they give is not appropriate for our work. It is not possible to finish the product with these knives within the time they expect us to finish.*

P.5. *I had a really bad experience and I can say that it taught me a lesson. Although I have to wear protective glasses, I didn't. I also wear prescription glasses and I didn't want to wear two pairs of glasses at a time. While working, a cable, I don't know how, flew into the air and scratched my eye. Prescription glasses saved my eye. If I had not been wearing them, I would have lost one of my eyes. It was a great lesson for me. Now, I always wear my glasses and warn colleagues who do not wear theirs.*

It is seen that P5 tended to make internal attributions as she had a near miss experience.

Q.3. How do they evaluate their relationship/communication with their colleagues and managers at workplace?

If both the internal and external attribution factors are taken into consideration, we encounter "lack of communication" and as a result, the concept of "stress", which is a psychosocial risk factor and affects workers' performance negatively. Yet, healthy

communication with colleagues and managers at workplace would actually influence workers' job satisfaction and increase their organizational loyalty. According to the study findings, workers were found to lack healthy communication means at workplace and to fail building healthy communication with their senior management. Some of the responses workers provided to the questions on communication are as follows:

P.1. *We have communication problems with our supervisors and senior management. When we express a complaint, we might be assigned harder tasks or our shift might get changed. This is the way we get punished.*

P.2. *There was a problem in the engine when manufacturing fuses. Although our colleague in the manufacture line notified them about this problem, they ignored the warning. And so, our colleague greased the engine and kept on the manufacturing process. Later on, a problem occurred in the engine and 20,000 cars were withdrawn. And our colleague in the manufacture line was held responsible and was punished.*

P.3. *They ignore our warnings and do whatever they want.*

P.4. *Near miss cases are not reported and recorded.*

Q.4. What are the sources of occupational or workplace stress?

Stress emerges as the major psychosocial risk factor that directly affects workers' performance and job satisfaction. In general terms, these are the factors that lead to workplace stress: excessive or insufficient workload, time pressure, monotony, poor working environment, organization of the workplace, career problems, organizational communication issues, conflicting roles, obscure duties, unfairly low payment and mobbing. It is concluded from the statements from the focus group interviews that stress sources center around the "excessive workload, time pressure and mobbing" factors. Workers are expected to finish a duty they are assigned in a shorter time than it is possible. If this decision/expectation is challenged, workers face mobbing. Some of the responses workers provided to the questions on this topic are as follows:

P.1. *We certainly feel time pressure when working. We are expected to work more than we can. For example, they expect us to complete 150 units while the highest possible number that can be achieved is 120 units. I sometimes cannot have a break or I return to work early after lunch breaks as I have to work. Even in this case, it might not be possible to get the entire job done. It reflects on daily life and home. I feel so tense sometimes that I cannot even sleep because of the work-related stress. I wake up unhappy when I have to go to work.*

P.2. *We suffer from time pressure as they use chronometers to measure time. They expect us to reach maximum production scores. They might even question how many times we go to the restroom.*

P.3. *We do not have a full-time occupational safety expert at our workplace. Inspections are done every two or three days. Before the inspectors arrive, we are notified and some improvements are made in the working environment. All this job is also done by the workers. With this job and the production duty combined, we are obliged to work faster and therefore experience excessive stress.*

P4. In her remark reading *“Whenever we express dissatisfaction with something problematic at work or complain the job is tough, they say if we cannot handle it, the way to the exit is over there.”* She mentioned both the inadequate occupational safety practices and time pressure and even the stress caused by psychological pressure.

In the attributions, it is seen that participants sometimes make attribution errors. An observer tries to identify the causes of events or behaviors in a rational framework. Individuals have difficulty maintaining objectivity particularly when evaluating the causality of success or failure, that is, they tend to behave in a biased manner. They attribute success to themselves whereas they attribute failures to external factors. Or else, individuals make fundamental attribution errors as they tend to explain the reasons for their behavior on the basis of situational factors while they prefer to explain others' behaviors on the basis of personal characteristics. In the present study, workers attribute their safe behavior to the inspection and pressure by the management while they ascribe any occupational accident that might result from unsafe behavior to fate or to employee negligence/management shortcomings.

Discussion and Conclusion

In conclusion, it is noteworthy that in the focus group interviews with female workers from the metal industry, attributions were based mostly on external factors. In relation to this, they stated that senior management doesn't value human life and that equipment's are cheap, of low quality and do not meet women's ergonomic needs. According to their statements, they also suffer from such occupational diseases as low back pain, cervical disc hernia and varicose veins and their occupational physicians do not help them. In other words, equipments, insufficient training, lack of communication, excessive stress, that is, external factors are considered to be the causes of any occupational accident that they might experience. Personal reasons for accidents are not mentioned. As to the lack of communication, there is consensus regarding the fact that OHS related problems are the responsibility of their supervisors, chiefs and managers and that employees are not notified of these issues. Findings also suggest that they are subject to pressure by their managers and that most of this pressure comes from female managers, which in a way is a form of psychological harassment. Apart from these, overwork, work load, problems related to the family and home dilemma resulting from gender roles as a woman, lack of confidence in managers emerge as the factors that increase workplace stress.

As can be understood, workers' occupational health and safety culture is still to be promoted and workers have not yet internalized safe behavior. It is worth attention

that workers attribute occupational accidents mainly to the unsafe attitudes of employees or management.

Another important point is that the former study which was administered in 23 enterprises (with 2599 participants) using quantitative (survey) method and was conducted as part of this project undertaken in cooperation with Uludağ University and Turkish Metal Union reached contradictory findings. In the former study, which adopted quantitative (survey) method, all the survey questions were distributed in envelopes to the participants at their workplace by the union officers, for which prior permission of the managers was asked. Envelopes were returned the next day. In that survey; safe behaviors, risk awareness regarding the sufficiency of measures to ensure occupational health and safety at workplace, and risk perceptions of female workers were evaluated. In general, female workers emphasized that health and safety measures were taken, their awareness increased, managers provided support with all the equipments to reduce occupational accidents and that they were aware of the threats and risks and if safe behavior was not present, this would mostly be their own faults. In other words, they made internal attributions. It was claimed that particularly in corporate companies, occupational health and safety measures were in line with the ones stipulated by the law no. 6331 and other legal regulations. It was also argued that female workers' risk awareness constituted the basis of safe behavior and that this safety culture was reflected even on home-family lives of female workers (Akalp et al. 2015). In the qualitative (face-to-face/focus group) method, participant female workers came to the recreational facility of the union after working hours and they were asked questions face-to-face in the focus group interviews which were carried out in the form of conversation. As a result of the focus group study, it drew attention that female workers emphasized their managers' indifference, work-related pressure, workload as well as the fact that they worked under stress and any occupational accident to occur would result from insufficient and poor equipment. In other words, they explained their unsafe behavior by making external attributions.

As it is obvious from the above, problems that are inherent in field research have occurred in the present study as well. Participants' responses in the qualitative and quantitative studies differed from each other due to the effect of the environment and face-to-face interaction. This indicates that the setting in which qualitative and quantitative studies are carried out as well as the method adopted for these purposes have an effect on participants' perceptions and responses. In the future, further studies on this topic will need to be undertaken.

References

- [1] Akalp G., Aytac, S., Yamankaradeniz N., Cankaya, O., Gokce A., Tufekci U. (2015) "Perceived safety culture and occupational risk factors among women in metal industries: A study in Turkey". 6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated

- Conferences, AHFE 2015. *Procedia Manufacturing Journal*. 3 (2015) pp. 4956 – 4963.
- [2] Arlı, E. (2013). “Barınma Yerinin Üniversite Öğrencilerinin Kişisel ve Sosyal Gelişim ve Akademik Başarı Üzerindeki Etkilerinin Odak Grup Görüşmesi İle İncelenmesi”, (Investigation of the Effects of the University Students on the Personal and Social Development and Academic Achievement by the Focus Group Interview),*Yükseköğretim ve Bilim Dergisi*, (Journal of Higher Education and Science,)Volum:3, Issue:2, p.173-178.
- [3] Berry Z., Frederickson J., (2015). Explanations And Implications Of The Fundamental Attribution Error: A Review And Proposal, *Journal of Integrated Social Sciences* www.JISS.org, 2015 - 5(1): 44-57
- [4] Camkurt, M. Z. (2007). “İşyeri Çalışma Sistemi ve İşyeri Fiziksel Faktörlerinin İş Kazaları Üzerindeki Etkisi”, (mpact of Workplace Work System and Workplace Physical Factors on Job Accidents),*TUHS İş Hukuku ve İktisat Dergisi*,(TUHS Business Law and Economics Journal), Volume: 20 Issue: 6, p. 80-106.
- [5] Camkurt, M. Z. (2013). “Çalışanların Kişisel Özelliklerinin İş Kazalarının Meydana Gelmesi Üzerindeki Etkisi”,(The Influence of Personal Characteristics of Workers on Work Accidents), *TÜHİS İş Hukuku ve İktisat Dergisi*,(TUHS Business Law and Economics Journal) , Volume: 24 Issue: 6, p.70-101.
- [6] Çakmak, A. F, Ofluoğlu, G., Büyükyılmaz, O. (2013), “İnsan Kaynakları Yöneticisinin Karşı Karşıya Olduğu Yeni Psikososyal Riskler: Psikolojik Sözleşmenin İhlali, Yaşlanan İşgücü, İş-Özel Yaşam Dengesizliği ve Mobbing (Psikolojik Taciz)”, (New Psychosocial Risks Faced by the Human Resources Manager: Violation of the Psychological Contract, Aging Workforce, Work-Life Unbalance and Mobbing (Psychological Harassment) *Kamu-İş*, (Public-Business), Volume:12, Issue:3.
- [7] Çokluk, Ö.; Yılmaz, K.; Oğuz E., (2011), “Nitel Bir Görüşme Yöntemi: Odak Grup Görüşmesi”,(A Qualitative Interview Method: Focus Group Interview), *Kuramsal Eğitimbilim Dergisi*, (Theoretical Education Science Journal), 4 (1), pp. 95-107.
- [8] Glendon, A. I., Sharon ,G. C., Eugene, M., (2006), *Human Safety And Risk Management*, New York: Taylor&Francis.
- [9] Gross R. , McIlveen R. (2016), “ *Social Psychology*”, Taylor and Francis Group ISBN 13:978-0-340-54846-2
- [10] Güzel, A. (2006). “Odak Grup Görüşmesi”,(Focus Group Study). Ankara Üniversitesi Eğitim Bilimleri Enstitüsü Eğitim Yönetimi Teftişi Planlaması Ve Ekonomisi Anabilim Dalı Eğitim Yönetimi Ve Teftişi Yüksek Lisans Programı.

- [11] Gyekye, Ayim S. (2010), "Occupational Safety Management: The Role Of Causal Attribution", *International Journal of Psychology*, 45:6, pp. 405-416.
- [12] Hogg Michael A. , Vaughan Graham M. (2014), *Sosyal Psikoloji, (Social Psychology)*, (Çev: İbrahim Yıldız, Aydın Gelmez) Ütopya Yayınevi, ISBN: 6055580704
- [13] Kağıtçıbaşı, Ç. (2010), *Günümüzde İnsan ve İnsanlar: Sosyal Psikolojiye Giriş, (People and People Today: Introduction to Social Psychology)* 12. Print, Evrim Publishing, İstanbul.
- [14] Kızgın, Y., Dalgın, T. (2012), "Atfetme Teorisi: Öğrencilerin Başarı ve Başarısızlıklarını Atfetmedeki Farklılıkları", (Attribution Theory: Differences in Attracting Students' Success and Failure). *ZKÜ Sosyal Bilimler Dergisi, (Journal of Social Sciences)*, Volume:8, Issue:15, p.61-78.
- [15] Korkut A. E.,(2014), " Psikososyal Risk Faktörleri ve İnşaat Sektöründe Bir Çalışma", (Psychosocial Risk Factors and a Study in the Construction Sector). *Çalışma Ve Sosyal Güvenlik Bakanlığı İş Sağlığı Ve Güvenliği Genel Müdürlüğü, Ankara, (Unpublished Occupational Health and Safety Specialization Thesis)*.
- [16] Kuş, E. (2009). *Nicel ve Nitel Araştırma Teknikleri (3. Baskı), (Quantitative and Qualitative Research Techniques-3. Press)* Ankara: Anı Publishing.
- [17] Leka, S., Cox, T. (2008), *PRIMA-EF Guidance on the European Framework for Psychosocial Risk Management: A Resource for Employers and Worker Representatives. WHO Protecting Workers' Health Series,*
- [18] Moran, J M., Eshin J., and Jason Paul M. (2014). *Spontaneous Mentalizing Predicts the Fundamental Attribution Error. Journal of Cognitive Neuroscience* 26 (3): 569–576.
- [19] Seçer, B. (2012). " İş Sağlığı ve Güvenliğinde Psikolojik Bir Yaklaşım: Atıf Kuramı", (A Psychological Approach to Occupational Health and Safety: Attribution Theory) *İs-Güç Endüstri İlişkileri ve İnsan Kaynakları Dergisi, (Journal of Job-Power Industry Relations and Human Resources)*, Volume.14, Issue.4, p.29-46.
- [20] Tavşancıl, E. Ve Aslan, E. (2001). *İçerik Analizi ve Uygulama Örnekleri.(Content Analysis and Application Examples)*. İstanbul: Epsilon Publishing.
- [21] Vatansver, Ç. (2014), "Risk Değerlendirmede Yeni Bir Boyut: Psikososyal Tehlike ve Riskler" (A New Dimension in Risk Assessment: Psychosocial Hazards and Risks), *Çalışma ve Toplum Dergisi, (Journal of Work and Society)*, Volume 40, pp.117-138.
- [22] Yıldırım, A. & Şimşek, H. (2006). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri. (Qualitative research methods in the social sciences)* 6. Print. Ankara: Seçkin Publishing

The Relationship among Job Satisfaction, Organizational Commitment and Employees' Turnover at Unilever Corporation in Nigeria

Chiemeke Kingsley Chiedu

Choi Sang Long

Hapriza BT Ashar

University Teknologi Malaysia (UTM), Faculty of Management / Social Sciences,
81310 Skudai, Johor Bahru, Malaysia

Abstract

Employee turnover has become a key performance indicator for many organizations as they struggle to retain talented employees. The negative impact of turnover on organizational performance has continually forced organizational leaders to seek better ways of retaining valuable employees. The relationship between man and work has always attracted the attention of philosophers. A major part of men's life is spent at work. Work is social reality and social expectation to which men seem to conform. It not only provides status to the individual but also binds him to the society. An employee who is satisfied with his job would perform his duties well and be committed to his job, and subsequently to his organization. This paper examines relationship among job satisfaction, organizational commitment and employees' turnover intentions at Unilever Corporation in Nigeria. The data for this study was collected from 117 employees currently working at Unilever Nigeria PLC using the survey method via the questionnaire. Pearson Correlation and the multiple regression analysis techniques using the SPSS version 22.0 was used for the data analysis. The findings of the study revealed that both job satisfaction and organizational commitment have significant negative relationship with employee turnover intentions. In addition, organizational commitment was revealed to have a more dominant influence on employee turnover intentions than job satisfaction. Based on these findings, the implications, recommendations, practice, and theory were discussed.

Keywords: Relationship, job satisfaction, Organizational commitments, Employees Turnover, Unilever Nigeria

Introduction

Employee retention rate has become a key performance indicator for many companies across all sectors of business ((Moussa, 2013)). Many organizations struggle to retain talented employees for more than five years (Bagga, 2013) According to (Ballinger, Craig, Cross, & Gray, 2011) nearly 50% of employees leave their organizations within the first five years of their employment contract. This high turnover rate has a high financial costs to organizations (Maertz & Boyar, 2012) Job satisfaction and organizational commitment has been an important topic over the years (Akpofure, Grace, Israel, & Okokoyo, 2006)). The relationship between man and work has always attracted the attention of philosophers. A major part of men's life is spent at work. Work is social reality and social expectation to which men seem to conform. It not only provides status to the individual but also binds him to the society. An employee who is satisfied with his job would perform his duties well and be committed to his job, and subsequently to his organization. According to (Mullins, 2007)) argued that job satisfaction is a complex and multi-dimensional notion, which can mean different things to different people. The study of job satisfaction and organizational commitment should be seen as one of the essential knowledge required by Nigerian industries. (Hsu, 2009) expressed the biggest challenge in organizations today as the ability of manager or organization itself to support their employees to be satisfied with their job and be committed to the organization. When organizations are committed to the affairs of the employee, the employee will be job satisfied then develop the organization.

Job satisfaction is a variable that concerns how people feel about their work (Yücel, 2012)). Job satisfaction can also be portrayed as a feeling of pleasure that stems from an employee's impression of his or her job. According to (Mohd Firdaus, 2011) job satisfaction is an individual expression of personal wellbeing associated with doing the job required. According to Yanchus *et al* (2015), it is closely related to their feeling and attitude to work, the researcher also stated that it is will reflect the extent of the individual's needs and desires met and how the other employees perceived. In addition, (Mullins, 2007) agrees that job satisfaction is an attitude and an internal state that can be associated with personal feelings of achievement, either quantitative or qualitative. According to (Baron & Greenberg, 2003)) concurs that job satisfaction is an attitude towards ones job and its cognitive, affective and evaluative reactions towards his or her job. For some people, they may feel consistently satisfied with their jobs whilst others may be feeling quite dissatisfied. The definitions of job satisfaction can therefore be summed as a collection of attitudes, feelings, beliefs and behaviour one has towards his or her job. Job satisfaction may be viewed as attitudes and behaviours adopted not because of shared beliefs but simply to gain specific rewards.

The concept of organizational commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization. It is generally considered as three dimensional construct comprising of affective commitment,

continuance commitment and normative commitment (Boehman, 2006)) suggested that affectively committed employees continue working with great devotion, continuance commitment ensures that employees retain their organizational membership, however those who are normally committed usually feel obliged on their part to stay in the organization. According to (Malik, Nawab, Naeem, & Danish, 2010) high organisational commitment means identifying with one's organization. Organisational commitment is regarded to be the best predictor of employee's turnover, than the far more frequently used job satisfaction predictor ((Miller, Rutherford, & Kolodinsky, 2008)). Given the fact that employees who operate in a continuance commitment dimension are calculative of their stay, one would deduce that such employees may continuously stay away from work when they feel like, doing so. Organisational commitment members contribute positively to the organization which is not the case with less committed members. ((Cohen & Golan, 2007)) suggested that organizations whose members have higher levels of commitment show higher performance and productivity and lower levels of absenteeism and tardiness.

In this paper, the relationship among job satisfaction, organizational commitment and turnover intentions is examined in the context of employees working in a multinational company in Nigeria (Unilever Nigeria PLC). It is important, these days to pay close attention to issues that could make employees to pay less attention to their organization productivity and intending to leave their organizations. Job satisfaction and organization commitment are considered because more than before, the literatures show that satisfied and committed employees are more willing to remain with their organizations.

It is undoubtedly that in the advent of globalization, organizations all over the world including in Nigeria strives to compete and stay relevant in their business. The multinational companies in Nigeria are faced with challenges that affect much the human aspect and production level. This challenge relates to the employees in the organization such as: turnover rate, the absenteeism and the negatives attitude of the employee due to lack of job satisfaction and organizational commitment. In turn, these challenges affect overall organizational structure. ((Cohen, 2003)) suggested that "organizations whose members have higher levels of commitment show higher performance and productivity and lower levels of absenteeism and tardiness. The negative impact of turnover on organizational performance has continually forced organizational leaders to seek better ways of retaining valuable employees (Dong *et al.* 2012). Employee retention rate has become a key performance indicator for many organizations ((Moussa, 2013)). Organizations scuffle to retain employees for more than five years ((Bagga, 2013)). Approximately 50% of employees leave their organizations within the first five years of employment ((Ballinger et al., 2011)). The manufacturing sector in Nigeria depended heavily on contract workforce. These contract workforce does not stay long in the organization. They could abandon the

work immediately they are hired in another organization that offer them permanent staff positions. This negative effect on the organization in terms of replacement cost and disrupted work, affects the organizational vision to build a knowledgeable employee needed to sustain the company growth and competitiveness. This issue closely related to the implication of organizational commitment. March and Simon's (1958) theory of organizational equilibrium suggests that individual decisions to stay working in an organization are a function of the balance between the expected utilities of the inducements offered by the organization and the contributions expected from the individual. Government is putting more and more pressure to reduce the dependency of contract workforce in the countries. However, the multinational company (Unilever Nigeria PLC) looks for a way to balance the strategies of organizational commitment and job satisfaction looking into the employee benefits on how to satisfy and keep the permanent staff and lay off the contract workforce. Although, much of the subsequent research have focused on attitudinal (e.g., satisfaction) and tangible (e.g., pay) inducements to stay, a growing body of work recognizes that relational inducements such as support from the organization and from a supervisor can also play an important role in such decisions ((Allen & Meyer, 1990)). Multinational industries in Nigeria face with retention problem, 44% of the employee have a second thought on how to resign once they secure another job. This problem are traced to the basement of employee job satisfaction and organizational commitment, according to ((Chen, 2012)), survey of nonprofit sector employees suggest some connections between job satisfaction and employee retention. Turnover has been identified as a serious issue in organizational behaviour literatures. The major reason why much attention has been paid to the construct of turnover is because of the significant effects turnover has on organizations ((Babajide, 2010)). These authors argued that high turnover rates might have negative effects on the profitability of organizations. Employee turnover from a business perspective is costly to the organization. An employee leaving an organization suddenly would have an effect on the organization and the co-employees including the replacement cost. These costs of replacement include but not limited to recruitment and selection for possible new substitutes or competing substitutes, induction of the selected substitutes, formal and informal training of the substitutes until the performance levels equivalent to that of the employee who quitted is attained ((Babajide, 2010)). In addition to these costs of replacement, organizational output may be affected during this cycle of employee turnover. ((Gustafson, 2002)) argued that turnover affects the organization in several ways including lost productivity, low sales and low profit. With respect to profit, (Gustafson, 2002)) estimates the turnover costs of an employee could cost an organization \$3,000 to \$10,000 per hour. This clearly demonstrates that turnover has negative effect on the profitability of the organization and thus should be properly managed. The estimated cost of recruiting and training a replacement employee would cost 50% of the employee's annual salary ((Mbah & Ikemefuna, 2012)). Additionally, each time an employee quits an organization, productivity may drop due to the learning curve

involved in understanding the job and the organization by the new intake. Also, the loss of intellectual capital of the departing employee is an additional cost ((McInerney, Ganotice, King, Marsh, & Morin, 2015)). According to ((Babajide, 2010)), numerous studies have been conducted on predictors of employee turnover (which include marital status, length of service, relocation and life cycle). However, little or no efforts have been directed towards examining job satisfaction, work-family life, personal commitment to organizations as factors that influence employee turnover in Nigeria (especially in the industrial sector). This existing gap serves as motivation for this study.

In Nigeria, employee turnover varies across different industrial sectors. In the oil sector for example, ((Oluwafemi, 2013)) expressed that turnover intention among employees is low because employees will be more willing to stay and be committed to their organization due to the perceived rewards and other benefits they receive from their organization. As compared to the manufacturing firms in Nigeria, the oil sector pays higher. So, ((Oluwafemi, 2013)) findings may not necessarily be applicable to the manufacturing sector which pays considerable lower as compared to the oil sector or the banking sector. The oil and gas sector, multinationals and financial sector (especially banking) offer the best opportunities for employment in the private sector in Nigeria. Therefore, people jostle to get jobs in the banking sector and oil sector ((Oluwafemi, 2013)) which makes the turnover rate to be lower. Hence, this paper focuses mainly on manufacturing sector because this sector arguably has higher turnover rate in the country. Therefore, this study investigates the relationship between the job satisfaction, organization commitment and turnover intentions of the employees working with Unilever corporation in Nigeria. This study reveals ways to reduce turnover intentions, help the employees to stay with the job roles and remain committed to their organization. Also, this study would be beneficial to other Nigerian multinational company to maintain employees' retention, productivity, motivation, organizational efficiency and effectiveness.

Review of the constructs and theories used

This section provides the definition of the constructs used in this paper. The conceptual and operational definitions of job satisfaction, organization commitment and employee turnover intentions are presented in this section.

Job Satisfaction: Job satisfaction is conceptualized as an employee's overall evaluation of his or her job as favourable or unfavourable ((Locke, 1991)). It involves the person's feeling about their job whether they are satisfied or dissatisfied. According to ((Spector & Fox, 2002)) job satisfaction is an attitudinal variable that reflects how people feel about their jobs. In this study, job satisfaction is defined as the degree of satisfaction or dissatisfaction that employees at Unilever corporation has with the job roles.

Organizational Commitment: Organizational commitment is conceptualised as the relative strength of an individual's identification with and involvement in an

organization ((Allen & Meyer, 1990)). Organizational commitment reflects the employee's relationship with the organization and that it has implications for his or her decision to continue membership in the organization ((Meyer, Stanley, Herscovitch, & Topolnytsky, 2002)). In this study, the three dimensions of organizational commitment namely affective commitment, continuance commitment, and normative commitment are considered. The conceptual definitions of these three dimensions of organizational commitment are:

Affective Commitment is conceptualised as the effective emotional attachment to identification with, and involvement in the organization ((Allen & Meyer, 1990)).

Continuance Commitment is conceptualised as the cost associated with leaving the organization ((Allen & Meyer, 1990)).

Normative Commitment is conceptualised as the feeling of obligation to continue with the organization ((Allen & Meyer, 1990)) In this paper, organizational commitment is operationalised as the degree of employees' at Unilever Corporation's identification with their organization and involvement in their organization activities.

Turnover Intention: Turnover intention is conceptualised as the intense decision that employees take to give up their present positions and jobs, leave voluntarily to other organization. Turnover intention has been described as the last in a sequence of withdrawal cognitions, a set of cognitions include thinking of quitting and the intent to search for alternative employment. Turnover intention refers to an employee's intention to voluntarily leave an organization ((Jehanzeb, Rasheed, & Rasheed, 2013)). In this study, turnover intention is operationalised as employee's intention to voluntarily leave the Unilever Corporation.

Maslow's Theory

Maslow proposed that people have five types of needs that are arranged in a hierarchical manner. It is activated in a specific order such that a lower-order need must be satisfied before the next higher-order need is aroused. When that need is satisfied, the next highest need in the hierarchy is triggered and so forth. When these needs are met, the person will feel satisfied and he will move on to achieve the next higher-order needs. There are five needs highlighted by ((Maslow, 1954))

Equity Theories

Equity theory views motivation to satisfied one's need from the perspective of the comparisons people make among themselves ((Adams & Rosenbaum, 1963)). It proposes that employees are motivated to maintain fair or "equitable" relationships among themselves and to alter those relationships that are unfair. This theory concerns with people's intention to forgo the negative feelings. Such feeling is seen as they are treated unfairly in their jobs once they have engaged in the process of comparison with other people. Equity theory suggests that people make social comparisons between themselves and others with respect to two variables —

outcomes (e.g. benefits, rewards) and inputs (e.g. effort, ability). Outcomes refer to the things workers believe they and others get out of their jobs, including pay, fringe benefits and prestige. Inputs refer to the contribution employees believe they and others make to their jobs. Including the amount of time worked, the amount of effort contributed, the quantity of units produced and the qualifications brought to the job (Adams & Rosenbaum, 1963)).

Value Theories

Social values are consists of a belief system. This belief system is concerned with such issues as competence and morality. Such belief system is derived mainly from the demands of society. These value systems are organized values from past experiences that can act as general motives. It will serve as guidelines that will direct beliefs and behavior in many situations, such as work. Therefore, it may be expected that there are coherent and predictable links between one's general value system and specific work-related beliefs ((Furnham & Stringfield, 1993)). Such personal values and work beliefs will influence how a person satisfied him or herself.

Locke's Value Theory

This theory does not concentrate on needs. ((Locke, 1991)) argued that job satisfaction focuses on whether or not work provides people with what they want, desire or value. Workers look at what their jobs provide in terms of, for example, pay, working conditions and promotion opportunities and then compare those perceptions to what they value or find important in a job. When the two matches together, job satisfaction results, it is a cognitively driven process where individual decides for themselves. The difference between Locke's and Maslow's theory is that the former are not specific and do not consider the need for money. Money is no considered as a need for the workers. The theory implies that although knowing the importance or value that a worker has toward a particular outcome does not necessary means we will be able to predict how satisfied a worker will be. The theory by Locke introduces us to another dimension. Even though outcomes such as pay, fringe benefits and working conditions are the same for two workers and even though these outcomes may provide equivalent levels of need fulfilment, the workers' satisfaction will differ to the extent that their values differ. This approach is more consistent with the ways in which people actually reach to their jobs. People choose and change their jobs on the basis of these principles or values ((Locke, 1991)).

Cognitive Evaluation Theory (CET)

CET suggested that in order for a person to feel motivated, feelings of competence as well as feelings of autonomy are required. Simply, when a person is motivated in such a way, it exhibit positive work attitude and vice-versa. The above motivators are defined as intrinsic motivation. Studies showed that challenging activities were highly intrinsically motivating and that positive feedback ((Deci, 1971)) facilitated intrinsic motivation by promoting a sense of competence when people felt responsible for

their successful. Therefore, in the course of work, when an employee is given autonomy and has the competence to fulfil the requirements of the job, this promotes job satisfaction. ((Deci, 1971; Gagné & Deci, 2005)) states that negative feedback does decrease perceived competence and as such it influences negatively both intrinsic and extrinsic motivation, leaving people counted motivated. Therefore, GET assumes that people need to feel autonomous and competent. Work environment that promote feelings of autonomy and competence enhance intrinsic motivation, whereas factors that reduce these feelings undermine intrinsic motivation, leaving people not motivated, hence affecting the level of satisfaction ((Gagné & Deci, 2005)).

Self-Determination Theory

((Dworkin, 1988)) is of the view that autonomy means encouraging one's actions at the highest level of reflection. Intrinsic motivation is an example of autonomous motivation which is similar to CET. When it is found that people engage an activity because they find it interesting, they are doing the activity on their own willingness, and hence they are happier doing the job. In contrast, if the activities done by a person are being forced, in that sense it is being controlled and pressurized, it will counter react on motivation. Therefore, it can be said that if a person completes a task on his own well, he is likely be motivated and have a better chance to be satisfied. But, when a person is being pressured to perform a task against his will, the person will run counter to motivation ((Gagné & Deci, 2005))

Job Satisfaction

Job satisfaction is an employee's overall evaluation of his or her job as favorable or unfavourable ((Malik et al., 2010)). In short, job satisfaction is a feeling of like and dislike. In order to come to a stand of like and dislike, there should be a point of comparison. That point of comparison is the expectation of the employees. Job satisfaction is also directed to many areas of the job such as the nature of the job, the quality of supervision, the relationship with colleagues, the kind of leadership of superior and others. These are some of the facets or dimensions of job satisfaction. All of these are linked to the attitude of a person about his or her job. Job satisfaction can almost easily be assessed by asking people how they feel about their job ((Spector & Fox, 2002)) It involves the person's feeling about their job whether they are satisfied or dissatisfied. According to Spector, job satisfaction is an attitudinal variable that reflects how people feel about their jobs overall as well as various aspects of them. Simply, job satisfaction is the extent to which people like their job and job dissatisfaction is the extent to which they dislike them.

((Weiss, 2002)) has argued that job satisfaction is an attitude. However, he cautioned that researchers should clearly distinguish the objects of cognitive evaluation which are affective (emotion), beliefs and behaviours. This definition suggests that we form attitudes towards our jobs by taking into account our feelings, our beliefs, and our behaviours. ((Rose, 2001)) and ((Olorunsola, 2012)) viewed job satisfaction as a bi-dimensional concept consisting of intrinsic and extrinsic satisfaction dimensions. She

further asserted that intrinsic sources of satisfaction depends on individual characteristics of the person, such as ability to use initiative, relations with supervisors, or the work that the person actually performs, all these are symbolic or qualitative facts of the job while extrinsic sources of satisfaction are situational and depends on environment such as pay, promotion or job security; these are financial and other materials.

Conceptual Framework

Based on the literature review and the discussed relationship between job satisfaction and employee turnover intention, as well as the relationship between organizational commitment and employee turnover intention, the conceptual framework for this study is presented. The research framework shows the relationship between job satisfaction, organizational commitment and employee turnover intentions to be examined in this study. To investigate these relationships, two main hypotheses are stated and would be empirically tested.

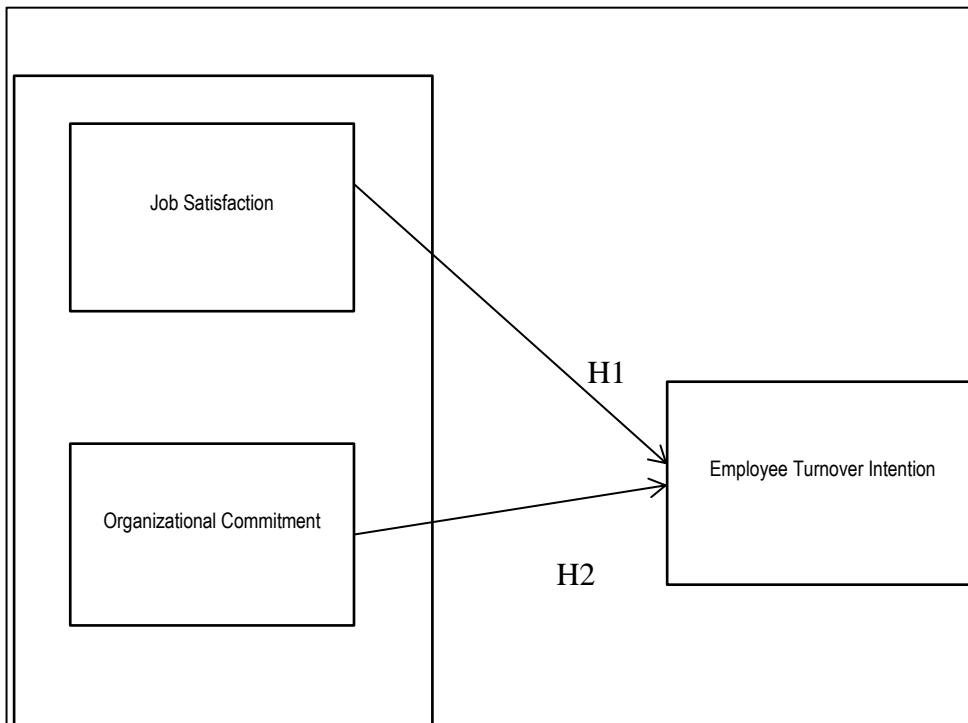


Figure 10.2 The Conceptual Model for this Study.

3. Materials and Methods

The research strategy for this study is the quantitative methodology. It employs the deductive approach to examine the relationship between job satisfaction, organization commitment and employee turnover intentions. The Deductive

approach involves reasoning from the more general to the more specific and its conclusion follows logically from the premise. The deductive approach was used because this study is based on existing theories such as the maslow's theory and self-determination theory serving its underpinning theory. Therefore, investigation was done using the quantitative approach. The deductive approach is practical and it is used to test and prove the hypotheses stated in this study.

The sample frame for this study includes all the employees working with Unilever Corporation Nigeria Plc. They include all the permanent and contract staff listed in the staff directory of the Unilever Nigeria Plc. Unilever Nigeria Plc was incorporated as Lever Brothers (West Africa) Ltd in 1923. Originating from Britain, the company has been known as a soap manufacturing industry since the 19th century. The company has been in operation in Nigeria and West Africa as a soap manufacturing company, and is today one of the oldest surviving manufacturing organizations in Nigeria.

Population generally can be denoted as the total number of respondents with similar characteristics in a given location. The population of this study comprises all the employees working with Unilever Corporation Nigeria Plc). This constitutes the permanent and contract staff. The total population of these respondents according to Unilever staff directory is 450 employees. Table 3.1 shows the population of Unilever Staffs. Sampling is a process of selecting a portion of the whole population that represents the entire population. From the total population of 450 employees, the appropriate sample size calculated based on ((Krejcie & Morgan, 1970)), 208 employees would be selected for this study using the convenient sampling technique.

The convenience sampling technique involves the selection of sample elements that are most readily available to participate and provide the information required ((Hair Jr, 2006)). The convenience sampling is a type of non-probability sampling technique that draws representative samples based on the ease of their volunteering, their availability or their accessibility ((Hair Jr, 2006) (Salkind & Rainwater, 2003)). The data for this paper obtained through simple random sampling.

Table 10.1: Population of Unilever Staffs

No.	Departments	Sections	Number of Staffs
1	Production	Supply Chain	300
2		Cream and Lotion	80
3		Engineering	40
4	Administration	Accounting	10
5		I.T/Communications	10
6		Human Resources	10
Total			450

This study uses primary data since survey method was carried out to gather data for this paper. Questionnaire was prepared to collect information to investigate and examine the relationship between job satisfaction, organizational commitment and turnover intentions among employees’ working at Unilever corporation in Nigeria. Questionnaire is a systematic method of gathering data from respondents ((Hair Jr, 2006)). Questionnaire provides some advantages to the researchers because it is cheap and easy to administer to the target respondents, offers privacy to the respondents and reduces biases in answering the instrument items. Questionnaires can be distributed in a number of ways such as through the internets via emails, the postal mail, or through the telephones. However, this study would use the self-administrated questionnaire as an instrument to collect data from respondents. These questionnaires would administered by the researcher with the help of human resource department. The measurement items used in this study and the original source where they were adapted from are discussed in this section. The measurement items for job satisfaction are derived from ((Agho, Price, & Mueller, 1992)) and Spector (1994) while the measurements items for organisational commitment comprises of items derived from Meyer and Allen (2004) and (McInerney et al., 2015)). Turnover intentions are measured by 5 items derived from ((Brawley & Pury, 2016)) and ((McInerney et al., 2015)). Out of the five items, four items are adapted from (McInerney et al., 2015)). The questionnaires was presented in English as the official language of the

Table 3.3 shows the list of all the study variables and number of items for this paper.

Table 10.2: Measurement of Items of the Study

Variables	Dimensions	No of Items	Questions	Adapted From
Job atisfaction	Pay	3	Q1-Q3	Agho et al (1992) Spector (1994)
	Promotion	3	Q4-Q6	
	Work Itself	3	Q7-Q9	
	Supervisor	3	Q10-Q12	
	Co-workers	3	Q13-Q15	
Organizational	Affective	5	Q16-20	Meyer and Allen (2004)

Commitment	Continuance	5	Q21-Q25	Yucel (2012) McInerney et al (2015)
	Normative	5	Q26-Q30	
Turnover Intentions		5	Q31-Q35	Budhwar (2001) McInerney et al (2015)
Total		35 Items		

The Likert scale will be used. In Likert scale, the respondents are required to choose the desired scale. The scale is arranged to reflect the level of intensity from one extreme to another level extreme, example from 'strongly agree' to 'strongly disagree'. The scale is referred to as the five-point scale and it is illustrated in table 3.4. The Likert five-point scale will be used in section B while section A will measure the demographic variables such as gender, age, work experience and level of education.

Table 10.3: Proposed Likert five-point Scale

Choices	Likert Five-point Scale
Strongly Agree (SA)	5
Agree (A)	4
Neutral (N)	3
Disagree (D)	2
Strongly Disagree (SD)	1

Reliability reflects the consistency of the measurement items of a study when conducted at different time and place and it is normally measured by Cronbach's Alpha. The Cronbach Alpha would be employed to test the reliability for this study because according to ((Salkind & Rainwater, 2003)), it is the most acceptable reliability test tool applied by social science researchers which usually should exceed 0.70 values for a reliability to hold. However, ((Hair Jr, 2006)) noted that the minimum acceptable level for reliability test is Cronbach's Alpha value of 0.60. In the case of validity, a research opinion was sought to verify the face and contents validity of the instruments developed before the actual survey is carried out. According to ((Kumar, 2005)), face and contents validity can be confirmed experts in the same field by checking the extent to which item questions represents the issues they are intended to measure

This study employed the quantitative technique for the data analysis. The data gather for this study through the questionnaire where analysed using the use of Statistical

Packages for Social Science (SPSS, version 21.0) to run Pearson correlation and an additional multiple regression

Pearson correlation is used to examine the relationship

Table 10.4: Analyses used to answer the Research Questions

Research Questions	Type of Analysis
1. Is there a relationship between job satisfaction and employee turnover intention in the organization?	Pearson Correlation Analysis Multiple Regression
2. Is there a relationship between organizational commitment and employee turnover intention in the organization?	Pearson Correlation Analysis Multiple Regression

4. Results and Discussion

The reliability test was conducted to know the extent of measurement the items measure the constructs of this study. The Cronbach’s alpha which is an index for evaluating the reliability of a scale and widely used in previous studies, is used to test the reliability of the constructs of this study. The result of the Cronbach Alpha test as presented in Table 4.5, which indicated that the three constructs used achieved acceptable reliability level. Therefore, the data for this study is reliable and valid for further analysis.

Table 4.5: Reliability Test using Cronbach’s Alpha

S/N	Variables	Alpha Value
1	Job Satisfaction	0.920
2	Organizational Commitment	0.924
3	Turnover Intentions	0.809

The descriptive data analysis was used to provide discussion on the demographic background of the respondents. These respondents consist mainly of the contract staff, factory staff and the junior administrative staff at the Unilever organization in Nigeria. Table 4.6 presents the analysis result of the respondents’ gender, age, work experience, level of education and position. As shown in Table 4.6, out of the 117 respondents, 83 are male indicating 70.9% of the respondents while 34 are female which indicates 29.1%. For the age of the respondents, majority of the respondents fall with the ages of 31-40 and 41-50 which indicated 88.1% of the total respondents while 2 of the respondents were below 21 years indicating 1.7%, 11 respondents were between 21-30 years which indicates 9.4% respectively.

As regards the respondents' work experience, majority of the respondents i.e. 95 of them, have worked with the organization for 2 to 10 years which indicates 81.2% of the respondents while 17 of the respondents which indicate 14.5% have work for more than 10 years and 5 respondents which indicate 4.3% have worked below 2 years respectively. As regards the respondents' level of education, majority of the respondents i.e. 77 of them indicating 65.8% have bachelor degree. Only one respondent have master's degree which indicate 0.9 %. 11 respondents i.e. 9.4% have secondary school certificate while 28 of the total respondents indicating 23.9% have diploma. As regards the respondents' position, 68 respondents which indicate 58.1% are factory staff, 36 respondents indicating 30.8% are junior administration staff while 13 of them indicating 11.1% are contract staff. The histogram charts from Figure 4.1 to Figure 4.5 are used to show the clearer picture of the respondents' demography.

Variables		Frequencies	Percentages
Gender	Male	83	70.9
	Female	34	29.1
Age	Below 21	2	1.7
	21-30	11	9.4
	31-40	65	55.6
	41-50	38	32.5
	Above 51	1	0.9
Work Experience	less than 1 year	2	1.7
	1 to 2 years	3	2.6
	2 to 5 years	53	45.3
	5 to 10 years	42	35.9
	10 years and above	17	14.5
Level of Education	Secondary school	11	9.4
	Diploma	28	23.9
	Bachelor degree	77	65.8
	Master degree	1	0.9
Position	Contract staff	13	11.1
	Factory staff	68	58.1
	Junior staff	36	30.8
N= 117			

The Pearson correlation analysis and regression analysis are the inferential statistical methods used to examine the research questions and hypotheses of the study. Table 4.7 shows the results of the Pearson correlation coefficients for the relationship

between job satisfaction and employee turnover intentions while Table 4.8 presents the results of the Pearson correlation coefficients for the relationship between organizational commitment and employee turnover intentions. Furthermore, the multiple regression analysis was conducted to provide further understanding of the relationship among job satisfaction, organizational commitment and employee turnover intentions. Table 4.9 presents the results of the multiple regression analysis. The Pearson correlation results (as shown in Table 4.7 and Table 4.8) revealed that job satisfaction (-0.418 at $p < 0.01$) and organizational commitment (-0.468 at $p < 0.01$) have a significant negative relationship with employee turnover intentions. In addition, the multiple regression results (as shown in Table 4.9) revealed that organizational commitment (beta = -0.346** at $p < 0.05$) has significant influence on employee turnover intentions and it is the more dominant factor of employee turnover intentions compared to job satisfaction. Further discussion of these findings is presented in the next section.

Table 4.7: Correlation Results for Job Satisfaction and Turnover Intentions

Variables	Job Satisfaction	Turnover Intentions	Significance
Job Satisfaction	1	-0.418**	0.000
Turnover Intentions	-0.418**	1	0.000

**Correlation is significant at the 0.01 level (2-tailed)

Table 4.8: Correlation Results for Commitment and Turnover Intentions

Variables	Organizational Commitment	Turnover Intentions	Significance
Organizational Commitment	1	-0.468**	0.000
Turnover Intentions	-0.468**	1	0.000

**Correlation is significant at the 0.01 level (2-tailed)

Table 4.9: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
	Beta	Std. error	Beta		
(Constant)	25.496	1.477		17.261	0.000
JOBSATISFACTION	-0.066	0.046	-0.170	-1.442	0.152
ORGCOMMITMENT	-0.136	0.046	-0.346**	-2.938	0.004

*Note: N=117, R=0.483, R² =0.233, Adjusted R²= 0.220, **Significant at P< 0.05.

Table 4.10: Summary of the Findings

Research Hypotheses	Decision
1. There is a negative relationship between job satisfaction and employee turnover intention	Supported
2. There is a negative relationship between organizational commitment and employee turnover intention	Supported

The results of the Pearson correlation coefficients for the relationship between organizational commitment and employee turnover intentions revealed that organizational commitment (-0.468 at $p < 0.01$) have a significant negative relationship with employee turnover intentions. This result is consistent with the findings of previous studies and it further affirms that there is a negative relationship between organizational commitment and employee turnover intentions. Previous studies ((Park, Christie, & Sype, 2014); (Faloye, 2014); (Gamble & Tian, 2015); (Van Dyk & Coetzee, 2012), (McInerney et al., 2015), 2015; Yücel, 2012; Jehanzeb *et al.*, 2013) have found organizational commitment as a significant predictor of employee turnover intention.

Studies conducted by ((Gamble & Tian, 2015)) showed how the organizational commitment dimensions (i.e., affective, continuance, and normative) of Chinese employees would affect their turnover intentions. The results of their findings revealed that affective and normative commitment negatively predicted turnover intentions. Furthermore, ((Faloye, 2014)) explored the association between the three dimensions of organizational commitment (e.g., affective, continuance, and normative) and turnover intentions and revealed a weak positive relationship between affective commitment and continuance commitment with turnover intention. Moreover, (Van Dyk & Coetzee, 2012) Van ((Hussain & Asif, 2012)) examined the relationship between organizational commitments and found that organizational commitment in general reduces turnover intention. ((Jehanzeb et al., 2013)) investigated on the relationship between organizational commitment and turnover intentions of the employees in private sector of Saudi Arabia and found a negative relationship between organizational commitment and turnover intention. Similarly, ((Hussain & Asif, 2012)) found that organizational commitment have significant negative impact on the turnover intentions of the employees. Finally, studies conducted by ((Lew, 2011)) that lower commitment to the organization may lead to increased intention to quit

5. Conclusion and Recommendations

The findings of this current study further provides strong support for the hypothesized negative relationship between organizational commitment and employee. In sum, this finding implies that when employees are committed to their organization they will display negative attitude towards leaving or quitting their organization. In the context of this study, the negative organizational commitment of the employees would cause the employees to think of quitting or intent to search for alternative employment. In other words, a high organizational commitment would yield a low employee turnover intentions while a low organizational commitment would yield a high employee intention to quit the organization.

Based on the Pearson results and the findings of this study, it could be deduced that the two stated hypotheses were supported. Interestingly, it can be summarised that job satisfaction and organizational commitment of the employees who negatively affect the employee's intentions to leave the organization. In addition to the Pearson correlation analysis, the multiple regression analysis was conducted to provide further understanding of the relationship among job satisfaction, organizational commitment and employee turnover intentions. The multiple regression results revealed that organizational commitment (beta = -0.346** at $p < 0.05$) has significant influence on employee turnover intentions and it is the more dominant factor of employee turnover intentions compared to job satisfaction which was found to be not significant in the regression model.

This paper contributes to a better understanding of the relationship between job satisfaction and employee turnover intentions as well as the relationship between organizational commitment and employee turnover intentions in a manufacturing company. This study suggests that job satisfaction and organizational commitment are very important factors that influence employee turnover intentions bearing in mind that when employee have lower job satisfaction and lower organization commitment they will most probably have the intention to quit their organization.

These have huge implication for the organization. For example, this may lead to the organization losing many talented employees and decrease in organizational performance. Organizations whose members have higher levels of commitment show higher performance and productivity and lower levels of absenteeism and tardiness. The negative impact of turnover on organizational performance has continually forced organizational leaders to seek better ways to retain valuable employees ((Liu, Mitchell, Lee, Holtom, & Hinkin, 2012)). In addition, high turnover rates might have negative effects on the profitability of organizations. Organizations loose huge

amount of time and financial resources to select, recruit and train new employees as a result of an old employee suddenly leaving an organization. In terms of the reduction of the cost of employee replacement due to turnover such as recruitment and selection for possible new employees or competing employees, induction of the selected new employees, formal and informal training of the new employees and so on, would be avoided if employee turnover intentions is managed properly. For example, the estimated cost of recruiting and training a replacement employee that cost 50% of the employee's annual salary according to ((Mbah & Ikemefuna, 2012)) would be avoided if the managers ensure that their employees are satisfied and committed.

Therefore, the findings of this study would be useful to Unilever Corporation and other organizations to understand that their employees' job satisfaction and organization commitment as a determinant of the employees' turnover intentions and their subsequent exit from the organization. To Unilever Corporation in particular, this study would serve as a guide to help the organization re-examine the level of their employees' job satisfaction and organization commitment. Therefore, the findings of this study would enable the organization apply the appropriate human resource strategies to rectify the situation. Finding and adopting appropriate strategies may contribute significantly to the well-being of the organization in terms of reducing the employees' turnover and absenteeism in order to enhance productivity and organizational performance.

The study of job satisfaction and organizational commitment should be seen as one of the essential knowledge required by Nigerian industries to reduce their employee turnover intentions. ((Chen, 2012)) express biggest challenge in the organization today is the ability of manager or organization itself to support their employees to be satisfied with their job and be committed to the organization. When organization are committed to the affairs of the employee, the employee will be job satisfied then dismiss the idea to leave the organization. Therefore, it recommended to Unilever Corporation to seek ways to improve the level of job satisfaction and organizational commitment among staff by putting in place initiatives that would be benefit to all the employees. Particularly, the dimensions of job satisfaction such as pay, promotion, working condition, supervision, and co-worker support should be effectively managed to help the employees derive satisfaction and enhance their commitment to the organization.

Furthermore, to enhance the employees' level of job satisfaction and organizational commitment, the human resource division of Unilever Corporation could embark on

interventions such as increasing the pay of their employees as at when due, ensure that their promotion is granted to the employees as at when due, providing adequate and conducive working conditions, maintaining a good supervisor relationship with the employees, and ensuring that co-employees work in cooperation and collaboration. These mechanisms would help to enhance and maintain their employees' level job satisfaction. Finally, adequate training of the employees to enable carrying out their job functions would help them understand that their career development is valued by the organization which would hence make the employees to be more committed to their organization.

References

- [1] Adams, J. S., & Rosenbaum, W. (1963). The relationship of worker productivity to Adams, JS. *Toward an Understanding of Inequity*", *Journal of Abnormal and Social Psychology*, 67(5), 422-436.
- [2] Agho, A. O., Price, J. L., & Mueller, C. W. (1992). Discriminant validity of measures of job satisfaction, positive affectivity and negative affectivity. *Journal of occupational and organizational psychology*, 65(3), 185-195.
- [3] Akpofure, R.-R., Grace, O., Israel, O., & Okokoyo, I. (2006). Job satisfaction among educators in colleges of education in Southern Nigeria. *Journal of Applied Sciences*, 6, 1094-1098.
- [4] Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational and organizational psychology*, 63(1), 1-18.
- [5] Babajide, E. O. (2010). The influence of personal factors on workers' turnover intention in work organizations in south-west Nigeria. *Journal of diversity management*, 5(4), 1.
- [6] Bagga, G. (2013). How to keep the talent you have got. *Human resource management international digest*, 21(1), 3-4.
- [7] Ballinger, G., Craig, E., Cross, R., & Gray, P. (2011). A stitch in time saves nine: Leveraging networks to reduce the costs of turnover. *California Management Review*, 53(4), 111-133.
- [8] Baron, A., & Greenberg, J. (2003). *Organisational Behaviour in Organisation: Understanding and managing the human side of work. Canada: Prentice Hall.*
- [9] Boehman, J. (2006). Affective, continuance, and normative commitment among student affairs professionals.
- [10] Brawley, A. M., & Pury, C. L. (2016). Work experiences on MTurk: Job satisfaction, turnover, and information sharing. *Computers in Human Behavior*, 54, 531-546.
- [11] Chen, C.-A. (2012). Explaining the difference of work attitudes between public and nonprofit managers: The views of rule constraints and motivation styles. *The American Review of Public Administration*, 42(4), 437-460.

- [12] Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*: Psychology Press.
- [13] Cohen, A., & Golan, R. (2007). Predicting absenteeism and turnover intentions by past absenteeism and work attitudes: An empirical examination of female employees in long term nursing care facilities. *Career Development International*, 12(5), 416-432.
- [14] Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of personality and Social Psychology*, 18(1), 105.
- [15] Dworkin, G. (1988). *The theory and practice of autonomy*: Cambridge University Press.
- [16] Faloye, D. O. (2014). Organisational commitment and turnover intentions: evidence from Nigerian paramilitary organisation. *International Journal of Business and Economic Development (IJBED)*, 2(3).
- [17] Furnham, A., & Stringfield, P. (1993). Personality and occupational behavior: Myers-Briggs type indicator correlates of managerial practices in two cultures. *Human Relations*, 46(7), 827-848.
- [18] Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of organizational behavior*, 26(4), 331-362.
- [19] Gamble, J., & Tian, A. W. (2015). Intra-national variation in organizational commitment: evidence from the Chinese context. *The International Journal of Human Resource Management*, 26(7), 948-970.
- [20] Gustafson, C. M. (2002). staff turnover: Retention. *International j. contemp. Hosp. manage*, 14(3), 106-110.
- [21] Hair Jr, J. F. (2006). Black, WC/Babin, BJ/Anderson, RE & Tatham, RL (2006): *Multivariate Data Analysis. Auflage, Upper Saddle River*.
- [22] Hsu, H.-Y. (2009). *Organizational learning culture's influence on job satisfaction, organizational commitment, and turnover intention among R&D professionals in Taiwan during an economic downturn*. University of Minnesota.
- [23] Hussain, T., & Asif, S. (2012). Is employees' turnover intention driven by organizational commitment and perceived organizational support. *Journal of quality and technology management*, 8(2), 1-10.
- [24] Jehanzeb, K., Rasheed, A., & Rasheed, M. F. (2013). Organizational commitment and turnover intentions: Impact of employee's training in private sector of Saudi Arabia. *International Journal of Business and Management*, 8(8), 79.
- [25] Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- [26] Kumar, R. (2005). *Research methodology: A step-by-step guide for beginners* Frenchs Forest: Pearson Education.
- [27] Lew, T. Y. (2011). Understanding the antecedents of affective organizational commitment and turnover intention of academics in Malaysia: The organizational support theory perspectives.

- [28] Liu, D., Mitchell, T. R., Lee, T. W., Holtom, B. C., & Hinkin, T. R. (2012). When employees are out of step with coworkers: How job satisfaction trajectory and dispersion influence individual-and unit-level voluntary turnover. *Academy of Management Journal*, 55(6), 1360-1380.
- [29] Locke, E. A. (1991). The motivation sequence, the motivation hub, and the motivation core. *Organizational behavior and human decision processes*, 50(2), 288-299.
- [30] Maertz, C. P., & Boyar, S. L. (2012). Theory-driven development of a comprehensive turnover-attachment motive survey. *Human Resource Management*, 51(1), 71-98.
- [31] Malik, M. E., Nawab, S., Naeem, B., & Danish, R. Q. (2010). Job satisfaction and organizational commitment of university teachers in public sector of Pakistan. *International Journal of Business and Management*, 5(6), 17.
- [32] Maslow, A. (1954). *Motivation and Personality*-New York-Hardper and Row.
- [33] Mbah, S. E., & Ikemefuna, C. (2012). Job satisfaction and employees' turnover intentions in total Nigeria PLC in Lagos State. *International Journal of Humanities and Social Science*, 2(14), 275-287.
- [34] McInerney, D. M., Ganotice, F. A., King, R. B., Marsh, H. W., & Morin, A. J. (2015). Exploring commitment and turnover intentions among teachers: What we can learn from Hong Kong teachers. *Teaching and Teacher Education*, 52, 11-23.
- [35] Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61(1), 20-52.
- [36] Miller, B. K., Rutherford, M. A., & Kolodinsky, R. W. (2008). Perceptions of organizational politics: A meta-analysis of outcomes. *Journal of Business and Psychology*, 22(3), 209-222.
- [37] Mohd Firdaus, J. (2011). *An Evaluation of Relationship Between Hygiene Factors and Job Satisfaction of Employees in the Asset Maintenance Department at Tenaga Nasional Berhad*. Universiti Utara Malaysia.
- [38] Moussa, M. N. (2013). Effects of perceived procedural justice and exchange ideology on employees' affective commitment: evidence from Saudi Arabia. *International Journal of Business and Management*, 8(15), 81.
- [39] Mullins, L. J. (2007). *Management and organisational behaviour*: Pearson education.
- [40] Olorunsola, E. (2012). Job satisfaction and personal characteristics of administrative staff in south west Nigeria universities. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(1), 46.
- [41] Oluwafemi, O. (2013). Predictors of turnover intention among employees in Nigeria's oil industry. *Organizations and Markets in Emerging Economies*(2), 42-63.

- [42] Park, H. Y., Christie, R. L., & Sype, G. E. (2014). Organizational commitment and turnover intention in union and non-union firms. *SAGE Open*, 4(1), 2158244013518928.
- [43] Rose, M. (2001). *Disparate measures in the workplace... Quantifying overall job satisfaction*. Paper presented at the BHPS Research Conference, Colchester.
- [44] Salkind, N. J., & Rainwater, T. (2003). *Exploring research*: Prentice Hall Upper Saddle River, NJ.
- [45] Spector, P. E., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: Some parallels between counterproductive work behavior and organizational citizenship behavior. *Human resource management review*, 12(2), 269-292.
- [46] Van Dyk, J., & Coetzee, M. (2012). Retention factors in relation to organisational commitment in medical and information technology services.
- [47] Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human resource management review*, 12(2), 173-194.
- [48] Yücel, İ. (2012). Examining the relationships among job satisfaction, organizational commitment, and turnover intention: An empirical study. *International Journal of Business and Management*, 7(20), 44.

Physical Skills in Male Volleyball Players 14-18 Years Old

Altin Martiri

Ph.D. Sports University of Tirane, Faculty of
Movement Sciences, Department of Sports

Abstract

During the monitoring of volleyball teams in Albania during training, it was noticed that coaches pay more attention to technical elements and not to physical abilities to ages 14-18 years. The aim of this study was to find out the trend of improvement and differences with the age on physical abilities of male's volleyball players in Albania. Methods: Participants in this study were N=43 volleyball players from two age categories; N=21, cadet (14-16 yrs.), N=22 and junior (16-18 yrs.) Measurement for anthropometrics (body weight, body height) and physical abilities (push up test, curl-up test, standing long jump and vertical jump test) were assessed. Results: Analysis between two age categories shows significant differences. Showed results for anthropometrics and also for physical abilities showed differences between groups of volleyball players. Data of this study for jumping performance using vertical jump CMJ test between groups for cadet vs. junior data show (mean difference= 21.3 cm; Sig= 0.004) while for vertical jump Run up test between groups for cadet vs. junior data show (mean difference= 22.3 cm; Sig= 0.003). Conclusion: In the best interest of the study, it would be good if other teams were involved from different cities of Albania. Suggestions for other studies we recommend in comparing data by positions in the field. Trainers should plan training with these age groups different coordination programs not only technical. This study has limitations with regards to the sampling number of male volleyball players, which is justified for not having sufficient funds.

Keywords: junior, anthropometric, cadet, volleyball

Introduction

Volleyball is characterized by continuous jumps combined with blocks and spikes, numerous short-distance sprints as well as short agility movements that occur repeatedly throughout the match or training session [1]. Physical abilities are of particular importance to every player who plays but specifically, physical skills play a crucial role and affect the intelligence and tactics of the game because during these games a high physical performance is required. The performance of these precise and structured movements depends on anthropometric parameters and physical abilities

[2]. For this reason, players need to focus a lot to improve their physical capacity (aerobic and anaerobic) in order to have a high performance in the game, fast and long-term movements throughout the game both in offence and defense. The coaches who deal with the training are convinced and oriented quite accurately that there is a difference in performance for the anthropometric parameters and physical abilities according to gender and positions in the field with regard to volleyball [3, 4, 5,6,7, 8] and in other team sports [9,10]. The aim of this study was to monitor in some volleyball player's cadet and junior find out the trend of improvement and differences with the age of anthropometric and physical abilities volleyball players in two team's Albania.

2. Methodology

Participants in this study were N=43 volleyball players from two age categories as follows; N=21, cadet (14-16 yrs.), N= 22 and junior (16-18 yrs.) N=24. Measurement for anthropometrics (body weight, body height) and physical abilities (push up test, curl-up test, standing long jump and vertical jump test) were assessed. Measurements were done in Tirana which is the capital city of Albania in two teams.

Protocols of the test

Weight- It was recorded the weight measurement in kilogram (kg).

Height- On to a scale stadiometer. It was recorded the height measurement was in centimeters (cm).

Push up test - measures upper body strength and endurance. A standard push-up begins with the hands and toes touching the floor, the body and legs in a straight line, feet slightly apart, the arms at shoulder-width apart, extended and at a right angle to the body. The time performed at maximal was 30 seconds.

Curl-Up test -measures abdominal muscular strength & endurance. The curl-up abdominal fitness test requires the subjects to perform as many curl-ups as possible for 30 seconds.

Standing long jump; the volleyball players place their feet over the edge of the sandpit, crouches down and using the arms and legs jump horizontally as far as possible landing with both feet into the sandpit. The players repeat the test 3 times.

Vertical test CMJ and run-up; CMJ- The countermovement jump (CMJ) is a simple, practical, valid, and very reliable measure of lower-body power. The player must keep their hands on the hips throughout the test. The player must perform a minimum of three jumps so that performance averages can be calculated. *Run up*; the coach decides before testing to include the use of the arm-swing and steps.

3. Results

Data from table 1 show descriptive statistics (mean, Std. Dev.) for anthropometric variables for the two age categories group with regard to volleyball male. Participants

in this study were (N=43) volleyball players from three age categories as follows; N=21 cadet (14-15 yrs.), N= 22, and junior (16-18 yrs.). Descriptive mean data are shown for body height, body weight.

Table 5 Descriptive statistics for anthropometric variables in male’s volleyball players by age group categories

		N	Mean	Std. Dev.
Body Height	Cadet (14-15 yrs.)	21	160.2	7.3
	Junior (16-18 yrs.)	22	166.5	7.4
Body Weight	Cadet (14-15 yrs.)	21	55.2	8.7
	Junior (16-18 yrs.)	22	64.7	13.0

Data from table 2 show descriptive statistics (mean, Std. Dev.) for physical abilities variables for the two age categories group with regard to volleyball male's. Descriptive mean data are shown for Push up Test (strength upper body); curl up test (strength core body) and standing long jump test (explosive power lower limbs).

Table 2 Descriptive statistics for physical abilities variables in male’s volleyball players by age group categories.

		N	Mean	Std. Dev.
Push ups 30s	Cadet (14-15 yrs.)	21	3.6	3.8
	Junior (16-18 yrs.)	22		4.2
Curl up 30s		21	18.8	4.0
	Cadet (14-15 yrs.)	9	20.6	3.6
	Junior (16-18 yrs.)	6	21.7	3.3

Standing Long Jump

Cadet (14-15 yrs.)	22	161.2	23.1
Junior (16-18 yrs.)	24	178.9	17.9

Data from table 3 show descriptive statistics (mean, Std. Dev.) for physical abilities variables for the two age categories group with regard to volleyball male's. Descriptive mean data are shown for vertical jump CMJ test (strength lower body limbs), vertical jump Run up test (strength lower body limbs).

Table 3 Descriptive statistics for physical abilities variables in male's volleyball players by age group categories.

		N	Mean	Std. Dev.
Vertical Jump CMJ	Cadet (14-15 yrs.)	22	233.3	26.6
	Junior (16-18 yrs.)	24	254.7	18.8
Vertical Jump Run Up	Cadet (14-15 yrs.)	22	237.7	27.0
	Junior (16-18 yrs.)	24	260.0	18.8

4. Discussion

The findings of this study are in line with the results of [11] which found significant differences in body height. Comparison data for body height between groups cadet vs. junior data show (mean difference= 6.3 cm; Sig= 0.045). Data from this study for body weight between groups cadet vs. junior data show (mean difference= 9.4 kg; Sig= 0.010). This study investigated the differences between the two age groups for male volleyball players for anthropometric parameters and physical fitness components. Other data results from [12] showed that anthropometric parameters are age-dependent. Data results from this study for strength using push up test between groups cadet vs. junior data show (mean difference= 0.8 counts; Sig= 0.699). Comparison data of this study for the core strength using curl up a test between groups cadet vs. junior data show (mean difference= 1.1 counts; Sig= 0.583) while for standing long jump test between groups cadet vs. junior data show (mean difference= 17.7 cm; Sig= 0.008). The study of [11] result showed differences for standing long

jump where players +17 years old performed better than -14 years old. Also significant differences were found between this 2 age categories. Finding from [13] showed that physical performance seems to be dependent on the playing positions. Finding from different studies [14, 15 and 12] showed that significant differences in fitness parameters were found between game positions in a wide range of sports. Data of this study for jumping performance using vertical jump CMJ test between groups cadet vs. junior data show (mean difference= 21.3 cm; Sig= 0.004) while for vertical jump Run up a test between groups cadet vs. junior data show (mean difference= 22.3 cm; Sig= 0.003). This study has limitations with regards to the sampling number of male volleyball players which is justified for not having sufficient funds. In the best interest of the study, it would be good if other teams were involved from different cities of Albania. Suggestions for other studies we recommend in comparing data by positions in the field.

5. Conclusion

Results show a statistical increase between age categories for body weight, height and stranding long jump, vertical jump (CMJ and run-up) while for the other measurement of physical fitness components no significant improvement was found mostly in female volleyball players with regard to age groups. This study has limitations with regards to the sampling number of male volleyball players which is justified for not having sufficient funds. In the best interest of the study, it would be good if other teams were involved from different cities of Albania. From the data obtained from this study, we suggest coaches to develop in training and exercises to effect the development of physical skills of volleyball players, not just the technical elements.

References

- [1] Viitasalo JT, Rusko H, Pajala O, Rahkla P, Ahila M, Montonen H. Endurance requirements in volleyball. *Can J App Sport Sci* ;12(4):194–201.1987
- [2] Thissen-Milder M, Mayhew JL. Selection and classification of high school volleyball players from performance tests. *J Sports Med Phys Fitness*.31(3):380-384.1991.
- [3] Barnes JL, Schilling BK, Falvo MJ, Weiss LW, Creasy AK, Fry AC. Relationship of jumping and agility performance in female volleyball athletes. *J Strength Cond Res*; 21(4):1192-1196. 2007.
- [4] GabbettT, Georgieff B. Physiological and anthropometric characteristics of junior national, state, and novice volleyball players. *J Strength Cond Res*; 21(3):902-908. 2007.
- [5] Grgantov Z, Katić R, Janković V. Morphological characteristics, technical and situation efficacy of young female volleyball players. *Coll Antropol*; 30(1):87-96.2006.
- [6] Grgantov Z, Nedović D, Katić R. Integration of technical and situation efficacy

- into the morphological system in young female volleyball players. *Coll Antropol*; 31(1):267-273. 2007.
- [7] Katić R, Grgantov Z, Jurko D. Motor structures in female volleyball players aged 14-17 according to technique quality and performance. *Coll Antropol*; 30(1):103-112. 2006.
- [8] Smith DJ, Roberts D, Watson B. Physical, physiological and performance differences between canadian national team and universiade volleyball players. *J Sports Sci*; 10(2):131-138. 1992.
- [9] Katić R, Grgantov Z, Jurko D. Motor structures in female volleyball players aged 14-17 according to technique quality and performance. *Coll Antropol*; 30(1):103-112. 2006.
- [10] Milić M, Grgantov Z, Chamari K, Ardigo LP, Bianco A, Padulo J. Anthropometric and physical characteristics allow differentiation of young female volleyball players according to playing position and level of expertise. *Biol Sport*; 34(1):19-26.2017.
- [11] Reilly T, Williams AM, Nevill A, Franks A. A multidisciplinary approach to talent identification in soccer. *J Sports Sci*;18(9):695-702.2000.
- [12] Markovic, G., D. Dizdar, I. Jukic, and M. Cardinale. Reliability and factorial validity of squat and countermovement jump tests. *J. Strength Cond. Res.* 18(3):551–555. [PubMed].2004.
- [13] Marques MC, van den Tillaar R, Gabbett TJ, Reis VM, González-Badillo JJ. Physical fitness qualities of professional volleyball players: determination of positional differences. *J Strength Cond Res*; 23(4):1106-1111.2009.
- [14] Mohamed H, Vaeyens R, Matthys S, Multael M, Lefevre J, Lenoir M, Philippaerts R. Anthropometric and performance measures for the development of a talent detection and identification model in youth handball. *J Sports Sci*; 27(3):257-266.2009.
- [15] Tessutti LS, Aguiar SS, Costa GDC, Clemente FM, Lima RF, Neves RVP, Praça GM, Castro HO. Body composition and performance variables differences in female volleyball players by agegroup and playing position. *Rev Bras Cineantropom Desempenho Hum*, 21 : e 60131.2019.DOI:<http://dx.doi.org/10.1590/1980-0037.2019v21e60131>

Democracy in Central Eastern Europe and European Union

Blerina Muskaj

PhD, University "Aleksandër Moisiu" Durrës-Albania

Abstract

Some of the countries in the region have contributed through assistance programs to develop and align their democracies with what the EU itself lobbies. EU aid to CEE is seen as a phenomenon of EU-perceived responsibility in the interaction of new democracies in Central and Eastern Europe. This paper will create a genuine study of the perceived responsibility for the development of democracies in these countries. It paints a clear picture of the development of democracy and the need for CEE countries to be under EU assistance. The assistance coming from this institution has given and continues to contribute to developing a democracy with strong executive foundations for society and beneficial to the region. In this way, the EU manages to achieve its objectives of achieving a federal union. When we say federal union we mean a Europe with the same democratic values and executive standards. In this paper the EU's responsibility for the new democracies of Central and Eastern Europe is seen in activities with EU programs to enhance institutions above democratic values. Having access to the issues facing the democracies of Central and Eastern Europe, the Council Acquis provides an overview in the field of democracy. The paper gives us the opportunity to look more closely at democratic forces in countries where the latter is still developing, aiming not only at the analysis of democracy, but also at the analysis of the European common market. We will look at these two EU phenomena in the context of the EU's perceived responsibility for the interaction of new democracies in CEE. The EU has undertaken this responsibility in the context of strengthening, developing and maturing new democracies on the European Continent. Giving its contribution through various programs designed in the form of grants, which are given to countries that are in the process of maturation, in the form of programs that pave the way for development. The question that arises at this stage is: Does democracy help in a market economy?

Keywords: market economy, Acquis, council, democracies, Central-Eastern Europe

Introduction

1. The notion of Democracy.

The nature of democracy: “Everyone has the right to take part in the government of his country, directly or through freely chosen representatives. Everyone has an equal right to access public services in his country. The will of the people is the basis of state power; this will must be expressed in periodic and free elections, which must be general and equal voting, as well as by secret ballot or according to the equivalent procedure of free voting”.

Democracy is a form of government in which state authority derives from the people. The word "democracy"¹ comes from the ancient Greek word "demos" which means people and "kratos", which means power. The principles of modern democracy have been gradually developed by the religious movements of Calvinism during the seventeenth century, especially in Scotland, England and the Netherlands where communities began to support and share not only religious but also political ideas. The philosophy of freedom and equality was further enhanced during the Enlightenment period, which would later be recognized as the core values of democracy.²

The first democratic state was established in the USA, while France was the first European state established on democratic principles, after the French Revolution. After 1945 there was a spread of Western democracy in Europe and around the world, which replaced authoritarian forms of government. After the defeat of fascist governments, it seemed that the crisis that democracy experienced during the twentieth century was overcome. The long process of decolonization in which the right to self-determination was recognized by Western countries resulted in the advent of democracy in their former colonies. The dictatorships in Spain, Portugal, Greece, Argentina and Uruguay all became democracies in recent decades.³ With the fall of the Berlin Wall in 1989 and the collapse of the Stalinist system in Central and Eastern Europe, it was seen that democracy had indeed triumphed. However, not all countries that theoretically support democracy as a form of government do not respect democratic principles or the life of democratic practice. This rather as a paradoxical development demonstrates that maintaining a critical debate on democracy and democratization is a necessity.

¹ Kuci K., 2011, “Political Philosophy”, UMSH Tirana, p. 29.

² Two basic principles of the French Revolution are the principle of freedom and that of equality. These principles are exactly what later became the basis of democracy. So, democracy works on these two principles today.

This is a small comparison between states that toppled their dictatorial system in the last years of the twentieth century.

³ Fischer L., “*The Essential Gandhi: An Anthology of His Writings on His Life*”, Work, and Ideas, 2002, fq 203

"My notion of democracy is that the weakest should have the same chance as the strongest."¹

With regard to the essential elements of modern democracy it must be stated that it is difficult to measure what a democratic society is like. Yet a number of key elements constitute the foundations of any democratic society. To better understand these elements, education and learning at all levels play an essential role.

a. Equality - the principle of equality means that all human beings are born equal, should enjoy equal opportunities, participation in the political life of the community and equal treatment before the law. This also includes social and economic equality between women and men.

b. Participation - democracy is meaningless without participation, participation in the community and policy issues is a prerequisite for building a democratic system. Democracy is a form of participation, sometimes participation is a broad concept and contains not only strong political implications, but also social and economic ones. But participation alone cannot guarantee democracy.

c. Majority rule and minority rights Although democracy is defined by "people rule", it is in fact "majority rule". It also implies a majority obligation to take into account the different rights and needs of minority groups. The degree to which obligations are met is an indicator of the further increase of democratic values in society.

The question arises: What does democracy include as a notion? According to the reasoning, but also according to various literatures, democracy includes the rule of law, the electoral system, good governance, the sovereignty of the people and the conditions for free elections. So the nature of democracy is diverse. We will analyze each of the above concepts to better understand the diversity of democracy.

With regard to the rule of law, we must first clarify which terminology we must accept: the rule of law or the rule of law, terms that are widely used today in the political and legal literature. Both terms have the same meaning, express the same concept, that of the close and reciprocal connection between the state and the law. The definition of the rule of law varies by authors and eras. The rule of law is first and foremost a theoretical model of the organization of political systems. It has become a fundamental topic of politics as it is considered one of the main characteristics of a democratic regime, but it is not necessarily a democratic regime. Generally a rule of law is not necessarily democratic, but any democratic state is a rule of law. The rule of law thus seems like a first stage in the formation of a democratic state. Its opposite

¹ Fischer L., *"The Essential Gandhi: An Anthology of His Writings on His Life"*, Work, and Ideas, 2002, fq 203.

is despotism or police regime, where arbitrariness and regime of violence reign. It happens that the notion of the rule of law is opposed by the notion of the Reason of the State.

According to an old definition,¹ the rule of law is an institutional system in which public power is subject to the rule of law. It is based on the essential principle of respect for the law, everyone is subject to the same right, whether this individual or public power. So in a special case

the actions of the state or of a political leader may be challenged if they are deemed not in accordance with the law. The Austrian jurist Hans Kelsen² redefined this concept of German origin in the early twentieth century, as a "state in which legal norms are hierarchical so that its power is limited." In this model, each rate gets its validity in accordance with the above rates.

The rule of law can be summarized according to the formula: "No one is above the law". In general, this regime groups a set of legal norms that protect citizens from arbitrary forms of (executive) power. For a state of law to exist, the obligations arising from the state must be formal, impersonal, binding and sanctioned. In other words, the laws must: 1) be made public, 2) no one can escape them, 3) they must be realistically enforced, and 4) the violation of the laws must lead to sanctions.

The rule of law is closely linked to the observance of the hierarchy of norms, the separation of powers, the equality of subjects of law before legal norms, the existence of independent jurisdictions and the guarantee of the civil and political rights of individuals. These are the basic conditions that a Rule of Law must meet.

2. Electoral system and democracy.

Much of the constitutional creation has emerged in relatively recent times: the worldwide movement towards democratic governance in the 1980s and 1990s has stimulated a new urgency by exploring sustainable models of government of respective representation, along with the assessment of fresh electoral systems. This process has been encouraged by the widespread logic that the choice of institutions can have a significant impact on the wider political system - for example, it is increasingly accepted that an electoral system can help to "engineer" cooperation and integration into society. Separated. The creation of the electoral system now accepted as relevant to major governance issues, and arguably as one of the most influential, of all political institutions.

By providing this detailed analysis of selections and consequences, and by showing how electoral systems have worked in a democratic world, we hope to achieve two things:

¹ Bashkurti L., "Public International Law", ILIRIA Prishtina, 2009, p. 109.

² Bashkurti L., "Public International Law", ILIRIA Prishtina, 2009, p. 109.

o expand knowledge and illuminate political and public discussions;

o enable the drafters of the constitution to make a selection with information, thus avoiding some of the effects of dysfunction and destabilization of the selections of special electoral systems

At the most basic level, electoral systems show that in general elections votes are cast in seats won by parties and candidates. The main variables are:

1. the electoral formula used (i.e. whether it is a majority or proportional system, and what mathematical formula is used to calculate the allocation of seats)
2. the size of the region, not how many voters live in a region, but rather how many members of parliament are elected in that region.

3. Good governance and democracy.

Derived from micro-economic theory and Anglo-Saxon administrative science, the notion of "good governance" was introduced in the 1990s by the World Bank as a necessary condition of development policy. For the World Bank, governance includes the norms, traditions, and institutions through which a country exercises its authority over the common good in the optics of development. Good governance also includes the capacity of government to effectively manage its own resources and to implement appropriate policies, as well as the existence of democratic control over the agents charged by the authority.¹ For the World Bank², good governance is "the way power is exercised in managing the economic and social resources of a developing country." Governance, according to the IT Governance Institute, "aims to provide strategic orientation, ensure that objectives are achieved, risks are properly managed and that resources are used responsibly." It takes care with priority to respect the interests of those "who have rights" (citizens, public authorities, shareholders, etc.) and to make their voices heard in the conduct of affairs.

So good governance is related to the functioning of public authorities. The "manner of exercising power" must respect the following principles:

- The principle of transparency which means freedom of access to administrative documentation, freedom of information, guarantee of an administrative justice and motivation of decisions taken.

¹ Non-paper Harnessing the transition experience in EU's external relations: From policy to implementation. Non-paper by the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Romania, Slovak Republic, and Slovenia. Available at http://www.mzv.cz/file/591175/non_paper_on_the_transition_experience.pdf, accessed 2 Shkurt 2011.

² World Bank official site, shiko për më shumë: World Bank official site, Prill 2009.

- The principle of accountability which means the responsibility of decision makers, controls over administration, control over public markets, administration of public money, etc.

- The principle of participation which means giving opportunities to all actors to participate in the development process.

In Western societies governed by liberal democracy, governance refers to interactions between the state, political bodies, and society, including lobbying systems and coalitions of public and private actors. Good governance aims to make public action more efficient and closer to the public good and the common interest, as well as more legitimate. It aims to make societies easier to govern and more balanced, so that they do not overuse their resources and are able to renew them.

The European Commission has registered its notion of governance in the White Paper on European governance.¹ Thus, the term European governance defines the rules, processes and behaviors that influence the exercise of power at European level, especially in terms of openness, participation, responsibility, efficiency and coherence. These five "principles of good governance" strengthen those of subsidiarity and proportionality. This definition is also included in the Lisbon Treaty.

Good governance can be seen as an ideology of Social-State non-engagement, even as a theory of state decomposition, which has been in operation since the neoliberal turn of the 1980s. The abandonment of the term "government" and its use can be denounced. of the term "governance", explaining that it is a demolition of the decision-making power of the state, as a guarantor of popular sovereignty, replacing it with participatory democracy, which has no real political attribute. The slide from government to government shows that it passes from a civilization of popular sovereignty embodied in republican constitutions, a guarantor of the general interest, into a pragmatic, particularist and utilitarian society, the guarantor of special economic interests, in which the notion of the good of joint no longer has room.

4. Nationalism and democracy.

Nationalism can be seen as an integral part of consolidating the identity of a new state.

Whatever the reasons, the fact is that after the end of the Communist Party rule in the world an increase of national movements and national feelings was witnessed in post-communist Europe. Nationalism has been used as a tool of political mobilization and support so that in a number of countries, the rhetoric and symbols with the greatest electoral appeal were national.² The nationalist idiom had orientated an important

¹ European Commission, për më shumë shiko:
http://ec.europa.eu/transport/themes/strategies/2011_white_2011

² Verdery. K., "Transnationalism, Nationalism, Citizenship, and Property: Eastern Europe since 1989", 1998, fq 294.

place in the cultural repertoires of actors and had given meaning to post-communist transformations.¹

More specifically, Brubaker² distinguishes between types of nationalism, which have interacted to destabilize new or restructured states in post-1989 Europe. Thus we mention "national minority nationalism" that seeks to prevent and eliminate discrimination and exclusion. Further another type of nationalism is "foreign homeland nationalism", which sees itself as responsible for the welfare and fate of the non-citizen co-accused, ethnic minority in another state and intervenes on its behalf. This kind of nationalism does not protect national problems. It is about ethno-nationalism. This kind of nationalism can be a major obstacle to democratization in post-communist states because "post-communist governments give the impression that they do not represent the citizens, but the nation." All this suggests that in light of the nationalism that marked the political scene in Central and Europe Eastern after the fall of communist regimes, in

countries with significant ethnic minorities, the population will be slower in the process of democratic consolidation, thus reluctant to affirming the rights of ethnic minorities and their interests in societies where nationalism is prevalent will be an obstacle to democratic consolidation. European Nationalism and Euroscepticism for new EU members.

The phenomenon of Euroscepticism became apparent in the 1990s. This is because we have a change in the governing system and the demand of many states to become part of the community. History has shown that the term appeared in Great Britain when it was preparing for European integration.³

There are several definitions for this phenomenon and there have always been different views regarding the definition of this phenomenon. Some argue it as a negative signal of a gap between politicians' desire (to be part of the EU) and ratification of treaties. Many times some treaties have failed in their first vote by the people, but this did not happen in the second vote and the existing treaties have been ratified, but always with the consent of the people.⁴

However it is important to recognize that Euroscepticism can have positive attributes. These will be understood as awareness, interest, critical capacity of the people, in the sense that the European people remind the political elite that can not govern without

¹ Brubaker . R., "*Nationalism Reframed: Nationhood and the National Question in the New Europe*",1996, fq 68.

² Brubaker. R., "*Nationalism Reframed: Nationhood and the National Question in the New Europe*", 1996, fq 7.

³ The Oxford English Dictionary defines the Eurosceptic as "a person who has doubts or reservations about the benefits of cooperation that should be enjoyed by EU member states", p. 323.

⁴ Gfeller A., "*Building a European Identity*", France, The United States, and the Oil Shock, Berghahn Books, New York, 2012, fq 123.

the consent of society. The political elite here has less of a superior position than the people they elect.

But why are EU member states more skeptical than those who want to be part of it?

Member states are more skeptical because they have the opportunity to see up close how the EU works as an organization aiming to move towards a federation. Those within the Union are more inclined to lean towards non-functioning as a federation, so they are skeptical of this issue. This comes as a result of a Europe with history and the fear that this Europe may be extinguished if it is decided to proceed with the creation of a single state *ex novo*.

At the current stage of the *sui generis* organization, which is the European Union, it should be noted that each member state is a different nation from the others and none of them speaks or is represented as European.

It is the peoples, the different cultures that each state carries that do not allow the creation of a federal state because we have a clash of cultures or a clash of civilizations. The creation of a European Federal State would mark a new world order for international relations on a global scale.¹

If we compare it with the USA, it would be said that: “The USA is compact with the states that make it up. Its institutions are formed, mature, developed and the American Parliament (to compare it with the European Parliament) or the Senate as it is otherwise known, makes decisions for all states only in the presence of senators of member states, without requiring the vote of the people. . Stay with the institutions because their importance appears when they represent the US as the only one in the international arena. The result of this process is that they do not have an individual past or culture as European countries do, they simply produce and market it. The US, has a Constitution while the EU failed in its attempt to create one. The explanation for this is a consequence of what I argued above. The Constitution failed and with it failed any attempt towards a Europe state. In the ensuing Lisbon Treaty, the term Foreign Minister was also replaced by the High Representative for the Common Foreign and Security Policy. Precisely to avoid any misunderstanding in this regard. There is also no article dealing with EU symbols such as the flag or anthem.

On 1 January 1999 the Euro starts as the common currency in banking transactions. 11 member countries adopt the common currency. Three countries such as Denmark, Sweden and Britain decide to delay the decision. The coin did not succeed from the beginning. During the year its value fell by about 30% compared to other major world currencies. According to federalist theory, to impose integration, a full-fledged political system is needed, such as the federal government in the US.

¹ Picture or reflection. The term framework is used in giving arguments on the goals of a phenomenon or a process. In our case we distinguish between the phenomenon that is globalism and the process that is globalism.

As stated above, the EU is not an end product. Merger is in a dynamic process of change and what the final form it will take is difficult to predict. The EU institutions have competencies in several areas and pursue objectives set out in the treaties. This means that they are not free to choose their objectives in the same way as a sovereign state does, and that they are unable to cope with the challenges that sovereign states face today.

To return to Euroscepticism, we mention the fact that perceptions of the EU in the UK have changed more dramatically than in many other Member States.

The undisputed proof in this regard is the exit of this country from the European Union. It should be noted that this is the first experience of a country leaving the European Union.¹

On the other hand it must be said that leaving the European Union was not a surprise to anyone. This is because in 2004 there was a relatively low level of confidence and a relatively negative image of the EU. Calculations in% clearly show that "citizens do not tend to trust the EU", from 2004 which was 48% in 2012 went to 80%.²

Dominated by a constant fluctuation between national interests and the partially integrative interests that favor national ones, Britain has always been considered a difficult partner of the EU. The Conservatives' rise to power in 2010 gradually began to re-expose the government's stance on Eurosceptic ideas. These attitudes would also be reflected in the public speech on Europe, by the Prime Minister of Cameroon. The political ideas presented in this speech repositioned Britain again towards a choice option: negotiating a new agreement with the EU, and in case of failure a popular referendum to decide on leaving, or staying in the EU.

The referendum held years ago suggests for the first time a concise, clearly stated question about leaving or staying in the EU and is considered to have been one of the boldest promises that carries in itself a multifaceted risk, exposing it unnecessarily. Britain in the face of isolationist situations. In parallel with this political initiative, Britain confirmed that it would not participate in the reform of the EU Economic and Monetary Union, as well as stated a consideration for withdrawal from EU Justice and Home Affairs. British dissatisfaction has also been expressed in other areas affecting relations with the EU. Despite the bold promise of holding a referendum, the ideas expressed in Cameroon's speech address a range of issues. One of the main reasons is estimated to have been Britain's fading role in the EU, as the financial and economic crisis has significantly highlighted the role of the eurozone in the EU. The focus on a deeper integration of the euro area, has become an engine of integration, causing the latter to take the lead in other political areas, such as that of further economic and political deepening, with federalist tendencies.

¹ Titulluar Brexit.

² European Council On Foreign Relations, the Continent-Wide Rise of Euroscepticism, 2012.

This highly-argued scenario over the UK materialized with the UK's exit from the EU.

Attitudes towards the EU in Finland are¹ a bit contradictory as the level of support for Finnish membership and for the single currency is high, while the levels of support for Finnish membership and trust in the EU are very low. The economic crisis has polarized Finns, but growing criticism of the EU has somewhat strengthened pro-European sentiment.

Association Agreements with the EU are a first step on the path to full membership in the European Union. Most importantly, this process has caused the alignment with the *acquis communautaire*, the EU legislation, with the legislation of these countries.

The signing of EU Agreements with Central and Eastern European countries will have an impact on the democratic consolidation of these countries. EU pressure and monitoring a country's imminent opportunity to meet EU criteria should help a country stay on track for the democratic project. Therefore, we must see that, *ceteris paribus*, the sooner a country gives the signs of the EU Agreement, the faster its democratic consolidation

Conclusion

Regarding the study, the focus of this study is Central and Eastern Europe and the relationship with the EU, where the link to the interaction needs of democracies is direct and reciprocal. Being a very broad topic, and addressing the perceived responsibility of the EU with the interactions in the new democracies in Central and Eastern Europe is seen as a whole it has been chosen to focus on the problematic of how this democracy affects the execution of aid programs. in this region by the EU. International factors have influenced the democratization of Central and Eastern Europe, providing assistance in the form of programs. The fall of the dictatorial system in this period is seen as a revolution characterized by two important features: The first feature is characterized by the dissolution of the Soviet Union, a peaceful dissolution. The second feature of this dissolution marks the re-world order. In this feature it is clear that we are ahead of the development of a society based on democratic principles. The key questions already posed in the political debates are: what impact do aid programs have on the development of democracy? How the EU perceives responsibility through programs helper it offers? These are the main questions that guide the structure of this paper and the requirements for recognizing a wide range of issues that provide us with a complete overview and as close as possible to concrete and accurate conclusions. This paper analyzes and explains a wide range of political interactions between these countries with the EU, its main actors, the respective governments with their statements and positions, etc. This range of interactions includes cooperation, confrontation, and individual games in the interest of meeting the goals of each party.

¹ Or have been for the eight countries that joined the EU in 2004.

Today, democracy has reached an important point in the development of Central and Eastern Europe. Democratic institutions are more widely accepted in this region. Today more Europeans live in democracies. Recognizing the development of democracy in the region in question, we see that there is distrust in political institutions, as well as in participation in free and democratic elections.

The study aims to analyze the EU's responsibility for the interaction of democracies in CEE. This objective can not be achieved without considering a number of other aspects related to it, starting from the historic moment of the creation of communities and to the conditions that led the countries of Eastern and Central Europe towards EU membership.

The main problem of the study is the study of the consolidation of democracy in Central and Eastern Europe and the way of influence of democracy in the development of the region. Functional consequences and democratic performance are considered more important, combining it with the responsibility that comes before the EU, to help these countries to recover through aid programs. These programs are made available to countries with short-lived democratic experience.

The EU presents the democratic performance of the countries of Central and Eastern Europe in the form of the so-called Copenhagen criteria, regarding the ability to take on the obligations of membership. These conditions, which are economic-political, require democratically defined standards by meeting the criteria of a free economy. The problem in this case lies in the implementation and commitment of states to these criteria.

References

- [1] Brubaker. R., "Nationalism Reframed: Nationhood and the National Question in the New Europe"
- [2] European Council On Foreign Relations, the Continent-Wide Rise of Euroscepticism, 2012.
- [3] Gfeller A., "Building a European Identity", France, The United States, and the Oil Shock, Berghahn Books, New York
- [4] Gombert, T., Blasius, J., Krell Ch., Timpe, M., "Basics of Social Democracy" (PDF). Social Democratic Reader. Translated by Paterson, James Berlin. Friedrich-Ebert-Stiftung. Retrieved 31 January 2016.
- [5] Non-paper Harnessing the transition experience in EU's external relations: From policy to implementation. Non-paper by the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Romania, Slovak Republic, and Slovenia. Available at http://www.mzv.cz/file/591175/non_paper_on_the_transition_experience.pdf, accessed 2 February 2011.
- [6] Pridham G., "Democratization in Central and Eastern Europe: a comparative perspective" by S. White, J. Batt and P. Lewis (eds.), *Developments in Central and East European Politics 3*. (Basingstoke: Palgrave Macmillan, 2003

- [7] The Oxford English Dictionary defines a Eurosceptic as "a person who has doubts or reservations about the benefits of cooperation that should be enjoyed by EU member states".
- [8] Verdery. K., "Transnationalism, Nationalism, Citizenship, and Property: Eastern Europe since 1989"

The Relationship between Cultural Intelligence and Psychological Well-being with the Moderating Effects of Mindfulness: A Study of International Students in Taiwan

Tzu-Ping Yang

National Taiwan Normal University

Wei-Wen Chang

National Taiwan Normal University

Abstract

According to Ministry of Education of Taiwan, numbers of international students studying in Taiwan gradually increased. However, studies showed that their learning outcome is significantly influenced by their psychological well-being (PWB). Therefore, this study examines the factors affecting PWB. In this study, cultural intelligence (CQ) is seen as a potential predictor for PWB. CQ is defined as the ability to deal with different cultural context, and it includes four dimensions, namely cognitive CQ, metacognitive CQ, motivational CQ and behavioral CQ. Besides, as people pay more attention to unfamiliar exotic things when being abroad, their consciousness on the present moment, so-called mindfulness, plays an important role for their well-being. Therefore, mindfulness is examined as a moderator in the relationship between CQ and PWB. Quantitative approach is applied in this study. The samples are 110 international students studying in Taiwan. The self-report questionnaire composed by Ryff's 18-item scale, Cultural Intelligence Scale and Mindful Attention Awareness Scale is distributed on-line. The collected data go through descriptive analysis, correlation analysis and regression analysis. Results show that metacognitive CQ and PWB has a significant relationship with an R^2 of .231. Besides, motivational CQ is positive related to PWB with an R^2 of .142. According to the statistic result of this study, future research can put efforts on how to enhance metacognitive and motivational CQ, like designing related cultural program courses before students' departure, in order to better international students' PWB.

Keywords: cultural intelligence, psychological well-being, mindfulness, international student

Introduction

The development of technology and the progress of the public transportation have facilitated the mobility of people around the world. Moving across nations becomes easier than before. It causes more and more interactions among people from different countries in different fields. From the educational perspective, more and more students decide to apply for studying abroad program. Take international students in Taiwan for instance, according to Ministry of Education in Taiwan, the statistical numbers of international students studying in college in Taiwan is increasing year by year. In 2011, there were 55463 international students in Taiwan, as time goes by, the number of international students studying in Taiwan went up to 110182 in 2016. Meanwhile, research on international students also become noteworthy nowadays.

Tseng and Newton (2002) indicated that it is worthwhile to find out what and how to make international students' life abroad better. Some researchers reported that students studying abroad expect to learn languages, experience adventures, gain cultural refinement, develop intercultural competence and learn about themselves (Bowman, 1987; Hoffa, 2007). A study whose participants are 551 international graduate students found out that among them, 44% responded that their academic performance was affected by emotional or stress-related problem during their life abroad (Hyun, Quinn, Madon, & Lustig, 2007). That is to say, a student's psychological feel is related to determine the condition of their studying abroad life. Therefore, this study aims to examine what might be the potential factors that could positively relate to psychological well-being (PWB) which was defined as an individual's positive mental state and his or her feeling of functioning well personally and interpersonally (Deci & Ryan, 2008; Ryff & Singer, 2008).

When going abroad, adjusting themselves to get adaptive to new environment is an important issue individuals need to deal with. Stepping into a different country refers to experiencing a different culture. The ability individuals possess to deal with different cultural context and to get themselves adaptive to new cultural environment is called Cultural Intelligence (CQ; Earley & Ang, 2003). CQ consists of four dimensions: cognitive CQ - knowledge and understanding of culture and how things done in cultural contexts, metacognitive CQ - an individual using his or her understanding of culture to plan, motivational CQ - an individual's interest and confidence in adjusting oneself into different cultural environment, and behavioral CQ - the ability to behave in different culture. The ability to adapt is related to academic outcomes, and non-academic outcomes as well, including class participation, school enjoyment, life satisfaction, and sense of meaning and purpose,

etc (Martin, Nejad, Colmar, & Liem, 2013). Therefore, this study considered CQ a potential antecedent of psychological well-being. On the other hand, people tend to be curious about the unfamiliar and exotic things when studying abroad, and thus they will pay more attention to what is happening at the exact moment, which is called mindfulness – individuals keep their consciousness on the present moment (Hanh, 1976). A study indicated that mindfulness-based interventions are able to improve well-being (Gu, Strauss, Bond, & Cavanagh, 2015). And thus, this study also considers mindfulness a potential moderator in the relationship between CQ and PWB. In short, in order to find out the potential factors that improve international students PWB; meanwhile, to achieve the goal of improving their academic outcomes and their life studying abroad, this study examines the relationship between CQ and PWB and the moderating effect of mindfulness in the relationship between CQ and PWB.

Literature Review

Cultural Intelligence and Well-Being

Between adaptability and well-being, a positive correlation exists. (Maggiori, Johnston, Krings, Massodi, & Rossier, 2013). In addition, adaptability serves as the antecedent of well-being has also been discussed in several research (Mackey, Ellen, Hochwarter, & Ferris, 2013; Stoltz, Wolff, Monroe, Mazahreh, & Farris, 2013; Wang, Zhan, Mccune, & Truxillo, 2011). In terms of adaptability, specifically, Kelly and Meyer (1995) defined the adaptability of different culture as cross cultural adaptability – the ability to not only adapt oneself into but also function well in different cultural context. It is divided into four dimensions including Emotional Resilience (ER), Flexibility/Openness (FO), Perceptual Acuity (PAC), and Personal Autonomy (PA) when individuals' cross cultural adaptability is assessed by Cross Cultural Adaptability Inventory (CCAI). There are two studies using CCAI to assess international students cross cultural adaptability. One study discovered that ER and FO were associated with psychological and sociocultural adaption problems, while PAC and PA were related to fewer sociocultural difficulties. And in the second study, ER was discovered to be the strongest predictor of psychological well-being and PAC was an important main factor in sociocultural adaptation. The results turned out that cross cultural adaptability is related to psychological and sociocultural context (Ward, Berno, & Main, 2000). Similar with cross cultural adaptability, Early and Ang (2003) defined cultural intelligence as the capability to function effectively in different countries, in other words, in different culture so that this study views cultural intelligence which can also predict an individual's cross cultural functionality as a similar concept with cross cultural adaptability. Therefore, due to the similarity which

is shared between cultural intelligence and cross cultural adaptability, this study builds hypothesis listed below:

Hypothesis 1:

Students' cultural intelligence is positively related to their psychological well-being when studying abroad.

The Role of Mindfulness as a Moderator

Kabat-Zinn (1994) defined mindfulness as the way an individual pay attention to the experiences at the present moment non-judgmentally. It contains five attributes which are experience of being present, awareness, acceptance, attention and transformative process (White, 2013). Researchers pointed out that cultivating mindfulness is positively related to good psychological and physical results (Kabat-Zinn, 1990; Shapiro, Schwartz, & Bonner, 1998). LeBel and Dubé (2001) made an experiment about two groups of participants eating chocolate in different situations. Group which focused on the sensory experiences of eating reported that all participants were more enjoyable than the other group which simultaneously needed to work with other tasks. In addition, flow activities, which was defined as an operating mental state where participants pay attention to and fully engage with what is occurring were also reported bringing considerable joyfulness (Csikszentmihalyi, 1990).

There were also studies related to mindfulness and cultural intelligence. Elizabeth (2014) demonstrated that an individual becomes more culturally sensitive through increasing mindfulness in predeparture sessions for introducing cultural competence model.

As above, mindfulness may play a moderating role which results in the enhancement of cultural intelligence and well-being. On the other hand, on account of mindfulness, the relationship between cultural intelligence and psychological well-being may be influenced. Therefore, this study builds the following hypothesis.

Hypothesis 2:

Mindfulness moderates the relationship between cultural intelligence and psychological well-being.

Methodology

Research Framework and Hypothesis

The research framework was developed according to the relevant literature review. Cultural intelligence (X) serves as independent variable, while psychological well-being otherwise serves as dependent variable (Y). The study first examines the relationship between X and Y. In addition, mindfulness, as moderator (MO), is used to examine the moderating effect of the relationship between X and Y. Figure 1 shown below illustrates the framework for this study:

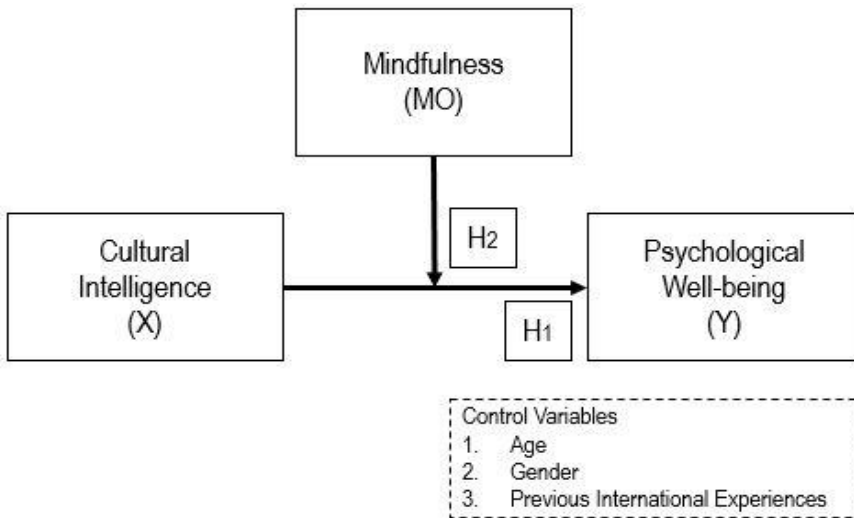


Figure 1. Research Framework of this Study

Besides, research hypotheses built by the previous session are also illustrated in figure 1.

H1: Students' cultural intelligence is positively related to their psychological well-being when studying abroad.

H2: Mindfulness moderates the relationship between cultural intelligence and psychological well-being.

In addition, age, gender, and previous international experience are considered control variables for this study.

Research Sample

The sample population of this study are international students who are currently studying in Taiwan, including bachelor degree students, mater degree students, and doctor degree students. Convenience sampling and snowball sampling are used to

reach the sample population. A total of 110 participants filled online self-rated questionnaires.

Two criteria are set for data collecting process. First, students need to be currently studying in Taiwan. Second, selected students have all been studying abroad for at least six months, namely they might have gone through honeymoon and culture shock stages and were experiencing adjustment stage which resulted in a more stable condition according to U-Curve Theory (UCT; Black & Mendenhall, 1991).

The requirements of the participants are described clearly in the questionnaire at first to make sure the participants meet the criterion of this study. For example, I am currently studying in Taiwan and I have been studying in Taiwan for at least six months.

Research Instrument

Psychological Well-Being

Psychological Well-Being scale consists of 18 items developed by Ryff (1989) is used in this study. 18 items are all examined with Cronbach's alpha value of the collecting data .72. After reading through the item statement, participants answer the questions from 1 (Strongly disagree) to 6 (Strongly agree) according to their current condition.

Cultural Intelligence

Cultural Intelligence Scale (CQS) developed by Van Dyne, Ang, and Koh (2008) is used to measure participants' cultural intelligence. It is a 20-item scale that measures four dimensions of CQ as mentioned: cognitive CQ, metacognitive CQ, motivational CQ, and behavioral CQ with 6 items, 4 items, 5 items, and 5 items respectively. A 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree) is used for participant assessing their current condition based on the item statement. The Cronbach's alpha value of the collecting data for the overall CQ is .87 and for four dimensions, cognitive CQ, metacognitive CQ, motivational CQ and behavioral CQ, are .86, .81, .83, and .82.

Mindfulness

Mindful Attention Awareness Scale (MAAS), a psychological self-survey developed by Brown and Ryan (2003), is used to assess participants' mindfulness. It was created to capture attention and awareness in daily life specifically (Brown & Ryan, 2003). In this questionnaire, 15 descriptive questions with Cronbach's alpha value of the collecting data .84 are examined. And the participants answer from 1 (almost always) to 6 (almost never) based on the level they think corresponding to their current condition.

Data Collection

An online questionnaire composed by all the items and demographic survey questions is made in advance. A clear research purpose description and target participants' requirements are stated in the very beginning of the questionnaire. And it is distributed online to participants. After all the data collection, the complete responses were analyzed through the way discussed in the next session.

Data Analysis

This study uses “IBM SPSS Statistics 23” to analyze the collecting data. The analyzing process goes through descriptive statistics analysis to describe the frequencies of the demographic data, correlation analysis to see the relationship between the independent variable, cultural intelligence and the dependent variable, psychological well-being, and hierarchical regression analysis to see the causality between the independent variable, cultural intelligence and the dependent variable, psychological well-being.

Results

Descriptive Statistics

This study contains a total number of 110 participants. The age ranges from 18 to 51 years old with the mean 27.57. There are 47 female respondents (43%) and 63 male respondents (57%). Their studying program in Taiwan are 2 exchange students (1.8%), 29 bachelor degree students (26.4%), 46 master degree students (41.8%), 32 doctor degree students (29.1%), and 1 high school student (.9%). Among them, 21 respondents (19.1%) had never had international experience before this studying program; 68 (61.8%) had had at least 1-time experience; and the other 21 respondents (19.1%) had had over 10 times international experience before.

Correlation Analysis

Means standard deviations, correlations, and Cronbach's alpha value of each variable are listed below in Table 1. The results showed that the overall CQ is not significantly correlated with psychological well-being. However, further examining the four dimensions of CQ respectively, the results demonstrates that metacognitive CQ is significantly and positively correlated with psychological well-being ($r= 0.26, p< 0.01$). And motivational CQ is also positively and significantly correlated with psychological well-being ($r= 0.36, p< 0.01$). Regarding control variables, age and gender are positively and significantly correlated with psychological well-being ($r=$

0.26, $p < 0.01$; $r = 0.22$, $p < 0.05$ respectively).

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1.Age	27.75	6.38										
2.Gender	0.57	0.50	0.20*									
3.Previous International Experience	3.44	2.12	-0.10	-0.09								
4.Cultural Intelligence	5.08	0.74	0.01	0.12	0.12	(0.87)						
5.Cognitive CQ	4.31	1.21	-0.09	0.05	0.14	0.72**	(0.86)					
6. Metacognitive CQ	5.42	1.02	0.09	0.16	0.08	0.77**	0.37**	(0.81)				
7.Motivational CQ	5.70	0.83	0.09	0.03	0.03	0.63**	0.16	0.48**	(0.83)			
8.Behavioral CQ	5.11	1.06	-0.001	0.14	0.04	0.71**	0.22*	0.49**	0.36**	(0.82)		
9.Psychological Well-being	4.51	0.53	0.26**	0.22*	-0.02	0.17	0.01	0.26**	0.36**	-0.01	(0.72)	
10.Mindfulness	3.93	0.77	0.24*	0.18	0.01	-0.15	-0.27**	-0.03	0.18	-0.16	0.36**	(0.84)

Table 1. Means, Standard Deviations, Correlations and Reliability

Note: Numbers in parentheses represent Cronbach's alpha value. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Hierarchical Regression Analysis

This part further examines the relationship between metacognitive CQ and psychological well-being and between motivational CQ and psychological well-being. Besides, whether or not mindfulness serves as a moderator in this relationship is also examined. Table 2 and 3 below show the hierarchical regression analysis result of this study.

In Table 2, according to model 2, metacognitive CQ is significantly and positively related to psychological well-being ($\beta = 0.22$, $p < 0.05$) when controlling for age, gender, and previous international experience. Therefore, metacognitive CQ has a positive effect on psychological well-being. However, mindfulness does not moderate the relationship

Table 2. Result of Regression Analyses for Moderating Effect of Mindfulness (N=110)

Psychological well-being			
Variables	Model 1	Model 2	Model 3
Step1			
Age	0.23*	0.21*	0.22*
Gender	0.17	0.14	0.14
Previous International Experience	0.02	-0.01	-0.01
Step2			
Metacognitive CQ		0.22*	0.21*
Step 3			
Metacognitive CQ x Mindfulness			0.03
R ²	0.10	0.14	0.14
Adjusted R ²	0.07	0.11	0.10
ΔR ²	0.10	0.05	0.001
F	3.82*	4.35**	3.46**
ΔF	3.82*	5.46*	0.07

Note. *p<0.05; **p<0.01; ***p<0.001

In Table 3, according to model 2, motivational CQ is significantly and positively related to psychological well-being ($\beta= 0.34, p<0.001$) when controlling for age, gender, and previous international experience. However, mindfulness does not moderate the relationship.

Table 3. Result of Regression Analyses for Moderating Effect of Mindfulness (N=110)

Psychological well-being			
Variables	Model 1	Model 2	Model 3
Step1			
Age	0.23*	0.20*	0.21*
Gender	0.17	0.17	0.16
Previous Experience	International 0.02	0.002	0.02
Step2			
Motivational CQ		0.34***	
Step 3			
Motivational CQ x Mindfulness			0.09
R ²	0.10	0.21	0.22
Adjusted R ²	0.07	0.18	0.18
ΔR ²	0.10	0.12	0.01
F	3.82*	7.09***	5.86***
ΔF	3.82*	15.35***	0.99

Note. *p<0.05; **p<0.01; ***p<0.001

Implications

An individual with higher metacognitive CQ score is able to use cultural understanding to strategize his or her action in different cultural context. Besides, an individual with higher motivational CQ score has more interest in adjusting himself or herself into different cultural environment. According to the statistic result of this study, future research can further examine how to enhance this two sub-dimensions of CQ, like designing related cultural program courses before students' departure, in order to positively increase international students' psychological well-being. By doing so, international students could have more positive outcomes during their studying abroad experience.

References

- [1] Black, J. S., & Mendenhall, M. (1991). The U-curve adjustment hypothesis revisited: A review and theoretical framework. *Journal of International Business Studies*, 22(2), 225-247.
- [2] Bowman, J. E. (1987). Educating American undergraduates abroad: The development of study abroad programs by American colleges and universities.

- CIEE Occasional Papers on International Education. Retrieved from www.ciee.org/images/uploaded/pdf/occasional24.pdf
- [3] Brown, K.W. & Ryan, R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822-848.
- [4] Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: HarperCollins.
- [5] Deci, E. L., & Ryan, R. M. (2008). Hedonia eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1-11.
- [6] Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Palo Alto, CA: Stanford University Press.
- [7] Elizabeth, A. T. (2014). Developing cultural intelligence for global leadership through mindfulness. *Journal of Teaching in International Business*, 25, 5-24.
- [8] Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*, 37, 1-12.
- [9] Hanh, T. N. (1976). *Miracle of mindfulness*. Boston: Beacon.
- [10] Hoffa, W. W. (2007). *A history of U.S. study abroad: Beginnings to 1965*. Carlisle, PA: Forum on Education Abroad.
- [11] Hyun, J., Quinn, B., Madon, T., & Lustig, S. (2007). Mental health need, awareness, and use of counseling services among international graduate students. *Journal of American College Health*, 56(2), 109-118.
- [12] Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Delacourt.
- [13] Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York: Hyperion.
- [14] Kelley, C., & Meyers, J. (1995). *CCAI cross cultural adaptability inventory manual*. Minneapolis, MN: National Computer Systems, Inc.
- [15] LeBel, J. L., & Dubé, L. (2001). *The impact of sensory knowledge and attentional focus on pleasure and on behavioral responses to hedonic stimuli*. Paper presented at the 13th annual American Psychological Society Convention, Toronto, Ontario, Canada.
- [16] Mackey, J. D., Ellen, B. P. III, Hochwarter, W. A., & Ferris, G. R. (2013). Subordinate social adaptability and the consequences of abusive supervision perceptions in two samples. *Leadership Quarterly*, 24, 732-746.
- [17] Maggiori, C., Johnston, C. S., Krings, F., Massoudi, K., & Rossier, J. (2013). The role of career adaptability and work conditions on general and professional well-being. *J. Vocat. Behav.*, 83, 437-449.

- [18] Martin, A. J., Nejad, H. G., Colmar, S., & Liem, G. A. D. (2013) Adaptability: How students' responses to uncertainty and novelty predict their academic and non-academic outcomes. *Journal of Educational Psychology*, 105(3), 728-746.
- [19] Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- [20] Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9, 13-39.
- [21] Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of Behavioral Medicine*, 21, 581-599.
- [22] Stoltz, K. B., Wolff, L. A., Monroe, A. E., Mazahreh, L. G., & Farris, H. R. (2013). Adaptability in the work life task: lifestyle, stress coping, and protean/ boundary less career attitudes. *J. Individ. Psychol.*, 69, 66-83.
- [23] Tseng, W. C. and Newton, F. B. (2002). International students' strategies for wellbeing. *College Student Journal*, 36(4), 591-597.
- [24] Van Dyne, L., Ang, S., & Koh, C. (2008). Development and validation of the CQS the cultural intelligence scale. In S. Ang & Van Dyne, L. (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 16-38). New York: M. E. Sharpe.
- [25] Wang, M., Zhan, Y. J., Mccune, E., & Truxillo, D. (2011). Understanding newcomers' adaptability and work-related outcomes: Testing the mediating roles of perceived P-E fit variables. *Pers. Psychol.*, 64, 163-189.
- [26] Ward, C., Berno, T., & Main, A. (2000). *Can the cross-cultural adaptability inventory (CCAI) predict cross-cultural adjustment?* Paper presented at the XV International Congress of the International Association for Cross-cultural Psychology, Pultusk, Poland.
- [27] White, L., (2013). Mindfulness in nursing: An evolutionary concept analysis. *Journal of Advanced Nursing*, 70(2), 282-294.

Tables

Table 1. Means, Standard Deviations, Correlations and Reliability

Table 2. Result of Regression Analyses for Moderating Effect of Mindfulness (N=110)

Table 3. Result of Regression Analyses for Moderating effect of Mindfulness (N=110)

Figures

Figure 1. The Research Framework of this Study

The Relationship between Job Stress Risk Factors and Workplace Well-Being with the Moderating Effects of Job Burnout: A Study of Substitute Educators for Early Childhood Education in Taiwan

Chia-Lin Kao

National Taiwan Normal University

Wei-Wen Chang

National Taiwan Normal University

Abstract

Nowadays, the employees' well-being has been an increasingly relevant and necessary consideration in the workplace. However, little attention has been paid to the well-being of substitute educators in preschool. Working in early childhood education is stressful, and certain types of stress negatively affect physical and mental health. The participants in this study are substitute educators for early education in Taiwan. The substitute educators of preschools in the working environment are not stable and peaceful. In addition to engaging in the same teaching programs as the formal teachers, substitute teachers have to work for additional administrative assignments in schools. Furthermore, they were often viewed as the marginal role in the workplace, enduring discrimination from the unfriendly organization. Their working environment is full of pressure, contradictions, and conflicts. Substitute teachers often endure negative emotions and need to suppress their true feelings. Thus, the aim of this research is to examine the relationship among preschool substitute teachers' well-being (Y), job stress risk factors (X), and burnout (Mo). Data was collected from a survey of 102 substitute educators at both public and private preschools in Taiwan. Among the six stress risk factors, good control, managerial support, colleague support, roles, and change were positively related to well-being, while the other two factors, demand and unfriendly relationship have a negative impact on workplace well-being. In addition, job burnout has a significant moderating effect on the relationship between job stress risk factor and well-being. Suggestions are provided for substitute educators' well-being improvement.

Keywords: job stress risk factors, workplace well-being, job burnout

Introduction

Background

Nowadays, early learning for the development of social skills is important because it helps form the basis of life and contributes to the psychological and academic development of children (McClelland & Morrison, 2003). UK Essays (2015) published an essay which indicated that in the stage of early childhood, brain plays a role of absorbing stimulation from the environment and learning accordingly. Hence, adapting and reacting from the environment is one of the early preparation for child education. Preschool children see and act correspondently from social, emotional, cognitive, gross and motor skills in different environments. Those signals make preschoolers willing to learn more by getting close to new things. Recognizing the importance of early childhood education and its impact on personal life or children's social development is crucial (Lynch & Simpson, 2010).

In the actual education scene of the preschool, the formal teachers often have to request a long or short leave of absence due to illness, personal affairs, marriage, parturition, serves in the army, attend a meeting, participate in a workshop, advanced studies and other factors. It is necessary to arrange substitute teachers to replace the formal teachers of the leave and take over their duties for the time being. However, although substitute teacher and formal teacher are both teachers, substitute teachers do not receive the same respect as the formal teachers from the social community. Substitute teachers in schools are the relatively weak group but they take an indispensable part of the education environment. They are like the fire-fighting team in the educational sector, always ready to replace the vacant leave of the teacher's position, complete the school's mandate and contribute to education.

Purpose of the Research

At present, the situation of low birth rate in Taiwan is becoming more and more serious, and the government's financial constraints are seriously affecting the employment of teachers which lead to the number of substitute teachers keep rising. In other words, the government control plays an important role on the supply and demand of teachers (Hendrick, 2011). The public kindergarten teachers in this environmental context, they have to experience recruitment and assessment of preschool teachers every year, and interact or get along with different children, teachers, other colleagues and parents, ultimately brought about negative emotions.

The substitute educators of preschools are extremely challenging in the working environment. In addition to engage in the same teaching as the formal teacher,

substitute teachers have to work for additional administrative assignments in the school. This kind of situation can be described as equal pay for multiple works. In addition, they were often considered as the marginal role in the workplace, enduring discrimination from the organization and outsiders. Furthermore, because of the perception of the image of teachers in the society, the teachers must always suppress their true feelings. Whether it is real or intangible payback, the working environment presents so much pressure, contradictions, conflicts, substitute teachers must endure a lot of negative emotion. Thus, the aim of this research project is to examine the relationship among preschool substitute teachers' well-being, job stress risk factors, and burnout.

Research Questions

1. Is there any significant relationship between job stress risk factors and well-being?
2. Does burnout have a significant moderating effect on the relationship between job stress risk factors and well-being?

Literature Review

Workplace Well-Being

In the academic research journals, the workplace well-being gradually becomes a common topic (Cooper & Marshall, 1978; Danna & Griffin, 1999; Smith, Kaminstein & Makadok, 1995; Warr, 1990). In recent years, changes in the working environment, staff pressure on employees often affect the performance of individuals, therefore, the research topic of well-being increased significantly. Some scholars believe that the employees' well-being in the workplace refers to psychological well-being, including emotional happiness, job satisfaction, inspiration, burnout and anxiety and other factors (Daniels, 2000; Holman, 2002; Warr, 1994). Researchers who have worked hard in the field of workplace well-being in recent years have gradually found that only when employees are happy at work can lead the company to the higher competitiveness. The constructing of well-being has become a key issue in helping companies improve their internal staff competitiveness.

Researchers have conducted extensive research on teachers' well-being and organizational and social stress issues such as classroom management issues, management effort, and lack of managerial and team support (Borg & Riding, 1991; Burke & Greenglass, 1995; Greenglass et al., 1997; Kokkinos, 2007; Smith & Bourke, 1992).

Based on the above discussion, the workplace well-being of teachers in this study refers to the psychological satisfaction and the experience of pre-school educators that show their feelings of happiness in the kindergarten when they interact with chairman, director, colleagues, parents and children.

Stress Risk Factors

Work-related stress describes workers who are aware of their work requirements beyond their abilities and their physical, psychological and emotional responses (such as time, instructions and support) to do the job. It happens when they are aware that they cannot cope with the important situation they are dealing with. According to a number of factors, a worker's reaction to work stress may be positive or negative for worker well-being. In the vast majority of cases, people adapt to stress and are able to continue to perform their normal job responsibilities. Although the stress itself is not a disease, it may lead to poor physical and mental health if it becomes excessive and lasting (Workplace Health and Safety Queensland, 2014).

In 2004, the UK Health and Safety Executive (HSE) proposed six key work-related stressors in the management standards' approach to work-related stress (Mackay et al., 2004). Workplace Health and Safety Queensland (2014) published an article that discusses the overview of job stress risk factors. The researchers sorted out the overview as follows:

Demands

Employees are able to cope with the demands of their jobs. While workers need challenging tasks to maintain their interest and motivation, and to develop new skills, it is important that demands do not exceed their ability to cope.

Control

Employees indicate that they are able to have a say about the way they do their work. If the job demands are high, the support from colleagues or supervisors is low, it will cause a low level of job control and may increase the likelihood of employee pressure.

Support

The colleagues and supervisors had sufficient information and support. The support provided by supervisors and colleagues can ease the pressure response that people may face in terms of job demands and think they cannot control them.

Relationships

Employees pointed out they are not subjected to unacceptable behavior, such as bullying in the workplace. The relationship with the boss, peers and subordinates can have a positive or negative impact on the worker's feeling. No matter where the team works together, there may be some conflicts will bring about now and then.

Role

Employees are aware of the roles and responsibilities of employees. A character conflict occurs when a worker is required to perform a role that violates his or her personal values or whose job is incompatible.

Change

Employees indicate that the organization organizes them when they are constantly experiencing change. Change is an unavoidable aspect of organizational life and is essential to the future. However, poor management of the change process may lead to anxieties and uncertainty about the workforce or the employment situation.

Job Burnout

Many domestic and foreign scholars have participated in the study of burnout. Kristensen and some scholars of National Institute of Occupational Health in Danish have developed Copenhagen Burn Inventory (CBI), which is currently the most commonly used measurement of job burnout (Kristensen et al., 2005). In this study, burnout was considered to be physical and psychological fatigue and exhaustion. The questionnaire was designed to measure three aspects of personal burnout, work-related burnout and client-related burnout, which is used in different areas.

Karakelle & Canpolat (2008) indicated that teachers with high burnout symptoms often strive to produce a variety of problem-solving methods that have a sentience of their careers that they cannot control them and experience burnout. In the field of early childhood education, job burnout is more likely to occur because the views and expectations of substitute teachers are beyond the original working characteristics of the current environment, coupled with low wages and social status.

Job burnout in this study refers to the fact that substitute educators are unable to load work stress and frustration because of heavy workload, which leads to personal physical and mental fatigue, and gradually lose the enthusiasm and motivation of teaching. Ultimately, substitute teachers have the intention to leave the job.

Job Stress Risk Factor and Well-Being

Occupational stress has a great impact on psychological well-being and is seriously taking into account the health consequences of this stress (Fletcher, 1991). Well-being refers to an individual's overall evaluation of one's quality of life (Brinkman, 2002); in the literature of stress, researchers have found that work-related stress to be negatively correlated with well-being (Fortes-Ferreira et al., 2006; Schabracq et al., 2003). Hence, reducing the negative impact of job stress has become an important issue.

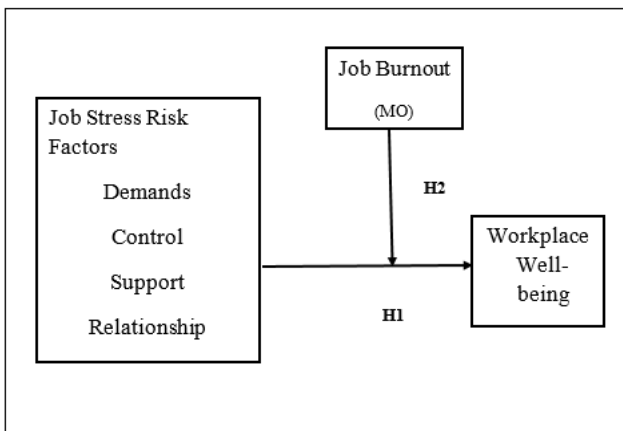
In early childhood education, the working setting is characterized by unusual and long working hours, working pressure, and work overload. When a female employee faces this tense situation, she may be able to become nervous and worried, which in turn negative emotions that lead to dissatisfaction and ultimately reduce the well-being.

Research Method

Research Framework

According to the research hypothesis, this study examined the relationship between job stress risk factors (X) and well-being (Y). The moderating effect of job burnout (M) on the correlation between job stress factors and well-being was analyzed as well.

The variable *Job Stress Risk Factors* includes six stressors, namely demands, control, managers' and peer support, change, relationships, and roles. The research framework of this study is shown in Figure. 3.1.



Research Hypothesis

Hypothesis 1. The stress risk factor of substitute educators has a significant effect on their well-being.

Hypothesis 1-1. Good control is positively related to workplace well-being.

Hypothesis 1-2. Managerial support is positively related to workplace well-being.

Hypothesis 1-3. Colleague support is positively related to workplace well-being.

Hypothesis 1-4. The Role is positively related to workplace well-being.

Hypothesis 1-5. Change is positively related to workplace well-being.

Hypothesis 1-6. Demand has a negative impact on workplace well-being.

Hypothesis 1-7. The unfriendly relationship has a negative impact on workplace well-being.

Hypothesis 2. Burnout has a significant moderating effect on the relationship between job stress risk factor and workplace well-being.

Sampling and Data Collection

The research sample selected for this study are 102 full-time preschool substitute educators in Taiwan. " Substitute educators " in this study refers to two different kinds of positions in preschool, as substitute teachers and substitute educare givers. Researchers have chosen educators from regions all over Taiwan with different characteristics and background as participants in this study. This study was conducted by an online questionnaire. A convenient sampling technique was adopted for data collection. Researchers will distribute questionnaires to substitute educators through the researcher's personal network. Researchers send e-mails and post the online surveys to online communities and social networking websites such as Facebook and Line corporation for collecting information. The researchers also conducted snowball sampling to ask relatives and friends to help introduce other respondents who are currently working in kindergartens. In addition, respondents also provided assistance in forwarding the questionnaires. All questionnaires and responses are kept confidential and anonymous.

Research Instrument

The questionnaire is divided into four parts. The instrument consists of 3 variables with a total amount 88 questions. In addition to, there are 7 questions for demographics. The researchers decided to use the 5 point Likert scale for these 3 variables from part 1 to part 3 of the finished questionnaire to meet pertinent research demands. The respondents are asked to rate each item on the questionnaires from 1 to 5 (strongly agree to strongly disagree).

Job stress risk factor. The researchers used Health and Safety Executive Management Standards Indicator Tool to measure the effect, in order to understand whether employees understand their work in the organization, and whether they have working pressure. The index tool shows the acceptable reliability.

Job burnout. The Copenhagen Burnout Inventory (CBI), is a National Institute of Occupational Health (2005) questionnaire used in the study. The original scale consisted of 19 items and three dimensions, namely personal burnout, work-related burnout and client-related burnout. The original scale through 5 point Likert scale to measure the effect, and Cronbach value for full scale is 0.85-0.87. This study also used this scale, but only use sub dimensions which associated with the work-related burnout.

Well-being. A Previous study (Parker and Hyett, 2011) reported and organized a new workplace well-being questionnaire (WWQ), pointed out that these 4 factors constitute a lot of variation among 31 items (Hyett & Parker, 2015). This study also utilized 5 point Likert scale to gauge the preschool teachers' workplace well-being.

Findings and Discussion

Pearson Correlation Analysis

In this study, a correlation analysis was performed to examine the relationship between all variables. Table 4.1 presents correlations among the independent variables of all the dimensions of job stress risk factors, the dependent variable of workplace well-being and the moderating variable of burnout.

In the findings it can be seen that as stated in Hypothesis 1, for the independent variables, job stress risk factors ($r = .206$, $p < .05$), control ($r = .289$, $p < .01$), managerial support ($r = .758$, $p < .01$), colleague support ($r = .274$, $p < .01$), roles ($r = .198$, $p < .05$) and change ($r = .579$, $p < .01$) have significant and positive relationship with workplace well-being. Hence, this gives evidence that in most cases, people adapt to stressful situations and are capable of continuing to carry out their normal work responsibilities. However, demands ($r = -.464$, $p < .01$) and relationship ($r = -.250$, $p < .05$) have negative impact on workplace well-being. As Hypothesis 2, for the moderating variables, burnout ($r = -.446$, $p < .01$) also have significant and negative relationship with the dependent variable. People respond to work-related stressors in different ways.

According to the statistical result on the relationship between job stress risk factors and workplace well-being, it showed that a substitute educator's reaction to work-related stressors will be positive or negative for teacher workplace well-being.

Table 4.1

Correlations for Job Stress Risk Factors, Burnout and Well-being

Variables	1	2	3	4	5	6	7	8	9	10	11
1 Well-being	-										
2 Burnout	.446**	-									
3 JS_D	.464**	.779**	-								
4 JS_Control	.289**	.090	.066	-							
5 JS_MS	.758**	.387**	.343**	.411**	-						
6 JS_CS	.274**	.239*	.118	.448**	.479**	-					
7 JS_Re	.250*	.556**	.622**	.271**	.156	.165	-				
8 JS_Role	.198*	.069	.083	.480**	.395**	.456**	.064	-			
9 JS_Change	.579**	.382**	.438**	.064	.522**	.037	.388**	.049	-		
10 JS	.206*	.363**	.516**	.732**	.471**	.470**	.538**	.623**	.017	-	
11 M	.173	.657**	.618**	.180	.163	.138	.516**	.064	.168	.422**	-

N=102

* $p < .05$, ** $p < .01$

Note: JS=Job Stress Risk factors, D=Demands, MS=Managerial Support, CS=Colleague Support, Re=Relationships

Linear Regression Analysis

According to correlation analysis, H1 was accepted, which indicated job stress risk factors positively related to workplace well-being. The researcher applied regression analysis to explore the relationship between dimensions of job stress risk factors and workplace well-being again in this section. Moreover, hierarchical regression was employed to examine the moderating effect of the moderators, burnout.

Dimensions of Job Stress Risk Factors

From Table 4.2, β value of control, managerial support, colleague support, role and change were positive numbers and all p values were less than 0.05, which pointed out that those five dimensions all have the positive and significant effect on the workplace well-being (control $\beta = 0.289$, $p < 0.05$; managerial support $\beta = 0.758$, $p < 0.001$; colleague support $\beta = 0.274$, $p < 0.01$; role $\beta = 0.198$, $p < 0.05$; change $\beta = 0.579$, $p < 0.001$). However, β value of demands and relationship were negatively related to workplace well-being (demands $\beta = -0.464$, $p < 0.001$; relationship $\beta = -0.250$, $p < 0.05$). In summary, among the six stress risk factors, good control, managerial support, colleague support, roles, and change were positively related to workplace well-being, while the other two factors, demand and unfriendly relationship have a negative impact on workplace well-being. Therefore, Hypothesis 1 was accepted.

Table 4.2

Results of Regression Analysis for Job Stress Risk Factors (N=102)

	JS	Deman ds	Contr ol	Manager ial support	Colleag ue suppor t	Role	Unfriendl y Relations hip	Change
β	.206 *	- .464***	.289*	.758***	.274**	.198 *	-.250*	.579***
R ²	.042	.216	.084	.575	.075	.039	.063	.335
Adj R ²	.033	.208	.075	.571	.066	.029	.053	.329
ΔR^2	.042	.216	.084	.575	.075	.039	.063	.335
F	4.42 6*	27.507 ***	9.135 *	135.228 ***	8.112**	4.06 6*	6.695*	50.465 ***

Notes:

1. Dependent Variable: well-being
2. JS = Job stress risk factors

3. The dimensions of job stress risk factors include demands, control, managerial support, colleague support, role, relationship and change.

p<.05, **p<.01, *p<.001*

Moderating Effect of Burnout

This regression equation was conducted to examine Hypothesis 2. First of all, the researcher put the independent variable and moderator into the first step. Secondly, the interaction of two variables (independent variable x moderator) was placed into the second step. From Table 4.3, the result showed that there was a significant moderating effect of burnout ($\beta = -.223$). In other words, burnout is found to cause a weakening effect between job stress risk factors and workplace well-being. Hence, Hypothesis 2 was supported.

Table 4.3

Regression Analysis of Moderating Effect of Burnout on the Relationship between JS and Well-being (N=102)

	Model 1	Model 2
Variable	β	β
Step 1		
JS	.424***	.575***
Burnout	-.600***	-.591***
Step 2		
JS x Burnout		-.223*
R2	.355	.381
AdjR2	.342	.362
$\Delta R2$.355	.026
F	27.221***	20.069***

Notes: JS = Job stress risk factors

p<.05 ** p<.01 * p<.001*

Conclusion

This study aims to explore the relationship among job stress risk factors, burnout and workplace well-being.

First, job stress risk factors are significantly related to workplace well-being. Job stress risk factors has six dimensions, including demands, control, managerial and colleague support, role, relationship and change. Based on the correlation and regression analysis in this study, among the six stress risk factors, good control,

managerial support, colleague support, roles, and change were positively related to well-being, while the other two factors, demand and unfriendly relationship have a negative impact on workplace well-being. All of the substitute educators has a certain ability to work, if their capacity is overload and the work demand is exceeded, they may experience work pressure. Besides, colleagues and supervisors can be important sources of support but they can also be potential sources of work stress. Relationships with bosses, colleagues and subordinates can have a positive or negative impact on the feelings of a teacher, and it is possible that wherever a group of people works together, conflict exists from time to time.

In other words, the results indicated that when substitute educators stay at the friendly working environment, the work pressure will reduce. Furthermore, when they understand their role, obtain the emotional support and positive feedback from the director, have a right of decision making and be respected to have a communication before and during a change process at work, their workplace well-being will increase.

Second, burnout has a significant moderating effect on the relationship between job stress risk factor and well-being. It will weaken the relationship between job stress risk factors and workplace well-being. Within the preschool educational working population, long term stress and burnout in the workplace can result in a negative overall mood, physical ill health, job dissatisfaction and reduced the workplace well-being.

Suggestions

Few domestic scholars and researchers engaged in research on the issue of substitute teachers, the quality and quantity of research are insufficient from the past and it is not a popular field of study in foreign countries. However, in this study, it is true that many related educational issues need to be addressed and resolved. First of all, the research sample can be included in the comparative analysis of substitute teachers of junior high school, elementary school and preschool. The future research can further collect the experience or process of substitute teachers in different educational stages, compares and analyze the status quo of education, emotional condition and the substitute experience, and explore whether there are different problems in different stages. Secondly, the researcher can explore the substitute teachers who has been admitted to the admission exam or who has changed their profession successfully and have the understanding of their successful experience of the coordinate and transformation process. Future research can further invite people who once were the substitute teachers with practical action, and willing to face their own career dilemma

in the past to rethink, criticize, question and change the action. Furthermore, those substitute teachers can analyze and share their opinions of their experience of coordinated and transformation to provide a large number of substitute teachers for improving the predicament and enhancing self-esteem and status as an important reference.

References

- [1] Brinkman, R. (2002). *Dealing with People You Can't Stand: How to Bring Out the Best in People at Their Worst*. New York: McGraw-Hill Education.
- [2] Burke, R. J., & Greenglass, E. (1995). A longitudinal study of psychological burnout in teachers. *Human Relations*, 48(2), 187-202.
- [3] Borg, M. G., & Riding, R. J. (1991). Occupational stress and satisfaction in teaching. *British Educational Research Journal*, 17(3), 263-281.
- [4] Cooper, C. L., & Marshall, J. (1978). *Understanding Executive Stress*. London: Macmillan.
- [5] Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of management*, 25(3), 357-384.
- [6] Daniels, K. (2000). Measures of five aspects of affective well-being at work. *Human Relations*, 53(2), 275-294.
- [7] Fletcher, B. C. (1991). *Work, Stress, Disease, and Life Expectancy*. Chichester, UK: Wiley.
- [8] Fortes-Ferreira, L., Peiró, J. M., González-Morales, M. G. & Martín, I. (2006). Work-related stress and well-being: The roles of direct action coping and palliative coping. *Scandinavian Journal of Psychology*, 47(4), 293-302.
- [9] Greenglass, E. R., Burke, R. J., & Konarski, R. (1997). The impact of social support on the development of burnout in teachers: Examination of a model. *Work & Stress*, 11(3), 267-278.
- [10] Holman, D. (2002). Employee wellbeing in call centres. *Human Resource Management Journal*, 12(4), 35-50.
- [11] Hendrick, I. G. (2011). California's first 100 years: Establishing state responsibility for quality of teachers (1850-1950). In E. G. Brown, Jr. (Ed.), *A history of policies and forces shaping California teacher credentialing* (pp. 17-31). Sacramento, CA: Commission on Teacher Credentialing.
- [12] Hyett, M. P., & Parker, G. B. (2015). Further Examination of the Properties of the Workplace Well-Being Questionnaire (WWQ). *Social Indicators Research*, 124(2), 683-692.
- [13] Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, 77(1), 229-243.

- [14] Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress, 19*(3), 192-207.
- [15] Karakelle, S., & Canpolat, S. (2008). Analyzing the student relationship styles of the primary school teachers with high burnout level. *Egitim ve Bilim, 33*(147), 106.
- [16] Lynch, S. A., & Simpson, C. G. (2010). Social Skills: Laying the Foundation for Success. *Dimensions of Early Childhood, 38*(2), 3-12.
- [17] Mackay, C. J., Cousins, R., Kelly, P. J., Lee, S., & McCaig, R. H. (2004). 'Management Standards' and work-related stress in the UK: Policy background and science. *Work & Stress, 18*(2), 91-112.
- [18] McClelland, M. M., & Morrison, F. J. (2003). The emergence of learning-related social skills in preschool children. *Early Childhood Research Quarterly, 18*(2), 206-224.
- [19] Parker, G. B., & Hyett, M. P. (2011). Measurement of well-being in the workplace: The development of the Work Well-Being Questionnaire. *The Journal of nervous and mental disease, 199*(6), 394-397.
- [20] Smith, M., & Bourke, S. (1992). Teacher stress: Examining a model based on context, workload, and satisfaction. *Teaching and Teacher Education, 8*(1), 31-46.
- [21] Smith, K. K., Kaminstein, D. S., & Makadok, R. J. (1995). The health of the corporate body: Illness and organizational dynamics. *The Journal of applied behavioral science, 31*(3), 328-351.
- [22] Schabracq, M. J., Winnubst, J. A., & Cooper, C. L. (2003). *The handbook of work and health psychology (2nd ed)*. Chichester, UK: John Wiley & Sons Ltd.
- [23] UK Essays. (2015). Importance of Early Childhood Education. Retrieved from <https://www.ukessays.com/essays/childcare/importance-of-early-childhood-education-law-essays.php>
- [24] Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of occupational Psychology, 63*(3), 193-210.
- [25] Warr, P. (1994). A conceptual framework for the study of work and mental health. *Work & Stress, 8*(2), 84-97.
- [26] Workplace Health and Safety Queensland. (2014). Overview of work-related stress. Retrieved from https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0006/91149/managing-work-related-stress.pdf

The Representation of Masculinity in Cinema and on Television: An Analysis of Fictional Male Characters

Hasan Gürkan

Assist. Prof. Dr

Aybike Serttaş

Ass. Prof. Dr.

Abstract

Mass media, especially cinema and television, are important devices that build and strengthen male and female roles in societies. The representation of gender in media is crucial because individuals get to know gender roles in the process of socialization. Besides the female identity, masculinity is also a constructible element and fictional male characters produced both in cinema and on television send messages about masculinity to the audience. In this study, the male representation both in the television series and in films were compared with this assumption and the question how male characters are represented on the two different mass media is examined in Turkey. Furthermore, the question "whether masculine representation reinforces the existing patriarchal male image or produces an alternative male model" is in the interest area of the study. The method of this study is reception analysis and in-depth interviews were undertaken with audiences with different demographic characteristics. As a result, it has been found that male representations in cinema and television are produced with similar myths, symbols, metaphors and messages, similar gender languages are used in different media, and fictional male characters in cinema and television have common characteristics.

Keywords: gender studies, masculinity studies, mass media, audience studies, Turkey

Introduction

Just as femininity, masculinity as an identity is produced by societies according to gender approach; we can see that there are many femininities and masculinities identities cyclically and culturally. This phenomenon is similar in Turkey just as the other countries. Hegemonic masculinity is a kind of cultural structuring. The characters of a man with particular ideal can be identified by the power domain belonged to culture. The man with particular ideal in the modern societies where we live must have these qualifications which serve to the institution of the social structure. The man with particular ideal may be described as a productive man who interiorises gender roles by following the social rules. However, on the other hand, it is not possible to mention that there is only one masculinity definition. Masculinity is shaped by the codes of every society.

Both cinema and television are the two of strongest mass media which reflect social values. Films have plot which has the power both reflects and influences social values system. The narration provides the identification. Besides cinema, television illustrates the power of mass communication to inform, educate and influence the public. While industry insiders often deny this power, saying television is just for entertainment, it is clearly obvious that both adults and children learn a great deal from watching television week after week. Some critics urge that television teaches negative values such as stereotyping, consumerism, a superficial and trivial approach to life.

In this study, the male representation both in the television series and in films were compared with this assumption and the question how male characters are represented on the two different mass media is examined in Turkey. Furthermore, the question "whether masculine representation reinforces the existing patriarchal male image or produces an alternative male model" is in the interest area of the study. The method of this study is reception analysis and in-depth interviews were undertaken with audiences with different demographic characteristics. As a result, it has been found that male representations in cinema and television are produced with similar myths, symbols, metaphors and messages, similar gender languages are used in different media, and fictional male characters in cinema and television have common characteristics.

Masculinity & Hegemonic Masculinity

Gender theory brought by the arising second-wave feminism has initiated the studies on masculinity (Akca & Ergül, 2014). Feminism has begun to be supported by some

men questioning gender inequality since 1970s. This concept, so called as pro-feminist, has led to the spreading of critical masculinity studies discussing the men and masculinity by sticking to the feminist principles (Bozok, 2009). Critical studies on men and masculinity has emerged from several criticisms and debates on gender relations such as feminism in particular, and gay and queer studies. Moreover, critical masculinity studies refer to a group of studies pointing out men critically in terms of gendered power relations (Hearn, 2004). Masculinity which is developed with hegemony notion generated by Gramsci, refers to the hierarchical relations among the different masculinities. Multiple masculinities by Connel (2000: 216) tell that gender has been generated with different ways in different cultures and different eras, particularly in a culture such as at a school or a work place we may encounter with these masculinities.

The first generation critical masculinity studies continued their discussions over an ideal masculinity state. This concept continued to the end of 1970s and based on the sex role paradigm minimized the masculinity to a role model (Akca & Tönel, 2011). Accordingly, there is only one personality cluster characterizing the men, thus describing masculinity. The same situation is valid for the women (Connell, 1998). In 1980s, the viewpoint that there are more than one form of masculinity has begun to be widespread (Renkmen, 2016: 249). Accordingly, different cultures and different historical eras create different gender regimes, so different patterns of masculinity (Connell, 2002a: 141). That means masculinity is not static and eternal but it is historical. Its meaning may vary due to the changes in time and people (Kimmel, 2005: 25). This viewpoint about masculinity also claims that several masculinities can be produced within the same gender regime. These masculinities develop different relations with each other and different power focuses and institutions, and they are represented in various forms in various cultural products (Özbay & Baliç, 2004: 92-93). Therefore, masculinity differentiates depending on some factors such as historical, class, cultural, sexual identity, sexual orientation, religion, race, and ethnicity, and as a result of this differentiation various inequalities emerge.

On the other hand, Connell and Messerschmidt (2005) state that the supporter of hegemonic masculinity may not only act with the standards presented by the culture of the society all the while, but also modernise gender relations and form the masculinities over again. According to them, since gender relations are a kind of stress field, an ascribed masculinity may stay as hegemonic during to solve for these tensions. The authors do not base hegemonic masculinity on social reproduction theory. In other words, they mention that gender theory cannot guess which pattern wins within the hegemony struggling.

Masculinity Forms in Popular Media in Turkey

Generally, it is possible to see that the social status of man as “new” and “changing” in film genres. Many of films, figured in genres, are in a struggle for keeping order status quo. Individualistic man profile dominates in film genres such as westerns, gangsters, and detectives. Mannish images and iconographic tools such as knife, gun, telephone, car which create a hero are essential elements of these films (Schatz, 1981).

Abisel (1984: 33) states that many of Turkish films move in the direction of keeping order status quo. Even though traditional values are not valid, it is desired to be sustained and reinforced. Certainly, the same fact obtains in terms of values related man. When we analyse Turkish cinema, it is possible to see that Turkish cinema is based on types. There is a cinema based on types opposite the cinema based on characters.

Uluyağcı (2000)¹ states the masculinity in Turkish cinema in her insightful article. In Turkish cinema, it seems that there are male types that we can generally describe as traditional until 1950 and 1980. However, after 1980s, a new type of male appears on the screen. It is observed that though this type is out of “traditionality” is preserved as it is, but preserves the existence of the traditional male image that existed before. Whereas women are passive and trouble-maker, men are observed to have an unlimited sense of courage, ambition and revenge in films. Therefore, it is possible to state that masculinity is reproduced in every time on the screen.

For instance Yesilcam cinema² cannot get a clear attitude when it fronts it (Ayça, 1987: 38). Thus, the values for the man come in the face of the viewer. In the Turkish cinema, leading actors always play as “good men”. However, these are also divided into groups among themselves. The actors who act a role for the viewer with the “hard male type” are better suited to the traditional Turkish man type both physically and behaviourally. The so-called romantic boys separated from the more traditional male image. In the mid-1980s and early 1990s, new male image appeared in mass media. The changing male image emphasizes that the traditional values are no longer valid and that the more emotional type of the man of contemporary world of that time should be well-groomed, briefly more contemporary, and closer to the female type.

Moreover Oktan (2008) states that it is possible to see the representations of masculinity presented in a significant part of the films made in the Turkish cinema

¹ On the other hand, Uluyağcı states in both Turkish cinema and in other cinemas such as Hollywood and some other countries' cinema masculinity type is similar to each other.

² Yesilcam refers to the 1950-1960 era in Turkish cinema.

since the second half of 1990s as a demonstration that there is a threat perception in terms of masculinity. In the most of these films, which are the subject of friendship with male men, male domination, which maintains its weight in Turkish cinema in general, is dominant. However, in these films made in the 1990s, masculinity is rather problematic, depressed, fragile, diseased, prone to extreme violence to women and homosexuals, constantly depressing has a pessimistic, guilty, insecure qualities.

On the other hand, Gürbüz (2016) states that after the 2000s in Turkish cinema, various masculinity situations began to appear. This representation of masculinity has become a story of a crisis stemming from the change in the values of gender roles in a few films. Moreover, in some movies it was created in such a way as to allow us to criticize these values directly.

Masculinity representation on television in Turkey is not different from cinema. The academic scholars indicate that the heterosexual neo-liberal entrepreneur has become a hegemonic male in the world and in Turkey. Akça and Ergül (2014) state that the presentation of leading male characters as a hegemonic man in the series in Turkey shows that despite the change in the hegemonic masculinity, the traditional masculinity patterns still remain in Turkey and this change only reveals a hybrid structure.

Reception Analysis

Each of audiences will decode texts in ways that reflect their personal biographies, their own histories. The researchers have attempted to link the social position of the audience with their readings of media texts. They also place an emphasis on the idea of 'pleasures' and 'audience interpretation'. This theory is very popular in cultural studies and would describe watching television as a cultural practice (Morley, 1980, Buckingham 1993, Ang 1989). Reception analysis is one significant critique of the field has questioned the extent to which audiences are free to interpret texts in different ways. Emphasising the interaction between text and reader, combined with an integration of micro and macro levels of analysis, offers a response to the attack on the concept of the audience. In brief, this attack is critical of the tendency to adopt the broadcasters' concept of audience (Livingstone, 1998). According to Hall (1993, 101) there are three different positions receivers take in order to decode the meanings within cultural texts, particularly televisual discourses. These are the dominant-hegemonic position, the negotiated position and the oppositional position.

Receptions of the Audience

The aim of the study is to determine how the Turkish cinema audience and the audience of Turkish television serials have received the main male characters in those productions physically, psychologically and socially and compare these characters with the male characters in daily life. In this context, selected audiences are asked to answer these questions without any limitations by asking three open ended questions.

To provide information on the participant profile, audiences can be included in the middle class and upper-middle class social categories. The audiences' age range is 18-50. Five of them are women, and four are men. The aim of the work is not just how the audience see the male characters in the series and movies they watch, but also how these characters are in harmony with real life. Similar findings of different audiences were not reported in the study. The page limit of the search is considered and we as the researchers intended not to repeat similar info.

Each participant in the study is coded with the letter A and listed starting at number one.

In Turkish films, male characters in the comedy films such as *Recep İvedik*, *Sabit Kanca*, *Olur Olur*, *Dedemin Fişi* are vulgar, brutal, hairy, distant from civilization, fat and ugly people. They are trying to do comedy with profanity, rudeness, and disgusting behaviour. These can in fact be interpreted as the hidden aspects of some men. When we look at the romantic Turkish films, all the male actors seem to have popped out of modelling competitions. All men are handsome, muscular, bearded, skin smooth, tall. Some are brunette and some are blonde. They have no physical defects, their self-confidence is high. They oppress the other characters in the line and judge them. This character absolutely falls in love with a very beautiful woman and gets her. In this process, he overcomes all kinds of difficulties and is always perfect. He is absolutely rich and has luxurious houses and cars. He belongs to the upper class and is the owner of the holding. There are similar issues in the Turkish series. The main characters are handsome and fit men. They are rich, well-educated and high-class members. They usually fall in love with a crowded, tribal family member and an urban girl who does not fit into the family. All male characters put pressure on everyone. There are no such characters in everyday life. The perfected characters are the profiles that do not fit in everyday life. None of us meet a rich, handsome, holding boss, a suit in a cage or on the road.

There are two types of men in Turkish films: Firstly, they are overly in love with their love, they are extremely romantic and emotional men. These profiles are usually handsome and rich or handsome and poor. They are charismatic and beautiful smiles. They are physically sporty, muscular. The other male type is malicious, bad physics. In the Turkish series men are physically well. They are sporty, well-fed, muscular men. Either a dark or coloured eyed or blond and coloured eyed. These people are all sensitive, helpful, modern, quality time passers.

The men we communicate with in daily life are men in the opposite direction of these sequences and films. People, who use slang, do not pay attention to style; do not know where to act. His clothes and his physics are not like in the series and movies. We are usually full-bodied, short-lived, and full of people who do not pay attention to their nutrition and who cannot communicate with women. They are not tied to their houses, their families, like the men in the series, the movies.

Generally, male characters in Turkish movies are handsome, rich and business man. The types that people admire as characters, which seem unconcerned. They live in good homes; they have good car bins and want to have what they want. Unlike the films in the Turkish series, all the main characters belong to a company, an agency, a holding. They live in the scenic houses. All the women in their surroundings tolerate them, but they choose a single woman. He runs after the woman he wants at every opportunity, doing everything to get it.

In our everyday life, while such types are admired for some, they are unnecessary professions for me.

Male characters acting according to patriarchal ideology are generally good-natured, holding-holding people with excellent qualities. There's no flaw in their character. In these constructions the physical and characteristic features are given in contrast. Poor - fat, rich - poor qualities are transmitted with different characters. The main character never dies. He never has a tragic incident either.

In Turkish films, male main characters usually appear as two types: first type is overweighed, coarse, dark and patriarchal mannered. Other type is stylish, muscular, handsome and romantic. These types (second) are mostly seen in romantic movies. In the Turkish series, the main characters usually play a role in the network. Women around him are in love. There is a wife and a woman he loves. The actors are all models.

In real life, there are no men who pay attention to clothing and fitness. With the influence of these series, men may have started to play sports. The male characters

we saw on the series apologize for making mistakes against their wives. However, there are even those who kill their wives in everyday life.

The main characters in Turkish movies are different according to the film style. Romantic movies have charming, charismatic, emotional, tall, cute male characters. She has the ability to express herself. They look like one of us in comedy movies. They're usually fat. Tall, muscular, mysterious characters are selected in action and similar genre films.

In the series, the male characters are rich, handsome, and know what they want. Their financial situation is good. Self-confidence is high.

In real life, we do not see the characters we see in movies and series. Comedy-type productions are full of characters from us, but the male characters in romantic productions are unlikely to come out.

Physically handsome men are used in romantic movies. These characters are rich at the same time. The audience is satisfied by seeing things that are not in them. The diction of these characters is flat, rich, envied by others. They attach importance to family relationships. They appeal to the traditional audience. They do not look like brand fans, but the brand is highlighted in the movie they own. In comedy films, people are made fun of ignorant people. Physically very fat or very weak people are used. I do not find it similar to real life.

In Turkish movies, male main characters generally vary by genre, but there are mostly muscular, handsome, attractive, powerful men. In the Turkish series, we see rich, handsome, strong characters. The male characters we encounter in the Turkish film and series do not resemble the people we communicate in everyday life. On the contrary, some people move away from their natural state by trying to resemble those characters.

In romantic movies, the male character has to be absolutely handsome. The character and appearance of this man is perfect. He's in the perfect male profile. If there is a problem, this character definitely solves that problem. It's like Superman's unflinching state. In comedy films, there is the opposite. An ugly male character is used as possible. We see fat, hairy, bald, vulgar or stupid men.

In everyday life, I see men who try to resemble characters in movies and series. As a character, there is no one who can be exposed to such evil and approach the events with goodness.

Conclusion and Analysis

Being a man in society is as difficult as being a woman which is a process that carries big responsibilities and burdens. Men have been socializing with a number of codes in society since they were born. This socialization, which started in family at first, continues with other ideological apparatus of the state. Mass media such as films, television are effective on this process. Masculinity does not exist on its own. Although their ideal masculinity characteristics change over time, men can appear in society with these qualities.

It is possible to state that the most people do not meet these standards but are influenced by these standards. In this study, which uses the method of reception analysis when asked how the cinema and television viewers evaluated the male characters in these productions, two stereotypes appeared. The first one is romantic, handsome, rich and powerful in every sense. The latter is funny, simple, rude and frustrating. It is as if the two characters reflected in inner appearance. According to the common perception of the receptions, both in Turkish TV series and in Turkish films, women are the second plunge. The role of the woman in the narrative is to be with the male character, to be loved and protected by him. Male fights against life, overcomes difficulties and protects his woman. All gender roles are strictly distinct from one another. In all these constructions men are described by their external appearance. Wealth is a very important element. These productions create a pressure on how the men in the real world should be and also an expectation of how woman's ideal man should be. Consequently the face-to-face interviews in this work show that the male characters on television and in the cinema are not convincing.

References

- [1] Abisel. N. (1984). Türk Sineması'nda Aile: Türkiye'de ailenin değişimi sanat açısından incelemeler. Ankara: Türk Sosyal Bilimler Derneği
- [2] Akca, E. B. & Ergül, S. (2014). Televizyon Dizilerinde Erkeklik Temsili: Kuzey Güney Dizisinde Hegemonik Erkeklik ve Farklı Erkekliklerin Mücadelesi. *Global Media Journal TR Edition*. 4 (8): 13-39.
- [3] Ang, I. (1989). *Watching Dallas: Soap opera and the melodramatic imagination*. London: Routledge.
- [4] Ayça, E. (1987). Türk Sineması nereye gidiyor? Ve Sinema (4).
- [5] Buckingham, D. (1993). Reading audiences: Young People and the Media. UK: Manchester University Press.

- [6] Bozok, M. (2009). Feminizmin Erkekler Cephesindeki Yankısı: Erkekler ve Erkeklik Üzerine İncelemeler. *Cogito*. 58: 269-284.
- [7] Connell, R. W. (1998). Toplumsal Cinsiyet ve İktidar: Toplum, Kişi ve Cinsel Politika. Cem Soydemir (Çev). İstanbul: Ayrıntı.
- [8] Connell, R. (2000). *The Man and the Boys*. University of California Press.
- [9] Connell, R.W. (2002a). Masculinities and Men's Health. *Gender in Interaction-Perspectives on Femininity and Masculinity in Ethnography and Discourse* içinde (139-152). Baron, B. & Kotthoff, H. (Ed.). Philadelphia: John Benjamins Publishing Company
- [10] Connell R. W. & Messerschmidt, J. W. (2005). Hegemonic Masculinity: Rethinking the Concept. *Gender and Society*. 19(6): 829-859.
- [11] Gürbüz, E. N. (2016). Korkuyorum Anne'de Hegemonik Erkekliğin Yapı sökümü. *İlef Dergisi*, 3 (2).
- [12] S. Hall (1993). "Encoding/Decoding." S. During (ed.), *The Cultural Studies Reader*. London and NY: Routledge.
- [13] Hearn, J. (2004). From Hegemonic Masculinity to the Hegemony of Men. *Feminist Theory*. 5(1): 49-72. doi: 10.1177/1464700104040813.
- [14] Kimmel, M. S. (2005). *The Gender and Desire Essays on Male Sexuality*. Albany: State University of New York Press.
- [15] Livingstone, S. (1998). Relationships between media and audiences: Prospects for future audience reception studies. In Liebes, T., and Curran, J. (Eds.), *Media, Ritual and Identity: Essays in Honor of Elihu Katz*. London: Routledge.
- [16] Morley, David (1980): *The 'Nationwide' Audience: Structure and Decoding*. London: BFI
- [17] Renkmen, M. S. (2016). Evlilik Programlarında Hegemonik Erkekliğin İnşası. Şahinde Yavuz (Der.) *Toplumsal Cinsiyet & Medya Temsilleri* içinde (247-286). İstanbul: Heyamola.
- [18] Schatz, T. (1981). *Hollywood genres: Formulas, film making and the studio system*. Philadelphia: Temple
- [19] Oktan, A. (2008). Türk Sinemasında Hegemonik Erkeklikten Erkeklik Krizine: Yazı-Tura ve Erkeklik Bunalımının Sınırları. *Selçuk İletişim Dergisi*. 5 (2).
- [20] Özbay, C. & Balıç, İ. (2004). Erkekliğin Ev Halleri. *Toplum ve Bilim*. 101: 89-103.
- [21] Uluyağcı, C. (2000). Sinemada Erkek İmgesi: Farklı Sinemalarda Aynı Bakış. *Kurgu Dergisi*, 18.

The Role of Demographic Factors in Predicting Organizational Commitment among Security Employees

Abdülkadir AVCI

PhD Cand. Suleyman Demirel University Faculty of
Economics and Administrative Sciences

Ramazan ERDEM

Prof. Dr. Suleyman Demirel University Faculty of
Economics and Administrative Sciences

Abstract

The construct, “organizational commitment” has been a subject of interest for a long time for the people who study the organizational psychology. Employees’ organizational commitment is a complex matter and there are many factors which affect the organizational commitment of employees. Even though the organization has important role in it, demographic and individual characteristics of employees have also significant influence on organizational commitment. In this study a cross-sectional survey was conducted using a convenience sample of 336 security employees in a military organization to establish possible relationship between organisational commitment and important demographic variables (nationality, rank, gender, age, education, marital status, tenure). The data obtained by the survey were analysed using the SPSS 21.0 package program. In statistical analyses, T-test and variance (ANOVA) analyses were used. The results of the data showed that affective commitment of employees who had been working between 11-15 years was significantly differentiated from those of working years over 25 years. The results of this study also showed that officers had more normative commitment than civilians and the supervisors had less normative commitment than non-supervisors. The analysis also showed that males and younger employees differed significantly in normative commitment than their female counterparts and older employees. However, no statistically significant difference was found in education and marital status.

Keywords: Organizational commitment, demographic factor, security employees

Introduction

Organizational commitment is at the forefront concept that has been extensively addressed since the 1950s in the literature of organizational behavior and it is more often associated with job satisfaction, organizational citizenship behavior, burnout, motivation, and loyalty. Kelman (1958:53) expressed commitment concept it terms of changes in attitudes and actions produced by social influence may occur at different levels and distinguished three different process of influence as compliance, identification and internalization. (Buchanan, 1974: 533) called commitment as a partisan, affective attachment to the goals and values of an organization, to one's role in relation to goals and values, and to the organization for its own sake, apart from its purely instrumental worth and emphasized that commitment had consists of three components; (a) identification-adoption as one's own the goals and values of the organization, (b) involvement-psychological immersion or absorption in the activities of one's work role, and (c) loyalty-a feeling of affection for and attachment to the organization. According to O'Reilly and Chatman (1986: 493) "organizational commitment is conceived of as the psychological attachment felt by the person for the organization; it will reflect the degree to which the individual internalizes or adopts characteristics or perspectives of the organization."

There are many factors that affect organizational commitment. At the end of meta-analyses Mathieu ve Zajac (1990: 175) divided factors that affect organizational commitment into five groups: personal characteristics (age, sex, education, marital status, position tenure, organizational tenure, perceived personal competence, ability, salary, protestant work ethic and job level), job characteristics (skill variety, task autonomy, challenge, job scope), group-leader relations (group cohesiveness, task interdependence, leader initiating structure, leader consideration, leader communication and perceived leadership), organizational characteristics (organizational size and organizational centralization) and rol states (role ambiguity, role conflict and role overload). But Meyer et al. (2002: 28-32) proposed four groups: demographic variables (age, gender, education, and organization tenure), individual differences (locus of control and self-efficacy), work experiences (organizational support, role ambiguity and role conflict) and alternatives/investments.

When the studies on commitment are searched; Meyer and Allen's (1991) three-component model of organizational commitment has become the dominant model for study of organizational commitment and has been used widespread in organizational behavior research. Meyer and Allen's (1991: 67-69; 1997: 11-13) three-component model of commitment has three different components that correspond with different

psychological states: (a) a desire (affective commitment), (b) a need (continuance commitment), and (c) an obligation (normative commitment) to maintain employment in an organization. (Meyer and Allen, 1997: 61).

In this study, it is aimed to examine the organizational commitment of security employees in terms of various demographic characteristics (nationality, status, gender, age, education, supervisor, marital status, tenure).

Methods

In this study a cross-sectional survey was conducted using a convenience sample of 336 security employees in a military organization consisting of seventeen countries: Turkey, U.S.A., Germany, Portugese, Slovenia, Austria, Poland, Greece, Swiss, Ireland, Hungary, Romania, Croatia, Czech Republic, Sweden, Italy, Finland, Denmark, Norway, Britain, Netherlands, Ukraine, Canada, Lithuanian, Bulgaria, Albania and Kosovo. Country-based assessment was not made because of the number of countries is in large and the number of personnel in the participating countries varies considerably from each other. Instead, a four-zone grouping was used to categorize European countries. (United Nations E-Government Survey, New York, 2016, pp.219). The countries in Europe have been categorized in the study as North-Western Europe and South-Eastern Europe. Descriptive statistics of participants are shown in Table 1.

Table 1. Descriptive Statistics of the Participants

Demographic Variables	Category	N	%
Nationality	Turkey	54	16,1
	North American Countries	44	13,2
	North and Western European	96	28,5
	Southern and Eastern European	142	42,2
Status	Officer	185	55,1
	Non-Commisioned Officer	115	34,2
	Civilian Employee	36	10,7
Supervising	Supervisor	222	66
	Non-supervisor	114	34
Gender	Male	303	90,2
	Female	33	9,8
Tenure	1-5 years	33	9,8
	6-10 years	75	22,4

	11-15 years	73	21,7
	16-24 years	95	28,3
	More than 25 years	60	17,8
Marital Status	Single	80	23,8
	Married	218	64,9
	Divorced and others.	38	11,3
Education	High School and Middle School	90	26,8
	College/University Graduate	142	42,2
	Post Graduate Degree	104	31
Age	22-34	132	39,3
	35 and Over	204	60,7

In the study, based on the Three-Component Model (TCM) of commitment (Meyer & Allen, 1991;1997), the TCM Employee Commitment Survey was used to determine the organizational commitment of participants. Confirmatory factor analysis was applied to investigate the construct validity of the model and results suggested that three-component model of Meyer-Allen was valid. Nine items with a factor load of less than 0.32 were excluded from the analysis and the model was analysed with; 5 items related to Affective Commitment, 6 items related to Continuance Commitment and 4 items related to Normative Commitment.

Results

The effect of participants' demographic variables (nationality, status, supervising, gender, tenure, marital status, educational level and age) on organizational commitment was tested by t-test and analysis of variance (ANOVA). The results of the analyses are shown in Tables 2, 3, 4, 5, 6 and 7.

As shown in Table 2, the difference in affective commitment ($F_{335}=,117, p>,05$) and continuance commitment ($F_{335}=,382, p>,05$) does not have significant effect on status. This result showed that, status does not have any effect on affective commitment and continuance commitment. In the Normative Commitment ($F_{335}=8,322, p<,05$) dimension, the difference was found to be significant. It has been found that the normative commitment of officers and non-commissioned officer differs significantly from civilian employees.

Table 2. Anova Results by Status

	Status	N	Mean	S. Deviation	sd	F	P
Affective Commitment	Officer	18	5,09	1,22	2/333	,117	,838
	Non-Commissioned	11	5,13	1,11			
	Civilian Employee	36	5,22	1,34			
Continuance Commitment	Officer	18	4,04	1,21	2/333	,382	,683
	Non-Commissioned	11	4,15	1,05			
	Civilian Employee	36	4,00	1,31			
Normative Commitment	Officer	18	4,332	1,03	2/333	8,322	,000
	Non-Commissioned	11	4,07	,86			
	Civilian Employee	36	3,60	1,41			

As shown in Table 3, the difference in normative commitment ($F_{335}=,789, p>,05$) and continuance commitment ($F_{335}=1,159, p>,05$) did not have significant effect on tenure. This result showed that, tenure does not have any effect on normative commitment and continuance commitment. In the Affective Commitment ($F_{335}=2,900, p<,05$) dimension, the difference was found to be significant. It has been found that the affective commitment of employees working in the organization between 11-15 years significantly from 25 years and over.

Table 3. Anova Results by Tenure

	Tenure	N	Mean	S. Deviation	sd	F	P
Affective Commitment	1-5 years	33	5,01	1,28	4/331	2,900	,022
	6-10 years	75	4,98	1,26			
	11-15 years	73	5,36	,99			
	16-24 years	95	5,29	1,15			
	25 years and over	60	4,77	1,25			
Continuance Commitment	1-5 years	33	3,86	1,09	4/331	1,159	,329
	6-10 years	75	4,22	1,09			
	11-15 years	73	4,17	1,17			
	16-24 years	95	4,08	1,18			
	25 years and over	60	3,87	1,28			
Normative Commitment	1-5 years	33	4,00	,83	4/331	,789	,533
	6-10 years	75	4,20	,90			
	11-15 years	73	4,31	1,10			
	16-24 years	95	4,07	1,20			

	25 years and over	60	4,16	,98			
--	-------------------	----	------	-----	--	--	--

As shown in Table 4, the difference in normative commitment ($F_{335}=92,578$, $p>,05$) and continuance commitment ($F_{335}=10,337$, $p>,05$) has significant effect on nationality. It has been found that the continuance commitment of Turkey participants differs significantly from European countries participants, normative commitment of Turkey participants differs significantly from all the countries soldiers and normative commitment of North American countries participants differs significantly from southern and eastern European countries. In the affective commitment ($F_{335}=2,649$, $p<,05$) dimension the difference was not found to be significant. This result showed that, nationality does not have any effect on affective commitment.

Table 4. Anova Results by Nationality

	Nationality	N	Mean	S. Deviation	sd	F	P
Affective Commitment	Turkey	54	5,40	1,37	3/332	2,649	,049
	North American C.	44	5,25	1,09			
	North and Western European C.	96	4,86	1,17			
	Southern and Eastern European C.	142	5,14	1,14			
Continuance Commitment	Turkey	54	4,78	1,11	3/332	10,337	,000
	North American C.	44	4,31	1,04			
	North and Western European C.	96	3,89	,96			
	Southern and Eastern European C.	142	3,86	1,25			
Normative Commitment	Turkey	54	5,50	,85	3/332	92,578	,000
	North American C.	44	4,75	,63			
	North and Western European C.	96	4,04	,67			
	Southern and Eastern European C.	142	3,55	,84			

As shown in Table 5, the difference in normative commitment [$t_{(303)}=3,092$; $p<0,01$] has significant effect on gender. It has been found that the normative commitment of males are higher than females and differs significantly.

Table 5. T Test Results by Gender

	Gender	N	Mean	S. Deviation	t	p
Affective Commitment	Male	303	5,10	1,19	-,766	0,444
	Female	33	5,27	1,17		
Continuance Commitment	Male	303	4,06	1,17	-,402	,688
	Female	33	4,15	1,18		
Normative Commitment	Male	303	4,22	1,03	3,092	,002
	Female	33	3,63	,98		

As shown in Table 6, the difference in normative commitment [$t_{(222)}= 2,700$; $p<0,01$] has significant effect on supervising. It has been found that the normative commitment of non-supervisors is higher than supervisors and differs significantly.

Table 6. T Test Results by Supervising

	Supervising	N	Mean	S. Deviation	t	p
Affective Commitment	Supervisor	222	5,05	1,21	-1,387	,167
	Non-supervisor	114	5,24	1,15		
Continuance Commitment	Supervisor	222	4,13	1,15	1,271	,205
	Non-supervisor	114	3,96	1,20		
Normative Commitment	Supervisor	222	4,27	1,02	2,700	,007
	Non-supervisor	114	3,95	1,07		

As shown in Table 7, the difference in normative commitment [$t_{(132)}= 4,563$; $p<0,05$] has significant effect on age. It has been found that the normative commitment of 22-34 ages is higher than 35 and over ages and differs significantly.

Table 7. T Test Results by Age

	Age	N	Mean	S. Deviation	t	p
Affective Commitment	22-34	132	5,13	1,20	,295	,588
	35 and Over	204	5,11	1,19		
Continuance Commitment	22-34	132	4,13	1,13	,553	,458
	35 and Over	204	4,04	1,20		
Normative Commitment	22-34	132	4,18	,93	4,563	,033
	35 and Over	204	4,14	1,11		

The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between educational level and marital status of participants. As a result of the analysis, the educational level and marital status of participants did not seem to have a significant effect on affective, continuance and normative commitment.

Conclusion

The results from these study indicated that the demographic factors; nationality, status, supervising, gender, tenure and age significantly differ organizational commitment except marital status and educational level. In conclusion: (1) Normative commitment of officers and non-commisioned officer differs significantly from civilian employees. (2) Continuance commitment of Turkey participants differs significantly from European countries participants, normative commitment of Turkey participants differs significantly from all the countries soldiers and normative commitment of North American countieries participants differs significantly from southern and eastern European countries. (3) Normative commitment of males is higher than females. (4) Normative commitment of non-supervisors is higher than supervisors. (5) Normative commitment of 22-34 ages is higher than 35 and over age. (6) Educational level and marital status of participants doesn't differ significantly.

This study showed that demographic factors have effect on different dimensions of organizational commitment. Most of the obtained results of the present study are in conformity with previous studies. But this study also shows contradictions with antecedents. For example, two meta-analyses – Meyer, Stanley, Herscovitch, and Teplitsky (2002) and Mathieu and Zajac (1990) – find no effect of age, gender or education on either affective or continuance commitment. Organizational commitment of employees has always been important issue and should be taken into consideration for managers. However, there is no universal set of rules that can be

applied in every organization and it should never be forgotten the importance of individual values in understanding commitment in the workplace.

References

- [1] Buchanan, B. (1974). Building Organizational Commitment: The Socialization of Managers In Work Organizations. *Administrative Science Quarterly*, 19(4), pp. 533-546.
- [2] Kelman, H. C. (1958). Compliance, Identification, and Internalization: Three Processes of Attitude Change. *The Journal of Conflict Resolution*, 2(1), pp. 51-60.
- [3] Mathieu, J. E., and Zajac, D. M. (1990). A Review and Meta-Analysis of the Antecedents, Correlates, and Consequences of Organizational Commitment. *Psychological Bulletin*, 108(2), pp. 171-194.
- [4] Meyer, J. P. and Allen, N. J. (1991). A Three-Component Conceptualization of Organizational Commitment. *Human Resource Management Review*, 1(1), pp. 61-89.
- [5] Meyer, J. P. and Allen, N. J. (1997). *Commitment in the Workplace: Theory, Research, and Application*. Thousand Oaks, CA: SAGE Publications.
- [6] Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61(1), 20-52.
- [7] O'Reilly, C. A. and Chatman, C. (1986). Organizational Commitment and Psychological Attachment: The Effects of Compliance, Identification, and Internalization on Prosocial Behavior. *Journal of Applied Psychology*, 71(3), pp. 492-499.
- [8] United Nations Department of Economic and Social Affairs. (2016) United Nations E-Government Survey E-Government In Support Of Sustainable Development, New York.

The Role of Knowledge in Computer Collaborative Learning Research

Evelina De Nardis

Roma Tre University

Abstract

The aim of this paper is to describe the most significant theoretical frameworks concerning Computer Collaborative Learning Research (CSCL) on the light of Web 2.0 supports. The term Web 2.0 embraces a range of 'social' technologies and tools that enable users to create, publish and share digital contents within both new and existing social networks. Technologies such as blogs, wikis, podcasts and file sharing services are increasingly being used to support learning and teaching within the higher education sector (see Hughes, 2009; Kennedy et al., 2009). The implications of collaborative interactions within the socio-constructivism approach are examined. Harasim (2012) defines online collaborative learning as characterized by interactive group knowledge-building processes. This aspect implies that students participate actively by monitoring different levels of learning while they are collaborating with teacher and pairs. The computer supported collaborative learning research (CSCL) community focus on the role of technology considered as a tool through which students and teacher make sense of the world and negotiate meaning. Many researches about CSCL environments concerns the role of teacher in allowing social and significant interactions among all group members. Three factors drive the change from teacher-centered to centered learning approach, the shift from individual to group learning and from contiguous to asynchronous distributed learning groups. All of these aspects imply changes in educational institutions based on social construction of knowledge and competence-based learning. Through the years of competence based approaches have proved to be a critical tool in human resources management and computer collaborative research.

Keywords: social- interaction, Collaborative Learning Research, constructivism

Introduction

Literature review: from cognitive to constructivist perspectives

Using technology tools can reinforce the acquisition of information through multiple modes of knowledge representation and comprehension. This improves learning

outcomes by contributing to intellectual growth and critical thinking (Pena-Shaff and Nicholls, 2004). There are various reasons for emerging interest in collaborative learning. The first reason is that it is a general trend in the area of Human Computer Interaction (HCI) in which computer supported work and learning is situated. The new area, referred as “ubiquitous” or “pervasive” computing, is a logical extension of HCI research. Research in this area is derived from recent advancements in three interrelated field:

- tangible user interfaces which involves direct contact of hand and body
- ubiquitous computing in which the person has multiple devices available in the environment and computational power is available everywhere and augmented reality is the result of overlapping and adding digital information to real objects.

In these complex learning environments, the attainment of task is based on active construction of knowledge: students are encouraged to exchange ideas, share perspective and use previous knowledge experiences to solve authentic problems (Kaplan et al. 2008, Dillenbourgh, 2010). Researchers working on collaborative learning have recently turned their attention to the interdisciplinary study of the dynamics of communicative interactions (Resnick et alt. 1997). This shift of emphasis is linked to the recognition that, without powerful theories and specific modes of cooperative learning, the ecognition of interactive learning mechanisms will be essentially blind.

Research on computer collaborative learning emerged as a field from the 1980s onwards, from two related research trends. Firstly, researchers working in ‘mainstream’ cognitive psychology and information-processing models of individual reasoning, problem solving and learning, began to turn their attention to learning in groups, largely motivated by the possibility and necessity of understanding how students worked together with and around computers (Dillenbourg et altr 2009).

A second strand concerned the attempt to extend Piaget’s theories of development focused on the individual to learning in social interaction.) Across these approaches, the development of knowledge and learning is viewed as cognitive action involving construction of mental representation of reality. The constructivist approach views knowledge as an entity mentally constructed through actions and experiences. Knowledge is actively constructed by the interaction between the learner and external objects through adaptation of and experiential world. Consequently, through the establishment of flexible mental constructs (Glaserfeld, 2013; Wheatley, 1993) learning occurs. The meaning of the external world according to constructivism is socially negotiated. Thus, external reality is likely to be perceived differently by different learners, and it is through social negotiation that common meaning is constructed. To enhance learning, the environment should be constructed in a manner that enhances a recurrent process of adaptation to learner’s mental schema through significant interactions in a social contest. Constructivism implies situated cognition in authentic activities (Brown, Collins, & Duguid, 2000). In such situations,

learners are given opportunities to draw from their own experiences interpretations and situational relevance. Reflection in online environments encourages learners to shift beyond perception to deeper and more insightful meaning making. Meaning making, according to constructivism, is the goal of learning processes; it requires articulation and reflection on what we know. Individual reflection is an important strategy that may enhance the development of insight, cognitive awareness and critical thinking.

Theoretical framework of Computer-Supported Collaborative Learning and related research field

The field of Computer- Supported Collaborative Learning (CSCL) appears as a specialized direction in the area of communication mediated by technologies. The principal focus of CSCL research is on ways in which collaborative learning supported by the technology can enhance peer interaction in groups and ways in which collaboration and technologies facilitates sharing of knowledge and expertise among different members of community.

The socio-constructivist perspective focuses primarily on human action and interaction in order to understand pedagogical practices: the actions considered as socio-biological dynamic are triggered by physical and symbolic exchanges. Biological functions or neural structures subjacent to all human behavior, including learning and configurations of meaning work together. The structural-biological dimensions of knower take into account the social-cultural environment the technologies are embodied. This aspect recursively shapes the structure of CSCL environments. The approach of socio-cognition goes beyond the idea that knowledge acquisition is a only a treatment of representational information' symbols. Cognition is productive action that promotes structural changes in a Knowledge system by creating new developments and enrichments.

A promising axis of work within CSCL is the scaffolding of productive interactions between learners by specifying in detail the collaboration in scenario scripts considered as set of instructions specifying how the members of the group should interact and collaborate to solve a particular problem.

It's been suggested that to understand the essence of interactivity, one might look back in history to a time before computers and technology in a time when interactive learning was exemplified by the Socratic dialogue between tutors and students. These interactions are dynamics, reciprocal because during a communicative event each part could adapt to the others. Understanding action holistically implies the consideration of logic as the procedures subjacent to meanings and the contents that are the meanings underlining procedures. The study of the dynamics of behaviors depend on the variability of human psychogenetic traits. The cognitive structures that result from the organic brain processes are necessary but not sufficient to explain the emergence of the action in a situation characterized as pedagogical communication. It is through the creative paths of language that cognition unfolds because human

actions are not mechanisms that can be isolated from the living contexts of the knowing. The interaction with the world implies dynamic symbolic flexibilities that constitute the logical dimensions as well as the semiotic dimensions of knowledge : neuronal system results from the interaction between the subject and the world is an intentional process in which subject all attempts to make sense to content to solve both well and ill- defined problems that require the use of procedures at semiotic levels of meanings.

Success of computer collaborative learning research

Success of collaborative learning activities requires generation, transfert and understanding of knowledge that makes collaboration as an essential and highly valued process. Interaction is constructive if it leads to the co- construction or building of meaning, understanding the solution of a problem. An interaction can be constructive to the extent that it contributes to cooperative goal-oriented activities.

Research focused on the analysis of collaborative activities in task-oriented situations (Olson et al, 2008; Carter & Storosten, 1992; Badke-Schaub et, 2007; Burkhardt, Détienne, Moutsingua-Mpaga, Perron, Leclercq & Safin, 2008; Détienne, Burkhardt, Hébert & Perron, 2008) has highlighted collaborative processes along different dimensions. They can be classified according to their orientation toward design-task processes, group processes or communication processes. Firstly, collaboration concerns the activities related to design activities that imply the elaboration or the search of new solutions and evaluation activities, supported by argumentation and negotiation mechanisms.

These content-oriented activities reveal how the group attain the tasks by sharing and co-elaborating knowledge through the comparison of participants' different perspectives and negotiation of knowledge.

Secondly, collaboration concerns group management activities such as project management and coordination activities that allow the processes of planning and monitoring of tasks.

Thirdly, communication processes are highly important to ensure the construction of a common reference by the groups. The establishment of common ground is a collaborative process (Clark & Brennan, 1991) by which the participants mutually establish what they know, so that task-oriented activities can proceed. Grounding is linked to sharing of information through the representation of the environment, artefacts, the interaction and supposed "pre-existing" shared knowledge. Finally, research on collaboration processes (Baker, Détienne, Lund & Séjourné, 2003; Barcellini, Détienne, Burkhardt & Sack, 2008) considers the roles of participants according to communication, group management and task management and the balance between these roles and learner-centered collaborative approaches. Learner-centered collaborative learning enhance reflexive awareness that facilitate knowledge construction.

Social computing application for learning

Social computing applications allow users to communicate and collaborate in diverse ways and in a variety of media, which also helps learners to act together and to build knowledge bases that fit the specific needs. The most common social computing applications relevant for learning will be presented, indicating their potential for enhancing education and training and outlining some obstacles and threats to the implementation in learning settings.

Social computing applications lend themselves to being used as research and knowledge management tools. Tagging and bookmarking services in particular allow teachers and learners to build individual or collective collections of resources, share personally classified bookmarks, recommend, comment and rate sources, and set up reading and resource lists. Tools such as blogs can be used among a group of learners, using their individual blogs, to build up a corpus of interrelated knowledge via posts and comments.

In these and many further cases, social computing tools are used to gather the collective work of a group of students or teachers, empowering the individual participants to become authors of content, but at the same time integrating them into a network of peer reflection and support.

The students appreciate the ease of building up a substantial knowledge base and the collaborative mode of operation. Research indicates furthermore that university students are embracing social computing tools on their own account to support their research network building, personalizing their knowledge and resource management.

In all of these cases, social computing tools are used primarily to replicate reality, tying learning experiences and procedures back to the nature of the subject at study and professional reality. Thus, social computing can on the one hand contribute to overcoming the discrepancies between theoretical training and professional practice by supplying innovative ways of integrating practice into training.

Social computing tools are often employed to make learning material more readily available to students by promoting individual knowledge management strategies, by supplying new research network building tools and allowing for the establishment of personalised knowledge repositories. Research findings indicate that these Learning 2.0 strategies can also contribute to improving learning outcomes.

Conclusion

The relationship to the everyday technologies is constantly evolving. The present study is significant in its attempts to draw on different theories to investigate the theoretical framework of Computer Collaborative Learning. The findings indicate that facilitating discourse, reflective thinking, assessment and connectedness contribute to interactions. From the practical perspective, the present study suggests that using

multiple medium of instruction enriches the communication context and leads to enhanced learning.

References

- [1] Andrusyszyn, M. A., & Davie, L. (1995). Reflection as a design tool in computer-mediated education. *Proceedings of the Distance Education Conference*. San Antonio, Texas.
- [2] Badke-Schaub, P. Neumann, Lauche, K. Mohammed, S (2007) Mental models in design teams: a valid approach to performance in design collaboration? *CoDesign*, 1, (3), 5-20
- [3] Baker, M., Détienne, F., Lund, K., & Séjourné, A. (2003) Articulation entre élaboration de solutions et argumentation polyphonique. in « *Actes des Deuxièmes Journées d'Etude en Psychologie ergonomique - EPIQUE* », J. Bastien, editor, pages 235-240, Boulogne-Billancourt, France, 2-3 octobre, 2003, Rocquencourt
- [4] Barcellini, F., Détienne, F., Burkhardt, J.M, Sack, W. (2008) A socio-cognitive analysis of online design discussions in an Open Source Software community. *Interacting With Computers*, 20(1), 141-165.
- [5] Burkhardt, J.-M., Détienne, F., Moutsingua-Mpaga, L., Perron, L., Leclercq, P., & Safin, S. (2008). Multimodal Collaborative activity among architectural designers using an augmented desktop at distance or in collocation. *European conference of Cognitive Ergonomics*, ECCE 2008, Madeira, Portugal, Sept 16-18.
- [6] Brown, J. S. & Duguid, P., 2000. *The social life of information*. Harvard Business School Press: Boston.
- [7] Clark, H. H., & Brennan, S. E. (1991). Grounding in communication. In L. Resnick, J.-M. Levine & S. D. Teasley (Eds.), *Perspectives on socially shared cognition* (pp. 127-149). Washington, DC: American Psychological Association Press.
- [8] Détienne, F., Burkhardt, J.-M., Hébert, A.-M., & Perron, L. (2008) Assessing the quality of collaboration in design
- [9] bridging cognitive ergonomics and CSCL approaches. *Workshop « CSCW and Human Factors », CSCW'2008*, November 9, San Diego, USA.
- [10] Dillenbourg, P, Sanna Järvelä, Frank Fischer (2009). The evolution of research on computer supported collaborative learning, 3-19, in *Technology-enhanced learning*: Springer Netherlands
- [11] Dillenbourg, P., & Jermann, P. (2010). Technology for classroom orchestration. In M. S. Khine & I. M. Saleh (Eds.), *New science of learning: Cognition, computers and collaboration in education* (pp. 525–552). Dordrecht: Springer.
- [12] Glaserfield, E (2013). *Radical constructivism* Routledge ,
- [13] Kaplan, F., Do Lenh, S., Bachour, K., Kao, G., Gault, C., & Dillenbourg, P. (2008). Interpersonal computers for higher education. In P. Dillenbourg, J. Huang, &

- M. Cherubini (Eds.), *Collaborative artefacts and interactive furniture* (pp. 129–146). Springer: Computer-Supported Collaborative Learning Series.
- [14] Olson, G.M., Olson, J.S., Carter, M. R., Storosten, M., (1992). Small Group Design Meetings: An Analysis of Collaboration. *Human-Computer Interaction*, 7, 347-374.
- [15] Pena, J, B-Shaffa, Nicholls, C. (2004) Analyzing student interactions and meaning construction in computer bulletin board discussions. *Computers & Education* 42, pp. 243–26
- [16] Resnick, L. B., Pontecorvo, C., & Saljo, R. (1997). Introduction. In L. B. Resnick, C. Pontecorvo & R. Saljo (Eds.), *Discourse, Tools and Reasoning: Essays on Situated Cognition*. (pp1- 20). Berlin: Springer.
- [17] Wheatley, G.H. (1991) Constructivist Perspectives on Science and Mathematics Learning, *Science Education*, 75(1), 9-21.